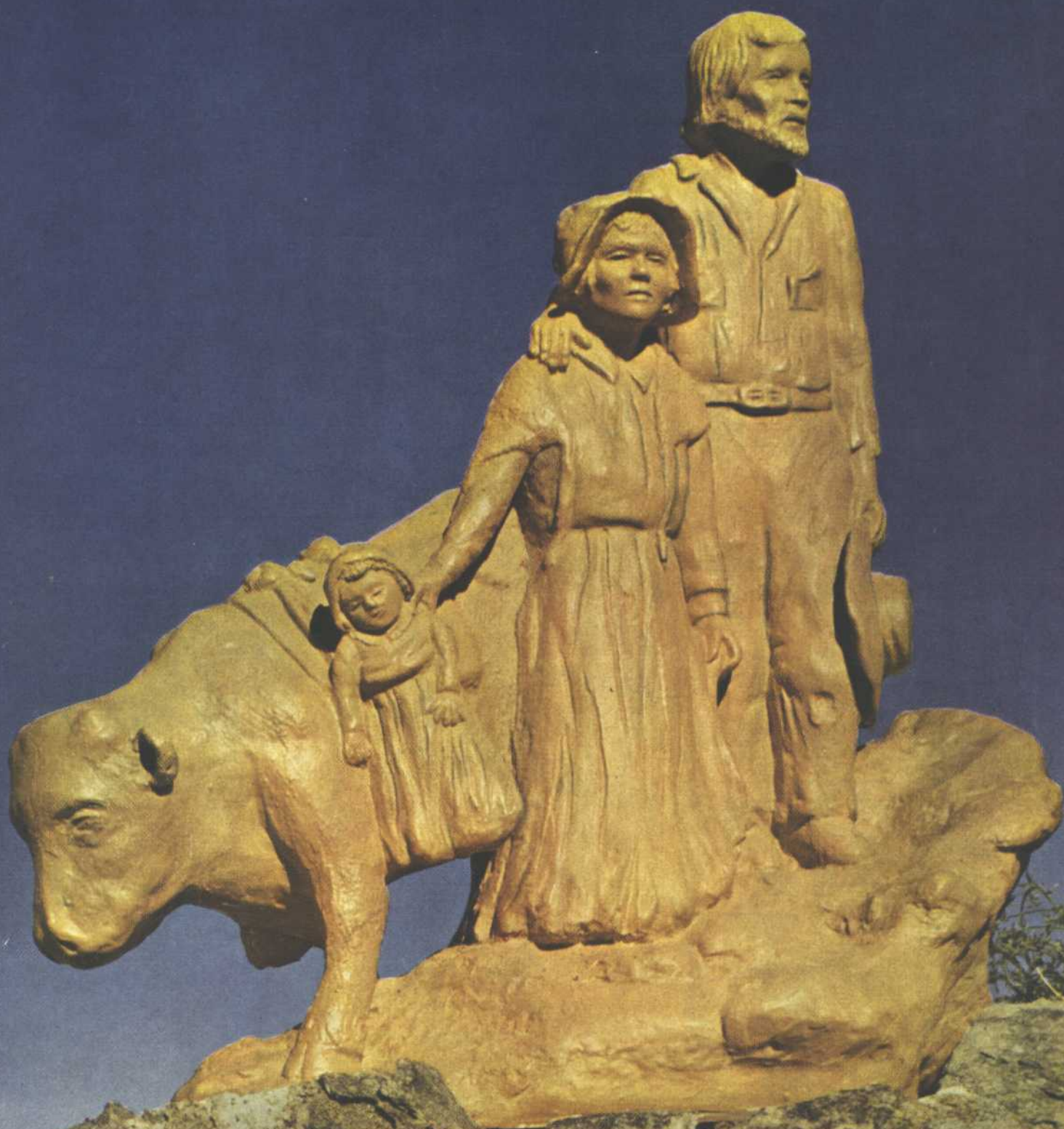


Desert

MAY, 1953 35 Cents



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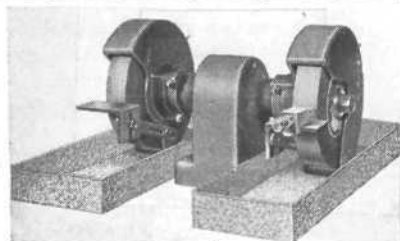
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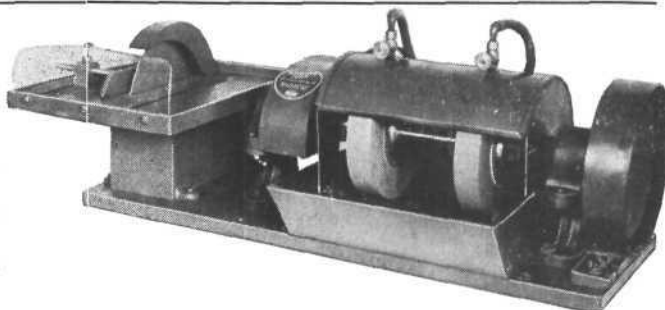
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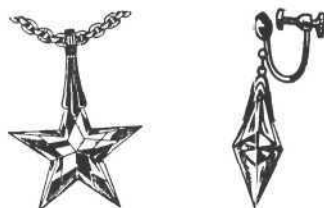
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DESERT CALENDAR

May—Continuance, special exhibit of paintings of historical landmarks of California and portraits of pioneer families, by Orpha Klinker. Southwest Museum, Highland Park, Los Angeles, California.

May 1 — Fiesta and Spring Corn Dance, San Felipe Indian Pueblo, New Mexico.

May 1-2—Eastern New Mexico University Rodeo, Portales, New Mexico.

May 1-2 — Masque of the Yellow Moon, Montgomery Stadium, Phoenix, Arizona.

May 1-3 — Annual Spring Festival, Apple Valley, California.

May 2-3—Southern California Chapter, Sierra Club camping trip to Indian Cove in Joshua Tree National Monument, California.

May 2-5—Fiesta de Mayo, Nogales, Arizona.

May 3—Corn Dance and ceremonial races, Taos Pueblo, Taos, New Mexico.

May 3—Joshua Tree National Turtle Races, Joshua Tree, California.

May 4-7—Las Damas Annual Ride, Wickenburg, Arizona.

May 6 — Public pilgrimage to old Spanish homes, Mesilla, New Mexico.

May 6-9 — Junior Livestock Show, Spanish Fork, Utah.

May 8-10 — Lone Pine Stampede, Lone Pine, California.

May 9-24—27th Annual Wildflower Show, Julian, California.

May 14-15 — Diamond Jubilee pageant, Mesa, Arizona.

May 14-17 — Elks Helldorado, Las Vegas, Nevada.

May 15—San Isidro Fiesta and Blessing of Fields, San Isidro Pueblo, New Mexico.

May 15-16—Stock Show, Richmond, Utah.

May 16-17—Spring Rodeo, Winnemucca, Nevada.

May 17—Quarter Horse Show, Santa Cruz County Fair and Rodeo Association, Sonoita, Arizona.

May 26-27—Junior Livestock Show, Vernal, Utah.

May 30 — Spanish Dance Festival, Encanto Shell, Phoenix, Arizona.

May 30 — Morongo Valley Annual Early California Fiesta, Morongo Lodge, Morongo Valley, California.

May 30-31 — Desert Peaks Section, Southern California Chapter Sierra Club ascent of Mt. Keynot, in California's Inyo Range.



Volume 16

MAY, 1953

Number 11

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RANDALL HENDERSON, Editor
BESS STACY, Business Manager

MARGARET GERKE, Associate Editor
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Mojave Asters—photo by Don Ollis

FOUR GHOSTS OF GHOST TOWN

By AMY VIAU
Santa Ana, California

Four ghosts of Ghost town walked one night
In the desert moonlight cast so bright
That the walking ghosts could see each other

So stopped to talk as brother to brother.
"I" said one "was the town saloon
With many a fight and rousing tune;
And to my end gave roaring service
But business grew slack and my clients nervous."

They laughed then there was a ghostly stop
At another's "I was the blacksmith shop
Where cowboys rode with mounts and wagons,
And my furnaces blazed like fiery dragons"
A third ghost spoke "It would appear
You poorer ghosts know not I fear
That I was the bank where the new-rich entered
And wealth and interest in me centered."

The fourth brought silence as he stirred
And carefully guarded every word.
"The folks were silent that came to me
And stayed, for I was the cemetery."
It was a sudden wind perhaps, and cloud
That made the darkness and groaning, loud.
Then the ghosts sank into the desert sands
And Ghost town slept with empty hands.

I RIDE THE STORM

By GRACE BARKER WILSON
Kirtland, New Mexico

Across the desert I would ride the storm
On wings of violence and shouting might,
As madly whirling clouds of sand transform
The peace of day into chaotic night.

Yet when the high and dusty clouds are thinned,
And gales no longer roar across the sand,
I still would ride and ride there, for the wind
Haunts all the secret places of the land.

Within

By TANYA SOUTH

The music of the spheres is here,
The grandeur of the universe.
My heart its inmost griefs can bare,
And feel new strength upon its course.

All highest heights are here to climb;
All love, all dreams, the cherished goal.
There is no bar to space nor time,
Nor Power supreme — within my Soul!

Brave Beauty

By MADELEINE FOUCHAUX
Los Angeles, California

The sturdy plants that love the stony places
Have always had a special charm for me,
Needing of nourishment such scanty traces
To shape the marvels of their symmetry.

Rosettes and chubby stars on narrow ledges
Smooth out the wrinkles in the rock's hard frown,
Or find a foothold in the sandy wedges
Between the boulders ancient storms rolled down.

Rounded of leaf, fierce dagger-tipped or spiny,
White-powdered, mottled, striped or dusty-blue,
They range from stout agaves to the tiny
Budlets that spread a meager inch or two.

Year-round they hold the forms of sculptured flowers;
And who would ask for further garnishing?
Yet, wakened by the kiss of winter showers,
They lift up flaming tapers to the spring.

• • •

DESERT BANQUET

By FLORENCE A. MORRISON
La Habra, California

Oh, come with me to the desert in May
When the early sunrise wakes the day
And see the beauty of colors fair,
For Nature is giving a banquet there.
Wildflowers cover the mesa land:
A great wide table of silver sand
Spread for the bees and the butterflies
With a feast of nectar from Paradise.

The poppies lift their golden cups
And the butterfly lights and daintily sups.
The timid violets smile to see
The little wild people dance in glee
Over the clover and larkspur spread
For a feast that lasts till it's time for bed.

• • •

WIND LORE

By GRACE PARSONS HARMON
Desert Hot Springs, California

I like the wind! The tales it tells—
It tells of lands afar—
Of oceans crossed — sublime heights touched—
Where Time's great wonders are!

It calls an invitation gay
To follow in its wake—
To seek those distant, yellow strands
Where blue seas whitely break!

The desert wind, a minstrel fine—
In cadence ringing clear—
Weaves thrilling tales of other lands,
That those who pause may hear.

For those who are not yet attuned,
Who do not understand—
It writes for them of breeze-roughed pools—
In ripples on the sand!



Sierra Club party at summit of Coxcomb Peak. Seated, left to right, are Jack Lasner, Marge Henderson, Dick Apel, Bill Henderson, Louise Werner, Tom Corrigan; standing, John Malik, Jon Gardey, Ronald Gilliam, Gary Bratt.

