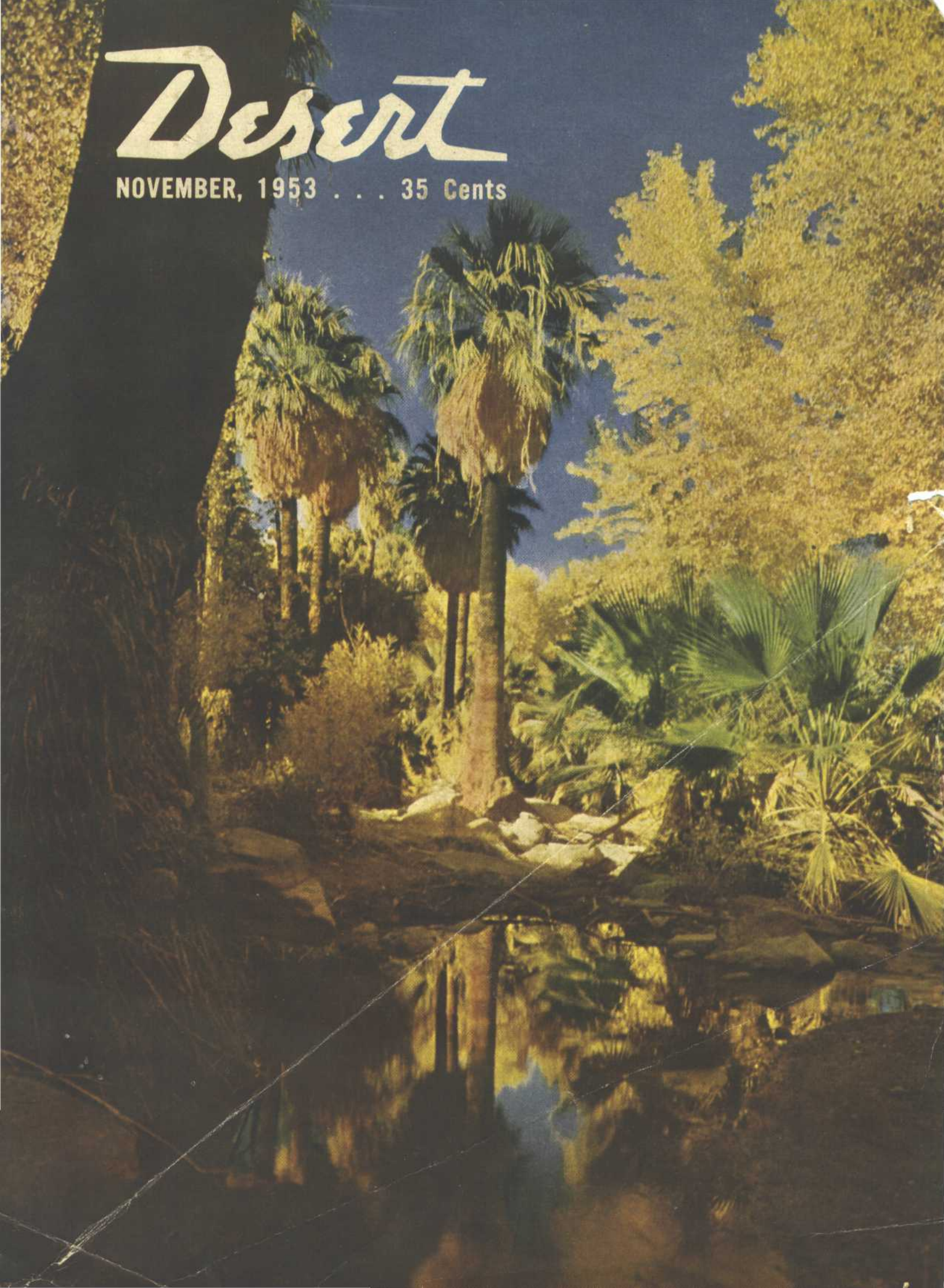


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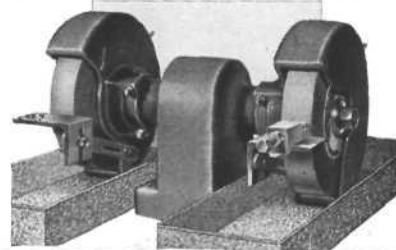
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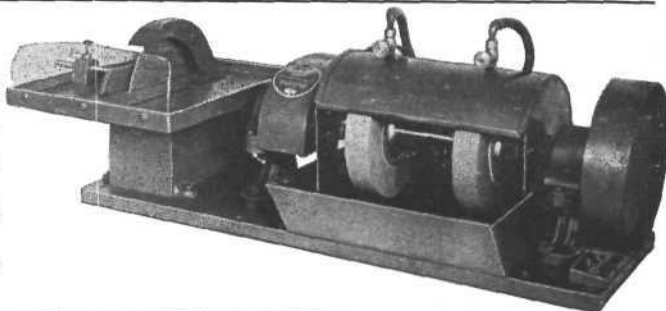
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DESERT CALENDAR

- Oct. 28-31 — International Mining Days, El Paso, Texas.
- Oct. 31-Nov. 1 — Nevada Day and Indian Fair, Carson City, Nev.
- Nov. 1 — Ceremonial dances, Taos Indian Pueblo, New Mexico.
- Nov. 2—All Soul's Day, observed as Memorial Day in Spanish villages in New Mexico.
- Nov. 6-15—Arizona State Fair, Phoenix.
- Nov. 7—Southern California Botanists tour of U. S. Date Gardens at Indio, California.
- Nov. 7-8 — Desert Peaks Section, Southern California Chapter Sierra Club climb of Twentynine Palms Mountain, in Pinto Mountains 8 miles southeast of Twentynine Palms, California. Camp at Indian Cove.
- Nov. 7-8—Southern California Chapter Sierra Club camping trip to Devils Punch Bowl and Big Rock Creek near Valyermo, California.
- Nov. 8—New Mexico Western Homecoming, Silver City, N. M.
- Nov. 8-9—Colorado River Roundup, Parker, Arizona.
- Nov. 10-11—Annual Cattle Show and sale, Raton, N. M.
- Nov. 12—St. James Day Fiesta and Harvest Corn Dance, Tesuque Pueblo, New Mexico.
- Nov. 12—Annual Fiesta and Harvest Corn Dance, Jemez Pueblo, N. M.
- Nov. 13-14—Twentynine Palms Woman's Club Annual Weed Show, table arrangements using weeds. High School, Twentynine Palms, California.
- Nov. 13-18—Ogden Livestock Show, Ogden, Utah.
- Nov. 15-16 — Annual Death Valley Encampment, Death Valley, Calif.
- Nov. 21-22—Rodeo, Ajo, Arizona.
- Nov. 26—Desert Sun Ranchers' Rodeo, Wickenburg, Arizona.
- Nov. 26-29 — Southern California Chapter Sierra Club annual Thanksgiving camping trip to Death Valley.
- Nov. 26-29 — Desert Peaks Section, Southern California Chapter Sierra Club climb of Tin Mountain in the Panamint Range, and Dry Mountain in the Last Chance Range, from Death Valley, California.
- Nov. 28-29—Old Tucson Daze, Tucson, Arizona.
- Nov. 29—Dons' Club Travelcade to Casa Grande Ruins, from Phoenix, Arizona.
- November (after first frost)—Yei-be-chi and Fire Dance, Navajo Indian Reservation.
- November, late, or early December —Shalako ceremonies and house dances, Zuni Indian Pueblo, New Mexico.



Volume 16

NOVEMBER, 1953

Number 11

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Although the climb was made in May, the leaders had to break trail across long patches of snow. Photo by Niles Werner.

We Climbed Telescope Peak

Telescope Peak, overlooking Death Valley, was given its name in 1861 when the chief of a surveying party reported he "could see 200 miles in all directions as through a telescope." Today a fine trail leads to the summit and it is a popular hike among those who go in for mountain climbing. Here is the story of an ascent made by 51 members of the Sierra Club.

By LOUISE WERNER
Map by Norton Allen

EARLY ON A May morning 60 hikers strung out along a trail that hung like a balcony, 8000 feet above Death Valley. Blue jeans, a red plaid shirt, a yellow sweater, a green parka—splashes of color sauntering past the gray sedimentary rocks of the slope. A crisp wind blew off the snow-etched ridge that culminated, about seven miles away, in the lovely white point of Telescope Peak, the crown of the Panamint Mountains. At their feet a gulley streaked down to bake its feet in the salt flats of the

Death Valley sink. The Desert Peak-ers of the Sierra Club of California were in their favorite environment with their favorite companions.

John Delmonte, leading, breathed deep the heady air, forgetting for the moment the tensions of his workaday world as owner-operator of a Plastics Factory. As the trail rounded a knoll dotted with Pinyon Pines, and began pulling up toward the ridge, he slowed his pace, remembering that the ages of his party ranged from 8 to 62.

The saddle, overlooking Panamint

Valley as well as Death Valley, demanded a rest stop. Judith and Jocelyn Delmonte, 8 and 10, their faces rosy with exertion, asked for their father's canteen and threatened to drink it dry. Chris Vance and Fred Bode, 10 and 11, reached the saddle deep in a discussion about their respective ascents of Mt. Whitney, the highest peak in the U.S. "It wasn't hard," said Chris, "But it wasn't exactly easy either."

In the bottom of Death Valley a haze brooded over Badwater, the lowest point in the United States. Beyond, dull reds and yellows played on the Funeral Mountains. Farther desert ranges undulated to a buff-colored plateau where a series of lava buttes appeared. On the west side of the saddle the escarpment dropped into Panamint Valley, similar to Death Val-



Telescope Peak, showing the ridge over which the party made the ascent. Elevation 11,045. Photo by Niles Werner.

ley but not as large or as deep. Over the purple crests of the Slate and Argus Ranges the Sierra Nevada thrust up snowy peaks.

"We used to see wild horses here," said Dr. James Bonner to a group of foreign exchange students he had brought as his guests from the Cali-

fornia Institute of Technology. "Burros are commoner, however. Wild burros will watch you with curiosity as you inch nearer to take their picture. Wild horses don't have that much faith in people."

Sage brush crushed under boots, scented the air. Mormon tea bushes

bristled yellow. The wind on the ridge cut through the brilliant sunshine. Half a dozen young hikers dashed toward a snow patch, the laughter of the girls turning to screams as the snowballing began and they felt icy trickles down their necks.

Carl Heller, a marine serving as rear

This photograph of the climbing party taken on Mahogany flat at the end of the automobile road. Photo by Niles Werner.





Among those who reached the top—Wayne and Ruth McCartney, Fred Bode Jr. and Sr., Jocelyn Delmonte, Chris Vance with his dog Brownie, John Delmonte, leader, Judith Delmonte and Carl Heller, assistant leader.

guard, herded the last of the queue up the saddle. Some felt the mile and a half they had come was sufficient exertion so lingered on the saddle to return to camp at leisure. John started up the trail that contoured the next knoll, passing a few limber pines that thrust out ragged arms to the wind, their barkless trunks twisting like corkscrews.

Up and up climbed the excellent trail at an easy grade toward the snow which the wind had swept off the backbone of the ridge, and piled in drifts on the Death Valley side, burying the upper part of the trail. Deciding that the top of the ridge would be better going than the snow, John Delmonte

led the way. It was like walking along the peak of a roof, looking down into the two valleys. No vegetation had

ventured this far, only the bare boulders.

A steep snow-slope loomed ahead. John remembered that the ranger in the station in Wildrose Canyon had told him a survey party on horseback had been turned back only a few days ago because of too much snow. There seemed no way to avoid the drift so he plunged upward, ankle-deep, breaking a zigzag trail as he went.

The first of the climbers topped the snow-slope and their "ohs" and "ahs" indicated to those still struggling up the snow, that something satisfying loomed ahead. There, just a few rods ahead, stood the tall cairn of rocks which marked the summit.

Reaching the top of a mountain must release some special substance into the bloodstream. The fatigue of hours on the trail is forgotten in the glorious feeling of satisfaction which comes with having conquered another peak. No wonder the Desert Peakers love to exchange their horizontal world at sea level, in and around Los Angeles, for the vertical world of the mountain tops. Telescope Peak offered them something special in this line. Nowhere else in the United States does the terrain fall so abruptly for such a distance. Its head, for half the year crowned with snow and battered by icy winds, rises in the air at 11,045 feet, while the ridges and gullies plunge to below sea level, there to swelter in the bottom of Death Valley.

In 1861, W. T. Henderson, one of an exploring party looking for the Lost Gunsight mine, made the first ascent and named the peak because, "he could see 200 miles in all directions as through a telescope."

But a dozen years before Henderson came this way, another party—the Jayhawkers bound for the California gold fields—also had climbed the Panamints. Their scouts, perhaps, had pulled themselves up to this ridge and had looked with despair toward valleys and mountains yet to be surmounted before they could find an open route to coastal California.

In later days a graphic glimpse of

The "Beehives" in Wildrose Canyon.





Panamint George, over 100 years old, beside the old Panamint City boom town stage coach.

the Jayhawker expedition was given in broken English by an Indian who as a teen-age boy in 1849 had watched their slow progress.

This lad was stalking mountain sheep on a high ridge in the Panamints when he was startled by the appearance of three men with white skins and long beards. He had never before seen a white man and he was afraid of them so he hid behind boulders.

The three, scouts of the Jayhawker parties, staggered by. Just a few days before this they had burned their wagons to smoke the meat of their starving oxen. The Indian boy could have led them to water and safety, but he feared to do so. Many years later he was asked why he remained concealed. He always answered, "Why? to get shot?"

This Indian in later years became well known to the white people who came to Death Valley. Guiding a party under the leadership of a man named George, he became known as Panamint George. The last 50 years of his life were spent on the Indian

ranch in Panamint Valley, at the foot of Telescope Peak with a score of other Shoshones some of whom became known as Hungry Hattie, Isabel, Mabel and the Old Woman.

Early surveyors, miners and geologists camped at Indian Ranch. Prospectors staggered in, crazed with heat and thirst. The isolated position of the Panamints and the relative inaccessibility of some of the canyons, made their oasis a natural refuge for army deserters, bandits and others desirous of evading the law. In places like Surprise Canyon, for instance, the law did not often penetrate.

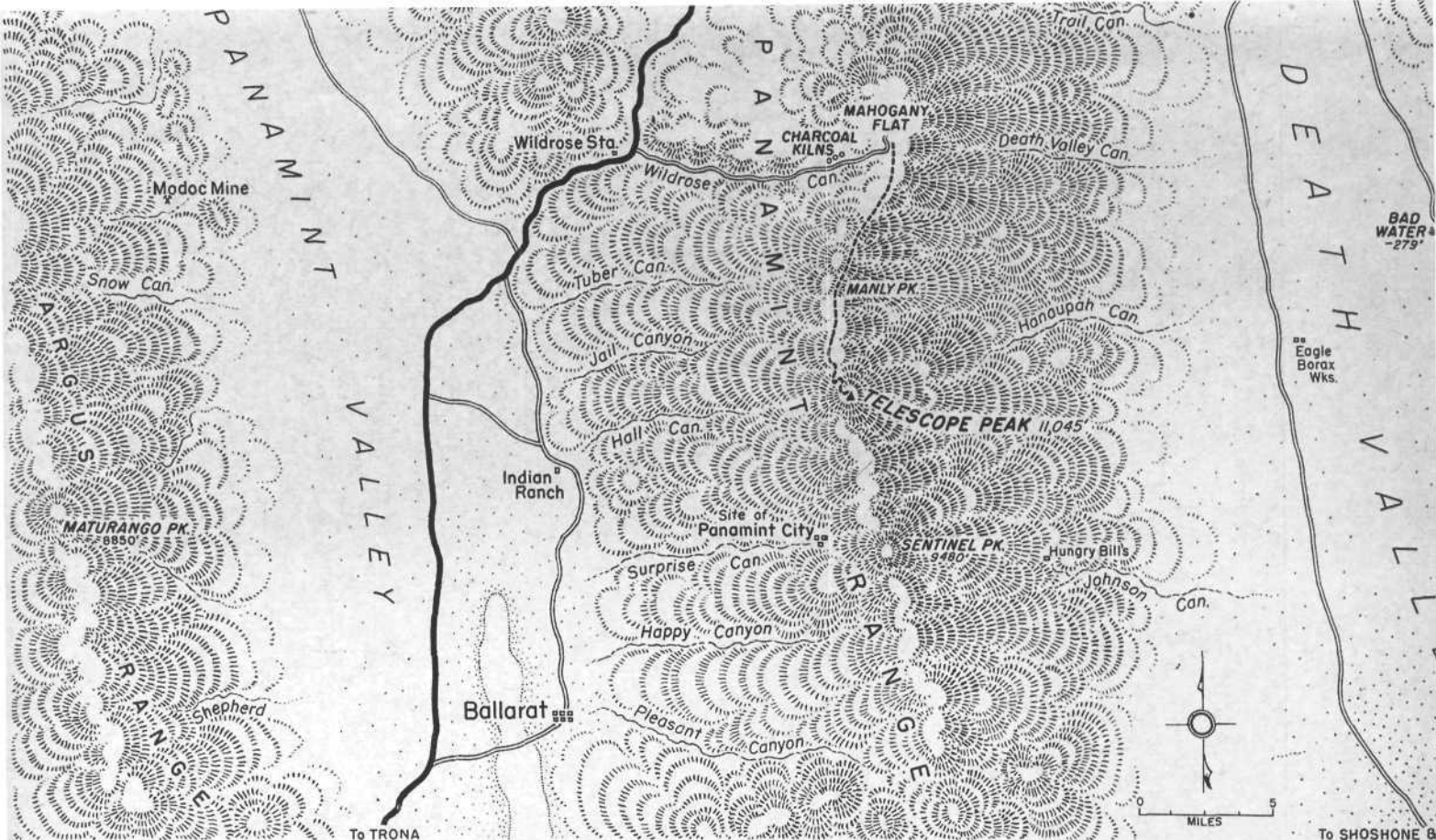
Panamint George hinted that he was the first to find the famous silver ledge in Surprise Canyon, on which Panamint City later mushroomed. With characteristic Indian logic, he took out only as much as he had immediate need for. His claim of course had no weight against those of Senators Jones and Stewart who eventually sank two million dollars in the ledge. In 1875 Panamint City had so lawless a reputation that Wells Fargo, which served

some pretty rough camps in its day, refused to risk a run to Panamint City.

I first heard about Panamint George in 1934, at a campfire in Wildrose Canyon on the evening before my first climb of Telescope Peak. Tyler Vandegrift had stopped at the Indian ranch and had visited with the old man, then nearly 100 years old. At Tyler's suggestion, we pooled our left-over food and one of the drivers volunteered to leave it at the ranch on the way out. I happened to be riding in that car.

A pack of barking dogs greeted us at the broken-down gate. A couple of shacks leaned crazily in the shade of tall cottonwoods. Chickens roosted on the seats of the old Panamint Stage Coach. This vehicle had somehow, after years of hauling some of the liveliest character who ever leeches themselves to a mining camp, come to rest by a clump of mesquite in the drowsy timelessness of the Indian Ranch.

The only story I've ever heard about an attempt to domesticate a bighorn sheep was told of Panamint George.



One of the Indians brought in a wild lamb that had lost its mother. The baby bighorn mingled with the goats they raised on the Indian Ranch and became the special pet of Mabel, George's niece. One day the lamb discovered he could leap the fence. After that he came and went. Eventually he heard the call of the wild, bounded up a ridge of the Panamints, heading for the skyline. Though Mabel watched and hoped, he never came back.

Wm. Caruthers in *Loafing Along Death Valley Trails*, tells of stopping at the Indian ranch to give George some oranges. He found the old Indian irrigating his alfalfa in a temperature of 122 degrees.

"Heavy work for a man your age in this heat, isn't it?" asked Caruthers.

George bit into an orange eating peeling and all. "Me papoose," he grinned, "Me only 107 years old."

Panamint George died in 1944. Many of the younger Indians had gone to war or to work in defense plants. The ranch passed out of Indian hands.

Hundreds of climbers have written their names in the cast aluminum register box which the Sierra Club placed on Telescope Peak in 1934. The 51 who reached the top in May 1952, constituted the largest party to date. Unusual also was the number of families and the ages of some of the children. Judith Delmonte, 8, is probably the youngest to have made the top of Telescope Peak under her own power. Judith began mountaineering at the age of 2—on her father's back.