We Climbed Coxcomb Peak . . .

"This is an exploratory climb," Bill Henderson wrote in the *Sierra Club Bulletin*. "We will try to reach the highest point in the Coxcomb range, north of Desert Center in Southern California." Here is Louise Werner's account of the Sierrans' climb of this little-known desert peak—and of their pre-hike visit to Metropolitan Water District's isolated aqueduct station at Eagle Mountain.

By LOUISE WERNER
Photos by Niles Werner

LIKE THE ragged comb of a fighting cock, the mountains rose from the desert floor north of Desert Center, California. On our map they are marked "Coxcomb." I suspect the title had been Cockscomb before an unknown map-maker streamlined the descriptive name which probably had been given to the range originally by an imaginative old prospector.

This range, with a summit approximately 4400 feet in elevation, was the destination of our Desert Peaks party of Sierra Club members during the New Year's holiday in 1952.

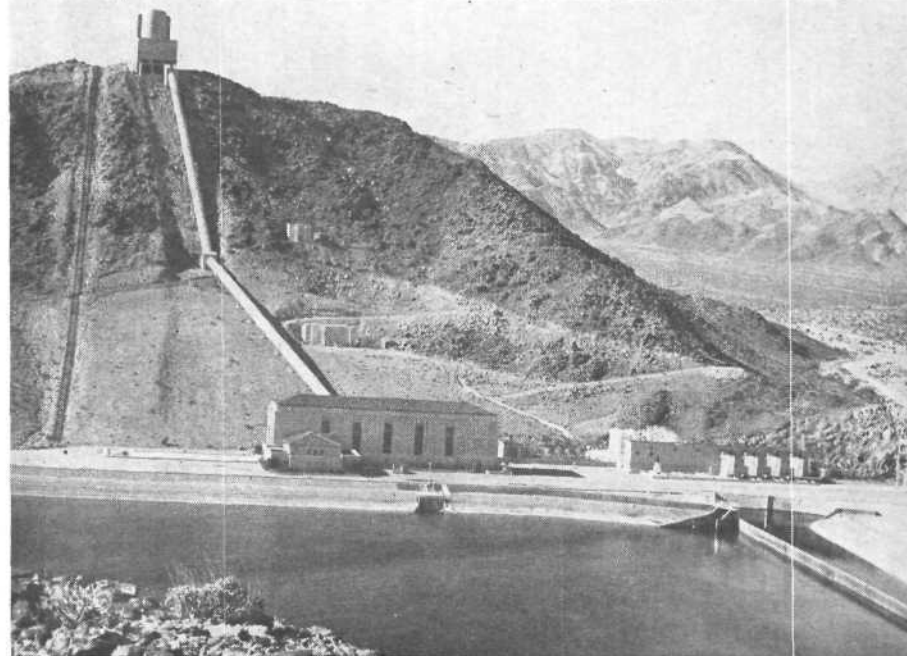
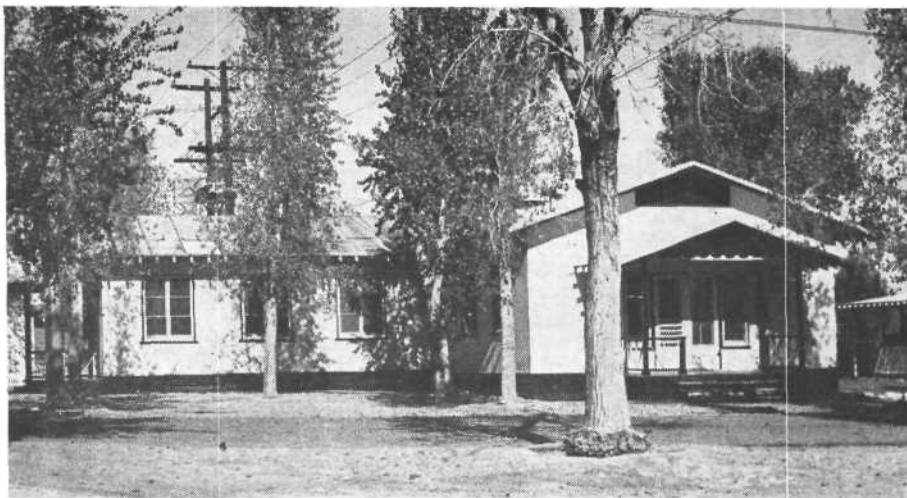
Bill Henderson, a graduate student at the University of California at Los Angeles and an ardent Sierra Club mountaineer, had sparked our enthusiasm for the trip. "This is an exploratory climb," he had written in the *Sierra Club Bulletin*. "We will try to reach the highest point in the Coxcomb range, 10 to 12 miles of trailless hiking, with a 3000-foot gain in elevation. There is no information about the roughness of the terrain, so wear sturdy boots; and bring water, as it will be a dry camp."

Our interest was further fanned by the fact that we would be gathering

information to be put later into a *Guide to the Desert Ranges of the Southwest*, a project of the Desert Peaks Section of the Sierra Club. Hundreds of mountain ranges erupt from the Southwest desert floor, and there is little or nothing in print about many of them. Our exploration would help. We felt like pioneers.

Twelve of us would make the trip. Bill and Marge Henderson had invited U.C.L.A. Mountaineers Dick Kenyon, Jon Gardey, Dick Apel, John Malik, Gary Bratt, Jack Lasner and Ronald Gilliam. Tom Corrigan, my husband Niles and myself completed the party.

We drove the 175 miles from Los Angeles east on U. S. Highway 60 to the town of Desert Center. From here we could see the southern tip of the Coxcomb range, about eight miles to the north. The range widens out in a northwesterly direction for about 20



Above—Aqueduct workers and their families live comfortably in the isolated community of Camp, at Eagle Mountain. Homes, shaded with cottonwood trees, are modern, completely electric. Housewives shop at Indio, 51 miles away.

Below—Metropolitan Water District's aqueduct at Eagle Mountain. This is one of the pumping stations which help lift Colorado River water over mountain barriers to consumers in Southern California.

miles. The widest part, near the north end, contains the highest point.

On the map we noticed a broken line running through the southern tip of the Coxcombs, indicating where the Metropolitan Aqueduct tunneled through the range, bringing Colorado River water to Southern California. Our eyes followed the line southwest across Chuckawalla Valley to the Eagle Mountain Aqueduct Station.

Everyday we Southern Californians use water brought to us through this aqueduct. But we seldom give a thought to the people involved in keeping this water coming, in helping it over the mountain barriers between source and consumer. We had an extra long holiday, a little more than we needed for our exploratory climb, so

we decided to visit the Eagle Mountain station and Camp, where the maintenance workers live.

The road to the station takes off from Highway 60 about three miles west of Desert Center. Six and a half miles of secondary hard-surfaced all-weather road took us northward to the open reservoir and the pumping station.

Water does not flow into Southern California as easily as tourists. Here and there along the line it must be given a boost. This is done by pumping the water up a slope, to allow gravity to take it on to the next station. The 240-mile aqueduct has five such pumping stations.

At Eagle Mountain it takes nine maintenance workers to keep this proc-

ess running smoothly. The workers and their families live in Camp. Even L. A. Ledbetter, utility man at the station and a bachelor, is given family responsibility — he daily drives the children to school in Desert Center. At that time, the entire grade school population consisted of two girls, Judith Ann and Linda Lee Dean, 10 and eight respectively. They are daughters of Highline Patrolman Ralph Dean.

Have you ever speculated on how you would manage if you lived in an isolated, sundrenched outpost on the Colorado Desert? No public library, no theater, no opera house. Not even a store. Knowing all your neighbors intimately, and being known the same way.

No streetcars, buses, traffic jams, factory whistles or ambulance sirens. A peace and quiet so audible to the city dweller, that he cannot sleep at night until he becomes conditioned to it. More sunshine to the cubic inch than you'll find almost anywhere in the world and at night more stars. And occasionally a rattlesnake under your porch.

Wide open spaces all around, with low hills in the background. Bighorn sheep roaming by. And on Saturday afternoons Johnny doesn't counter you with, "But mother, all the other kids get to go to the show, why can't I?"

Camp, they call the little village the aqueduct built for its maintenance workers. A dozen well-kept, white frame buildings line the main street. Tall spreading cottonwoods shade the houses—not identical houses, but individual ones.

We found Mr. Ledbetter trimming a bamboo windbreak. He showed us his fine bed of 'mums, a row of sweet-peas in bloom and some tomato plants bearing good sized fruit.

"I came here in 1933, during construction, and stayed on as utility man," he told us. "You ought to go over to the garage and talk to our station mechanic, Elmo Field. He's been here 18 years too. He has the first *Desert Magazine* ever printed. Editor Randall Henderson tried to buy it off him once, but he wouldn't sell."

Mr. Field told us that he remembers temperatures as high as 120 and as low as 22 degrees. We were enjoying right then a sunny-nippy 50. Rain-fall averages three inches annually.

"I shot a rattlesnake under my porch last week," said Mr. Field, in answer to our question about snakes. "We don't have sidewinders here. And not as many rattlers as we used to. You see, General Patton's Army was all through here. They sure went after the

rattlers. Other wildlife seems scarcer too."

Kit foxes occasionally sneak past camp. A herd of eight bighorn sheep sometimes roams in sight. For about 11 years, the oldtimers in Camp had recognized an old ram among the sheep. Every year he seemed to look thinner. Last year they noticed that he was nothing but skin and bones. He staggered along, hardly able to keep up with the herd. They saw him finally falter, and stop. The herd went on without him.

Some of the men went up from Camp to see what was wrong. The ram saw them coming, but didn't run away. He settled himself down on the ground. The men realized that he was dying. Though his legs could no longer support his body, his head still carried high his magnificent set of horns.

Mrs. Weeks hiked up and took a picture of him. We felt fortunate when she let us have the negative. Though we have often seen bighorn sheep at a distance in the desert mountains, we have never been able to get a picture of one. For pictures, it seems you either have to stalk them alone (a party is too noisy) or catch them dying. Either way takes a lot of patience.

There are no stores in Camp. Once a week the housewives list what supplies they need, and a truck goes to Indio for them. The nearest movie is at Indio, 51 miles away, and so is the nearest high school.

"Radio? Reception is poor here," said Mr. Field. "Better from the east than from the west. Television is impossible." Hills circle the horizon.

The men work 22 days and then have six days off. Mr. and Mrs. Field often spend their time off exploring the prehistoric Indian campgrounds in the Pinto Basin. They also like to go to Idyllwild in the San Jacinto Mountains, about a hundred miles west of Camp. It is the nearest wooded area. Mrs. Field teaches school in Desert Center.

The two rows of yellow cottonwoods that line the main street beckoned us. A little girl in a red coat was pumping a swing in one of the yards. "Her mother is probably in," said my husband, readying his camera. We had heard that this being a holiday, many of the women would not be in Camp.

"When you've got two small youngsters, you don't go so much," said the lady of the house, who introduced herself as Mrs. C. A. Weeks, wife of one of the station's two highline patrolmen. She invited us into her attractive 5-room home.

The Weeks' home is typical: electrically heated in winter and electrically



Linda, 8, and Judith Ann Dean, 10, daughters of Eagle Mountain Station's Highline Patrolman Ralph Dean, have no sidewalks on which to play. But the garage provides an excellent rink for their Christmas skates.