A trip to Telescope Peak offers enjoyment for nearly everyone. The drive—240 miles from Los Angeles—through Cajon Pass, Trona, over the Slate Range, approached the peak from the Panamint Valley side. A sign reading "Indian Ranch," pointed up a dirt road running toward a distant clump of cottonwoods.

We turned off the main highway, right, up a dirt road into Wildrose Canyon, where a symphony of wildflowers delighted our eyes. Yellow predominated—tiny pincushion daisies, brown-eyed Panamint daisies, and eight-inch poker-like spears of aloe. In a wash an apricot mallow grew beside a beavertail cactus that flaunted 16 red pompoms and nine buds. Lavendar phacelia smiled everywhere underfoot, accented with the sharp red of paint brush and the royal blue of lupine. Swarms of Brown Monarch butterflies fluttered about in quest of nectar.

In 1880 the Modoc Mines in the Argus Range needed charcoal to reduce ore. The nearest timber, juniper and pinyon pines, grew about 10 miles up Wildrose Canyon. There they built ten stone ovens, shaped like beehives, 35 feet high, 35 feet at the basal diameter, and two feet thick. This activity brought the first wagon-road into Wildrose Canyon.

Several hundred men once felled trees, split logs, stoked the ovens, tested charcoal and freighted it across Panamint Valley with teams. All that is left today are the ten ovens, remarkably well preserved, and a timber-line on

the hillside above them showing how far up the cutters went. Above this line the junipers and pines are larger than below it. Fortunately, conditions in Wildrose Canyon have favored reproduction and new trees clothe the scar. The "Beehives" are being preserved as a historical monument within the Death Valley National Monument.

A couple of miles above the Beehives a road ended on top of a ridge of the Panamint Mountains. Some cars boiled the last mile. Our waterless campsite at the end of the road on Mahogany Flat perched 8000 feet above Death Valley. Dead branches of mountain mahogany, juniper and pinyon provided firewood.

Unscrambling food and sleeping bags out of car trunks—building fires—the smell of juniper smoke, beans, ham and coffee — Mrs. Delmonte feeding her family of six a combination of noodles, peas and tuna warmed up together — songs and stories around the campfire — camera enthusiasts readying their equipment before crawling into their sleeping bags, in anticipation of a magnificent sunrise.

The seven mile trail from Mahogany Flat to the top of Telescope Peak has an easy grade. The CCC's built it in 1935. Before that, an improvised trail existed, probably started by Indians. Anyone able to walk may saunter out on this balcony that hangs 8000 feet over Death Valley. The mile and a half to the next saddle is well worth the effort. Having gone this far—who knows? — one might be tempted to continue up—and up—and up.

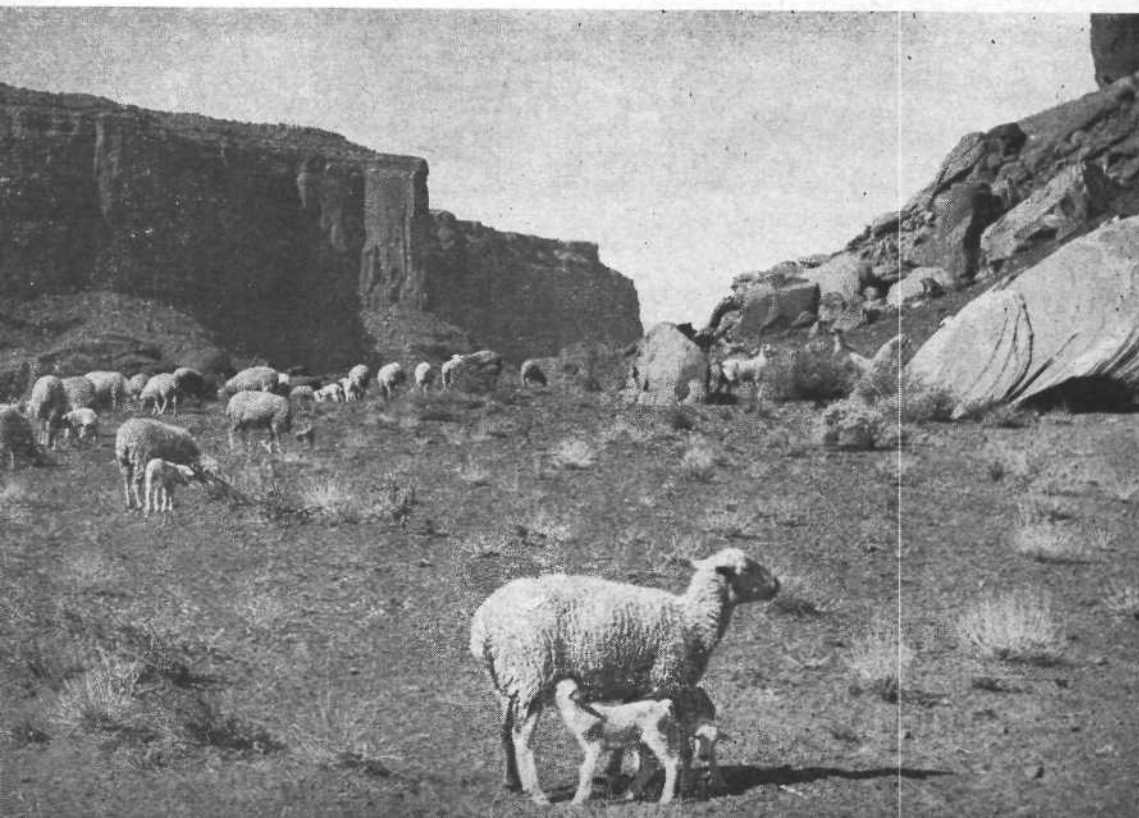
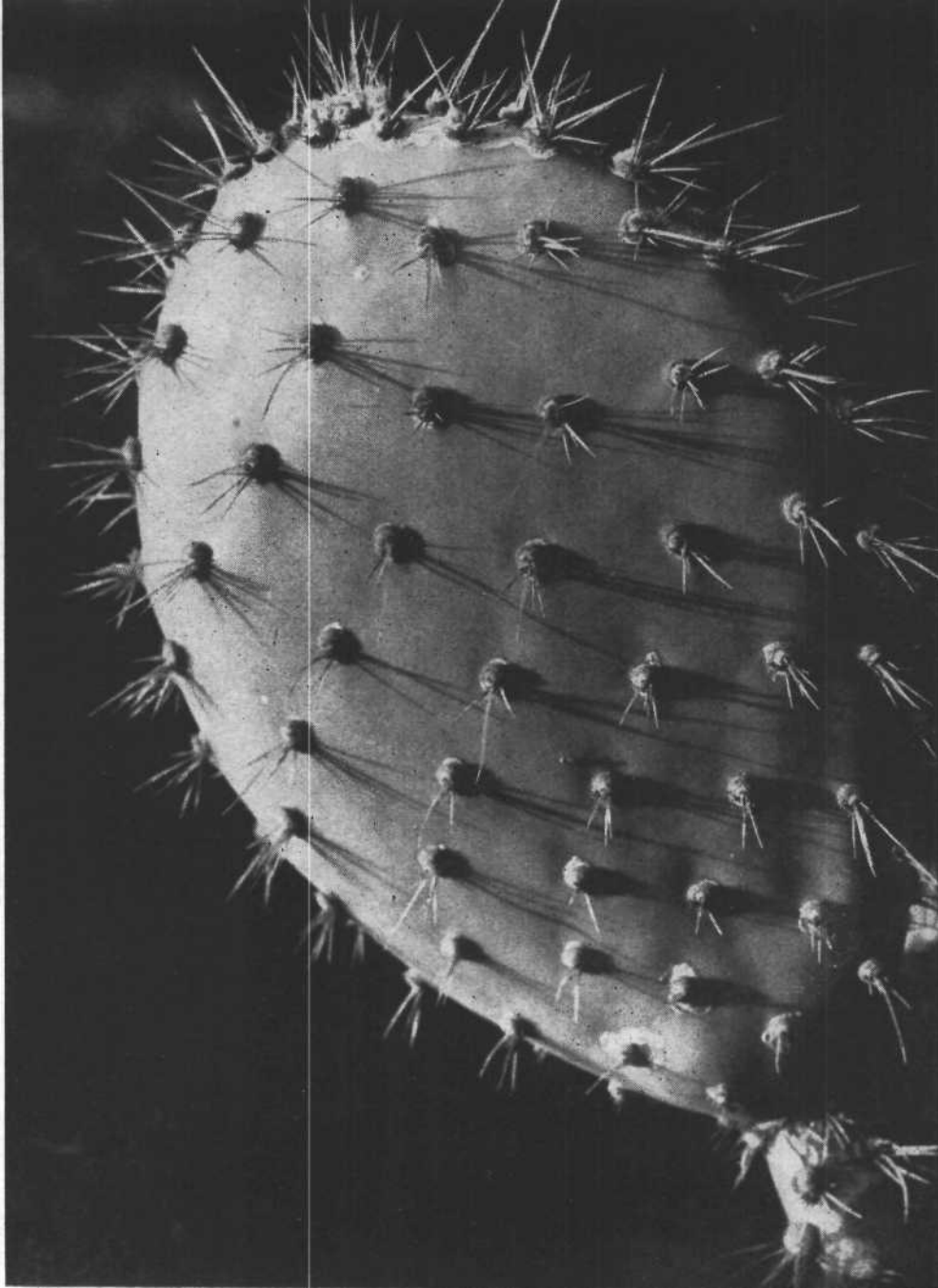
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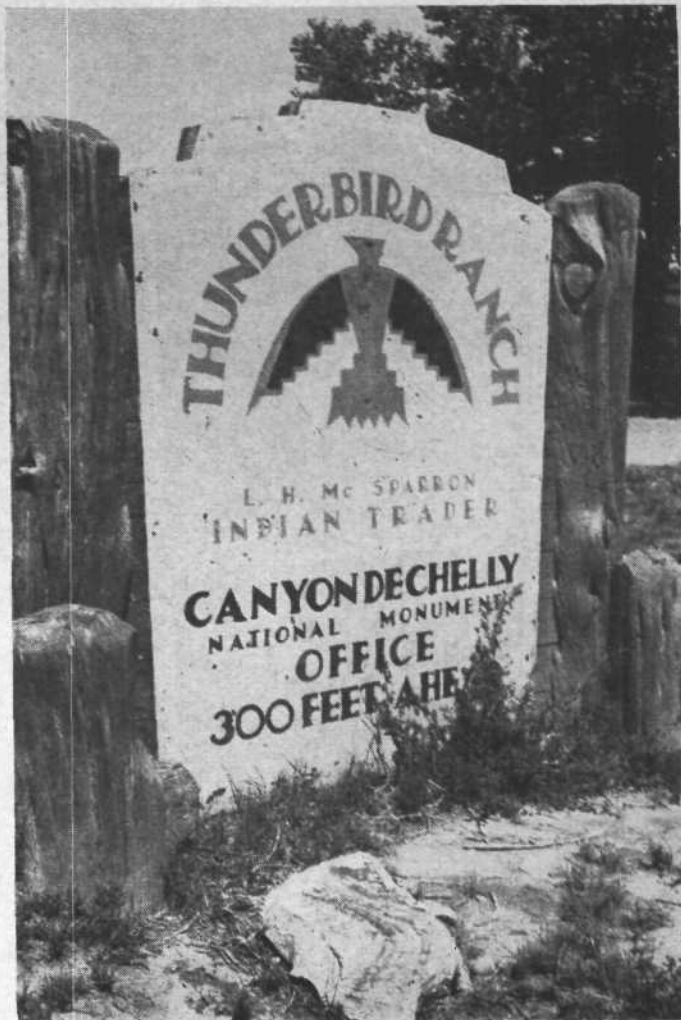
Cactus Closeup . . .

Its spines starkly outlined in white and shadow, this opuntia cactus was photographed by Paul E. Black of Los Angeles to win for him first prize in Desert's September photo contest. It was taken with a 4x5 view camera, Isopan film, 1/10 second at f. 22.

Dinnertime . . .

Art Miller of Redlands, California, won second prize with this picture of a ewe and her lambs in Monument Valley. Miller used a 3½x4¼ Crown Graphic camera, Super XX film, 1/100 second at f. 22.





Cozy McSparron in the doorway of his trading post, and the sign which greets visitors to Canyon de Chelly.

Trader at Canyon de Chelly

By RANDALL HENDERSON

WE WERE SEATED on the screened-in veranda of the rambling Thunderbird ranch house which Cozy McSparron built of native stone at the entrance to Arizona's Canyon de Chelly 35 years ago. Beyond the wire fence which keeps Indian sheep from nibbling Mrs. McSparron's carefully-tended flowers, Navajo men and women were loitering around the entrance to the trading post.

For Cozy McSparron is a trader—one of the veterans among the 106 white storekeepers whose posts are located in remote areas of the Arizona-New Mexican Indian country. The traders are the Indians' main contact with the white man's world.

"Yes, the Navajos are fast learning the ways of the Anglo-Americans," Cozy was saying. "An Indian trader now sells five times as much gasoline as he did a few years ago, and only one-fifth as much hay."

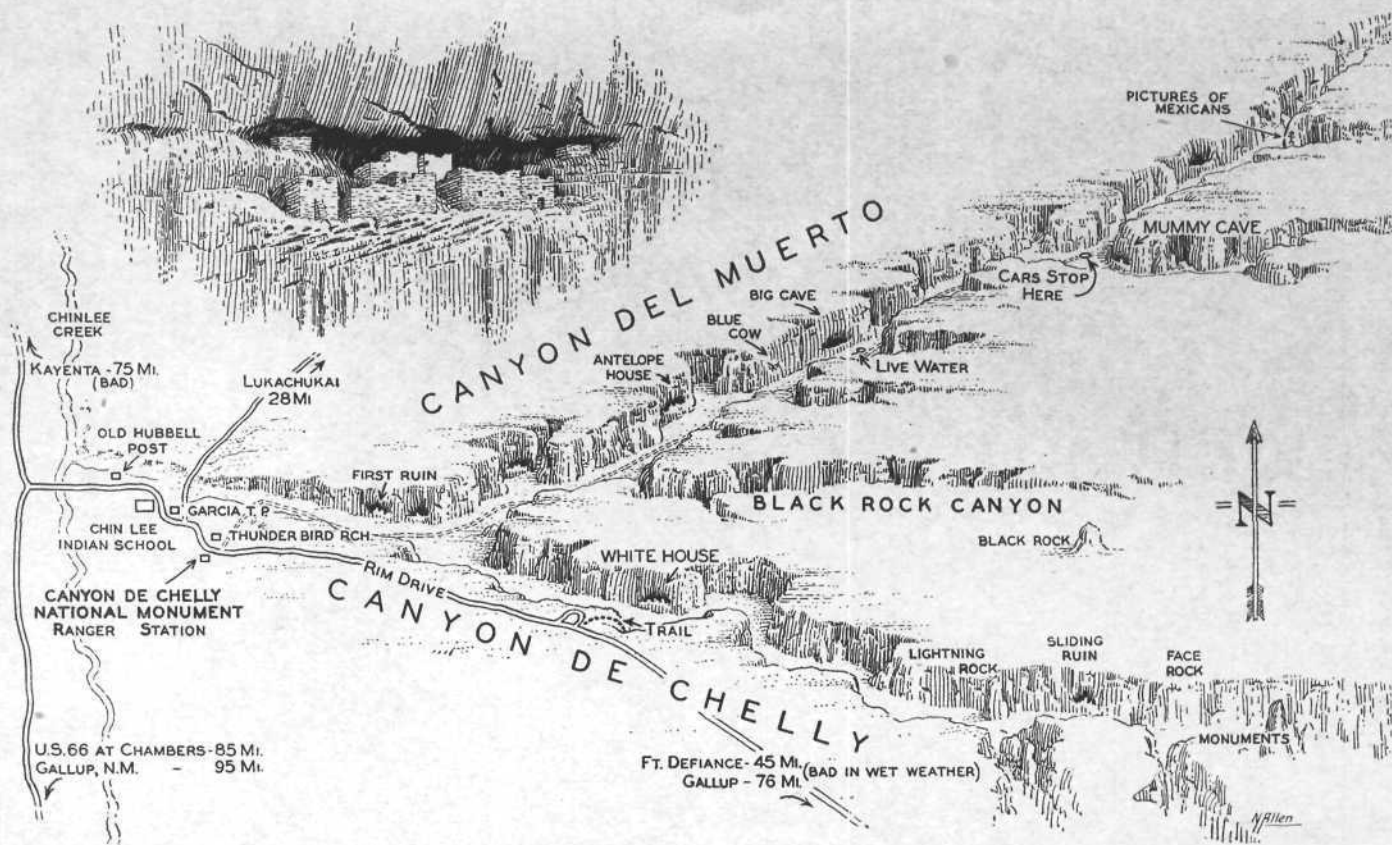
Conditions on the Navajo reservation are changing rapidly, and the transition is bringing many problems to the Indian trader. In this interview, Cozy McSparron, one of the veterans among the traders, gives interesting sidelights on what is taking place among the tribesmen.

"Even the diet of the Indians is changing. In the early days the Navajos dined mostly on bread, meat and coffee. They made their own kind of fried bread, their meat was mostly mutton, and the coffee they bought from the trader. Now they eat a much wider variety of foods. They love fruit, but not vegetables. They buy cabbage and potatoes in quantity, but seldom want lettuce, tomatoes or celery."

"The velveteen jackets and calico pants which were once the conventional dress of Navajo men, have given way to denim shirts and levis or khaki. In the old days a Navajo woman used 10 to 12 yards of cloth to make a skirt that swept the ground. Now three to five yards are enough, and the skirt only comes to the shoe tops or higher."

McSparron told about one of the two families from the Canyon de Chelly area who took advantage of the opportunity a few years ago to relocate on the Colorado River Indians' reservation at Parker, Arizona, where better soil and more water are available than in the arid Navajo land.

One of these Indians, more industrious and better educated than the average, moved with his wife and four children to a 40-acre farm at Parker. A year later he returned to visit old friends—with another baby and a better car. The following year he returned with a new Ford equipped with a luggage carrier. On his most recent return visit he was driving a 9-passenger DeSoto and had eight children. He told Cozy he now has 60 acres of cot-



ton, and plans to return next year in a big new truck.

Motor transportation has brought both advantages and disadvantages to the Indian traders. Many of the Indians now go to Gallup, Holbrook, Winslow or Flagstaff for a share of their groceries and clothing, and for items it is not possible for a trader to carry in stock. But they also come greater distances to trade at Thunderbird—because of their friendship for a man who has been their life-long friend and advisor.

Leon Hugh (Cozy) McSparron was born in Gallup. Later he went to Denver to complete his schooling. At school he was a champion boxer—but remained an amateur. When he had finished his formal education he returned to the Indian country and was given a job as clerk in the Chinle Trading Post at Canyon de Chelly by Mike Kirk.

"Mike wanted to learn to box, and I think he hired me so I could give him boxing lessons," Cozy recalls. Later Kirk worked for Lorenzo Hubbell, who before his death was regarded as the dean of the Indian traders. Eventually Mike became a successful trader on his own.

During World War I McSparron served in the 97th Infantry division. In 1918 he returned to Chinle and bought the trading post then owned by G. E. Kennedy. He re-named the place Thunderbird and later began construction of the stone house and

guest cabins which have made the Thunderbird Guest Ranch a popular mecca for travelers in the Indian country.

The guests dine family style at a big table in the ranch living room, surrounded by a colorful collection of Indian weaving, basketry, pottery and the souvenirs which a trader inevitably will collect during many years among the tribesmen. Following an old tradition, Cozy always occupies the seat at the head of the table—but there are no other formalities. A dinner at the Thunderbird ranch is never a dull affair—for 40 years among the Navajos plus a natural endowment of Irish humor have been combined to create a delightful host.

The high regard in which he is held by the Indians of Canyon de Chelly was revealed in 1949 at one of the local tribal meetings. An easterner with more zeal than understanding had been seeking to stir up trouble for the traders. He proposed that the Indians, instead of paying a profit to the white traders, should take over the posts themselves and operate them cooperatively. Some of the Navajos also thought it would be a good idea and the question came up for discussion at many of the tribal meetings. Finally one aged Indian woman gained the floor to voice her protest. "You not take trading post away from Cozee," she exclaimed. "I raised that boy and he live in my back yard. He always friend of Indian. We want Cozee stay

here." It became evident before the meeting was over that most of the Indians at Canyon de Chelly shared the views of the Navajo grandmother.

There is good reason for the loyalty the Indians feel for Cozy McSparron. He has been much more than a trader. He encouraged the women to return to vegetable dyed rugs, and to weave the old designs which are so highly prized by those who know good Indian craftsmanship. He visited the hogans and inspected the wool to be sure it was properly cleaned and spun. He extended more liberal credits to those who were willing to cooperate — and then found better markets for the improved weaving.

The Indians come to Cozy to settle their disputes. He speaks their language, and through the years they have come to regard him as an elder brother who is always welcome at their hogans.

Discussing the changing conditions on the reservation, he said: "In the early days, trading was almost entirely a matter of barter. The Indians traded wool and pelts and rugs for their food and other necessities. When they did not have something to trade they brought in their turquoise and silver and left it in pawn. Their word was always good.

"Today there is money on the reservation. Not wealth, but a considerable part of the traders' business is for cash. Thousands of the Navajo men and many of the women spend at least a part of the year in off-reservation work



Many Navajos live and have their gardens on the floor of precipitous Canyon de Chelly. Their wagons gradually are giving way to motor vehicles.

—on the railroad, in the army camps and in the harvest fields. The Indian Placement Bureau is working diligently to find employment for the Indians.

"While the Indians are working for the white man's wages they are also learning about his way of life. Some of it is good—and some not so good. During my first 35 years here I never saw a drunken Indian. I am sorry to say that isn't true today."

The medicine men, Cozy believes, are slowly losing prestige. The younger Indians go to the dances—but they go for fun, not because it is part of their religious faith. The tragedy of this is that while their own religion is on the wane, they have found nothing to take its place. The Catholics and many of the Protestant churches maintain missions on the reservation, and have made valiant efforts to Christianize the Navajos. But progress has been very slow. The most effective work has been done in the direction of medical aid to the Indians.

Now that the Indians have been granted the right to vote, Cozy believes the traders will become an important factor in state and national politics, to the extent that their counsel is accepted by the Indians in their various communities.

There is a note of nostalgia in their words when the McSparrons discuss

the changes which have come about on the reservation in recent years. Once the needs of the Indians were simple—sugar, salt, flour and coffee were the main items of food, and a few bolts of yard goods took care of the clothing problem. Now the trader has the alternative of expanding his stock to department store proportions, or watching much of his trade go to the distant cities.

The Indians are in a period of transition — from the old ways of their fathers to the new mode of life that is being learned from the whites. There is a bit of pathos in this situation—both for the Indian and for the trader. It will require many years, perhaps generations, for the readjustment to be completed, and since the McSparrons cannot remain always in the role of traders, they have bought a little ranch in Arizona's Verde River country not many miles from Montezuma's Castle where they plan to retire before long and spend their days among their fruit trees and in their garden.

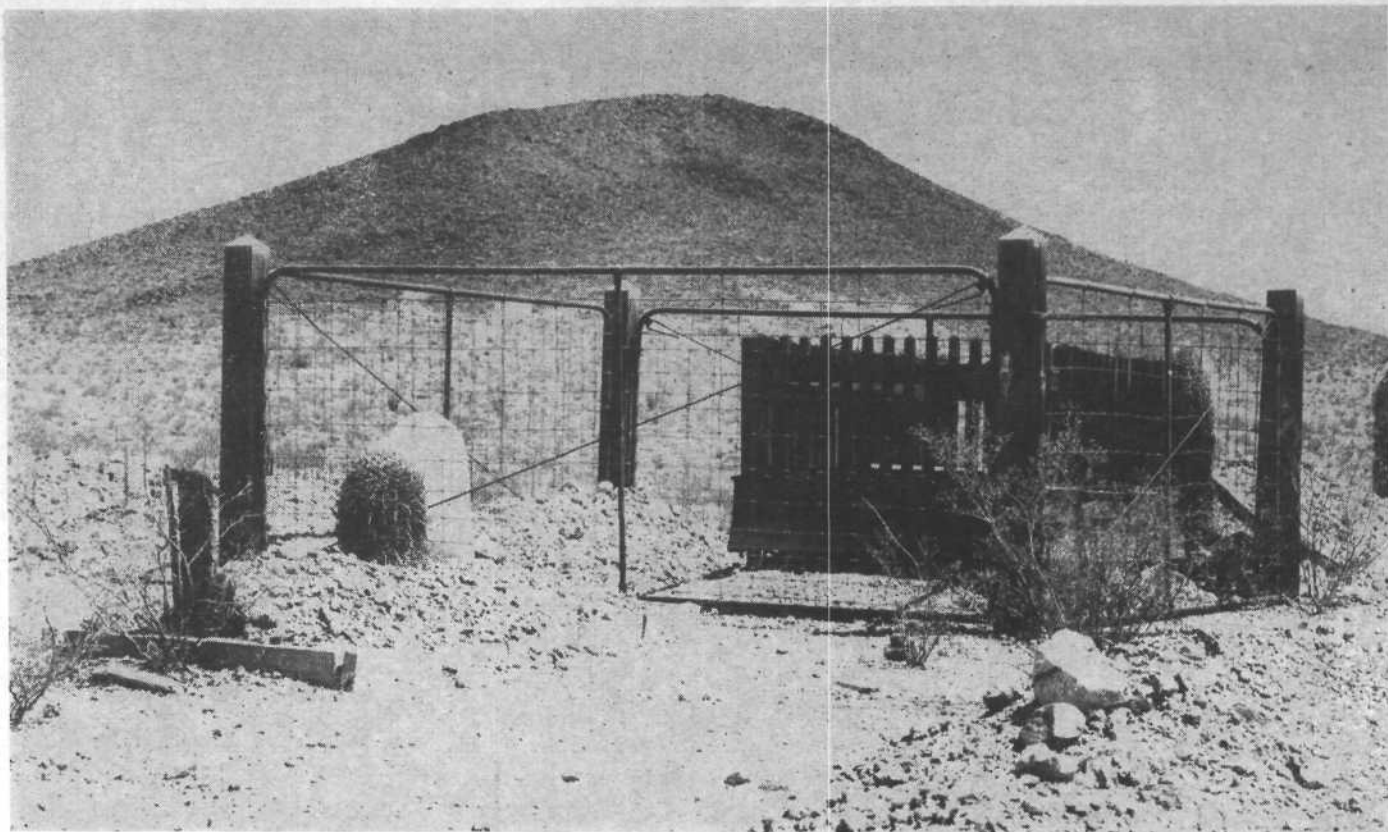
In the meantime the Indians are making fine progress in many directions. The discovery of oil and uranium ores on their reservation lands is bringing large royalty funds into the tribal treasury, and much of this money is being spent for the improvement of living conditions. Also, Uncle Sam is now contributing more generously than

in previous years to schools, roads, hospitals and other services for the tribesmen. The average Navajo, according to Cozy, has twice as much wealth as 15 years ago.

One of the paradoxes of this situation is that although money is more plentiful among the Indians there has been no slackening of pawn transactions. Formerly, only the children of wealthy Indians had their own jewelry. Today nearly every Indian boy and girl has two or three turquoise ornaments, and of course all of the turquoise and silver in the family is available for pawn if there is need for it.

Very little silver work is now being done on the reservation. The silversmiths generally are employed by curio shops and traders who operate along the main highways and railroad. Also, weaving is on the decline, and there are some traders who predict that in a few years a Navajo rug will be a rarity. It is true today, as in the past, that in terms of human labor, a Navajo rug or blanket is the biggest value that can be bought on the American market.

The McSparrons have a high regard for the native ability and intelligence of the Navajo people—and they believe that in the slow processes of the great American melting pot these Indians eventually will emerge as capable stalwart citizens of the communities in which they will establish their homes.



Black Butte at Bouse, Arizona. Agate seams lace the northeast side. Lonely cemetery in the foreground. Largely unexplored for gem stones, the area to the southeast has produced some interesting gold ore.

Agate-seamed Butte at Bouse

Northeast of Bouse, Arizona, a black malpais butte rises from the desert floor, its sides laced with seams of green, lavender, pale pink and deep red agate webbed with mossy filigree. "Good cabochons can be cut from rough specimens chipped right out of surface seams," reports Jay Ransom, who visited the site recently with his mineralogist father. Here is Ransom's description of a new field for the specimen collector and lapidary, and his introduction to two old-time rockhounds — Mr. and Mrs. Jim Reed of Bouse.

By JAY ELLIS RANSOM
Photos by the author
Map by Norton Allen

IT WAS FROM Mr. and Mrs. George Green of Tacoma, Washington — rockhounds whom we had met by chance at a crystal field near Quartzsite—that my father and I first learned of the unusual seam agate to be found near Bouse, Arizona.

George had showed us several pieces of fair-sized agate, green, lavender and mossy pink. They came, he said, from seams in a black malpais butte northeast of Bouse. With a dry twig of greasewood he sketched a map in the sand at our feet, marking the butte with an X on the winding line of a dry wash.

Bouse was 50 miles or so off our planned route, but Ransom Senior and

I decided that the black butte was worth investigating. George's agate specimens were some of the finest I'd seen.

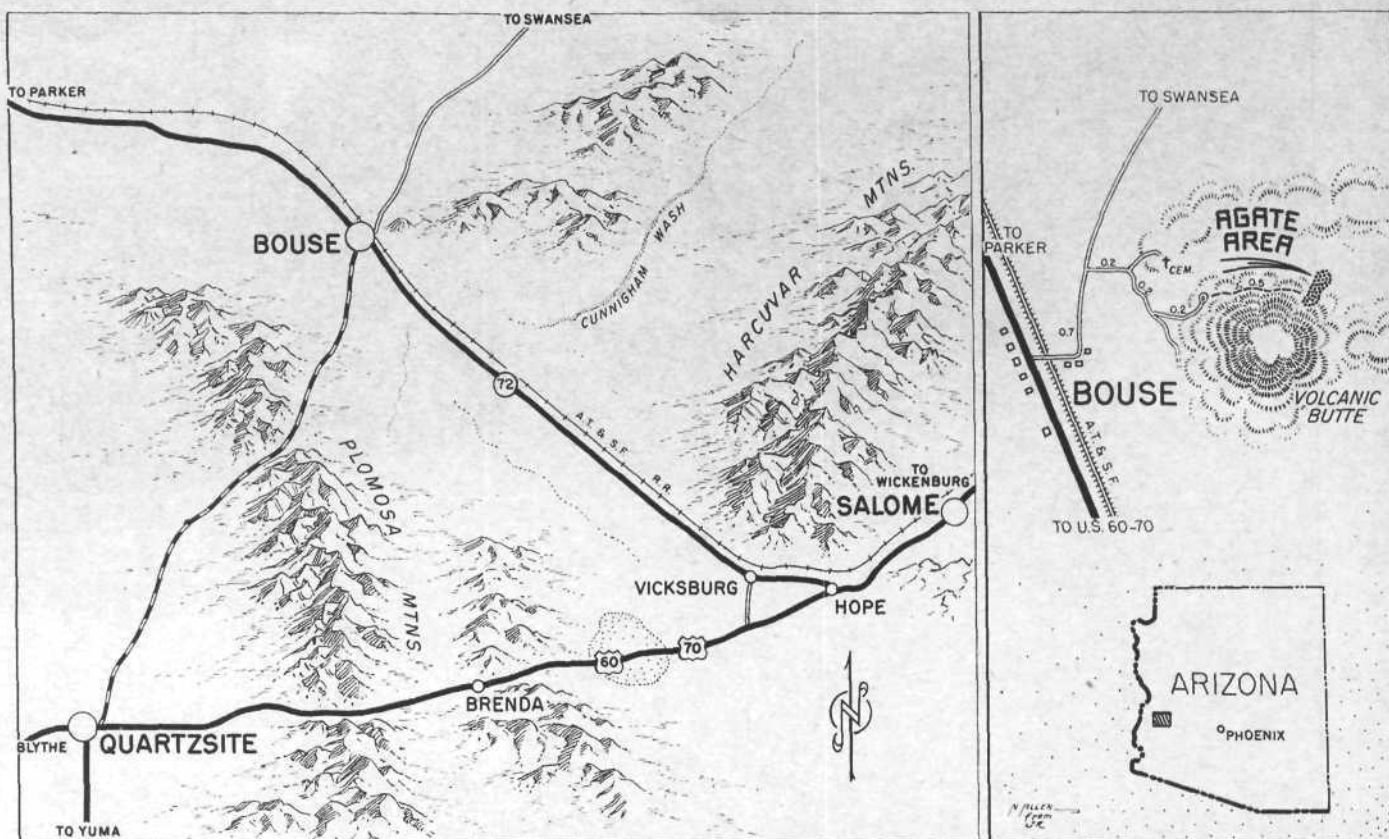
Turning the samples over in my hand, I considered the many varied forms in which agate comes out of saturated silica solution percolating into cavities and fissures. Seam agate might be defined as chalcedonic silica. It occurs as a secondary deposition filling seams, fissures, veins or cavities as if Nature had deliberately designed it as a healing medium to reunite breaks in rock faulted and fractured by movement of the earth.

Like chalcedony and jasper such agate is found in a wide variety of de-

posits and forms, quite often stained and colored by metallic salts or oxides. Sometimes, where the silica has formed a preliminary gel, colloidal gold is concentrated into beautifully branching gold inclusions in the completed agate.

The pieces I held in my hand were varicolored in pastel shades of pink, green and lavender. Some of it was almost as deep a red as jasper but with a mossy filigree. Good cabochons could be cut from the rough specimens which George had chipped right out of surface seams. "I just followed a bit of float up out of the flats into a dry wash," he explained, pointing his route out on the sand map. "and there was the mother outcrop."

We bade goodbye to the Greens and, with the late afternoon sun barely an hour above the western ranges, drove into Bouse: We'd traveled a well-graded gravel road that cuts northward out of Quartzsite, crossing the Plomosa Mountains by a low pass about midway in its 25-mile course. En route we saw little evidence of mining activity, past or present, until we had crossed the barren Plomosas. But from the crest of the divide down to Bouse, ele-



vation 995 feet, all the side roads pointed toward variously named mines. At Bouse we left Highway 95 to emerge onto paved State Highway 72 that runs from Parker Dam to Hope. Bouse stands about halfway, a station on the Atchison, Topeka and Santa Fe Railroad.

Parking in front of the only cafe in town, we stepped out to get our bearings. A scattering of sun-blistered houses, two service stations and a settlement across the tracks showed little life. We entered the cafe. Over bottles of pop we learned from the waitress-owner that an elderly couple, Mr. and Mrs. J. N. Reed, were the local rock collectors. "They're mighty fine people," she added. "You'll enjoy them both."

Thanking her, Dad and I went back out into the declining sun. Because of the lateness of the day and the problem of getting photographs before darkness fell, we decided to hasten to the agate area before visiting the Reeds.

Driving across the track we were surprised at the country surrounding this western Arizona community. The raw and ragged desert seemed devoid of the cholla so common to western Arizona. Palo Verde trees, pale and feathery in the glowing sun, gave the town its only touch of greenery. Here and there, stunted and malformed, a few saguaros raised thorny trunks between the rocks. Greasewood seemed to predominate on the outlying flats.

The area south of Bouse has become

one of the richest cotton raising regions of Arizona. The country seems utterly waterless and desolate, yet Parker Dam on the Colorado River is enabling broad acreages of raw desert to become productive, and once water is brought to the soil, its fertility seems inexhaustible. The cotton fields appear out of the desert so suddenly that at first one might think them a mirage; but dark skinned pickers at work in the white fields and great trucks loaded with baled cotton roaring along the highway immediately prove the scene's reality.

Pausing near the tracks to take a photo of the volcanic butte on which agate seams are found, we drove east and north along a smooth dirt road to Swansea, an old time mining camp famous in western Arizona history. Bouse Butte rises a mile east of town, a jet black color in the evening sun, rounded but distinct against the general backdrop of red Arizona sandstone. Obviously of volcanic origin, it is easily the most prominent object in the immediate landscape.

The butte rises four or five hundred feet above the level of the surrounding flats, and it is liberally sprinkled with rhyolitic rocks ranging in size from a few inches to several feet in diameter. Black and glossy with desert varnish and pockmarked with gas blowholes, these rocks serve as reminders of a not too distant geologic time when such rock "bombs" were blown forcibly from the bowels of the earth.

Zeroing our speedometer on leaving the pavement, we turned at mile 0.7 onto a side road on our right, or east, leading to a neglected cemetery on the low brow of a lava ridge. At 0.9 miles the cemetery road branches, the left fork climbing the rise to the sagging wooden grave markers and the right member winding tortuously toward the southeast. Following our memorized directions, we turned right and at mile 1.1 reached the ghost of a junction. From here, turning left, the road veers northward climbing easily up a broad boulder-strewn slope to its end at mile 1.3. Although the road is little more than a widening of the spaces between greasewood clumps and boulders, it is neither steep nor rough. However, one sharp dip did cause us to scrape our tailpipe and rear fender guards rather badly.

Locking the car in gear, we climbed out to find ourselves on the northwest corner of the mountain, no trails showing anywhere save the wide brown scars of bulldozer slides that are a distinct feature of the butte.

The ground was covered with boulders of all sizes, the smaller ones rolling treacherously underfoot. According to our verbal directions we should find on the north face of the peak two deeply cut washes in the otherwise nearly smooth curvature of the hill. Crossing the first and deeper arroyo, we climbed the intervening ridge and descended into a second and broader wash. While this one slopes due north,

it is on the extreme northeast flank of the butte.

At its lower end but well above the broad level flats of the desert beyond, we stumbled upon a cairn of rocks which might have been a mining claim marker. We soon ran across small seams and fissures of the peculiarly attractive agate George had shown us at Crystal Mountain.

We had not come in precisely the way our friends had described. Standing beside the cairn Dad and I tried to guess the probable route of exploration George and his wife followed. The agate seams we found were not those which had produced the large fine specimens George showed us. We did, however, chip off some good samples of the smaller veins, climbing up the wash a short distance above the cairn.

Here and there, piled waist high, stood several mining claim markers, but we found no evidences of gophering. Concluding that further exploration would be necessary and that mineral and gem stone possibilities definitely existed in the area, we hastened back to the car before darkness fell.

Although the hike in had taken probably ten minutes, it should not be attempted without rubber-soled shoes. We saw numerous lizards scurrying among the rocks.

Retracing our route to Bouse, we turned south along the highway to Jim Reed's place on the edge of the town. They're busy folks in their hale-and-hearty seventies, and they have more irons in the fire than many a younger couple. Jim was not at home since he had gone out to the nearby cotton fields to oversee a job of picking. Mrs. Reed, jolly and alive with fascinating observations on the rock hunting potential of Arizona, greeted us.

Inside her expansive living room, still not quite finished, she showed us boxes of gemstone specimens she and her husband have gathered here and there. For a long time I had read Jim Reed's ads for gold ore specimens in various mineral magazines and visualizing a producing mine nearby, I innocently asked: "Mrs. Reed, I've seen your husband's ad, and after looking over this rather remarkable country this afternoon, just where would your husband's gold mine be?"

Mrs. Reed, her blue eyes glinting cannily, looked at me with the expression she must have used to answer the gaze of countless similar questioners. "Does Gimbels tell Macy's?" she inquired archly, then burst out laughing. "Oh, I know you folks wouldn't rush out to the claim and try to get specimens for yourselves, but there's plenty others who would. You see," her



Mr. and Mrs. Jim Reed of Bouse, Arizona, inspect a specimen of agate found near their home.

voice grew confidential, "Jim could have a mighty fine gold mine out there, if he wanted to develop his ledge. But we're getting too old to mine it ourselves. We're in our seventies, and what with taxes and the high cost of development, we just can't do it. Jim chips off his specimens whenever he gets an order to fill, then covers up the ledge so others won't claim it. We've been here four years now, and are building this home for ourselves, a little at a time, as my husband sells his specimens."

She went on to explain that selling gold ore in the form of cabinet specimens to schools and private collectors is much simpler than going through the red tape of developing a production mine. "Also, its return is vastly greater per ton of ore and per hour of time put in digging it out," she added.

Actually, Jim Reed's ore is rhyolite with fleck gold running through it.

She showed us a piece. "It's rich," she said, her vivacious blue eyes studying our faces. "So rich that every time Jim goes out to get more specimens, he has to be careful that nobody is going to follow him. Others could jump his claim, and what could we do about it?"

Waiting for Jim to return from his work, with darkness creeping in over the desert velvet soft and sparkling with stars, we learned something about this pioneer couple. They have reared nine children, seven of them girls. "Maybe you've seen my younger daughter, Mazy, in the movie 'Covered Wagon'." She reached for an album of photographs and began to leaf through, proudly. She held out Mazy's picture, a beautiful girl with many of her mother's features.