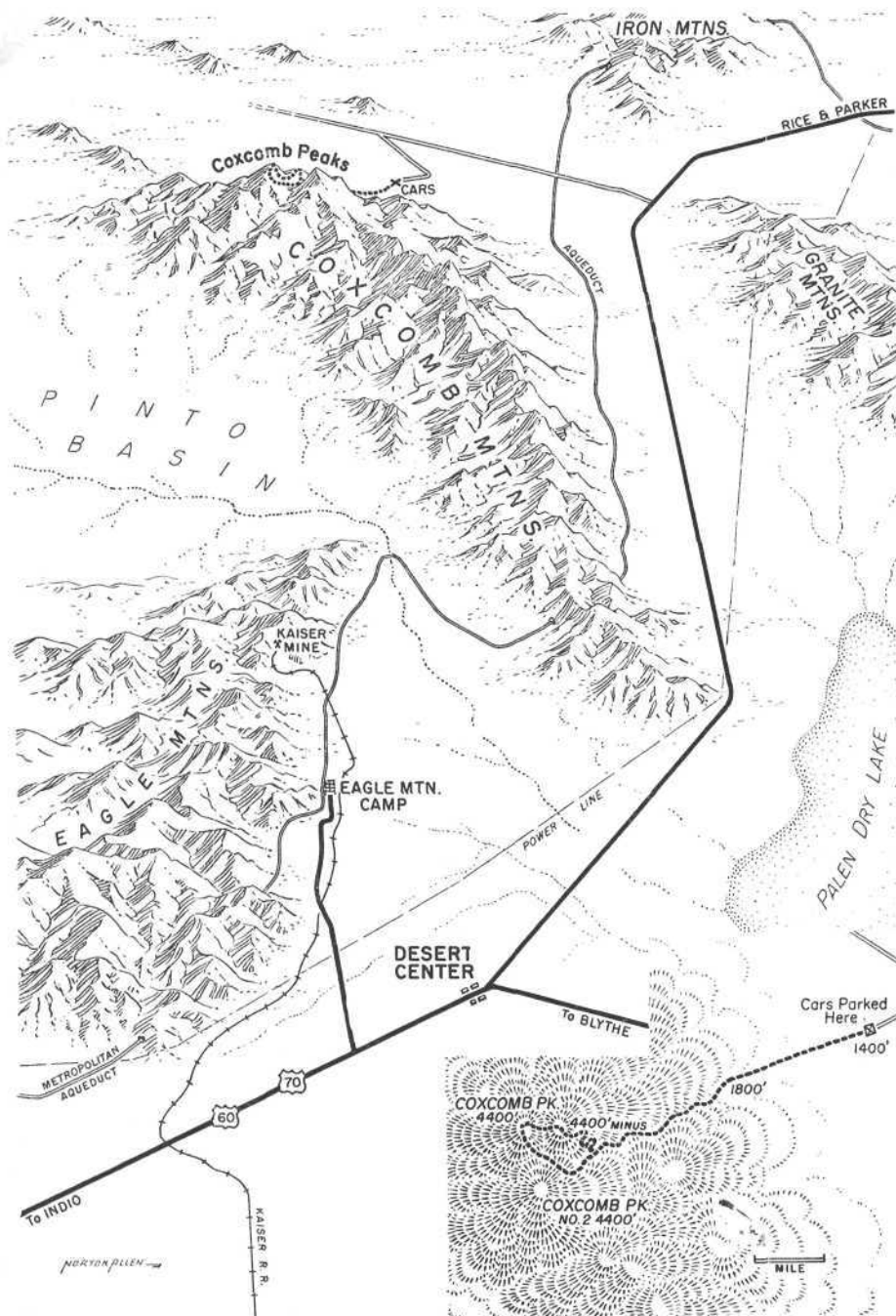
cooled in summer. Mrs. Weeks cooks with electricity. Not many of us city women can afford completely electrified homes.

We prowled around Camp some more and found two lighted tennis courts, a swimming pool and a community barbeque shaded with feathery green tamarisk trees. Through a gap in the greenery, we could see, across a seven-mile stretch of desert, a large, triangular white scar on the face of the Eagle Mountains. That, we learned, was Kaiser's Eagle Mountain Iron Mine. Two of the women from

Camp work in the mine office, and some families attend church there. It is the nearest church to Camp.

Mr. Field had gone to lunch, and the two Dean girls had transformed the garage into a roller skating rink. There are no sidewalks in Camp, and the pavement is pretty rough for roller skating. What's a girl to do in a case like that, if she gets a pair of roller skates for Christmas?

We'd had an enjoyable day at the Eagle Mountain Aqueduct Station. Our goal now was the opposite side of the



Coxcombs, and a camp within striking distance of the highest point.

To reach the east side of the Coxcomb Range, we took the Parker Dam road out of Desert Center. Twenty eight miles northeast of Desert Center, we angled left on a dirt road. This seven-mile stretch is washboardy, but firm. We turned left again on a little-used road that wasn't much more than a cleared strip, stayed on it for a mile and a half and turned right on a similar strip. A mile later we stopped and made camp.

Our object was to get as near as possible to the eastern base of the northern end of the Coxcomb Range. Bill Henderson's weapons carrier, which he calls "Brunhilde, the Elephant Wagon," could have gone an-

other mile or two, but we had two town cars in the caravan. Besides, this spot was littered with timbers left by Patton's Army, and we wanted to take advantage of the handy fuel supply. The elevation was about 1400 feet.

A frosty nip in the air drew us close to our campfire, as we celebrated the going out of the Old Year. Millions of stars burned coldly in the blue bowl of sky that covered us. A sliver of setting moon illuminated the Coxcombs. Wraiths of cloud drifting over it made weird faces, with the moon sliver as a single eye. Not an artificial light was visible anywhere.

Maestro Jon Gardey wielded a creosote baton. Gary Bratt strummed chords on a uke, and Dick Apel pumped a toy concertina while Marge

Henderson and I vibrated melody on two combs. Niles Werner occasionally added the cymbal clash of two tin cups. Bill Henderson boomed out the bass on a pie tin, and Jack Lasner added an exotic touch by rattling rocks in a tin can. What the musicians lacked in finesse, they made up in enthusiasm. A gallon tin full of hot punch made by Jack Lasner warmed the shivering musicians before they crawled into their sleeping bags.

New Year's day dawned clear and crisp — perfect hiking weather. We left camp at about seven a.m. The contour lines on Bill's topo map indicated that we might run into some steep going, so Tom Corrigan carried the rope. Shell holes pitted the two miles between camp and the base of the mountains. At the turnoff from the Parker Dam Highway, we had encountered a sign saying: "DANGER! Do not handle unfamiliar objects found on the desert. They may be unexploded ammunition."

We made our way through creosote and staghorn cactus as high as our heads. Desert lupine hugged the ground. Rounded bladder pod bushes sported gay yellow blooms.

"The map shows a canyon leading in about here," said Bill. "It seems to head directly for the highest point. Or I should say the highest points. There seem to be two points very nearly the same elevation."

The canyon shut us in, as if the Coxcombs had accepted us as visitors and closed the door. We walked single-file up a sand-carpeted wash, following the fresh tracks of bighorn sheep and coyotes. The next bend was never far ahead. The wash sloped upward so easily at first, we hardly realized we were climbing. Our eyes wandered up and down the rocky, out-sloping walls. The nubby rocks gleamed rich red-brown — like the patina of hardwood furniture that has been polished for 50 years. An airy blue sky drenched in sunlight furnished a pleasing complement in the color scheme. Here and there a vine crawled on the white sandy floor, bearing gourds the size and shape of oranges.

Soon the canyon walls took on bolder patterns. Rock faces reached out toward us at gravity-defying angles. Walls met sky in a clash of gendarmes, pinnacles and needles. A little higher up, the canyon was choked at intervals with boulder slides. No easy walking here, looking at the scenery! On all fours, we scrambled over boulders, keeping our eyes on the trail.

The rough, coarse granite gave excellent traction for our lug-soled boots, especially when large slabs lay at the angle where maximum friction was

necessary to hold us on. But I had neglected to bring gloves, and I skinned my fingers scrambling up jagged slopes.

We Sierrans like a climb with variety, and this one had it. Stretches of easy sandy wash alternated with rock-scrambles. We encountered a tarantula sunning himself on a boulder. He was sluggishly indifferent to our prodings. The shadows had crept down one wall and were climbing the other. A small flock of birds darted between the canyon walls. Hardy ground-cherries with little lantern-like pods peered out of crannies.

We stopped to admire some boulders that were attractively honeycombed with small cavities, probably the work of wind and sand. The cavities themselves were larger than their openings, and their floors were covered with sand — excellent shelters for rodents or birds.

We had not yet spied the summit, but figured it was to our right. We climbed out of the canyon and topped a saddle at about 4000 feet. Ahead we saw a single peak, its slopes dotted with pinyon pine. Out of a depression near by rose an exceptionally large pine specimen. The ground underneath it was lush with vegetation, and we suspected there might be a spring.

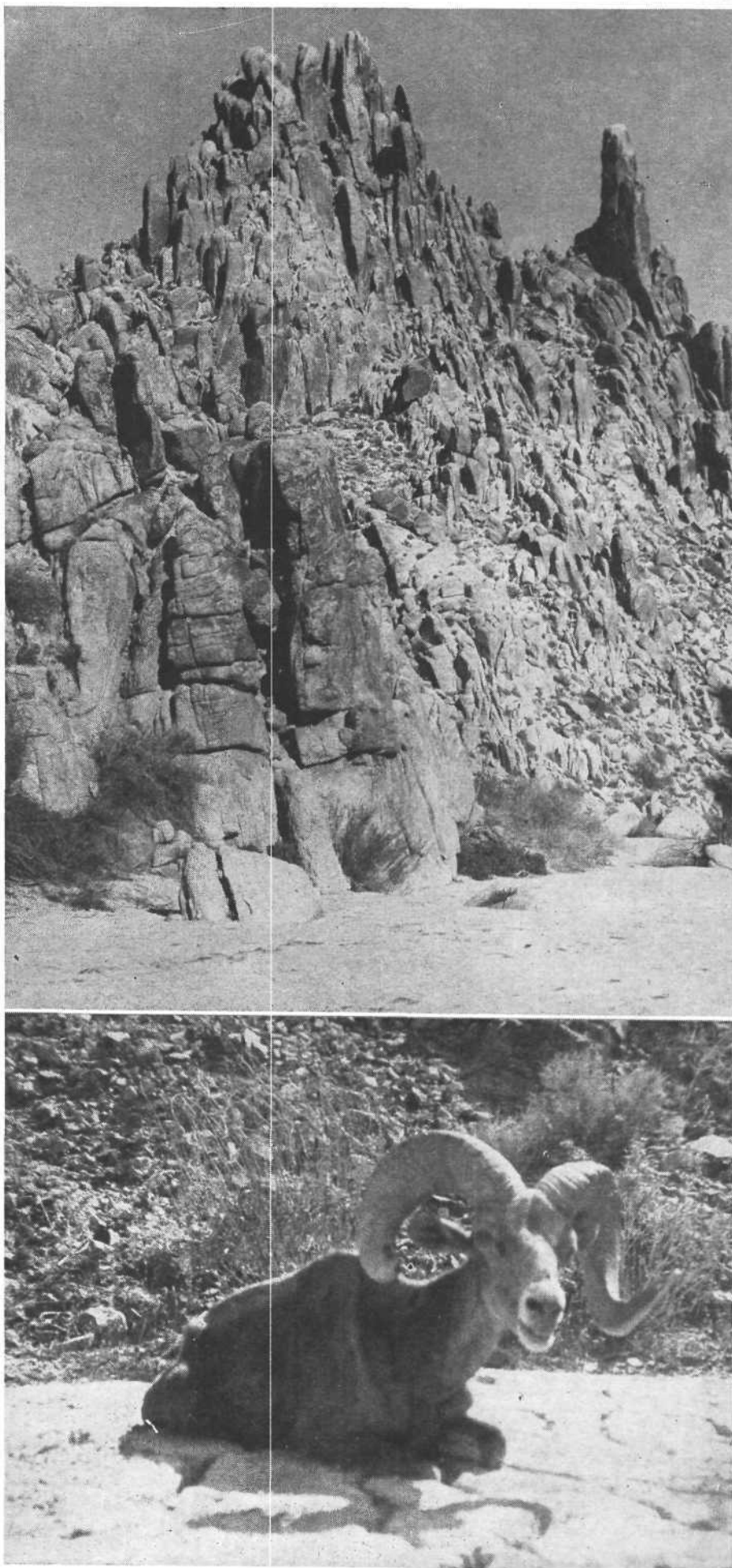
We contoured up the pinyon-dotted slope. As we spiralled from north to west, we saw, across a 200-foot drop, another ridge, with two summits that looked higher. Momentary discouragement engulfed us. It's an experience familiar to all mountain climbers — when a peak is practically climbed suddenly to find a higher summit ahead.