"All my girls were beautiful," Mrs. Reed said, dreamily. "But it never did mean much to them, although it has to



The author's father looks over the seam agate found on the slopes of Bouse Butte. Malpais boulders strewn all sides of this volcanic dome.

Hollywood. Take Mazy, now. She's a horse expert who can equal the best male riders in Hollywood. Always was horse crazy," her mother's clear laughter came from a well of memory, "and she's making it pay off. She's been playing opposite Roy Rogers for quite a few years now."

Another daughter, a lovely blonde girl looking in her photographs the way Mrs. Reed must have looked 50 years ago, has become third owner in Knudson's Dairy in Los Angeles—no mean accomplishment for a girl who had to make it on her own. "They're nearly all married now, my children," Mrs. Reed said, "and raising their own families."

I could understand how much this couple enjoyed the last years of building their own home, now that their children are out in the world, proud in their successes. It had not been an easy road, pioneering in the desert Southwest, but Mrs. Reed's native wit and charm have seemingly never been dimmed by hard work.

Her husband Jim is supervisor dur-

ing the cotton picking season, collecting rocks and selling his specimens only when it is necessary to do so to buy some necessity for their home. I feel that in high-grading his own mine, Jim Reed has the right idea. He is helping a lot of people to get real pleasure and appreciation out of something fine and beautiful which would not be possible by ordinary mining.

I asked Mrs. Reed if she knew about seams of cabochon agate in the area Dad and I had prospected. "There's quite a bit of agate around Bouse," she explained. "I haven't seen much of it myself, but Jim knows where most of it is. If he were here, I'm sure he would tell you good places to go. It wouldn't be like his gold ledge which he has to keep secret."

Although we missed seeing Jim Reed on this trip, I know that he and his charming wife will give all possible help to visiting rock collectors. Visitors through Bouse should by all means call on the Reeds and look over their collection.

Quite a pile of interesting rock

adorns their front yard alongside the highway. Not particularly promising as potential cabinet specimens, nevertheless this colorful country rock would make nice additions to rock gardens and contribute beauty and interest where suitable flowers could be grown to bring out their natural forms and colors.

But it is the glittering gold ore that most delights the eye because it is so unexpected. Looking out of the window at the raw desert surrounding Bouse, it seemed to me fitting that gold should be there, along with agate and other gemstone material, hidden in remote ledges where only the sharp eyes of a real prospector like Jim Reed can find it. Jim Reed's collector's eye has appraised his ledge for more than its mere gold potential, for he knows in his heart that the yellow metal, even in quantity, cannot buy happiness. And in Mrs. Reed's merry eyes I read a contentment which she and her husband are finding through their own hard work in this remote corner of western Arizona.

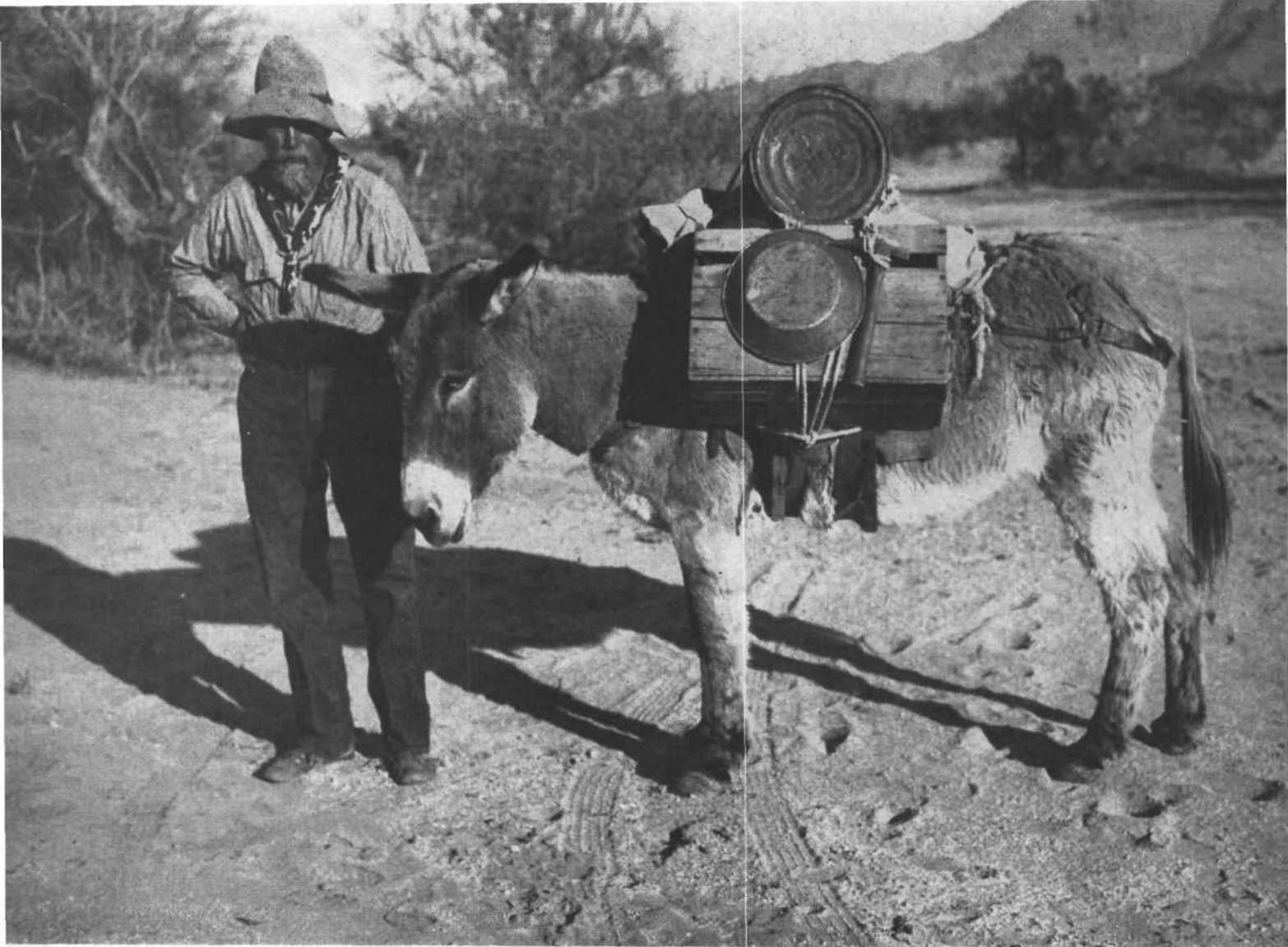


Photo from the C. C. Pierce collection.

MARCH OF THE SAGUARO

By BESSIE BERG
Rio Linda, California

On, up the rocky hill from desert's edge,
The legions of the gaunt Saguaro go.
They pause not, all these ribbed Amazons,
Although what goal they seek they cannot
know!

There is a Force, all irresistible,
Impells them upward in this lonely land;
Some portion of the desert's destiny
Must be fulfilled by this strange, armored
band.

THE CHIPMUNKS AND I

By LAURA SEELEY THOMSON
Long Beach, California

Hi, scampering desert-chipmunks
Burrowing deep in sand
Say, what do you think of humans
Invading your sun-burned land?

Like motionless little statues
With beady-black eyes, you deceive
Yourselves—but not me, so scurry
Along with your make-believe.

I toss you food every morning
Appeasing your appetites;
Hurl sticks at your vile assailants
And umpire your frequent fights.

Yet, while from this porch I watch you
And love every move you make,
To you I am but a well-spring
Of celery, cheese and cake.

Desert Rat

By ALICE FLORIO
Eureka, Nevada

You utter oaths harsh to the human ear
Directed at the beast that bears your load.
In perfect echo back to you it comes
On desert waste that's long been your abode.
You vow that burros never should have been,
Created to impede the pace of man
Impatiently along the desert trail
And curse the toil and sweat and burning
sand.
Come sundown and you've reached a water-
hole,
Cool clear miracle for desert thirst—
How come you're said to have a raw-hide
heart
And yet you let the burro beast drink first?

ELF OWL PHILOSOPHY

By GERTRUDE DUST
Glendora, California

An elf owl, perched in a Joshua tree,
Sat fair and square between the moon and
me.
He stared at me, I stared at him
Motionless there on the Joshua limb.
"Hello," I called, "and how do you do?"
"I mind my own business," hissed he, "Do
you?"
The moon laughed, the wind capered in
glee
As the owl popped into a hole in the tree.

THE DESERT CALLS

By ETHEL E. MITCHELL
Winslow, Arizona

The voice of the desert calls me,
To my soul I hear it speak;
And I know its charm will lure me,
For my fortress walls are weak.

Did I think that walls could hold me
As I placed each stone on stone?
Or that a deep and hidden yearning
Would subside if kept alone?

The stones are now as nothing,
For they can no longer stay
The tumult awakened by a whisper—
"These stones are only clay!"

Be Brave

By TANYA SOUTH

Be brave, whatever comes your way.
Be brave, whatever may dismay.
Shoulder your burden. Let your hour
Of struggle be triumphant power,
When you soar, lofty-winged, o'er pain
And Truth attain.

Be brave. Let nothing break your
heart.

Do you your part
With strength and purpose and with
plan—
God-conscious Man.



Navajo horsemen on the reservation. When a tribesman dies, his favorite horse is shot over his grave, to accompany its master to the Happy Hunting Grounds.

His Own Horse to Ride in the Happy Hunting Grounds

By JOE KERLEY

Photos by D. Clifford Bond

ONE OF THE most terrible catastrophes that can befall a Navajo is to come in contact with a dead body. The evil spirit which has caused death will leave the corpse, the Indian believes, and enter any person who comes near. Navajos will always try to get an outsider—usually a trader or a missionary—to bury their dead, although if he finds it necessary a tribesman may bury a corpse with impunity if he immunizes himself first by repeating a strict religious ritual.

This Navajo fear of death was the reason for the wild confusion which

When a Navajo dies, his horse is shot over his grave, to provide his departed soul with a familiar mount to ride in the Happy Hunting Grounds. From many years of operating trading posts on the Navajo reservation, Joe Kerley learned much about Navajo burial customs and Navajo attitudes toward disease. Here he tells a few of his experiences.

greeted me one day many years ago when I rode into the camp of a few Indian families. Men, women and children were frantically running about, harnessing horses, stripping hogans and brush shelters of household goods, loading wagons and driving sheep and goats away from the place. No preparation for fire or flood could have been so desperately hurried.

Seeing me, one of the Navajos left his wagon and came my way. The night before, he explained, a stranger had ridden into camp and had gone to sleep beneath a cedar tree. This morning he was dead. They all were hurrying away from the place lest the stranger's evil spirit should enter their bodies or those of their livestock, or even the frames of their wagons. The

Navajo asked me if I would bury the stranger and shoot his horse over his grave.

There was no doctor nearby. Making quite certain the man was dead, I buried him and, as the Navajo had requested, shot his horse over the grave. The horse was to provide a mount for the departed to ride in the happy hunting grounds.

On another occasion, I was asked to bury a Navajo who had died in his hogan. According to instructions, I buried him inside, with his head facing the rising sun. I then nailed the door tight and broke a hole in the north wall as a warning to all Navajos that it was an evil hogan.

When I came out of the hogan, my grim duty done, the dead man's old Buick roadster was in flames. Perhaps he was intended to have his familiar form of transportation in the afterworld. Or perhaps, as something closely connected with its owner, it was feared the automobile, too, might be infected with the death spirits.

This primitive fear of a dead body often causes much suffering, both mental and physical. I remember one fine young Navajo boy who had been away at school for eight years. He returned in the last stages of tuberculosis. His family was taking him home in a wagon, across the reservation to their isolated hogan. On the way, it became evident that he was dying and, terrified, they left him by the roadside and quickly drove off. A white man found the boy's body several days later and buried him.

Nor do the Navajos look upon the cause and cure of disease in the same way as the white man. They believe that the cause of disease is supernatural, and that its cure must be brought about by supernatural means—magic. The white man believes that the cause of disease is natural, and that a cure must be brought about by natural means—science.

The Navajo believes that disease is caused by failure to live up to the Navajo religion or way of life. If a Navajo mother-in-law looks upon her son-in-law, even accidentally, she has broken a taboo; she has left breaches in her armor through which an evil spirit may enter and attack her lungs, her kidneys, or any part of her anatomy.

Overindulgence in anything also may permit an evil spirit to enter the body and bring about disorder. A Navajo must not be too greedy, too ambitious; he must not covet too much of anything.

If a Navajo woman weaves too many rugs, or if she has woven one that is perfect, she has committed a sin; she

has overstepped the limits of moderation, has weakened herself spiritually and allowed an evil spirit to enter her body, causing sickness. The Navajo must be moderate in all things.

If a Navajo is getting too many sheep, too much turquoise, or if he is too lazy and not getting his rightful amount, then he is liable to be taken over by an evil spirit and some organ of his body, even his mind, may become disordered.

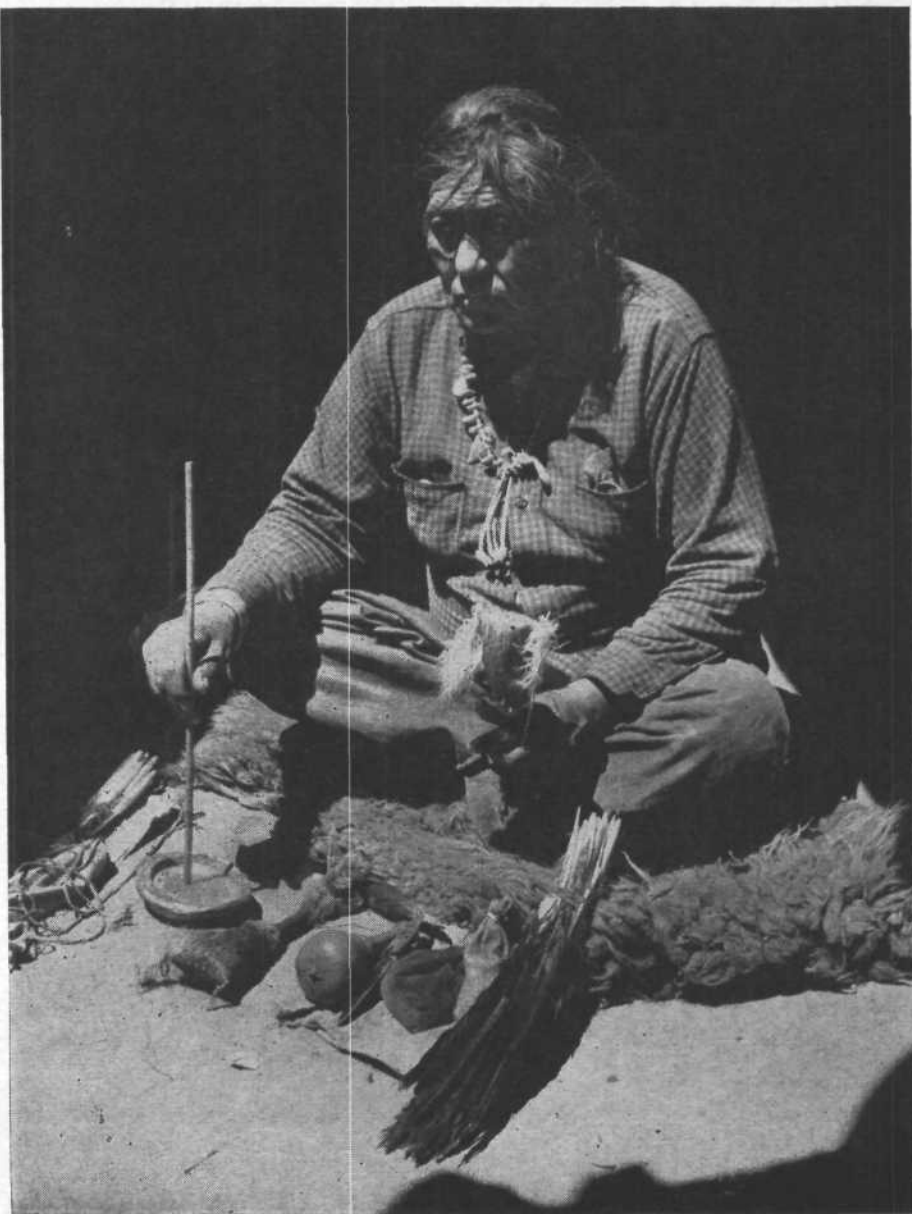
When a medicine man diagnoses a case of illness, he pays no attention to the patient's anatomy; instead, he tries to discover just what religious taboo has been broken. Having found what he thinks is the cause, he applies one of the many rituals which a good chanter must memorize. A sing will be held, a sand painting will be made, rattles will be shaken, drums beaten,

herbs administered and chants sung. If a patient fails to improve, a different ritual will be tried.

The only way for a Navajo to get well is to be prayed over; that is, to have a medicine man sing over him and drive out the evil spirit. The Navajo believes a sing can also fortify him against disease, just as vaccination can fortify a white man against smallpox.

Slowly, as they overcome their fear of the white man's hospitals and medicine and as more of their children learn about the white man's ways and his beliefs, the Navajos are overcoming their inordinate dread of graves and the dead and are revising their ancient methods of diagnosing and treating disease. But deep-rooted beliefs change slowly, and in the more isolated regions of their reservation, the Navajos still cling to the faith of their fathers.

After the Navajo medicine man has decided just what religious taboo was broken to cause illness, he prescribes treatment—a chant, a sing, a sand-painting, a sacred charm or potion.



CRISIS IN TAOS . . .

By GREGORY K. HAWK

The year was 1861. The moment had come when Taos, New Mexico must decide whether it was to lead its sleepy existence beneath the Stars and Bars or whether Old Glory was to remain flying over the town.

Ranged about the base of the flagpole in the center of the plaza were a handful of Anglos and Spanish-Americans loyal to the Union. Ringing them, standing in the shade of the plaza's cottonwoods, were knots of Anglo settlers, Confederate partisans; once neighbors and fellow-settlers in Taos Valley, now bitter enemies. Other scores of the settlers of Southern sympathy were in the saloons fronting the plaza, drinking noisy toasts to the cause of the Confederacy. As soon as the "Taos lightning" took effect a bloody battle was likely.

How the news of the firing on Fort Sumter reached Taos is now forgotten. Perhaps it came by courier across the plains from Fort Leavenworth to Taos by way of Fort Union. Or perhaps it was carried by a wagon train freighting goods to the New Mexican towns. The effect of the news, however it was brought, was to split the peaceful farming town into two armed camps. Only a man of outstanding leadership and character could keep the factions from a bloody clash.

Kit Carson, famous western scout and later brevet general in the Federal army, was that man. Previously, he had refused to take part, much less lead the Confederates in seizing the Taos district. Now, told that the Southerners were going on without him in their design and were gathering in the plaza in overwhelming numbers, he left the neutral position of his home.

When Carson walked into the plaza, he headed directly for the flagpole. He was unarmed—probably the only unarmed man in the whole gathering. Fearlessly and calmly, he marched with his small-gaited steps through the crowd of Southerners, nodding here and there to friends and acquaintances. Though by now everyone in town knew where Carson's sympathies lay—no middle course was possible in those emotional days. One was either pro-Confederacy or pro-Union. So great was the respect for Carson that the knots of enthusiastic partisans fell silent at his approach and parted to give him passage.

At the flagpole Carson looked over the lashings of the flag's halyard. He kept his back to the Confederate partisans while he made sure that Old Glory was at the peak. Word of his arrival in the plaza flashed through the saloons. Scores of Southerners downed their last toast to the Confederacy, to General Beauregard, to the Palmetto State, and poured into the street facing the square.

Carson turned from the flagpole to face the enlarged crowd. For a long minute he looked at the now-silent, attentive faces, at the metallic gleam of rifle barrels and "hogslegs" hung low. A hush hovered over the plaza.

Slowly he began to speak in his mild-voiced drawl, but under his gentle tone rang the iron clang of command:

"Boys, I know you and you know me. I'm for the Union myself and you are against it. Don Fernando de Taos has been Union since '47 and it will stay Union. And that flag stays up! Now I'm going home and I suggest that you do the same."

The crowd of Confederate partisans parted and melted away as Carson slowly walked alone back to his home not far from the plaza.

And the Flag stayed up.

Hard Rock Shorty of Death Valley



"Frawgs?" asked Hard Rock Shorty. "Why sure! The best and biggest frawg legs in the world usta be raised right here in Death Valley. Not only that, but they wuz raised right here in Inferno at that spring up back o' the store.