We stopped and bolstered our courage with lunch. Bill got out his hand level and sighted across at the two peaks. "They're so nearly the same elevation, that I can't tell the difference from here," he said. "We'll have to climb one and see."

"Which one?" we wanted to know, having visions of having to climb them

Above—The rocky walls of Coxcomb Canyon are weathered to a rich red-brown—"like the patina of hardwood furniture that has been polished for 50 years," writes the author.

Below—When the old ram lay dying on the hillside above Camp, Mrs. C. A. Weeks, wife of one of the aqueduct station's highline patrolmen, hiked up for this picture. Though his legs could no longer support his body, the old bighorn's head still carried high his magnificent set of horns.





A gently sloping wash provided easy walking at the entrance of Coxcomb Canyon. Soon canyon walls narrowed, and the party had to contend with catsclaw and slippery weather-varnished boulders.

both. One looked more difficult than the other so we settled for the easier one, the one to our right.

We dropped down 200 feet, and from there a 20-minute rock scramble put us on top. Bill sighted across. He made unintelligible noises while we waited for the verdict. Finally he said, "As far as I can make out, the two points are exactly the same elevation."

Gary Bratt had a look and declared the one we were on was higher, though only by a hairbreadth. Tom Corrigan agreed. We found no benchmark, cairn or any other indication that others had been here ahead of us. This is unusual, especially in an area where the military has been stationed. We built a cairn and left a can with our names. Bill wrote: "This is presumably the highest point in the Coxcomb Range."

Our peak was on the western edge of the north part of the range. In the immediate foreground, steep ragged gulleys tore down the slopes in the direction of Pinto Basin. But the eye-catchers in that direction were the

peaks of San Gorgonio and San Jacinto, snow-mantled and mysterious, in the far distance. Across the Chuckawalla Valley we caught a glint of sun on water. It helped us to spot the Eagle Mountain Aqueduct Station, backed up against the thin chain of the Eagle Mountains.

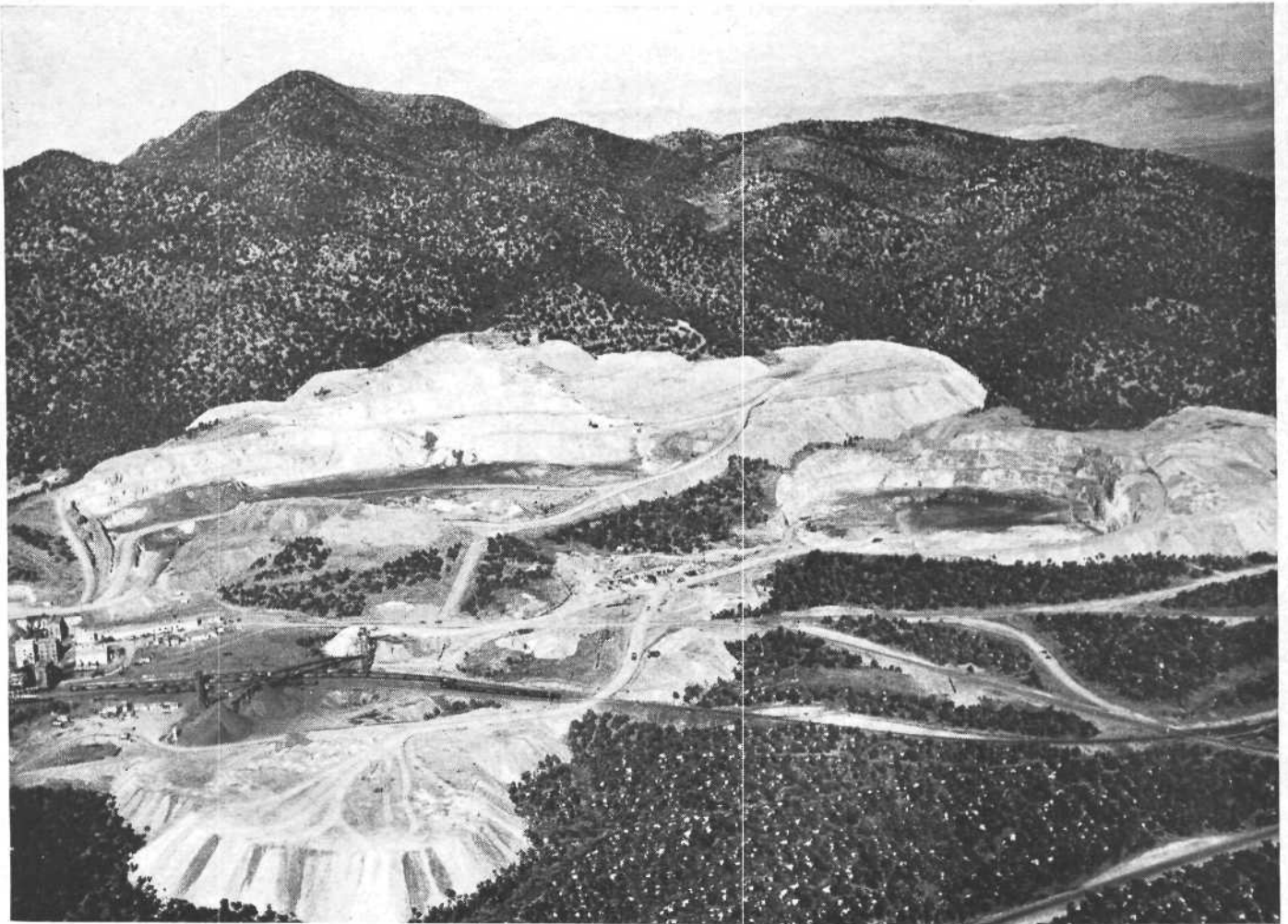
The view to the southeast encouraged speculation and planning for future climbs. Range after range of desert mountains stretched away as far as we could see: the Palens, the Granites, the Little Marias, the Big Marias. Like an undulating carpet of chocolate-brown velvet, they stretched to the vanishing point.

It's a wonderful feeling to sit on top of a desert range. On snow peaks the climber usually must arrive before eleven a.m. to be reasonably sure of a view. And then he is uneasy about the weather, and anyway, there's no place to sit except on the cold snow. On High Sierra peaks afternoon storms can hit suddenly, and it's always a long way back to camp. But on most

desert peaks, these worries are forgotten. The view lasts all day. One can bask on the warm rocks without fear of a sudden storm. And the desert peaks are hospitable for three seasons of the year, which is more than can be said for most mountains.

On our way down we avoided Lunch Peak and the saddle by staying in a gully to the right. We reached the cars at about 4:30 p.m. From our map we had guessed the trip would take a good half day, be fairly direct and perhaps require a rope here and there. As it turned out, it took a full day, wound around a good deal, and we had no need of the rope.

But these things—the unexpected, the uncalculable—are what make up the thrill of exploration in the uncharted mountain ranges of the vast Southwest desert land. Having climbed Coxcomb Peak unguided, we had gathered information which would be helpful to future mountaineers. Tired but happy, we knew we were one chapter nearer publication of our *Desert Ranges Guide*.



The operations of Columbia Iron Mining Company (left) and Colorado Fuel and Iron (right) scar the juniper slopes of Iron Mountain near Cedar City in Southern Utah. From these hills in 1852 came the first iron manufactured west of the Mississippi. Estimates of ore reserves in this and surrounding area range from 100 million to 400 million gross tons. (Photo courtesy Columbia Iron Mining Co.)

Where Mormons Found a Mountain of Iron . . .

When Brigham Young led his Mormon band to Utah in 1847 he was determined to found a colony which would be entirely self-sustaining. Fortunately, Utah had everything that was necessary for an agricultural community, including the iron for the plough-shares. And here is the story of where the iron came from—and how it was converted to the use of the colonists.

By GUSTIVE O. LARSON

Map by Norton Allen

TODAY, NEAR Cedar City, Utah, on the juniper-green slopes of Iron Mountain, giant electric shovels are taking 5-ton bites out of a great iron ore deposit, and loading the metallic rock into trucks and railroad cars for treatment at the reduction plants.

Recently I visited this great iron

ore pit-mine in company with Dr. William R. Palmer, historian of Cedar City, and together we extended our trip of inspection to a nearby bend in Coal Creek where Utah's first blast furnace was erected nearly 100 years ago.

Little remains of the original workings. Only bits of iron ore disclose

the site of the original mill where Mormon pioneers saw the first molten pig-iron come from the rock that was mined nearby. A Paiute Indian village lies beyond the creek. A primitive log cabin, preserved in the city park, shelters a 150-pound bell cast in 1855. Nothing else remains in the immediate vicinity to remind visitors that Cedar City was once the hub of activities for which Iron County, Utah, was named.

As we walked over this long abandoned millsite, Dr. Palmer recalled for me the history of Iron Mountain's mining industry.

When the Mormons in 1847 turned off the Oregon Trail to settle on the



The large chunks of iron ore pass through crushing jaws of the reduction plants before loading into cars for a 200 mile trip to Geneva Steel Plant in Provo, Utah.

shores of the Great Salt Lake, they were determined to build a self-supporting commonwealth in the Great Basin. Jefferson Hunt of the Mormon Battalion in California traversed present Iron County several times as he shuttled between San Bernardino and the Mormon settlement. On October 31, 1849, he recorded:

"We traveled 13 miles and camped on a stream called Little Muddy (present Coal Creek of Cedar City) . . . near this spring (Iron Springs) are immense quantities of iron ore." That same fall Parley P. Pratt led an exploring party of 50 horsemen southward from Salt Lake. In late December he recorded his impressions of Little Salt Lake and Cedar Valleys:

"Other portions of this plain are dry and level, delightful for the plow and clothed with rich meadow grass, rabbit weed, etc. . . . on the southwestern borders of this valley are thousands of acres of Cedar (juniper) constituting an almost inexhaustible supply of fuel. In the center of these forests rises a hill of the richest iron ore."

Iron was a necessity in the building of the Mormon state. Brigham Young declared, "Iron we must have, we cannot well do without it." So while Pratt sponsored the creation of Iron County in the Territorial Legislature, Young launched an "Iron Mission." A call for volunteers appeared in the *Deseret News* of July 27, 1850:

"Brethren of Great Salt Lake City and vicinity, who are full of faith and good works, who have been blessed with means . . . are informed by the Presidency of the Church that a colony is wanted at Little Salt Lake this fall; that 50 or more good effective men with teams and wagons, provisions and clothing, are wanted for one year. Seed grain in abundance and tools in all their variety for a new colony are wanted to start from this place immediately after the Fall Conference to repair to the valley of the Little Salt Lake without delay. There to sow, build and fence, erect saw mill and grist mill, establish an iron foundry as speedily as possible . . ."

George A. Smith led a company of 120 men, 30 women and 14 children with 101 wagons southward in December. They planted a colony where the Spanish Trail crossed the Little Salt Lake Valley and the west end of the old trading route rapidly became the "Mormon emigrant route to California." An agricultural base located on January 13, 1851, was called Parowan (Paiute for evil water). Then in November of that year 11 wagons moved into fort position on the Little Muddy (later changed to Coal Creek) and Cedar City was born as an iron manufacturing colony. Its first citizens were Mormon converts from mining and iron manufacturing centers of England, Scotland, and Wales.

While some of the pioneers were assigned to farming and homebuilding, the others began preparations for iron manufacturing. A road was built into Coal Creek Canyon (now the approach to Cedar Breaks and Bryce Canyon), a blast furnace built, and materials assembled. Preliminary experiments demonstrated that local coal was unsuited to smelting purposes and much labor went into assembling dry pitch pine and cooking operations. The wilderness rang with sledge hammer blows which reduced iron ore to the capacity of the primitive furnace.

Paiute Chief Cal-o-e-chipe welcomed the colonists but his clansmen gathered in such numbers as to speed Mormon defense organization. At year's end the camp historian, Henry Lunt, wrote:

" . . . in the midst of semi-hostile savages, guarding, fencing, farming and exploring and building houses, mills, etc., we have had our prayers answered in the preservation of our lives and property." He continued in the new year: "January 1, 1852 came upon us in the estimation of a pleased God, the whole people were called together and in a mighty prayer we thanked the God of Israel for his past blessings upon our labors and presently called upon Him to bless us in the future and to enable us to maintain ourselves in this desert land, to protect us from the Indians and to ac-

comply the mission we were sent to perform, namely, the manufacture of iron."

At last, in September, a trial run was readied with great expectancy. The entire village waited through the night for tapping ceremonies. The record of the iron company states simply, "On the 29th of September the blast was put on the furnace and charged with iron ore that had been calcined. The fuel used was stone coal coked, and dry pitch pine wood in the raw state.

"On the morning of the 30th the furnace was tapped and a small quantity of iron run out which caused the hearts of all to rejoice." The surrounding hills echoed with a chorus of 'hosannah, hosannah, hosannah, to God and the Lamb!' and a committee of five horsemen was elected to convey samples of the iron to Brigham Young in Salt Lake City.

Citizens of Utah Territory followed eagerly the progress of iron manufacturing in the *Deseret News*: "An excellent air furnace was nearly finished (February 26, 1853) built of adobes with a tunnel 300 feet long to convey the smoke to a chimney stack 40 feet high. An extensive frame building has been erected for a casting house."

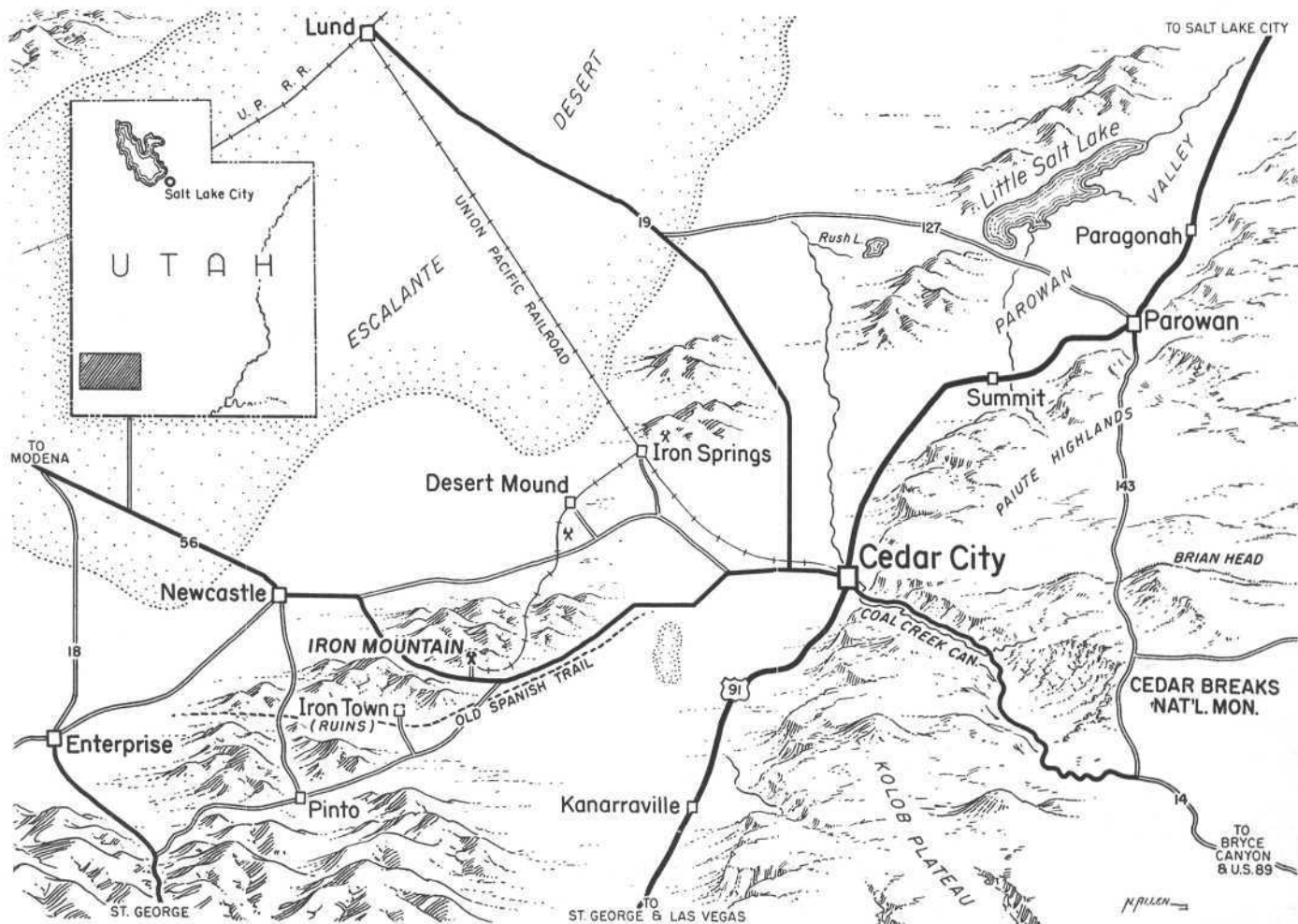


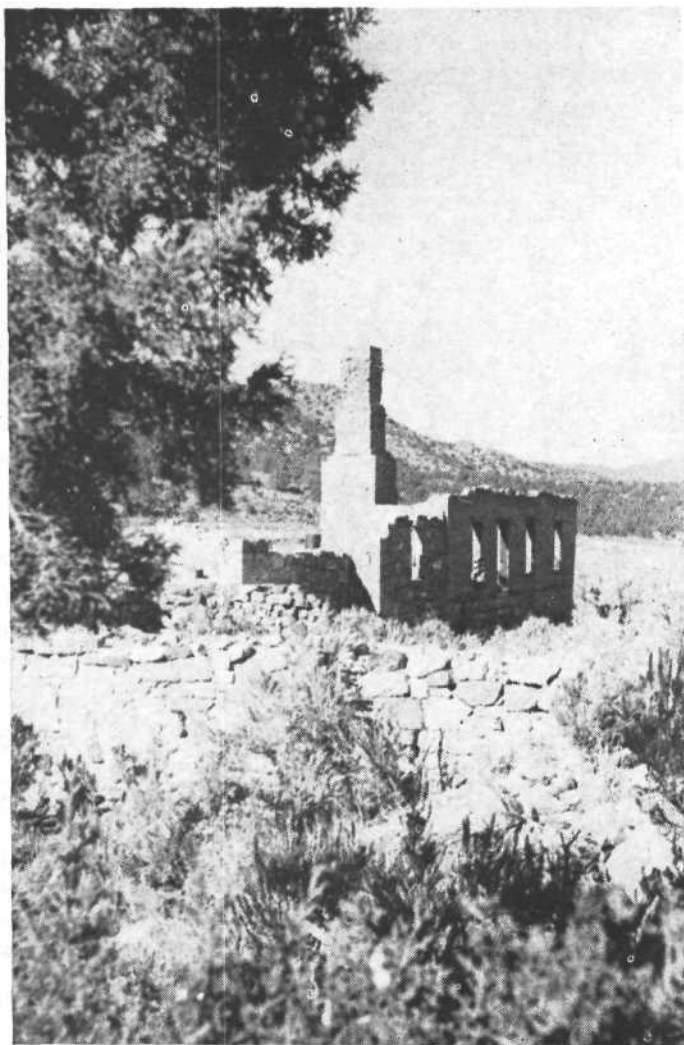
The lusty tones of this 150 pound bell cast in 1855 originally called the iron colonists together in the Cedar Fort and later served Cedar City where it hung in the belfry of the old Lunt Hotel. It is currently in the keeping of Cedar City Chapter of the Daughters of Utah Pioneers. (Photo courtesy York Jones)

April 2, 1853: "In the beginning of March, 1853, the blast furnace was run once a week during which 25,000 pounds of clear good iron were made and 600 bushels of charcoal were consumed."

October 15, 1853: (Following outbreak of Walker War) "We have six men with the herd of cattle daily, well armed, and a strong guard every night around the fort, and as soon as the fort is enclosed, we hope to commence the iron works anew. A tremendous flood came down Coal Creek on Saturday, September 31, carrying an immense quantity of logs and rocks of great size. It did considerable damage to the Iron Works."

In spite of discouraging fuel problems, failure of waterpower, and devastating floods, considerable iron was manufactured for local use. The original company yielded to the Deseret Manufacturing Company which had been capitalized in England on orders of Brigham Young. It produced castings for home manufactured machinery, molasses rolls, flat irons, stoves, plows, nails and horseshoes. Kitchen and household utensils were sold in the surrounding country and stove grates were carried as far as the Spanish Missions in California. A large,





All that remains today of old Iron Town—the chimney of the original blast furnace—and the beehive charcoal oven where the fuel was manufactured for Iron Town mining in the 1870s.

clear-sounding bell, cast in 1855, served the community for many years.