"Pisgah Bill wuz the frawg raiser. He read a book about it an' since it sounded like there wuzn't nothin' to do but lug money down to the bank, Pisgah sent out fer some young frawgs. Well, yu know, that pond around the spring suited 'em fine, and with lots o' warm weather to make 'em croak, an' lots o' bugs to make 'em grow, them frawgs got fatter 'n fatter. They done pretty near as good as it said in the book.

"Looked like Pisgah had a gold mine in frawgs. But about that time ol' Hank Higgins who'd run this store ever since Borax Smith grub-staked him, decided to retire. That city slicker who bought the place decided to make a dude ranch here and got busy right away puttin' up cabins.

Come the first o' October, the dudes began flockin' in to soak up some o' this famous Death Valley sunshine.

The second morning all the guests came around as a committee and served notice they wuz all movin' out if somethin' wuzn't done to keep them blankety-blank frawgs from singin' all night. Couldn't stand the noise, they said. An' since the new owner also had the rights to the spring, he told Pisgah to git them frawgs out-a there.

"Only place Bill had to take 'em was up to that alum spring in Eight Ball crick. Twenty-four hours after Bill'd put 'em in that alum water they'd all shriveled up like they hadn't had a meal fer six months. There wuz nothin' in the book about that—so Bill threw the book away an' went back to prospectin'."

LIFE ON THE DESERT

By SEWARD WHITE

Hungry, broke, on rag-bound feet Ebner searched for his lost native copper field. When he stumbled into Seward White's prospecting camp in the Chocolate Mountains of California, White offered to join the quest—and here is the story of their unrewarded trek across the Desert.

IN NOVEMBER of 1933, a man named Pierce from Indio and I were doing some prospecting in California's Chocolate Mountains. One Sunday evening a stranger walked into our camp at Pegleg Well. He said his name was Ebner and that he had come on foot from Niland that day.

We invited the stranger to share our food and fire. After dinner, he told us the story behind his long hike. He said he was looking for a deposit of native copper.

In 1914, Ebner and a companion had crossed the desert from Picacho, driving packed burros. It was winter, and snow was falling. Somewhere before they dropped down into Mammoth Wash leading to the Salton Sea, they came to a place which was littered with pieces of heavy metal.

The weather was so bad that the two men feared stopping too long to explore the site. But they gathered a few samples of the ore and pushed on, confident they could find the place again. The metal proved to be native copper.

Ebner was not able to return to his find until 1920—and then he remained only long enough to estimate that several truckloads of the copper could be gathered easily from the surface deposits.

The years between 1920 and 1933 he worked as a lumberjack in the northwest. In 1933 he was snow blinded while working at Crater Lake in Oregon. Down on his luck and flat broke, he remembered the copper near Salton Sea and traveled south with the hope of relocating the site and getting someone to stake him to enough money to remove the surface values.

Ebner's story intrigued me, and I asked him to let me join the search. He agreed, and the next morning we started out together. Since he thought we were within 10 miles of the copper and would be out overnight at most, I carried only a small pack that contained a blanket, two canteens, a suit of long underwear and a little food. A gold pan, compass and knife completed my equipment. Ebner carried a piece of canvas in a gunny sack, half a loaf of bread and a few strips of bacon. The remainder of his bundle he left at our camp. He wore rags wrapped on his feet, having no socks.

We went up through the low hills around Pegleg Well and out on the flat varnished rocks that cover the long slope eastward 50 or 60 miles to the

Colorado River. The hard surface allowed fast hiking which did not tire, and we moved quickly in a strong cold wind. Innumerable dry washes leading out of the Chocolates deterred us somewhat as we headed south with the mountains on our right.

Before long Ebner picked out a towering spur of the Chocolates where, he said, on his previous trip he had seen wild sheep and near it a big wash running crosswise to others. He was sure he recognized the landmark.

About 11 o'clock we reached the spur. Ebner said our goal was the next sharp pinnacle jutting out into the flats another 10 miles away. We hiked a little farther before stopping for lunch and then continued on, reaching the pinnacle about 3:30 p.m.

Once more Ebner shook his head. Near the pinnacle I found a tank of water in the rock with mountain sheep tracks around it. From the tank we took a direct route toward the third big pinnacle.

About 5 o'clock we came to a miner's deserted ramada and a prospect hole nearby. A road of sorts led to the place. There was a trickling stream with cattails and grass growing in it. Two burros with bells fastened around their necks grazed not far away.

We pushed on until dusk, then stopped in a wash for the night. I threw off my pack and canteens and sprinted to the next point, from it to look down into what I hoped would prove to be Ebner's promised land. The quarter-mile run through little washes and up gentle hills actually rested my legs and the cramped muscles of my shoulders and arms which the pack had confined all day. I came back after dark, guided by a big fire Ebner had blazing.

We must have traveled more than 20 miles that day, the hardest, steadiest hike I have ever taken outside of mountain peak ascents. Ebner talked very little. He tried vainly to recognize landmarks. "It must be the next point," he kept repeating.

Several times during the day I had seen signs of mountain sheep, and for a while I hoped to scare up a band of the bighorns in some of the washes. There was more water in that dry time of the year than I had supposed but one had to know where to look for it in certain rock formations and natural tanks. The country was highly mineralized. We crossed dozens of

quartz veins and stringers, and we found copper's green stain several places.

Ebner stretched out by the fire. He had only his piece of canvas for bedding. His hat was pulled down over his eyes in a typical hobo manner which reminded me of my own days on the road.

I put on my long underwear and all my clothes and wrapped up in my blanket. As I lay there by the fire I knew we would not get back to Pegleg for another day and a half and I wondered how hungry we would be by then. I wondered too, what the next day would bring.

Despite the cold I slept well that night. We were up before the sun. I took off my "pajamas" in spite of the chill and lengthened the straps of my pack. We ate a very meager breakfast of bread, honey and dried fruit.

I left everything but my small canteen. The water in my gallon canteen had a cork with varnish on it and the water was tainted.

We started off again, our pace quickened by our lighter loads. We went up through the gap and out into country thick with cholla. Ebner soon decided that the country "didn't look right." Nevertheless we went on about five miles through the cholla and along the Glamis road before we turned back. At the farthest spot Ebner pointed to the end of the Chocolates and said, "that must be the place." This was a good 15 miles beyond the first "right place." However there was a north-south wash there as he had described.

We drank some water and began to feel sick. Ebner seemed to be suffering more. By the time we made it back to our packs he was walking slowly and I was feeling weak. I gave Ebner some more fruit and nuts and finished the last bite of bread. We drank no more water.

Our packs again on our backs, we headed slowly back to the miner's camp which we had discovered the day before. It took us an hour and a half to make the two-and-a-half-mile trek.

No one was in sight. We got good water at the spring, entered the ramada and helped ourselves to coffee, oatmeal and crackers. We had Karo for dessert. Ebner then baked some hot bread and I took two big potatoes and some salt. Before we left I wrote a note explaining our raid and left a 50-cent piece which, in those depres-

sion days of 1933, would just about have paid for the food we took.

The good water and the food revived us. I took the lead. By forsaking the hills for the flats below, we found the going easier and faster. Ebner's feet were in bad shape. He had a nasty blister on one heel and several on the soles of his feet; but his only complaint was that he still felt sick from the bad water.

Hiking along, Ebner told me that once he had traveled 65 miles on foot from 5 o'clock in the morning until 9 that night. He had a long, swinging stride for a man only about five feet six inches tall. He was in his fifties, strong and tough. I could well believe that in his younger days he had been a man of more than usual strength and endurance. Worn now with years and a hard life, he still was a match for many an outdoorsman.

The most imposing of the landmarks we left behind were two huge pinnacles or buttes of red rock. They were pyramidal in shape and very much alike in every way but size. The northeastern one was about one-third as large as its neighbor which must have been seven or eight hundred feet high. The strata were tilted on end and the walls hung absolutely perpendicular. Enormous masses of scree buttressed the pinnacles. There seemed to be no plant life at all.

By dark we were back within 10 or 12 miles of Pegleg. We camped once more in a big wash and had plenty of time to gather wood. We got several large ironwood snags which were so big and heavy that it took our combined strength to drag them into camp.

We lighted a fire and I fried my last bits of ham while Ebner baked the potatoes. Before going to bed we put on a second big chunk of ironwood, assuring ourselves of fire for half the night at least.

When I awoke Ebner was wrapping his feet. We finished our potatoes and started off in a hurry to reach Pegleg. Ebner's blisters obviously were causing him great pain, but we pushed on. We reached camp at 10 o'clock.

Ebner stayed with Pierce and me for the next two days which we spent prospecting and discussing the trip, trying to plot our course on a map. Ebner was still firm in his determination to find the copper again.

"I never went to it from this direction," he explained. "The way we went things look different." He said he planned to work in the tomato harvest at Niland, get a little stake and go back again, the next time from the direction of Picacho. Pierce and I took

him to Niland, where we said goodbye. I never saw Ebner again.

Was his story a hoax? I believe not for the following reasons:

First, there is copper in the Chocolates. Pegleg Well itself is an old mining shaft with copper ore on the ground around it.

Secondly, Ebner had nothing to sell. Unlike the usual prospector looking for a stake he asked for nothing.

Finally, for what other reason would he hike from Niland to Pegleg and on to the Glamis road and beyond—without food, bedding, shoes or adequate clothing?

Should someone strike a native copper deposit on the east side of the Chocolates, I hope this tale might be remembered and the mine named, in honor of a weary, sore-footed wanderer, "The Lost Ebner Mine."

TRUE OR FALSE

If the law of averages is working, you should get 10 of the following True or False questions correct even if you know nothing about the Great American Desert. Probably you will do much better than that for readers of *Desert Magazine* have the opportunity to learn much about the arid region of southwestern United States. A score of 14 to 16 is good, 17 or 18 is excellent. Over 18 is super. The answers are on page 40.

- 1—The Lost Pegleg gold mine is generally believed to be in the Colorado Desert of Southern California. True..... False.....
- 2—First white man known to have run a boat through the rapids of Grand Canyon was Major John Wesley Powell. True..... False.....
- 3—Yucca baccata is the name of a Spanish dance. True..... False.....
- 4—The roadrunner or chaparral cock will fly long distances if in danger. True..... False.....
- 5—The Gila Monster has four legs. True..... False.....
- 6—First Americans to explore the Southwest desert were gold-seekers. True..... False.....
- 7—Kachina dolls are made by the Yuma Indians. True..... False.....
- 8—Lowest elevation in the United States is at the foot of Bright Angel Trail in Grand Canyon. True..... False.....
- 9—Crystals found in geodes generally are quartz. True..... False.....
- 10—Hovenweep is the name of a National Monument in Arizona. True..... False.....
- 11—Water in the Great Salt Lake has a higher salt content than ocean water. True..... False.....
- 12—The Vermillion Cliffs may be seen from Navajo Bridge which crosses the Colorado River in northern Arizona. True..... False.....
- 13—Prehistoric Indians were mining turquoise in New Mexico and Nevada before the white men came to the Southwest. True..... False.....
- 14—Navajo Indian women still dye all their hand-woven rugs and blankets with vegetable dyes derived from the native shrubbery. True..... False.....
- 15—Desert Center, California, is in the Chuckawalla Valley. True..... False.....
- 16—The capital of New Mexico is Santa Fe. True..... False.....
- 17—The Gila River is a tributary of the Colorado River. True..... False.....
- 18—The Taos Indians of New Mexico are nomads like the Navajo. True..... False.....
- 19—The Valley of Fire in Nevada is a National Monument. True..... False.....
- 20—Flagstaff, Arizona, is on Highway 60. True..... False.....

LETTERS

Meteor Near Mt. Signal . . .

El Centro, California

Desert:

In "Just Between You and Me" in the September issue of *Desert Magazine*, Editor Randall Henderson mentions he's been looking for a meteorite for 40 years.

I was born on an El Centro ranch in 1911. When I was three or four years old, I remember seeing a meteorite streak across the sky, and feeling the terrific earth jolt which followed.

I recently talked to Ed Stevens who also lived here then and he, too, remembers the meteorite. About 1935 I read in the local newspaper that a meteorite had been found somewhere between Mt. Signal and the mountains near the Mexican border. The meteorite was taken to some museum or institute for study.

GRACE HUFFMAN

A Rattlesnake's Young . . .

Elsinore, California

Desert:

In a letter to *Desert Magazine*, published in the September issue, Leo Turner speaks of the "old wives' tale" of rattlesnakes swallowing their young.

I am sure in my own mind that rattlesnakes do swallow their young.

About 30 years ago, while camped with my family on a ranch known as Squints or "The Last Ranch," about three miles north of Lake Arrowhead, California, we noticed a rattlesnake disappearing in his hole near our camp.

We reached a stick down into the hole and could hear the snake rattle, although it would not come out. We aimed a shotgun down the hole and fired, then put the stick back and drew out a large rattler twisted around it. It was nearly dead, its body almost severed by the shot.

As we held the snake up, ten baby rattlers—each about four inches long, as I recall—fell out of it. They were mature, alive and full of pep.

VERNON F. JAMES

Agates Worth the Price . . .

Winterhaven, California

Desert:

In the August issue of *Desert*, my good friend Leland Quick, in his department, "Amateur Gem Cutter," says he too has become irked by the unreasonable prices asked by some dealers for rough gem material.

However, we feel that Mr. Quick didn't treat the agates justly. For some of the world's most beautiful gems—

the results of Nature's accidental accomplishment of perfection of form and color—are agate.

There are many more good diamonds on the market today than there are good agates. For an agate of supreme quality seldom appears on the market counter. If and when these super-fine specimens are offered for sale, they usually command a price far in excess of \$72.00 per pound.

At the recent gem and mineral show in Balboa Park, San Diego, a group of five rockhounds picked five of the most outstanding gems exhibited there. Two of the five were fire agates from Coon Hollow, exhibited by an anonymous Coachella Valley lapidary and modestly labeled, "fire chalcedony."

ED ROCHESTER

200 Years Too Late . . .

Victoria, Texas

Desert:

In "Just Between You and Me" in the September issue of *Desert Magazine*, Randall Henderson wrote: "Father Garces was the first missionary to pay them (the Hopis) a visit—in 1776."

That's just about 200 years too late to be a "first."

Padre Juan de Padilla was with Tovar's expedition to the Hopis in 1540. In Perea's *Segunda Relacion*, he tells of establishing the mission at Awatovi on August 20, 1629:

"Traveling by their daily stages, they (Fathers Francisco de Porras and Andres Gutierrez and Brother Cristobal de la Concepcion) arrived at the province of Moqui on the day of the glorious St. Bernard (which title that pueblo now has)."

Following the establishment at Awatovi, missions were built at Oraibi (San Miguel), San Bartolomé de Shongopovi (the ruins are still visible), San Bernardino de Walpi and possibly at Mishongnovi. All these missions were destroyed in the Pueblo Revolt of 1680, and four of the Franciscan missionaries were killed.

An unsuccessful attempt was made to re-establish the mission at Awatovi in 1700.

Franciscans from the Rio Grande Valley and from Zuni visited the Hopi country intermittently during the 18th century. Padres Dominiques and Escalante were there on their return trip from Utah in 1776. Escalante was there the year before Garces. Garces was at Oraibi on July 4, 1776.

REV. VICTOR R. STONER

Thanks, Father Stoner, for correcting my bad history. You are right, and I should have known better.—R.H.

Where Dinosaurs Trod . . .

Phoenix, Arizona

Desert:

"I think I would get a bigger thrill in finding a chip off the moon or one of the distant stars than I would in finding a gold mine," Editor Randall Henderson, speaking of his life-long search for a meteorite, wrote in "Just Between You and Me" in September's *Desert*.

My whole being tingles still from a recent thrilling experience as exciting certainly as finding a meteorite.

My wife and I were staying with Hopi friends during the Snake dances in August. In the course of our conversation, someone mentioned dinosaur tracks, and our Indian friend extended an unusual invitation.

"There are some dinosaur tracks over in my sheep pasture," he said. "Would you like to see them?"

Thinking "over in my sheep pasture" meant just a few minutes away, I accepted eagerly. "Certainly, Albert. I would be pleased to see them. When shall we go?"

"Right now, my brother," he answered, and we departed at once in his pick-up truck.

The "road" we followed consisted of two faint twisting lines snaking across the desert—rough, bumpy, sandy. Clump grass, sagebrush and rabbit bush almost hid the faint trail made three years before on Albert's last visit.

Approaching a rock mound, we veered off the faint tire tracks and bumped out across rough raw desert toward a long low rock ridge. Albert drove in behind the ridge and stopped. On foot, he led the way up a wide shallow trough between the ridge and a low outcrop of rock.

About 20 feet ahead of me, he stopped. Already I could see the huge footprints washed clean by the rains the Snake dance had brought.

I inspected the tracks carefully. There had evidently been quite a group of the large prehistoric beasts. They had traveled the trough, then turned left out of it, crossed the trough eastward and recrossed it to the west. A mother dinosaur was in the herd; a distinct set of smaller tracks followed at her side.

Three-toed sloths, one of them a baby, also had left prints in the once-soft red sandstone, as well as wading birds or fowl and other unidentifiable smaller animals.

And, amid the various animal tracks, we distinctly saw three human footprints! They were clearly recognizable, two left footprints and one right.

That's the thrill I'll never forget.

R. W. APPLGATE



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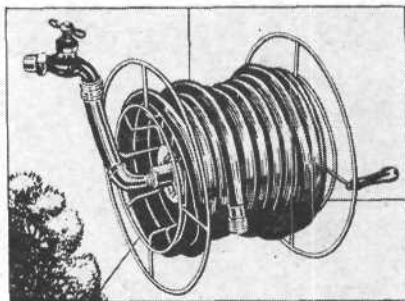
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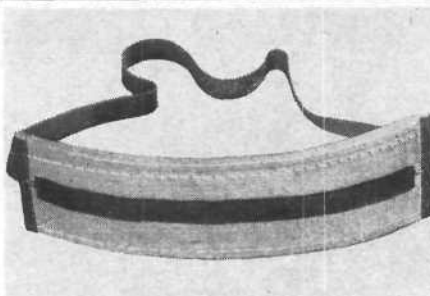
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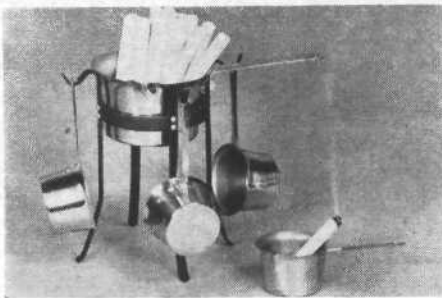
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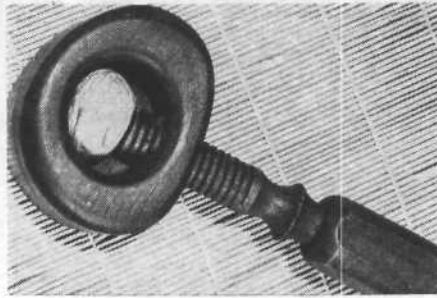
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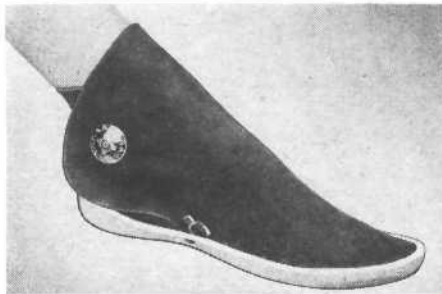
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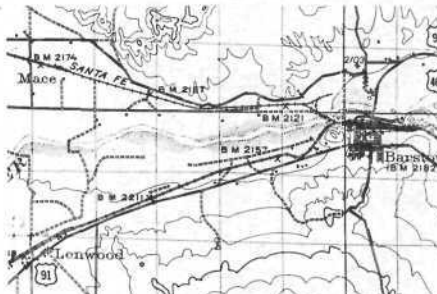
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FRESH WATER HOODS, SPINNING REELS, CASH-WASH QUALITY, FIBER GLASS, 13¢ up, 12¢50, 11¢95, 10¢95, 9¢95, 8¢95, 7¢95, 6¢95, 5¢95, 4¢95, 3¢95, 2¢95, 1¢95, 10¢, 20¢, 30¢, 40¢, 50¢, 60¢, 70¢, 80¢, 90¢, 1.00, 1.50, 2.00, 2.50, 3.00, 3.50, 4.00, 4.50, 5.00, 5.50, 6.00, 6.50, 7.00, 7.50, 8.00, 8.50, 9.00, 9.50, 10.00, 10.50, 11.00, 11.50, 12.00, 12.50, 13.00, 13.50, 14.00, 14.50, 15.00, 15.50, 16.00, 16.50, 17.00, 17.50, 18.00, 18.50, 19.00, 19.50, 20.00, 20.50, 21.00, 21.50, 22.00, 22.50, 23.00, 23.50, 24.00, 24.50, 25.00, 25.50, 26.00, 26.50, 27.00, 27.50, 28.00, 28.50, 29.00, 29.50, 30.00, 30.50, 31.00, 31.50, 32.00, 32.50, 33.00, 33.50, 34.00, 34.50, 35.00, 35.50, 36.00, 36.50, 37.00, 37.50, 38.00, 38.50, 39.00, 39.50, 40.00, 40.50, 41.00, 41.50, 42.00, 42.50, 43.00, 43.50, 44.00, 44.50, 45.00, 45.50, 46.00, 46.50, 47.00, 47.50, 48.00, 48.50, 49.00, 49.50, 50.00, 50.50, 51.00, 51.50, 52.00, 52.50, 53.00, 53.50, 54.00, 54.50, 55.00, 55.50, 56.00, 56.50, 57.00, 57.50, 58.00, 58.50, 59.00, 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MINES and MINING

Shiprock, New Mexico . . .