A Federal army, invading Utah to quell a so-called Mormon rebellion in 1857, brought the iron works to a stand-still. The Mountain Meadows tragedy cast its blight over the city, causing heavy loss of population. Heroic efforts to revive the industry proved fruitless when the middle 'sixties brought promise of a trans-continental railroad. The last run of the old furnace converted seven wagon loads of Johnston's Army cannon balls into molasses rolls and other useful articles. Cedar City turned to farming and stockraising.

Then, in 1866, the Great Western Manufacturing Company, capitalized privately by enterprising Mormons, launched the iron industry anew. "Old Iron Town" became a thriving village west of Iron Mountain. For two decades the industry, under various names, produced considerable quantities of iron, supplying much needed castings

for Silver Reef, Pioche, Bullionville and other mining communities.

But Iron Mountain was destined to wait for a new century before it could make Utah the fourth largest iron ore producing state in the union. Old Iron Town joined the ghost towns of the West, preserving the stack of its blast furnace and a beehive charcoal oven to mark its place in the Old Spanish Trail. Less conspicuous are the remains of a Spanish arrastre employed to crush clay for use in the molding processes. Through the efforts of the Utah Trails and Landmarks Association and Iron County Chapter of Sons of Utah Pioneers, the place has been fenced and marked as a memorial to early pioneer industry.

The present phase of Utah's iron production began when Columbia Steel blew in its Ironton (Utah County) pig iron plant in 1924. Iron County watched its mining output rise to nearly two million gross tons before the close of World War II. U. S. Steel took

over the war-time Geneva plant in 1946 and Utah iron ore tonnage jumped to 2,741,000. Colorado Fuel and Iron began using Iron Mountain ore in 1942 and not long after the area became a major source of iron for Kaiser Steel Corporation. In 1931 Utah's employment in the iron industry averaged 69 workers and the annual payroll averaged \$99,000.00. In 1951, the number employed in the industry had jumped to 616 and the annual payroll to \$2,664,000.

What of the future? What reserves are locked up in this "hill of richest iron ore" as it was called in 1849? Estimates by the U. S. Bureau of Mines include 100,000,000 gross tons of near 50 percent grade, plus another two or three hundred million "inferred" tonnage. Whatever hidden resources time may disclose, they will be sufficient to insure that the iron industry which had its beginnings, west of the Mississippi, in Cedar City in 1852 has come to the West to stay.

Harquahala Bonanza . . .

By JAY ELLIS RANSOM

Photographs by the author

Map by Norton Allen

MY FATHER and I stopped beside a group of palo verde trees to make camp. All about us the ragged peaks of Arizona's Harquahala Range bolstered up the sky. The stars of the January constellations began to appear as we gathered dead wood for our campfire.

We had gotten our directions earlier in the day when we stopped at the town of Salome for gasoline. The station attendant had told us: "There were famous gold mines in the Harquahalas 60 years ago, and they could well become famous again. Particularly the Harquahala Bonanza. That mine was a real producer."

We had been intrigued by the place names which appeared on the Arizona map—the Harquahala Range to the south of U. S. Highways 60 and 70, the Harcuvar Range to the north—and had come here on a rock hunting trip.

When we learned about the old mines that lay only a few miles to the south of the highway, we decided that if this region was good to the miners of an earlier generation, it might also be good to a couple of rockhounds of today.

With the sun sinking low in the west, we turned south past Salome's adobe jail. A broad dirt road, with forks branching off to new mines being developed in these rich hills, led us four miles to the entrance of a narrow twisting canyon.

Although this canyon is not marked on the map, we were sure it was the place described to us as Centennial Wash. The mountains closed in around us and the road dipped and curved like a gigantic roller-coaster. We found our camping site at 8.1 miles from Salome. Early the next morning we continued our journey to the old Harquahala mining camp.

Beyond the first scattering of buildings—some of adobe and others built of railroad ties—were two sharp ragged peaks. All along the base of Martin Peak, on the right, great mines cast their detritus, gray and weed-grown where gallus frames raised their empty arms above the long dead shafts. These were the Harquahala Bonanza, the Extension, Summit Lode, the Narrow Gauge and the Grand View. Be-

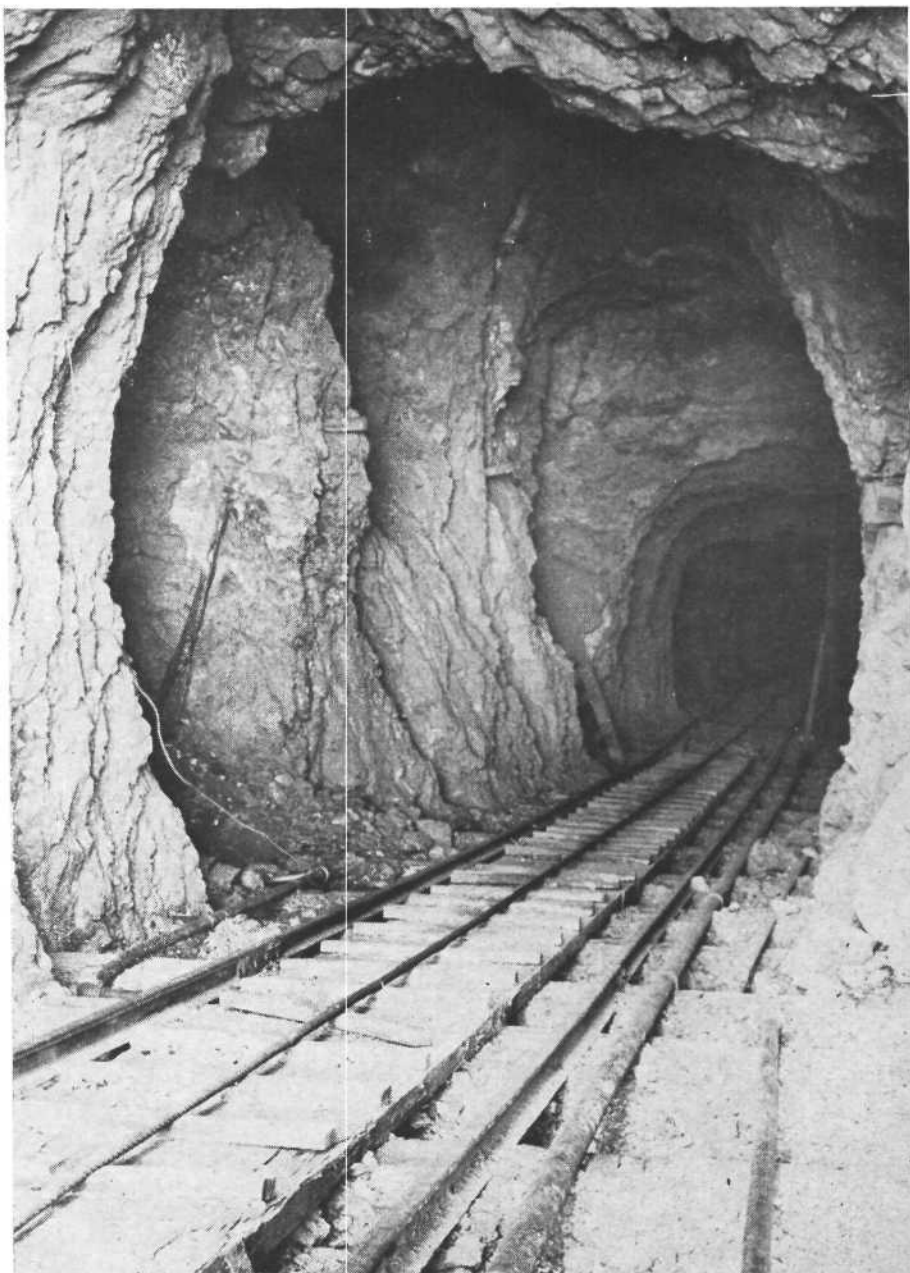
The Harquahala Mountains of Southwestern Arizona are scarred with the slashes of mine adits and access roads, the gray detritus of tailing dumps and the deteriorating remnants of a once-booming mining camp. The famous Harquahala Bonanza, the Extension, the Summit Lode, Golden Eagle, Grand View and Narrow Gauge mines all were big gold producers 50 years ago; but today the hills are quiet—except for occasional blasts of a few leasers carrying on limited operations. Mrs. Rose Johnson, owner and caretaker of the Harquahala, still hopes for a rebirth of large-scale mining in the district. You will meet Mrs. Johnson in this story and will explore with Jay Ransom the Harquahala Bonanza and the abandoned but still rich gold country in which it lies.

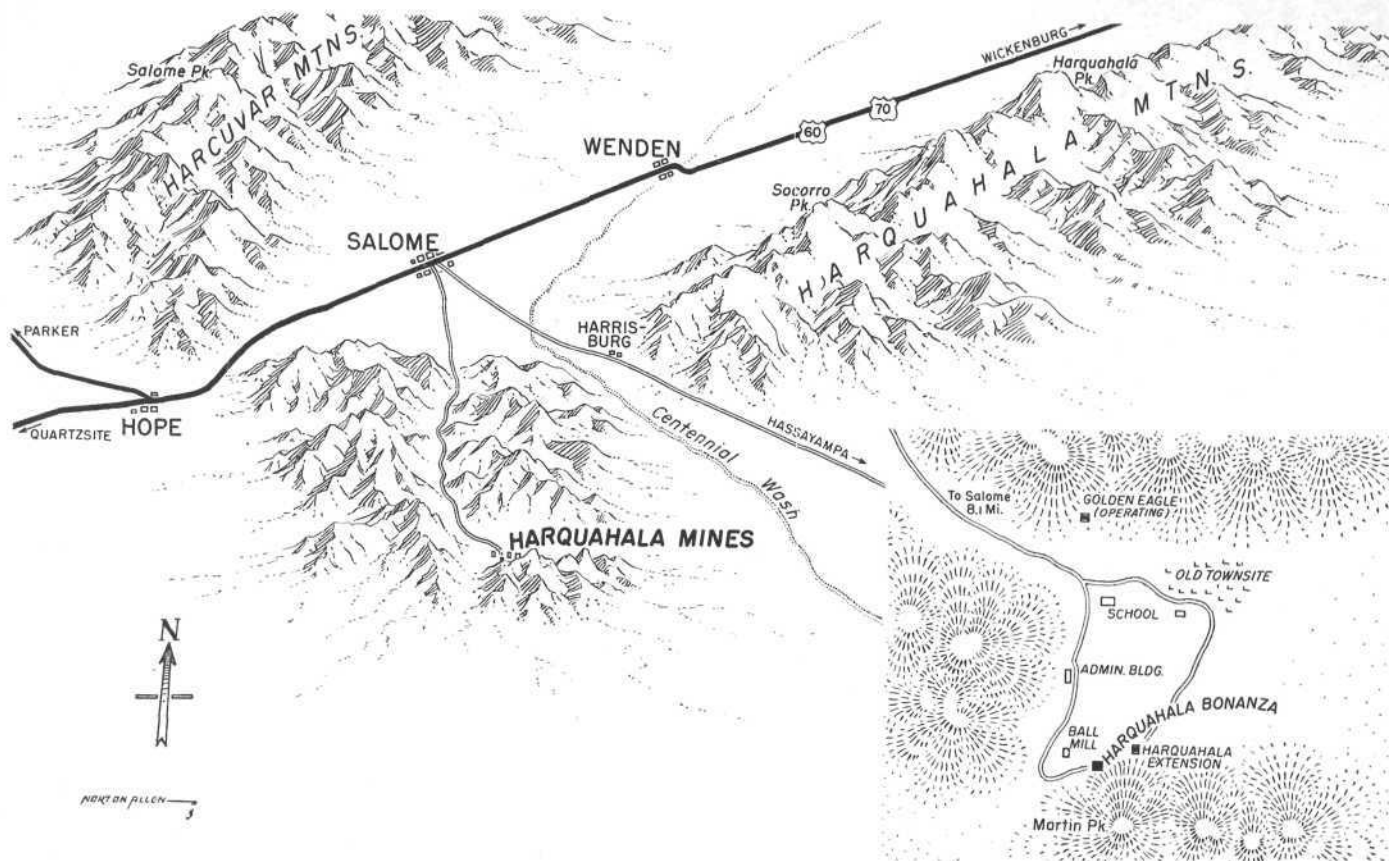
hind us, in a widening arc lay the Golden Eagle and its subsidiaries.