Ground was scheduled to be broken in September for a \$3,000,000 uranium processing plant at Shiprock, with actual milling of ore slated to begin in 1954. The Navajo tribe has leased the ground for the plant and for an accompanying housing project to be built nearby. Kerr-McGee Company of Oklahoma has signed a contract to have its subsidiary, Navajo Uranium Corporation, construct and operate the new facility. A large supply of ore already has been stockpiled in anticipation of the Shiprock construction.—*Mining Record*.

Reno, Nevada . . .

Nevada Ore Refining Corporation has announced a revolutionary new method for treating manganese ores. Purities reported as high as 99.4 percent have been obtained. Reversal of the usual process of recovery is said to be the secret. Instead of taking the manganese out of the ore, the process takes out the gangue material, leaving the almost pure metal. In order to obtain results, the chemical action must take place at a temperature of 140 degrees or more. The corporation has erected a 50-ton mill near Reno Hot Springs, a few miles south of Reno, to take advantage of the hot spring features of the area.—*Mining Record*.

Moab, Utah . . .

Utex Exploration Company has disclosed it is investigating the possibility of building a \$3,000,000 uranium processing mill near Moab. Charles A. Steen, discoverer of the Utex Mine, probably the richest uranium strike in the United States, said a sufficient reserve of uranium ore has been developed on the Utex property and other important discoveries in southeastern Utah to justify construction of a mill in the vicinity. Ore from Steen's Mi Vida mine is now being stockpiled at Monticello, Utah.—*Pioche Record*.

Hawthorne, Nevada . . .

Ninety tons of ore is being processed daily by Nevada Scheelite Division of Kennametal, Inc., at its Leonard mine and mill in the Regent district northeast of Hawthorne. The mill has a capacity of 150 tons, employing the ball mill method and table flotation to recover tungsten. In addition to milling activities, the company has undertaken a diamond drilling schedule and also is drifting underground to develop the ore.—*California Mining Journal*.

Carson City, Nevada . . .

Earl Whitney has leased the supposedly worked out ground of the Rio Tinto Copper Company in an attempt to revive its activity. Whitney, former geologist for Rio Tinto, and an associate plan to run a cross cut from the 200-foot level into virgin territory. The property, the old Frank Hunt mine, was discovered in 1936 and subsequently produced approximately \$20,000,000 in copper ore.—*Humboldt Star*.

Winnemucca, Nevada . . .

Resumption of the search for uranium in the Kings River area of Humboldt County, about 75 miles northwest of Winnemucca, has been started by Uranium Metals, Inc., a Denver concern. The site of the development is a number of claims established several months ago by Jess Nachiando, Irvin Sweeney and James Murdock. Uranium Metals has taken a lease on the claims from the locators and plans intensive development in expectation of uncovering uranium in commercial quantities. Roy F. Roseberry of Elko will be superintendent in charge of operations.—*Battle Mountain Scout*.

Fallon, Nevada . . .

First shipments of a 1,000,000-ton order of iron ore for Japan have left Silver Springs, new town on the U.S. 50-Alternate 95 highway near Fallon. The highgrade hematite is from a deposit southwest of Dayton and is being shipped by a California trio organized as the Continental Nevada Iron Mining Company and headed by Ed Cregan of Los Angeles. Contract calls for open-pit mining, trucking and loading at Silver Springs at the rate of ten carloads a day.—*Territorial Enterprise*.

Tucson, Arizona . . .

The Pima Mining Company, headed by Herbert Hoover, Jr., has discovered a highgrade copper ore body 15 air miles from Tucson. Mining experts say the discovery, made four years ago, is one of the few, if not the only, virgin copper ore body found in Arizona in 15 years. The company's claims cover about 275 acres in the San Xavier and Mineral Hill area south of the San Xavier Indian Reservation. Approximately 26,000 tons of ore already have been shipped to the American Smelting and Refining Company's El Paso, Texas, smelter. It was reported to have tested from one to five and six percent copper per ton of ore.—*Phoenix Gazette*.

Lovelock, Nevada . . .

The White Cloud group of five patented claims in Seven Troughs mining district has been purchased by the Golden Horseshoe Mining Company, and development work has begun. Earl Tucker, caretaker for the Wood River Minerals Company, describes the Golden Horseshoe ground as "good a property as there is out here." He formerly leased the mine and shipped from shallow workings profitably and says there is still gold ore in the bottom of the 15- to 30-foot shafts. There are three distinct veins on the ground, all of which hold promise for the new owners.—*California Mining Journal*.

Patagonia, Arizona . . .

George W. Snyder, Jr., president of United Minerals Corporation, has announced his firm has discovered what appears to be a rich body of copper ore near Patagonia, in the Sunnyside area about 100 miles south of Tucson. Samples have assayed as high as 46.3 percent copper with value running up to \$200 per ton. Lead, gold and silver traces also have been found.—*Battle Mountain Scout*.

Winnemucca, Nevada . . .

Tungsten test mill runs have started at the Big W plant of Winnemucca Mountain Mines Company. High test ore is producing about 175 pounds of graded tungsten a day from ten-ton ore shipments trucked in from Pershing County. The riffing process has quadrupled its production since the start of milling operations, and company officials estimate production will average 200 pounds daily.—*Territorial Enterprise*.

Eureka, Nevada . . .

Eureka Corporation is using an oil well drill in exploring the Ruby Hill mining properties near here. Attempts at coring a deep (2350 feet) mineralized zone encountered in small-core diamond drilling were unsuccessful, and underground workings met quantities of water too large to be handled by existing pumping facilities. The oil well drill with a large-diameter core has been successful, with ore recovery now averaging 95 percent in a 15- to 40-foot orebody assaying \$75 per ton.—*Mining Record*.

Tonopah, Nevada . . .

The old mining camp of Candelaria, which dates back to Civil War days, is becoming active again. Argenta Mining Company, one of the oldest in the district, has six men employed in and above the old workings, located at the mouth of Pickhandle Gulch. Chief values are gold and silver.—*Humboldt Star*.

Here and There on the Desert

ARIZONA

Chastises Pot Diggers . . .

FLAGSTAFF—"None of us would wantonly tear pages out of American history books to prevent future generations from learning our country's story. But in spite of laws, cultural remains of the Southwest are suffering from a continuous campaign by untrained diggers." Jesse L. Nusbaum, chief archeologist for the U. S. Park Service, deplored the destruction of archeological sites by "untrained amateur diggers" when he spoke to a group of the nation's top archeologists at the 26th annual Tecos Conference held at the Museum of Northern Arizona. Nusbaum said amateur archeologists destroy ruins and, having failed to make necessary records, try to sell the then-worthless collections to museums. —*Phoenix Gazette.*

New Land for Veterans . . .

YUMA—War veterans will have a priority in the purchase of 28 parcels of partly improved government land in the Wellton-Mohawk division of the Gila project in November. The farms, averaging 142 acres each, will be distributed under a drawing to be held by the Reclamation Bureau. In addition to service in the army, veterans must have had some qualifications as to character, industry, farm experience, health and capital. Applications and complete information may be obtained from Bureau of Reclamation, Bin 151, Yuma, Arizona. Applications must be filed by November 25 to be eligible for the drawing.

Sam Ahkeah Wins Award . . .

WINDOW ROCK — Sam Ahkeah, chairman of the Navajo Tribal Council, has been named 1953 winner of the Indian Achievement Award. The award is made each year by the Indian Council Fire to an outstanding Indian. Selection of the winner is made by a board of judges chosen for their experience and knowledge of American Indians. Among them this year was Thomas Segundo, Papago leader, last year's winner.

Urges Repeal of Liquor Ban . . .

WINDOW ROCK — With New Mexico already having repealed Indian prohibition, Chairman Sam Ahkeah of the Navajo Tribal Council urged Arizona to follow suit in its election next year. "Repeal will end the million-dollar bootlegging business," he declared, "and a discriminatory law which is deeply resented." — *Phoenix Gazette.*

Oldest River Canyoneer . . .

PIERCE'S FERRY—When he disembarked at Pierce's Ferry, Willis A. Rowe of San Fernando, California, had the distinction of being the oldest man to have traveled the Colorado River the 280 miles from Lee's Ferry. The 76-year-old man's journey fulfilled an ambition dating back to 1896 when, as a boy, he journeyed by horseback to the bottom of the Grand Canyon. A former president of the Los Angeles Adventurers Club, Rowe carried the club's banner on the Colorado River trip. —*Los Angeles Times.*

Hope for Papago Park . . .

PHOENIX—Hoping to reopen Papago Park to the public, the Maricopa Board of Supervisors asked the county parks commission to submit plans for acquiring and operating the recreational area east of Phoenix. The State Game and Fish Department fenced in popular sections of the 1700-acre park a few years ago, claiming it had no money for upkeep. It has been suggested that the state might turn the land over to the county on a special permit, a 99-year lease or an outright grant. Originally consisting of 2000 acres set aside for a national monument, the area was turned over to the state in 1930. —*Phoenix Gazette.*

CLARKDALE—John W. Stratton has been appointed superintendent of Tuzigoot National Monument, to replace James W. Brewer, now superintendent of Wupatki National Monument. Stratton formerly was assistant at the Southwestern Monuments Association headquarters at Globe. —*Phoenix Gazette.*



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Study Early Arizona Life . . .

TUCSON—A picture of life in Arizona 1000 years ago is being pieced together by University of Arizona scientists who have completed another summer's work at Point of Pines in the White Mountains. At one time Point of Pines was the site of a walled city housing more than 5000 persons. It included an apartment house of more than 500 rooms. Much of last summer's work was done in a part of the city destroyed by fire sometime between 1275 and 1300 A.D. Twelve pit houses were dug out and several ceremonial kivas uncovered. This was the eighth summer of excavations, led by Dr. Emil Haury, head of the department of anthropology at the University of Arizona. —*Phoenix Gazette.*

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NATURE PHOTOGRAPHERS INVITED TO SHOW WORK

Entries are being solicited by the Nature Camera Club of Chicago for its Ninth International Nature Photography Exhibition, to be held in February at the Chicago Natural History Museum. There are divisions for both prints and slides with classifications for geology, botany, landscapes and animal life in each. Deadline for entries is January 16, 1954. Entry forms may be obtained from Blanche Kolarik, FPSA, Box 52, Apache Junction, Arizona.

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Shine's Merry Christmas . . .

TUBA CITY — As in past years, Indians on the Navajo reservation in Arizona and New Mexico are looking forward to Shine Smith's annual Christmas party. This year's party will be held Christmas day at the "Copper Mine" in Arizona, near The Gap 90 miles north of Tuba City. Religious services and the singing of Christmas carols will be followed by lunch and the distribution of gifts collected by Rev. Smith. Contributions — clothing or toys in good condition — may be mailed to Rev. Shine Smith at Tuba City.

WASHINGTON — Everett W. Bright, superintendent of Canyon de Chelly National Monument in Arizona, will take over similar duties at Craters of the Moon National Monument, Idaho. A successor has not yet been named for the Canyon de Chelly post. —*Phoenix Gazette.*

CALIFORNIA

Pilot Knob Approved . . .

EL CENTRO—Imperial Irrigation District directors have approved the calling of a \$10,000,000 bond election to finance the construction of a 33,000-kilowatt capacity hydro-electric plant at Pilot Knob. Consulting engineers called the Pilot Knob plant "by far the most economical means available for producing additional energy to meet the service load of the next few years." Need for additional electric power capacity is evidenced by the district's load growth, which increased from 42,800 kilowatts in 1947 to 77,500 in July, 1953. It is estimated that increasing demands will bring the peak load to 97,800 kilowatts by 1956 and 117,000 by 1958. Gross revenues of the district's electric system, after deduction of the costs of maintenance and operation, should be sufficient to pay interest on all bonds outstanding and the additional bond issue proposed. —*Imperial Valley Weekly.*

Discourage Desert Give-aways . . .

PALM SPRINGS — Riverside County supervisors have adopted an ordinance intended to stop radio programs from giving away useless desert land as prizes. The quiz winner, they said, often finds that his prize acre is a dozen miles from nowhere and has neither water nor road access. The ordinance will require the donor of the land to file a map of subdivision and provide for a road to the ground. The supervisors said they figured the additional expense will discourage the give-away programs. — *Los Angeles Times.*

To Improve Hikers' Hut . . .

LONE PINE — The Smithsonian Institution cabin atop Mt. Whitney, the nation's highest peak, will be improved under a project which was scheduled to start early in September. The hut was built in 1909. Open to the public, it is used almost entirely as a shelter and registration station for persons climbing the mountain. The repair job will consist of replacing doors, windows, masonry and weather-proofing the building. —*Inyo Independent.*

Claim Roads Create Problem . . .

LONE PINE — Promiscuous filing of mining claims without proper development is creating a serious problem, Al Nikolaus told members of Inyo Associates at a meeting in Lone Pine. "When the roads to many of the claims are completed, and the claims prove worthless, the roads remain and must be maintained by federal law," he explained. "These roads not only burden the government with their maintenance, but they open wilderness areas to truck and automobile travel and endanger wildlife." — *Inyo Independent.*

Salton Sea Quarantine . . .

MECCA — The taking of shellfish in the Salton Sea has been temporarily prohibited under a new ruling passed by the California Fish and Game Commission. The closure was prompted by the need to protect Department of Fish and Game experimental plantings of clams and oysters in the huge salt-water lake. Aside from their importance to clamdiggers and oyster-seekers, the shellfish will also serve as food for gamefish the department is trying to introduce. —*Outdoor California.*

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Sportsmen Block Park Plan . . .

BLYTHER—California's State Division of Beaches and Parks and its Department of Fish and Game are at loggerheads over the disposal of a large amount of ground — perhaps thousands of acres—along the Colorado River near here. The federal Bureau of Reclamation withdrew the lands when Hoover Dam was started. Now the bureau has no further use for them, and the state has first opportunity to obtain the areas for useful or recreational purposes. The battle between the two departments revolves around the State Park Commission policy of prohibiting hunting on any state park. With hunting area at a premium in Southern California, the acreages involved provide large expanses for dove and quail shooting, some pheasant shooting and some waterfowl hunting. Sportsmen fear this hunting ground will be lost if state parks are established.—*Date Palm*.

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Bolster Border Patrol . . .

EL CENTRO — Imperial Valley's U. S. Border Patrol contingent has been bolstered by 35 patrolmen from Texas, to help curb the increasing flow of illegal aliens. The added men bring the area's staff to 142 men. Meanwhile, in a report to his nation, Mexican President Adolfo Ruiz Cortinez said his government will attempt to halt the flow of wetbacks into the United States by diverting migrant labor to new tropical and coastal farming lands. He said his government was "deeply concerned" with the problem of Mexicans entering illegally into California, Arizona, Texas and New Mexico to work on crops. — *Yuma Daily Sun*.

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Prehistoric Californians . . .

DEATH VALLEY—Further proof that prehistoric man lived in Death Valley was announced by the anthropology department of the University of California with the finding of the remains of three igloo-shaped brush shelters. Between 20 and 30 feet in circumference, the houses were built of a framework of mesquite logs covered with arrow weed. Their age has not yet been determined. They had one entrance, the cooking was done outside. The National Park Service appointed U.S.C. to explore all of Death Valley National Monument, advise the government on the preservation of archeological findings and make recommendations about excavations.—*Inyo Register*.

Salton Sea Threatens . . .

MECCA—Salton Sea was about 15 inches higher in August than it was in July, and its slow decline despite summer heat indicates a possible rapid rise this winter, according to C. S. Hale, general manager of the Coachella Valley County Water District. The district has reduced the amount of waste water channeled into the sea by use of a settling basin as a control reservoir.—*Coachella Valley Sun*.

NEVADA

Wool Production Up . . .

AUSTIN — Nevada, ranking 18th among the nation's wool producers, in one year increased the number of sheep shorn in the state from 446,000 to 460,000 head, thus rapidly approaching the 10-year average of 503,000 sheep shorn during the period 1942-51. This year Nevada's clip produced 3,910,000 pounds of wool compared to the 1952 clip of 3,880,000 pounds and the 10-year average of 4,269,000 pounds. The fleece weight of Nevada sheep this year reached the 10-year average of 8.5 pounds per sheep but was down slightly from last year's record 8.7 pound average.—*Reese River Reveille*.

Vacation Cabin Sites . . .

BOULDER CITY — As part of a program to give greater opportunity for recreational use of reservoirs created by Davis and Hoover dams, the National Park Service opened a group of vacation cabin sites in the Lake Mojave area. Named the Katherine Vacation Cabin Site area, 39 lots were included. Lots vary in size from one half to one-and-a-half acres and will be leased for residential purposes only, under a 25-year lease for a minimum fee of \$35 per year. Closing date for applications was October 1, and the drawing and assignment of lots was to be held as soon as applicants could be processed.—*Coconino Sun*.

Liquor for Nevada Indians . . .

CARSON CITY — Nevada Indians can legally purchase liquor in bars and stores located outside reservations, according to an interpretation of a new federal law. The law allows Indians to purchase liquor in all states which have no local laws prohibiting such sales. At one time Nevada had a statute barring Indians from buying liquor, but it was repealed in 1947. Under ordinary circumstances, Indians still will be unable to buy liquor on reservations and are prohibited from taking such beverage back to the reservation. However, tribal councils may pass ordinances allowing such sales. The ordinances must be approved by the secretary of the interior and published in the federal registry before they become operative.—*Pioche Record*.

To Enter River Fight . . .

CARSON CITY—Nevada has decided to enter the fight for Colorado River water. The 1953 legislature authorized the state to intervene in the case and appropriated \$50,000 to pay legal and engineering expenses. Nevada will probably sue on its own behalf rather than on the side of either California or Arizona.—*Yuma Daily Sun*.

Power for Pahrump Valley . . .

PAHRUMP — After four years of negotiation the Rural Electrification administration at Washington has approved a loan of \$2,935,000 for the construction of a rural power system in the Pahrump Valley, according to a message from Senator Pat McCarran.—*Humboldt Star*.

First Editions Join Museum . . .

RENO—First editions of four historic Nevada newspapers were among gifts presented in September to the Nevada State Historical Society's museum and library in Reno. They are first issues of the *Esmeralda Star*, published in Aurora July 5, 1862; the *Silver Peak Post*, June 6, 1906; the *Eastern Slope* of Washoe City, December 9, 1865, and the *Reno Crescent*, July 4, 1868. The society's files of old Nevada newspapers, dating from territorial days, have been pronounced by the Library of Congress as "the finest in existence."—*Humboldt Star*.

Game Refuge Use Doubles . . .

LAS VEGAS—Due to an increase in population in the southern Nevada area, use of the Desert Game Refuge has increased more than 100 percent this past year, according to Lou Hatch, manager of the refuge. Hatch said that the Mt. Charleston annual archery hunt has become more attractive to

out-of-state archers and that about one hundred non-residents are expected to participate in the 1953 deer hunt. He also estimates that more than one-third of the 4,260,389 visitors used the refuges for fishing last year.—*Las Vegas Review-Journal*.

NEW MEXICO

Science Tackles Agua Problem . . .

ALBUQUERQUE — Science may solve New Mexico's water problems and turn populated areas of the state into moist green lands well before the turn of the century. "I am convinced that some day man will so control weather that drouths and long standing heat waves will be things of the past," said Dr. Joseph Kaplan. "This will be possible with our increasing understanding of the earth's atmosphere and with proper application of new energy sources." Dr. Kaplan said it is possible that atomic energy will be used to bring increased rainfall, but that more effective means might be discovered instead.—*New Mexican*.

Bighorn Sheep Hunt Set . . .

SANTA ROSA—"Excess rams reduce the breeding potential and should be removed for the benefit of the herd," explained the State Game Commission as it announced dates for New Mexico's first bighorn sheep hunt. The season has been set for January 15 noon to January 19, inclusive, with a bag limit of one ram with full curl of horn. This is the only season on Mexican bighorn sheep ever to be held in New Mexico. The taking of the animals was prohibited by territorial law in 1887.—*Santa Rosa News*.

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Grass Replaces Sagebrush . . .

TAOS—A few more years and a good portion of the sagebrush areas in the Taos Soil Conservation District in northern New Mexico will be greener with drouth-resistant wheat grasses. More than 16,000 acres of sagebrush lands have been cleared in the district and adjoining areas in the last five years and reseeded with intermediate, tall, crested and other wheat grasses. The seedlings are continuing to increase annually. Last year 950 cows were grazed on 220 acres of national forest land which previously had been in such poor shape that not over 100 cows could feed on it for one month.

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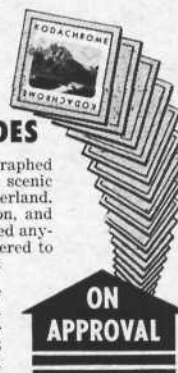
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"Dutton's Diggers" Report . . .

SANTA FE — Significant progress was reported this summer in the archeological excavation of the Pueblo Largo ruin, 25 miles south of Santa Fe. Under the direction of Dr. Bertha P. Dutton, curator of ethnology of the Museum of New Mexico, the site is explored further each summer by a group of senior Girl Scouts intending to enter the archeological field professionally. The excavation team, popularly known as "Dutton's Diggers" is selected each year from applicants throughout the country and spends two weeks of intensive study and work at the field site.—*New Mexican*.

Okay Indian Liquor . . .

ALBUQUERQUE — In a special election in September, the people of New Mexico gave a resounding margin to proposed repeal of liquor prohibition for New Mexican Indians. Navajo tribal spokesmen hailed the decision. "At issue was not the evils of John Barleycorn," said Navajo Tribal Secretary-Treasurer Morris McCabe, "but equal rights for all citizens." McCabe

said he feels the change will ease the law and order situation in the so-called checkerboard area of the Navajo Reservation where tribal, state and federal authorities have shared peace enforcement responsibilities.—*New Mexican*.

New Mexican Folk Art . . .

SANTA FE—The newest division of the Museum of Arizona—the International Museum of Folk Art—was officially opened and accepted by the state at ceremonies in September. Founded in 1950, the museum is the gift of Miss Florence Dibell Bartlett of Chicago. It contains more than 4000 items of folk art from 55 countries or regions of the world.—*New Mexican*.

Army Warns Ranchers . . .

ALAMOGORDO — White Sands Proving Grounds and Fort Bliss have served notice on approximately 125 ranchers that steps will be taken to clear firing ranges of livestock and illegal trespassing. The presence of ranch hands and other unauthorized persons as well as cattle, sheep, goats and horses on the antiaircraft, artillery and guided missile firing ranges is seriously interfering with the training and weapon development missions of the two installations, it was pointed out, and the delay caused by the necessity to clear firing ranges before tests is expensive for the taxpayer. Lands used by White Sands and Fort Bliss are either owned outright or under exclusive lease to the government.

UTAH

For Better Ranges . . .

CEDAR CITY—On a Latter Day Saints mission to Sweden, Olaf Larson of Cedar City discovered a new type of drouth-resistant grass. He sent samples to Max Robinson, assistant professor of range management at the College of Southern Utah, for experimental planting on the ranges of southern Utah. Known as *Bjorn* (Bear) grass, the Swedish plant is said to build a nest-like turf and to be highly conservative of water, a condition that should make it ideal for soil and climatic conditions of this part of the country.—*Iron County Record*.

Quarry Operation Resumes . . .

VERNAL—Operation of the quarry at Dinosaur National Monument will be resumed, announced Monument Superintendent Jess Lombard. A paleontologist will be appointed to head the work as soon as the \$12,000 appropriation for the quarry is approved. A special gallery will be installed to allow monument visitors to watch the paleontologist and his helpers excavate for dinosaur remains. — *Vernal Express*.

Moab Bridge Delayed . . .

MOAB — The proposed bridge across the Colorado River at Moab, essential to the development of the uranium industry of southeastern Utah, probably will not be built until spring, D. H. Whittenberg, chairman of the Utah State Road Commission, told the Grand County Board of Commissioners. Approval of the bridge is being delayed in Washington, D. C., pending allocation of funds, Whittenberg explained.—*Moab Times-Independent*.

Committee Considers Dams . . .

WASHINGTON — Three measures are before the house interior committee to authorize start of the \$1.5 billion Upper Colorado River Basin development project. Hearings on the bills probably will be held in late January or early February, 1954. All three bills cover the entire project but differ in some technical details.

Antelope Not Grass-eaters . . .

VERNAL—The antelope herd at Wild Horse Basin is definitely increasing, a recent survey shows. New antelope were planted in the area to give needed new blood, and this year's fawn crop is good. Antelope formerly were considered grass-eaters, and therefore an economic liability to the rancher. But, although they live on grasslands, their diet consists of browse and weeds. It would take about 40 antelope to eat as much forage as one cow.—*Vernal Express*.

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Mendocino	36x48	2.50	Sutter	21x24	1.00
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Placer	26x46	1.50	Yuba	22x29	1.00
Placer	30x17	1.00			
Plumas	33x40	1.50			
Plumas	27x22	1.00			
Riverside	27x98	5.00			
Riverside	18x66	2.50			

Most maps are drawn to scale of ½ inch to the mile. Maps obtainable flat or folded.

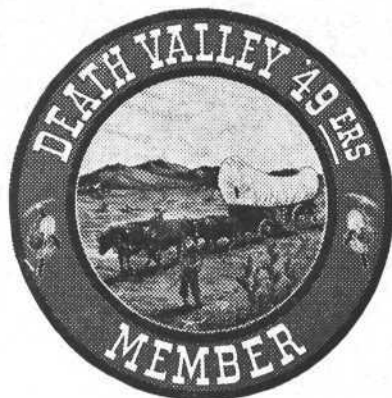
WORLD'S MINERALS

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12,000 Visitors Expected by '49ers at Annual Death Valley Encampment

Paul Palmer of Saugus, California, president of the Death Valley '49ers, announces the organization's Fifth Annual Death Valley Encampment will be held November 13 to 15, with headquarters at Furnace Creek.

Three days of programs, entertain-



Windshield emblem,
Death Valley '49ers.

ment and exhibits have been planned for the 1953 encampment, which will start Friday evening at 7:00 o'clock with a campfire and community sing at the Texas Spring Camp Ground. "Death Valley Tales" — history and geology of the area — will be told by Ted Ogsden, superintendent of Death Valley National Monument, and Judge James B. Nossor of Johannesburg will relate early valley incidents. Square dancing at Furnace Creek Ranch will follow the campfire program, which will be repeated Saturday night.

Days at the encampment will begin with outdoor breakfasts at Furnace Creek Golf Course. Saturday will be the Artists' Breakfast, with the program planned by artists and photographers of the desert country, and Sunday's

breakfast will honor authors of books on Death Valley.

The burro flapjack contest, which won immediate favor at its initiation last year, will be repeated Saturday afternoon at Stovepipe Wells.

Saturday and Sunday morning, tours of the monument will be conducted by Superintendent Ogsden and his rangers. Sunday's program includes a Protestant church service in Desolation Canyon and Catholic mass in the gardens of Furnace Creek Inn.

Exhibits may be viewed throughout the three days. The El Camino Club is arranging a salon of Death Valley photographs, and leading Southwestern artists will show desert paintings. Also planned are a firearms display and a mineral and gem show.

Palmer urges persons desiring hotel

or motel accommodations to make early reservations. Campers are advised to carry both food and fuel; 12,000 campers are expected, and local supplies cannot take care of all. Modern hotel accommodations are available at Furnace Creek, Death Valley Junction and Stovepipe Wells, and motel cabins at Furnace Creek Ranch. Trailer space may be had at Texas Spring and Furnace Creek Ranch.

Prospective exhibitors and visitors may obtain further information about this year's encampment by writing Joe Micciche, '49er secretary, 501 Hall of Records, Los Angeles, California.

Memberships in the Death Valley '49ers also may be purchased through Secretary Micciche. All persons interested in Death Valley are urged to join. Associate memberships are \$1.00; active, \$2.00; sustaining, \$5.00; patron, \$10; sponsor, \$25 and life, \$100. All funds from life memberships are earmarked for the proposed Death Valley Museum.

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Palm Desert, California

THE *Desert* MAGAZINE CLOSE-UPS

Joe Kerley, author of the story on Navajo burial customs which appears this month in *Desert Magazine*, has spent a total of 15 years as an Indian trader. When his nephews were orphaned about 20 years ago, he and his wife raised the youngsters and managed their trading post until the boys finished school; they later ran other posts in various parts of the Navajo reservation.

His nephews are well-known traders, having posts in Flagstaff and at Tuba City, Arizona. Joe lives in Winslow.

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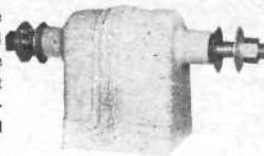
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GEMS and MINERALS

TWO FIELD TRIPS PLANNED FOR SEARLES LAKE VISITORS

Searles Lake Gem and Mineral Society of Trona, California, will hold its 1953 show November 14 and 15 at the Trona Recreation Hall, announces B. O. Bostrom, chairman.

Individuals and societies are invited to submit entries by November 5. No display space will be guaranteed after November 5, Bostrom warns, although late entries will be accepted if space permits. Ribbons will be awarded for displays of faceted gems, cabochons, bookends, pen sets, jewelry, crystal and mineral collections.

Two field trips, to Black Mountain and Water Canyon, will be conducted Sunday, November 15. Black Mountain is famous for its jasper, and Water Canyon is a good travertine area. Reservations for either trip may be made by writing Field Trip Chairman Ed Redenbach, Trona, California.

There are only two motels and no hotels in Trona, and visitors are advised to bring camping equipment.

Trona is located in the Mojave Desert on Searles Dry Lake, source of hanksite, personite, sulphohalite, halite, gaylussite, ty-chite, burkeite, trona and tincal. The lake deposits have been worked commercially since 1873 when John and Dennis Searles began the manufacture of marketable borax. At present, the American Potash and Chemical Company of Trona and the Westend Chemical Company of Westend, California, are the commercial producers.

After 80 years of production from the mineral deposit, it is estimated that only one-half of one percent of the solids have been removed.

"Queen of the Gems—Titania" was the subject of a film viewed recently by Southwest Mineralogists, Los Angeles, California.

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MOJAVE DESERT SOCIETY ANNUAL HOBBY SHOW NOV. 8

Mojave Desert Gem and Mineral Society of Barstow, California, will hold its 1953 hobby show November 8. Displays will be arranged in the Barstow High School auditorium. All rockhounds and lapidaries are invited to attend.

GEMOLOGY, LAPIDARY CLASSES SCHEDULED IN SAN DIEGO

A full program of instruction in gemology and the lapidary arts is being sponsored this year by San Diego Mineral and Gem Society, San Diego, California.

October 5 was opening date for classes in elementary gemology, held Monday evenings in Balboa Park's Spanish Village. Jeanne Martin and Ed Soukup, instructors, announced first-semester emphasis will be on physical and optical properties of gems. Second-semester students will study individual gems and testing instruments.

Advanced gemology classes, taught by C. J. Parsons, certified gemologist, were scheduled to begin October 6 in Mr. Parsons' laboratory in El Cajon. Latest techniques and instruments will be discussed and advanced theory taught. The elementary course is prerequisite. Membership in the society is not necessary.

Lapidary instruction will continue in the club's lapidary shop in Spanish Village.

Members of the Earth Science Club of Northern Illinois visited the fossil fields near Crown Point, Indiana, and heard Dr. G. H. Otto explain the area's geology.

A 385-mile trip to Custer, South Dakota, was planned by Colorado Mineral Society for a three-day field excursion.

Jim Hall arranged a tour through Kaiser Steel Mills as a field trip for Southwest Mineralogists, Los Angeles, California. Harold Webb is field trip chairman.

A trip to the Livingston Quarry in California's Palos Verdes hills was planned as the September outing of Delvers Gem and Mineral Society, Downey, California. Bill Maurer, who helped scout the site, promised a good variety of mineral material, including quartz crystals in dolomite, gypsum, seams of banded agate in marcasite, sagenite and barite crystals.

A picnic dinner and swap session was planned for the September meeting of Hollywood Lapidary and Mineral Society, Hollywood, California.

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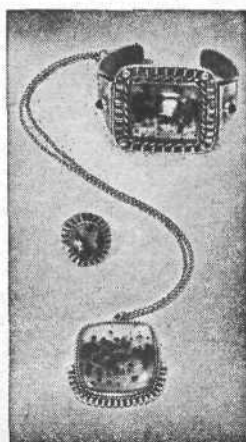
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RANDALL HENDERSON, Editor

Sworn to and subscribed before me this 28th day of September, 1953.

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AMONG THE ROCK HUNTERS

Alaska, Lake George and the Knik Glacier were described for the Mineralogical Society of Southern California by Emelie Collings, who formerly was employed in Anchorage. She illustrated her talk with colored slides.

Colored slides, taken by members on recent field trip outings, were projected at a meeting of Glendale Lapidary Society, Glendale, California.

September events for Wasatch Gem Society, Salt Lake City, Utah, included a field trip to the Dugway geode area and a meeting highlighted by Howard Hanks' talk on Japanese gem cutting.

July meeting of Nebraska Mineral and Gem Club was a picnic at the home of ex-President and Mrs. Harry Cowles. After lunch, members went fishing, swimming or rockhunting. Some found fair cutting material in a pile of sandpit gravel near the Platte River.

"Chemical Determination of Minerals" was the subject of O. C. Smith when he appeared as guest speaker for the Santa Barbara Mineralogical Society. He brought a portable chemical determination kit with him and demonstrated techniques.

The *Rock Rustlers News*, monthly bulletin of Minnesota Mineral Club, carries a classified ad section for members having mineral material or lapidary equipment for sale or trade. Ray Lulling is editor.

Annual picnic of Long Beach Mineral and Gem Society was held at the Shell picnic grounds in Brea, California. That month's field trip was to the Himalaya Mine.

Lyle Hunt discussed "Growing Genuine Quartz Crystals in the Laboratory" at the October mineral resources division meeting of San Diego Mineral and Gem Society. The mineralogy division studied the isometric system, and the gem and lapidary division heard Robert Failing speak on "Living and Mining in Colorado."

Willow Creek, 65 miles north of San Luis Obispo on California State Highway 1 was the September field trip destination of Compton Gem and Mineral Club.

Clark County Gem Collectors hoped to find jasper and agate on a field trip to Afton Canyon, near Baker, California.

At the September meeting of Los Angeles Lapidary Society, L. C. Musselman related some of his experiences while serving with Admiral Byrd's expedition to the South Pole.

George Land, research director of the West Kentucky Coal Company, addressed a recent meeting of the Evansville, Indiana, Lapidary Society. Land discussed "Coal as a Mineral," tracing its evolution and geologic progress from the original peat-bog formation through structural strata and hardening processes to its present form. He displayed a pair of highly polished earrings made from anthracite coal from Pennsylvania.

An extra-curricular field trip was staged by several members of Tacoma Agate Club, Tacoma, Washington, to Twin Rivers, 29 miles out of Port Angeles on the Straits of Juan de Fuca.

"Get Acquainted Night," program planners of San Fernando Valley Mineral and Gem Society called the September meeting. Each member was asked to bring his favorite cabochon, faceted stone, polished flat, sphere, crystal or mineral specimen to show and another specimen for swapping. A campfire and community sing closed the evening.

The identification of minerals has been simplified by a new method developed by Dr. Tunell of the University of California at Los Angeles. "Each mineral has its own 'fingerprint' in its interfacial angle," Dr. Tunell explained to members of Southwest Mineralogists of Los Angeles, California. A complete report of his work will be published soon in bulletin form.

Mrs. Dorothy Craig, president of the California and American Federations of Mineralogical Societies, spoke to the Gem Cutters Guild, Los Angeles, on the Mother Lode country and the history of gold mining in California. She displayed samples of gold nuggets, ore and coins.

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Moose Lake, Minnesota, considered one of the best agate collecting areas in the Midwest, was visited recently by a field trip party from Minnesota Mineral Club. Nathan Stuvetro, tour director, obtained permission for members to hunt in some of the better pits.

Jack Gaston, Los Angeles Lapidary Society member, was invited to tell Pasadena Lapidary Society about his recent Alaskan adventure. Gaston traveled 8615 miles in the northern territory. He showed colored slides to illustrate his talk.

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First meeting of the club year for East Bay Mineral Society of Oakland, California, featured three speakers. Bob Wiechman gave highlights of a recent field trip; Ivan Root reported on the San Diego show and Frank Wilcox told about field trips in the San Diego area.

Several members of El Paso Mineral and Gem Society took a weekend trip to Elephant Butte and the carnelian beds nearby. Everyone came home satisfied with the collection of colorful petrified wood fragments and small carnelians he had found, and some planned to tumble theirs into baroque gems. Prize find was made by Jo Unsell—a large and beautifully banded carnelian nodule.

Fair turquoise specimens were found by Dona Ana County rockhounds on a trip to the old mining town of Tyrone. The Dona Ana club is from Las Cruces, New Mexico.

Colored slides of his airplane trip to South Africa were shown to the Gem Cutters Guild, Los Angeles, by Merle W. Hinshaw. The pictures showed diamond mines, mining operations and the industrial uses of diamonds.

Whittier Gem and Mineral Society displayed mineral collections and lapidary work, demonstrated gem cutting and polishing and showed field trip movies at its hobby show October 17 and 18. The show was held at Smith Hall in Whittier, California.

Nebraska Mineral and Gem Club programs for the 1953 club year will be planned by a committee recently appointed under the chairmanship of Kenneth McDowell. Members are Leon White, James Freeman, Bertha Minardi and Clark Morgan. The committee already has announced that a table will be set up at each meeting, on which members may display puzzling specimens to be identified by others. A program poll was distributed to members to find out what type of entertainment was preferred at meetings.

Highlights of the 1953-54 season for Palo Alto Geology Society, Palo Alto, California, will be fall field trips to Allegheny and Big Sur and a spring outing to Death Valley and the Mojave Desert. Mrs. Billy Santoff is president.

A round table discussion of gem cutting techniques followed the showing of a film on cabochon cutting to Compton Gem and Mineral Club. The film was made by the Naval Ordnance Testing Station Rockhound Club at China Lake, California, and was projected at the meeting by Jim, Irene and Melvin Arnold.

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12. **SAPPHIRE, Ceylon:** A large amount of star rough and other material expected soon. Prices on request.

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September activities of San Diego Mineral and Gem Society included the general meeting, with B. Dixon, curator of San Diego Historical Society, speaking on "San Diego Mining Boom;" Jeanne Martin's talk on sapphire at the gem and lapidary division session; and vacation stories at the mineralogy division meeting.

Members of the archeological interest group of the Earth Science Club of Northern Illinois have spent a total of nine week-ends excavating a prehistoric Indian village and burial ground in Thorne Creek Woods near Thornton, Illinois. It is estimated that a total of 1700 man hours were spent removing more than 1000 tons of sand to recover artifacts and other indication of how man lived in the Chicago area around 1500 A.D. A winter of study remains before the story can be completed, but evidence already uncovered proves that a community of Indians lived on the banks of Thorne Creek before the white man came, fished the creek's waters, cultivated corn along the shore and hunted deer and other animals in the surrounding area.

Rockhunting in California was the topic of Robert Deidrick when he appeared as guest speaker for the Gem and Mineral Society of San Mateo County, California. Deidrick listed four principal collecting zones in California: the gold zone, quick-silver zone, borate zone and pegmatite dike zone. He also named several of the recent mineral discoveries in the state, including curtsite, a highly fluorescent mineral resembling sulphur, found in Sonoma County; myrickite from Lake and Santa Clara counties; mariposite, the beautiful green mineral found in the High Sierra; calaverite, a gray mineral similar in appearance to galena found in Calaveras County; large borax crystals from Lake County; benitoite, a sapphire-blue mineral, and neptunite, a long black crystal, occurring together in San Benito County, and immense gypsum crystals found near Fleischacker Pool in San Francisco.