The noise of braking to a stop on the gravel in front of the only inhabited

residence in the old camp brought a woman out onto the porch. Obviously surprised at having visitors in this lonely place, she emerged into the

Thirty-degree inclined shaft of the Harquahala Extension. One can walk through this mine in perfect safety, following drifts into the mountain.





sunlight dressed in levis, a plaid shirt and wool sweater. Beneath her gray hair bright eyes twinkled.

"I'm Mrs. Johnson," she introduced herself, "owner and caretaker of the Harquahala."

We introduced ourselves as rock hunters. "I remember hearing of the Harquahala mines 40 years ago," Dad admitted. "Is it all right if we pick over the old dumps, and maybe take some pictures?"

It was fine with Mrs. Johnson, and she pointed out and named the scattered structures that remain in the once populous mining center. After showing us the nearby adobe school, almost roofless but still used as a storehouse for her personal supplies, and another large adobe across the valley which she said was the old administration building, she faced the gray dumps gleaming at the foot of Martin Peak a quarter of a mile south. Indicating the most easterly mine where two sun-burnt frame buildings seemed to be holding up a gaunt crosspatch of timbers, she explained: "That's my Harquahala Extension. I have \$75,000 invested in that mine. It's in good shape, and if you have carbide lamps or flashlights, you can walk down the incline and explore as much as you like underground."

With the January sun warm on our backs we listened to her recall how the Harquahala Bonanza, most famous of the several big producers in the district, was originally located on No-

vember 14, 1888, by Harry Wharton, Robert Stein and Mike Sullivan. "They were just burro prospectors who quickly sold out to a Mr. Hubbard," she explained. After gouging out a fortune in a rich ore pocket, Hubbard sold the mine to an English company in 1893, and until its virtual abandonment at the time of the first World War, the Bonanza alone produced \$3,631,000 in free-milling gold ore.

While Mrs. Johnson described the old camp she knew so well—she came here from Phoenix after selling out a 36-room hotel and boarding house—I could visualize the frantic activity that had invaded these desolate mountains and for two decades had overflowed the canyons with the noise and bombast of mill roar and blasting, incongruous in the peaceful morning sunlight of today.

She pointed to the wash that ran along the north base of the mountains. "The Mexicans who worked in the mines had their homes there," she remembered. "The floods and fire have removed nearly all traces of them, but," she added, laughing, "their memory persists. They were ignorant fellows, peons out of Old Mexico brought in to do the heavy work for the lowest pay. But I guess they weren't so dumb. They used to be known as the smokingest workmen ever to mine gold, and it was a long time before the mine owners learned they were highgrading the richest ore in their pipes.

"The more daring miners used to

scrape the arrastres and smuggle out the gold wholesale. Whenever they were all set, somebody would give a signal, and all the children in the camp would gather around, singing in a chorus. They'd bring a hand organ out of the church and play it, pumping the bellows for all they were worth. Nobody thought until much later — when the mines were beginning to close down—that maybe all that playing and singing was done to drown out the sound of their fathers stealing gold."

In contrast to many of the rich mining towns of the early West, Harquahala was never a wild boisterous camp. Highgrading was done quietly. Of course, there was the usual assortment of saloons and entertainment palaces, and now and then a knifing occurred in the Mexican settlement. The freighters who brought in supplies overland from Yuma were a hard-bitten, desert toughened bunch of jerk-liners, and they occasionally caused trouble.

Water was scarce, and a 30,000-foot pipe line from Harrisburg was put in to supply the water for the camp and its 40-stamp mill. Remnants of this cast iron line still may be seen.

"The ore was very rich," Mrs. Johnson explained. "It lay in chimney veins, sometimes in solid nuggets the size of a man's fist. I remember one nugget, sprouting leaves of solid yellow gold out of a chunk of quartz, that brought \$10,000. But most of



Settling pans, like giant crucibles, lie below the clayey silt dump of what may have been a flotation-type mill, no longer existing. The size of the pans may be judged by Jay Ransom, Sr., seated on a sediment filled pan.



Martin Mountain (right) and the famous Harquahala glory hole which resulted from the collapse of tunnels and stopes. Drifts honeycomb this once famous peak following fabulously rich veins of almost pure gold.

the gold was scattered through red hematite along the contact of limestone with a basal granite."

Her enthusiasm increased as she told us about the Bonanza mine, because her own mine had reached an identical type of mineral bearing quartzite-granite porphyry similar to that which produced the richest ore bodies in the Bonanza.

"The old Bonanza used to be called the Castle Garden, and sometimes the 'million dollar' stope. It's still wide open, and you can visit it if you want to climb down the ladder into the shaft. The ore"—she showed us a pile of specimens alongside her cabin—"contains silver and lead as well as gold. The lead alone is worth reopening my Extension property."

In the heyday of the district, mining was carried on by inclined shafts with crosscut adits and drifts along the veins. About 2000 feet of tunnels comprise the Bonanza alone. Most of the veins dip from 30 to 60 degrees, Mrs. Johnson's being the most shallow and therefore easiest to visit. While the Harquahala Range consists of crystalline rocks, mostly pre-Cambrian but including some Paleozoic strata, it has been tilted in various directions and intruded by dark-colored basic dikes. Veinlets of quartz and calcite are found throughout the area. Ore shoots occupied zones of shearing between a sedimentary series of limestone, shale and quartzite with the basal granitic formation. Pyrite was deposited along brecciated zones that are now filled with sericite. The main veins were from a few inches to many feet wide. Some of the quartzite is conglomerate, appearing to lie on an old shore of granite, dipping southwest.

We wandered about the area, visiting different mine dumps and looking for samples. We found some interesting gold-bearing quartzite specimens. Visiting the Harquahala Extension, we strolled down the inclined shaft to the limit of visibility. The tunnel was dry, and I noted a steadily rising temperature as we went farther into the mountain. Timbering and ties beneath the narrow gauge track were in excellent condition.

An interesting side light on the Harquahala operations concerns the timber used in the mines. Since this part of Arizona is totally devoid of trees, all lumber had to be freighted in. Most of the timber used was Oregon pine shipped down the Pacific Coast to the nearest port and freighted to the mines. The total cost averaged \$26 a thousand delivered! Timber brought from Flagstaff, the only other available source, cost about the same.

Below a two-acre tailing deposit of fine red silt at the Harquahala Extension, we stumbled upon a half dozen gigantic steel crucibles lined with cement. This type of settling basin must have been peculiar to the Harquahala milling operations—possibly a flotation type mill — because in all the mines I've visited in the past dozen years, I have never seen its like before. Above the pans and eroding down over them, the red silt deposit rises approximately 30 feet thick. Erosion has carved strange shapes and channels through it. On its right rise the mortarless, fitted stone founda-

tions of the old mill. However, all trace of the mill proper has vanished. I am curious as to how those mammoth crucibles were used.

At the Bonanza mine we saw evidences of fairly recent work where leasers had been active. A large ball mill had been erected on new concrete foundations, but neither flint nor iron balls were in evidence. Newly built structures rose below the great mine dump where a cook house and mess hall stood, and beside the tall gallus frame stood a well-constructed building of cement and sheet iron. A nearly new spring cot stood alone in one

Mrs. Rose Long Johnson, owner of most of the Harquahala mines and caretaker of the properties, displays a sample of gold ore from her Harquahala Extension mine.



room and next to it had been built a large concrete shower.

We learned the answer to this riddle when, finally, we returned to our car and gossiped a while longer with the caretaker.

"There was a man came here ten or 12 years ago," she explained, a gleam in her eyes, "who had managed to get \$40,000 from a rich oil man. He put in some improvements and built a new pipe line for water. But then he got tangled up with the postal authorities — trying to sell stock, I suppose. Anyway, he's been in the Federal penitentiary for the last ten years . . ."

I've always had a feeling that when leasers begin to gamble any sizeable sum of money in an old, seemingly worked out mining district, there must be something more than rumor and hearsay left in the ground. And leasers have become increasingly active around the Harquahala as evidenced by the development going on at the nearby Golden Eagle. Mrs. Johnson's eyes burn brightly with the eternal hope of all old-timers that her mines will come back, and perhaps they will. After all, she has \$75,000 of her own money tied up in what assay reports show to be a promising mine. "But it takes capital," she sighed, "and \$75,000 is only a drop in the bucket."

Just before leaving, I admitted to the gray-haired, bright-eyed woman an incident that had occurred back in Salome. A miner working for one of the leasers had stopped us. "We were warned not to come out here without a permit from the owner," I said, smiling. "The man who stopped us wanted us to visit his mine. He said you had a shotgun loaded with rock salt, and would shoot us first before asking questions. He said you were having a lot of thieving highgraders in here stealing good ore."

Mrs. Johnson burst into laughter. "How funny," she gasped, "when I'm the owner. Sure, there used to be highgraders, 40 years ago, and I certainly do have a shotgun. But it's loaded for jackrabbits, and I've got a plenty of them." Her eyes twinkled at us. "Besides, you don't look like sneak thieves, and I do get mighty lonesome for company now and then."

Thanking her for her hospitality, we got into the car and settled ourselves. I pressed the starter. Mrs. Johnson leaned in the window, shaking hands. "As a matter of fact," she confided, "with all that money I've got invested in these mines I'd like to do a little highgrading myself, if somebody would only show me where the gold is."

Discovery of Hermit Camp Fails to Solve Ruess Mystery

Recent discovery of a long-deserted hermit's hideaway in a remote sector of the desert wilderness 40 miles south of Tropic, Utah, was believed at first to hold a clue to the mysterious disappearance in 1934 of the Los Angeles artist and poet Everett Ruess.

Information regarding the hideaway came from Harvey Chynoweth, rancher, who with his son Ralph was herding cattle on a Taylor grazing lease when they discovered the camp.

It consisted of two plywood, metal-covered shacks and a walled in cave. Everything about the camp indicated careful planning and good workmanship.

When found, one of the huts had a bed, but it evidently had never been used, as a trail led a quarter of a mile to a camp where the hermit appeared to have lived while he was building the structures.

The mystery builder had brought water up the steep trail in bottles and also brought in enough food to last for two years. Eight pairs of pajamas, plus an expensive down comforter seemed to indicate the owner was not unacquainted with the finer things of life.