An overnight trip to Chloride Canyon was on the September docket for Dona Ana County Rockhounds of Las Cruces, New Mexico.

Spirited bidding insured the success of the slab auction San Francisco Gem and Mineral Society conducted at a recent meeting and potluck supper. First bidder on each item was Treasurer Dave Friedman who invariably offered 15 cents. The sale gained \$97.35 for the club's account.

Rio Grande Rock Club and Santa Fe Gem and Mineral Club enjoyed a joint field trip into Colorado. Members found good hunting and brought home huge thunderegg specimens.

When asked what he would discuss at the October meeting of East Bay Mineral Society, Speaker York T. Mandra of San Francisco State College answered: "Tales and Geology and Geologists of California"—a layman's down-to-earth version of some geological facts of California intermingled with some yarns about the men who discovered these facts. Some stories are true," he added, "some could be true, and some probably are as tall as the Empire State Building."

Many improvements have been added to San Francisco Gem and Mineral Society's lapidary work shop, and members are making full use of the facilities.

Several beaches on Green Bay and Lake Michigan were visited on a week-end field trip of the Chicago Rocks and Minerals Society. The pebble-strewn shore of Green Bay was first stop. Next, the rockhounds trekked to Lands End, also called Top o' the Thumb, where waters of Green Bay and Lake Michigan join. The beach offered

pebbles of all sizes and shapes and a good amount of honey comb coral or favosite. Chain coral was found at the third beach, directly east of Sister Bay near Rowley Bay on the Lake Michigan shore. Hosts for the weekend were Mr. and Mrs. George Anderson who have a new home on Sister Bay.

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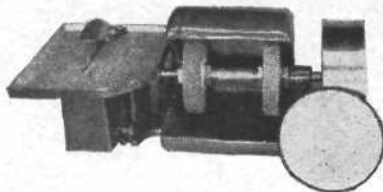


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"What I Did this Summer" was the title of informal speeches given by members of the Mineralogical Society of Arizona at the first meeting of the 1953-54 season. The group meets in Phoenix.

TRUE OR FALSE ANSWERS

Questions are on page 22

- 1—True. 2—True.
- 3—False. Baccata is a species of the Yucca plant.
- 4—False. The road-runner can fly only a comparatively short distance.
- 5—True.
- 6—False. First explorers of the Southwest were Jesuit padres seeking to Christianize the Indians.
- 7—False. The Kachinas are made by the Hopis.
- 8—False. The lowest elevation is at Badwater in Death Valley.
- 9—True.
- 10—False. Hovenweep National Monument is in Utah.
- 11—True. 12—True. 13—True.
- 14—False. Most of the rugs now made by the Navajo are colored with aniline dyes furnished by the Indian traders.
- 15—True. 16—True. 17—True.
- 18—False. The Taos are pueblo Indians.
- 19—False. The Valley of Fire is a Nevada State Park.
- 20—False. Flagstaff is on Highway 66.

NEW MINERAL SOCIETY FORMED IN MADRAS, OREGON

The Madras Gem and Mineral Society was recently organized by a group of rockhounds from Madras, Oregon. Charter officers are Ralph Dexter, president; Mrs. Glen Fulton, vice-president; Mrs. Robert Pass, secretary, and Ford Harvey, treasurer. The club meets in the Madras High School.

At the opening meeting of Shadow Mountain Gem and Mineral Society, Palm Desert, California, Dr. John S. Sheldon discussed "Plutonic Earth Formations"—igneous rock formations both magmatic and volcanic. Dr. Sheldon is known as "the flying geologist," using his own plane for travel and geological exploration.

As a means of identification on field trips, Palo Alto Geology Society members have club stickers on their car windshields. The design is of a palo alto tree and the letters PAGS in green and white.

A report of the recent field trip to Hole-in-the-Rock, Utah, was given by President Parley Dalley at a meeting of the Cedar City Rock Club.

Fourteenth birthday of East Bay Mineral Society was celebrated at a party September 13 in Oakland, California. The society has a membership of 264 rockhounds. Other September events were a meeting and program and an overnight field trip. Speaker at the former was Bob Winston of California College of Arts and Crafts who discussed jewelry design. The field trip was to the benitoite mine in San Benito County.

Prizes for Photographers . . .

November is an ideal month for long hikes up the remote canyons and washes of the desert country. The days are warm and balmy, the nights not yet too cold for camping out, the air crystal clear—perfect for picture-taking. And the desert holds an abundance of subject matter for the photographer. For the best and most unusual photos taken on desert trails, Desert Magazine offers cash prizes in its Picture-of-the-Month contest.

Entries for the November contest must be in the Desert Magazine office, Palm Desert, California, by November 20, and the winning prints will appear in the January issue. Pictures which arrive too late for one contest are held over for the next month. First prize is \$10; second prize \$5.00. For non-winning pictures accepted for publication \$3.00 each will be paid.

HERE ARE THE RULES

- 1—Prints for monthly contests must be black and white, 5x7 or larger, printed on glossy paper.
- 2—Each photograph submitted should be fully labeled as to subject, time and place. Also technical data: camera, shutter speed, hour of day, etc.
- 3—PRINTS WILL BE RETURNED WHEN RETURN POSTAGE IS ENCLOSED.
- 4—All entries must be in the Desert Magazine office by the 20th of the contest month.
- 5—Contests are open to both amateur and professional photographers. Desert Magazine requires first publication rights only of prize winning pictures.
- 6—Time and place of photograph are immaterial, except that it must be from the desert Southwest.
- 7—Judges will be selected from Desert's editorial staff, and awards will be made immediately after the close of the contest each month.

Address All Entries to Photo Editor

The Desert Magazine

PALM DESERT, CALIFORNIA

AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

We don't suppose that any amateur gem cutter with a genuine interest in his hobby has failed at some time to see pictures during the course of his reading of a Chinese patiently drawing a wire saw through a rock. No one but the Chinese have the temperament to spend endless days cutting a big rock into two pieces, to go on from there to cut and recut until, after months and sometimes years, they produce the most beautiful works of gem cutting that the world has ever seen.

Americans looking at these pictures are not inspired to follow their example because our National Hobby is finding ways of avoiding work. But a correspondent (Jean Foley of El Segundo, California) not only looked at the pictures but watched a Chinese in Los Angeles (S. T. Koo) actually operate one of the wire saws. Mr. Koo operated the saw at the Long Beach gem show in August. Foley was impressed and saw nothing wrong with the method except that he applied American ingenuity to make the saw do its own work. He has built a wire saw that works from a motor and he writes "I use three annealed black iron wires evenly twisted together. The gauge depends upon the size of the rock; the bigger the rock the larger the wire. It is surprising how long the wire will last. I change wires about every four or five hours. They must not be allowed to wear down to the point where the cut is too narrow for a new wire. The wire will not readily stick in the cut because it wobbles about sufficiently to keep itself clear. In comparison to modern high speed methods however the wire saw is slower than the coming of tax relief."

"The most salient virtue," Foley continues, "is cheapness, for the wire saw costs no more to run than it costs to burn a 100 watt bulb and the makings of the saw are kicking around every garage. Portability is another big point, for that big rock lying abaft the petunia bed can be sawed right where it lies. Dig a temporary hole so the crank can go around and you are in business."

We regret that we can give no more details in this column or an illustration of Foley's folly but we are working on the idea and we believe it will be a new challenge to the amateur gem cutter with a mechanical bent that will be as widespread in its influence as the recent furore about tumbling.

* * *

We recently returned from a 4200 mile trip through our wonderful Northwest, a trip that ended at Portland where we addressed the convention of the Northwest Federation of Mineralogical Societies. During the past year we have traveled more than 15,000 miles to every corner of our land; from Portland, Maine to Portland, Oregon and from Atlanta, Georgia to San Diego, California. We have been talking to groups everywhere about America's fastest growing hobby and we are convinced more than ever that the gem cutting hobby is an American institution that is here to stay.

During the summer we visited three wonderful shows; the big Federation show at San Diego, the gem show at Long Beach and the show mentioned above. These shows drew a paid attendance of more than 25,000, it is reported. This figure is probably nearer the truth than any other that has ever been published, because attendance

was involved with paid admissions and admissions are involved with tax collection so that the reports have to be accurate.

The rockhounding hobby began in the East and it began a long time ago. The first club of record was the New York Mineral Club founded in 1888. In the '90s there was considerable interest in mineral collecting because the mineral resources of our country were undergoing intensive development and miners were gathering unusually fine specimens that became available to collectors. The personal collections formed in those days are the foundation of many of the museum collections of today.

The Mineralogical Society of Philadelphia was formed shortly after the New York Club and the Newark Mineralogical Society came into being in 1915. Mineral collecting then waned and languished until Peter Zodac established his magazine Rocks and Minerals in 1926. This magazine has continued to cater to the amateur mineral collector until the present time. It was a little paper by J. Harry Howard, published in that magazine in 1931, that started the ball rolling for amateur gem cutting to its present high development.

This was during the Great Depression and hundreds of people in the West began hunting rocks to cut. This gave rise to rockhounding and groups began to organize in the West. In 1931 the Mineralogical Society of Southern California was organized at Pasadena and in 1933 the Oregon Agate and Mineral Society was organized at Portland. It was not until the organization of the Los Angeles Lapidary Society on February 10, 1940, however that the prairie fire of gem cutting really started and the influence of that group has been greater in the development of the hobby than any other. There are now almost 600 rockhound groups catering to various phases of the rock hobby but the main interest is in cutting and polishing.

All of the shows we attended were wonderful indeed. It would be an injustice to any one of them to say that any of the three was "the best" because they were all so very good. It is a matter of continuing amazement to us to realize that these groups have within their ranks such competent promoters.

Regardless of the section of the country Americans always seem to rise and do things that build happiness for their fellow men. That is one of our greatest secrets of success as a nation, for while we are accused abroad of being a very selfish people there is evidence every day in every corner of the land that we are a very unselfish people. This national trait is certainly emphasized in the way the gem and mineral societies work together.

A great American, Herbert Hoover, once said that "our stage of civilization is not going to depend upon what we do when we work so much as what we do in our time off. The moral and spiritual forces of our country do not lose ground in the hours we are busy at our jobs; their battle time is the time of leisure." And amateur gem cutting and playing with rocks is just about as clean and wholesome a method of employing leisure time as could be devised by the wisest person. As a group of citizens we defy anyone to produce as fine a bunch of people as the rockhound group, now variously reported to be between three and five million people.

WANT TO COLLECT MINERALS?

Mineral Collectors Guide, 36-page illustrated booklet, explains how to go about it, principles of identification, mineralogical tests, how to set up and maintain your collection. \$1.00 postpaid.

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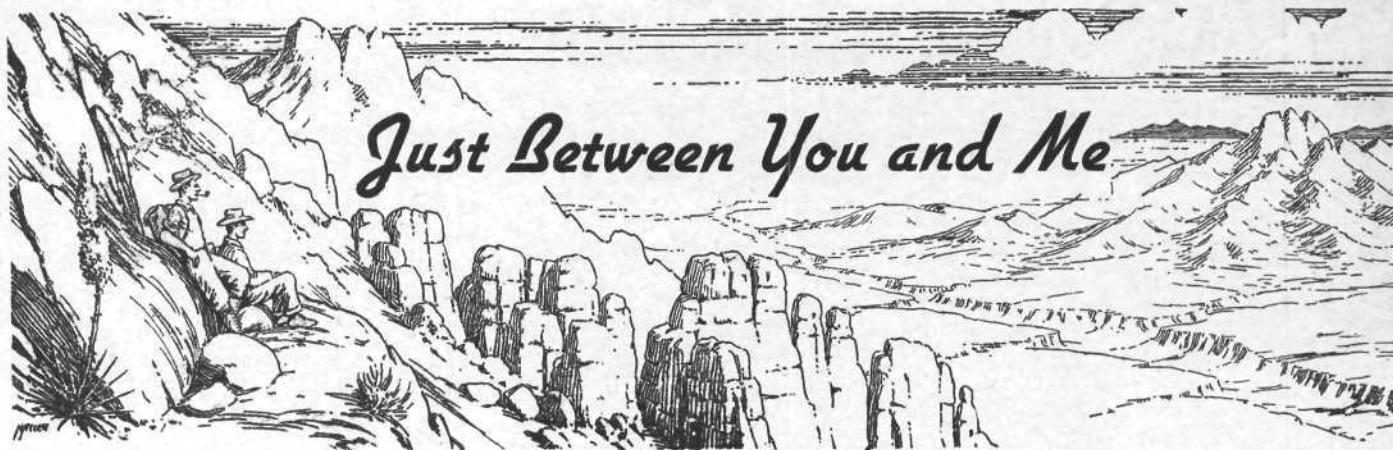


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Just Between You and Me

By RANDALL HENDERSON

7O THOSE who think of the desert as a place of beauty only when the roadsides are carpeted with wildflowers, I would suggest a visit to the palm canyons at this season when the leaves of the cottonwoods have turned to gold and the wild sycamores are mixed gold and scarlet.

There are scores of these palm canyons in the desert mountains of Southern California. Not many of them are accessible to the motorist—but it is easy to reach Andreas and Palm Canyon at the base of the San Jacinto mountains near Palm Springs over a blacktop road—and the trip is worth the effort. For the perennial green of palm fronds and the golden coloring of the native deciduous trees at this time of the year combine to make a lovely picture.

Hubert Lowman's autumn photograph taken in Palm Canyon in my opinion is the prettiest landscape view we have ever used for a *Desert Magazine* cover.

* * *

In mid-October the Palm Desert gallery of desert art in the spacious foyer of the *Desert Magazine* building was officially opened for the season. Actually the gallery has been open 5½ days a week all through the summer but there are not many visitors when the daily temperatures outside are ranging from 110 to 115 degrees.

Harriet Day, director of the gallery, has returned for her third season to manage the exhibit, which includes the best work of more than 40 of the most outstanding painters in the Southwest—and some of Cyria's exquisite sculpturing.

As a courtesy to the many visitors who come to Coachella Valley for weekends during the winter season, the gallery will remain open from now until May from eight to five, seven days a week. A special invitation is extended to *Desert Magazine* readers not only to visit the gallery, but to tour the entire Pueblo—printing office and all—if they care to do so.

* * *

Two months ago I suggested that California should provide its motorists with little roadside parkways with shade and picnic tables and ovens, such as Texas and other states have installed.

And now I learn that such a program has been under consideration in the offices of the California Department of Public Resources for a long time. Newton Drury, director of the Division of Beaches and Parks has sent me a 72-page report prepared jointly by Drury's division and the Division of Highways, based on an exhaustive study of the wayside park idea.

According to the estimates of the two state divisions the cost of installing 150 roadside parks would be approximately \$1,000,000 and the annual maintenance \$375,000.

Both groups of state officials recommend that the legislature authorize the project—"for the pleasure and convenience of the motoring public."

My thought is that such parkways not only would add much to the pleasure and convenience of motoring in California, but that the maintenance crews which would be on the road constantly servicing the parks could also assume the responsibility for cleaning up the ugly debris which now clutters the gutters along the main traveled highways.

The litterbugs are creating a situation which must be dealt with drastically if California is to preserve the beauty of its landscape. Perhaps there is need for some ingenious person to invent a new tool—a motor vehicle with a long adjustable side arm that will travel down the road and scoop up the beer cans and bottles which thoughtless motorists toss out of their cars.

It doesn't seem just that law-abiding citizens should have to be taxed to gather up the garbage of those who have an utter disregard for the beauty of the landscape. But until by education and rigid law-enforcement there is evolved a generation of citizens who will do their own self-policing that appears to be the only way of preserving the cleanliness of the highway roadsides.

* * *

With this November number, *Desert Magazine* begins its 17th year. This "Just Between You and Me" page has appeared in every one of the 192 issues published during that period. And how I have enjoyed writing these informal editorials!

This desert is like a diamond with a million sparkling facets—and every month I wish it were possible to cram into our pages more about the history, the geography, the wildlife, the lost mines and ghost towns, and the people who are a part of this last American frontier.

Before I started *Desert Magazine*, some of my friends were afraid I would run out of material. How wrong they were! I am sure that no publisher on earth has a greater wealth of material from which to draw than does the editor of *Desert Magazine*.

Hundreds of manuscripts come to my desk every month, and from these I must select those which I feel will be of interest to the greatest number of our readers. I always welcome suggestions from members of the big reader family, for the goal of *Desert* is still the same as it was 16 years ago when I wrote for this page:

"We want to give to the folks who live on the desert—and to those who are interested in the desert—something that will make their lives a little happier and a little finer—something worthwhile. In accomplishing this purpose we ask for the cooperation and help of all friends of the desert everywhere."

BOOKS of the SOUTHWEST

GUNS AND BULLETS AT LITTLE BIG HORN

Much has been written about Custer's Last Stand — the Battle of the Little Big Horn in June, 1876. Writers have analyzed in detail the fight itself, the participants and the historical background.

But, until Gun Collectors John E. Parsons and John S. du Mont tackled the job, no complete study had been made of the weapons used. This was particularly true as regards Indian guns. Arms and other articles taken over from the white man seem of little interest to ethnologists.

In *Firearms and the Custer Battle*, Collaborators Parsons and du Mont fill in the gap in Custer literature with a documented monograph comparing and relating military with Indian firearms used at the Little Big Horn. Dozens of photographs and several diagrams illustrate the text.

The study not only offers newly-organized material for the Custer student and Indian Wars historian but affords the gun collector clues to the identification of Little Big Horn battle relics.

Published by The Stackpole Company. 60 pages, appendix, notes. Printed on coated paper, paperbound. \$2.75.

THEY BROUGHT CHURCH AND CROWN TO BAJA CALIFORNIA

Black Robes in Lower California by Peter Masten Dunne, adds immeasurably to knowledge of the early history of Baja California. Father Dunne, Professor of History at the University of San Francisco, has a profound background of research for this, the fourth in a series relating the history of Jesuit mission enterprises in colonial Mexico. This volume has the advantage of manuscripts only recently made accessible and tells in fascinating and accurate detail the story of Jesuit exploration and mission building from 1697 to the year of their expulsion in 1768 by decree of King Charles III of Spain.

Father Eusebio Kino was the first Jesuit to urge establishment of permanent missions in Lower California. A long succession of Jesuit leaders, beginning with Salvatierra explored and colonized those barren, rocky, sun-baked lands with little water. With indomitable courage, singly and in small groups, they faced hostile Indians, explored unknown country and founded missions in lands where it cost

backbreaking toil to wrest a living from the parched earth. Money with which to carry on the costly expeditions and found settlements was never easy to get.

Father Kino envisioned the colonization by the Jesuits. Juan Maria Salvatierra who shared his enthusiasm, became known as the Father of the Missions. Juan de Ugarte was one of the sustaining pillars of the missions. Father Nicolas Tamaral who was murdered in the uprising of 1734, Fernando Consag, the Alastian Johann Jakob Baegert, Bohemian Father Wenceslaus Link, Francisco Maria Picolo—stalwarts all, were fired with zeal to convert the Indians and colonize more new lands for Spain. The story of their incredible achievements is an inspiring one. Father Dunne has the faculty for making history live and breathe.

Published by University of California Press, Berkeley and Los Angeles. 540 pp. In the book are four appendices, listing the nationalities and dates of the Jesuit missionaries in Lower California. Bibliography and index. Map of Lower California, showing chief coastal missions on the mainland. \$6.50.

GEOLOGIST TELLS STORY OF THE CALIFORNIA LANDSCAPE

Many people have marveled at the variety and beauty of California's landscape—but not many of them have heard or read the story of how all these mountains and valleys and rivers and mesas came into being—the geological history of the state.

As a guide to the traveler or the student who is interested in the subject, the California Division of Mines, Olaf P. Jenkins, chief, has published *Evolution of the California Landscape*, a 240-page book with cloth cover, illustrated with many photographs, maps and charts, that tells the story as it is interpreted by a modern scientist.

Author of the book is Professor Norman E. A. Hinds of the Department of Geological Sciences, University of California. He has divided the state into natural provinces—the Sierra Nevada, Basin-Ranges, Mojave and Colorado Deserts, Modoc Plateau, Cascade Range, Klamath Mountains, Great Valley, Coast, Transverse and Peninsular Ranges, and even the Sea Floor—and graphically describes each.

The book may be obtained from State Division of Mines, Ferry Bldg., San Francisco, \$2.50 (plus 3 percent tax in California).

Books reviewed on this page are available at
Desert Crafts Shop, Palm Desert

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