An electric generator of the wind-driven variety, complete with copper-sheathing driving vanes was found. And in examining the generator, the ranchers discovered one item about the builder: he must have had a phobia about serial numbers.

Numbers on the generator and identifying marks had been scratched off. Numbers on the thermometer he used also were obliterated.

It was nearly 80 miles east of this camp that 20-year-old Everett Ruess was last seen in November, 1934. Ruess left Escalante, Utah, November 12 with two burros and a supply of food for two months.

His destination was the canyon country in the region where the Escalante River joins the Colorado. He wanted to explore some Moqui cliff dwellings in that area, and paint and write, as he had been doing for years.

Two months later when Everett's parents, Christopher and Stella Ruess of Los Angeles, failed to hear from him they became alarmed and asked that a search be made. Poses sent out by the Associated Civic Clubs of Southern Utah spent many days scouring the region. They found Ruess' burros in an improvised corral in Davis

Gulch, a tributary of the Escalante, but no trace of the body or of Everett's camp equipment was ever found.

Among those who took part in the hunt for Everett it is generally agreed that the recently discovered hermit's hideaway was not an Everett Ruess camp, and that the finding of the hermit camp offered no further clue to the solution of the Ruess mystery.

SCULPTURED SCENE FROM DEATH VALLEY IS COVER DESIGN

In the winter of 1849-50 a little group of mid-westerners bound for the California gold fields struggled across the arid floor of a fantastic valley in eastern California and eventually reached a summit in the Panamint Mountains from which they could look back on the desolate basin where some of their companions had lost their lives.

Included in this group were the families of Asabel Bennett and J. B. Arcane. They had entered the valley in ox-drawn wagons, but when it appeared necessary to scale the range that blocked their passage to the west the wagons were abandoned. "The oxen were slaughtered for meat—all except one. Ol' Crump had become a family pet, and he was selected to carry over the mountains the two youngest children, Martha Bennett and Charley Arcane, in saddlebags that had been improvised from the men's hickory shirts.

Standing on a rocky crest, members of the party turned and gazed down at the simmering salt flats which had brought bitter hardship to all of them. From the lips of one of them came the words:

"Goodbye, Death Valley!" And thus was Death Valley given its name.

It was from this dramatic incident — the naming of Death Valley, as recorded by William L. Manly of the Bennett-Arcane party in his book *Death Valley in 1849* — that Cyria Allen Henderson got her suggestion of a Death Valley scene to be modeled in clay. The 16-inch model was exhibited in Furnace Creek Inn during the Death Valley 49er Encampment of 1952, and since then has been displayed at the Palm Desert Art gallery in the Desert Magazine Pueblo. For reproduction on this month's cover, the sculptured group was photographed on a 4x5 Kodachrome transparency by Josef Muench of Santa Barbara.

Cactus Blossoms to be Most Conspicuous Desert Flower in May

Spring rains have not come to most desert areas, and wildflower prospects generally are unfavorable for May. Exceptions are the Coolidge, Arizona, area and Saguaro National Monument near Tucson. Good cactus displays also are predicted for Apache Junction, Arizona, and Death Valley.

More wind storms and continued drouth in California's Coachella Valley shriveled the few wayside flowers which remained in March. Canyons offered the hiker a fair display of ocotillo and palo verde and scattered specimens of primrose, lupine and mallow, but there was no expanse of color like that which carpeted the dunes last year.

Lake Mead National Recreation Area—There are a few places in the Lake Mead area where plants are blossoming in fair numbers, according to Russell K. Grater, park naturalist, but in general the flower show there also is poor this year. "We have one consolation," Grater wrote *Desert* April 1. "There will be lots of seeds on the ground waiting for next year's rains—if they come!"

Joshua Tree National Monument—Superintendent Frank R. Givens does not expect many flowers this May, usually the best month for Joshua tree blossoming. The trees will produce only a few blooms. "This year has been satisfactory for the photographers who take close-ups of individual flowers," Givens points out, "because many varieties are blooming. The blossoms are just not as profuse as usual."

Death Valley National Monument—March winds dried up plants in Death Valley National Monument, and this year's wildflower display is mediocre. "However," noted Acting Superintendent E. E. Ogston late in March, "the cacti around the 2000-foot level are in bud and should produce a good showing of beavertail in late April."

Apache Junction, Arizona—Although no match for last year's spectacular display, this spring's wildflower show in the Apache Junction area has been colorful. "There are lupine and mallow along the highways," Julian M. King observed April 1, "but we do not see the great fields of flowers we did a year ago." King predicts a good bloom of cactus for May. "By late April the hedgehogs will be in full blossom—they are starting now—as well as staghorn cholla, palo verde and ironwood trees and the giant saguaro."

Saguaro National Monument—The monument area near Tucson, Arizona,

is one of the few Southwest regions to enjoy a good 1953 wildflower season. Annuals and perennials—including brittlebush, desert marigold, desert zinnia, globe mallow, paper daisy, chia, phacelia, beadpod, alfilaria, desert aster, pentstemon and ocotillo—promised good displays for April and May. "The first part of May should be the signal for cactus blossoming," predicted Samuel A. King, superintendent. "Prickly pear, cane, staghorn and teddy bear chollas and some late hedgehogs promise an abundance of flowers. The palo verdes also will be impressive this year, and we should have a good display of flowers on the soapweed yuccas—particularly those along the road south of our headquarters—in May."

Antelope Valley—"No rain, no flowers," sums up Jane S. Pinheiro's appraisal of the 1953 wildflower year. On a March tour around Baker, Death Valley, Trona and Antelope Valley, Mrs. Pinheiro found few noteworthy displays. "Near Barstow I saw nice stands of yellow primrose, browneyed primrose and desert sunflower," she reported late in March, "but everywhere else things were stunted or drying up." Antelope Valley plants this year generally are dwarfed and dry with few flowers. One exception is the Wilsona area to the east which is host to numerous primrose and sand verberna.

Casa Grande National Monument—May flowering forecast for the monument area near Coolidge, Arizona, is excellent, according to Superintendent A. T. Bicknell. Due to a high degree of precipitation this winter, the flowering season is a little ahead of schedule. "Our saguaros have become quite heavy from so much rain," writes Bicknell, "and, unfortunately, occasionally they seem to have become too bloated. I've observed that several have been blown over by our heavy winds these past two months."

Mojave Desert—"The early promise of a spectacular flower season was nipped in the bud by drying winds and lack of rain over too long a stretch," writes Mary Beal from Daggett, California. "But there are places where a normal display of bloom greets the traveler, many of them in this area. Especially colorful is the region along Highway 66 between Pisgah Crater and Amboy which is a large sea of glowing gold with desert sunflowers; mingled with them are some smaller plants—marigolds, evening primrose,

Hard Rock Shorty of Death Valley



Hard Rock Shorty was tacking a crudely lettered sign on the front of the Inferno store as a party of tourists parked their car in front of the building and climbed the steps to the lean-to porch. The sign read:

MUCKERS WANTED

At the Jackass Mine

(Signed) PISGAH BILL, Supt.

"Wonder why they call it the Jackass Mine?" asked one of the dudes as he stopped to read the notice.

"That's 'cause the mine wuz found by a burro," said Hard Rock. "An' if you wonder how a donkey could find a mine I'll tell yu."

"Burro belonged to Panamint Pete. He'd had the beast longer'n anybody could remember. Burro wuz so old it wuz havin' trouble with its teeth. They wuz plumb wore out from gnawin' on ham bones and coffee grounds. So Pete had to feed 'im hot cakes an' beans."

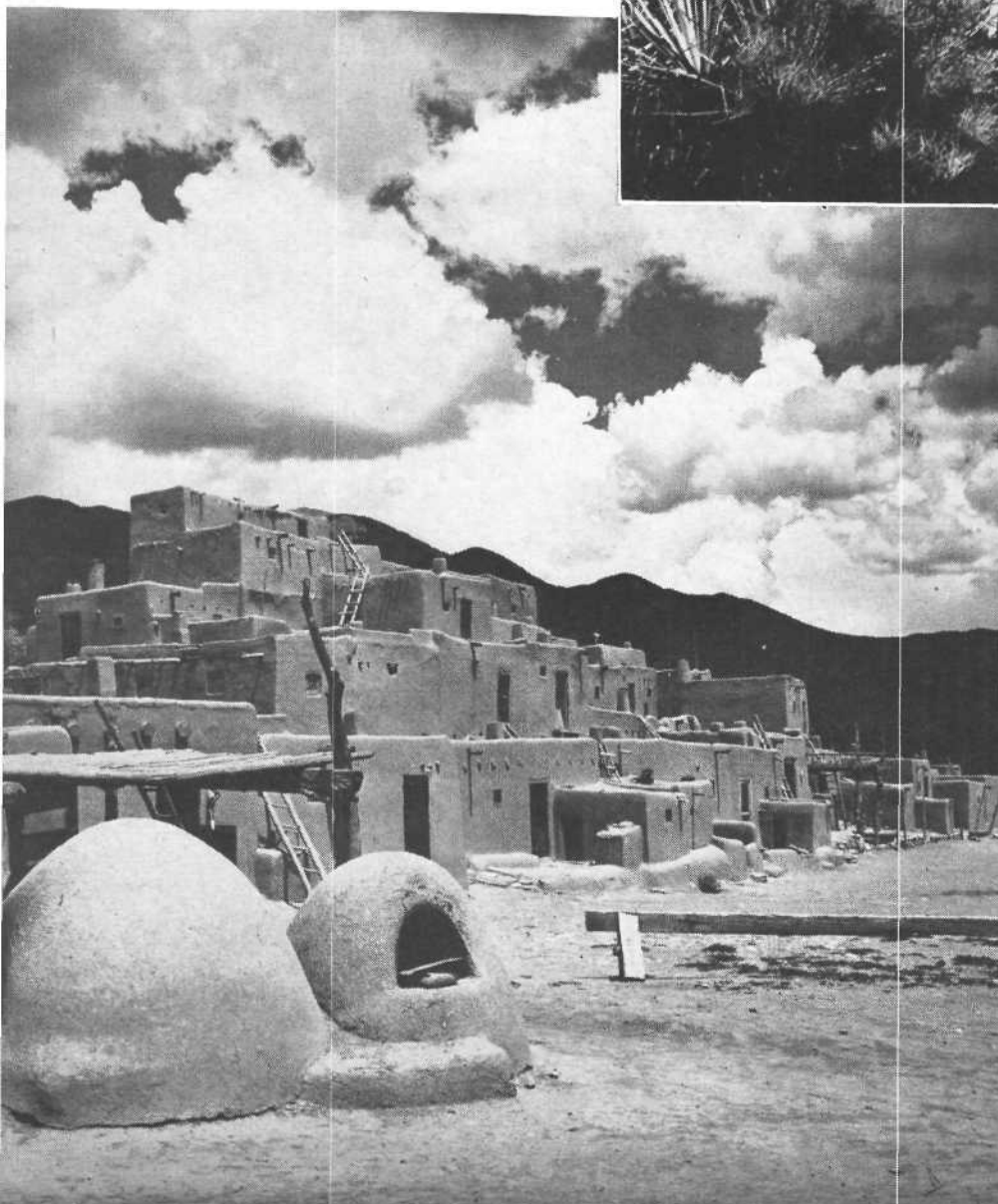
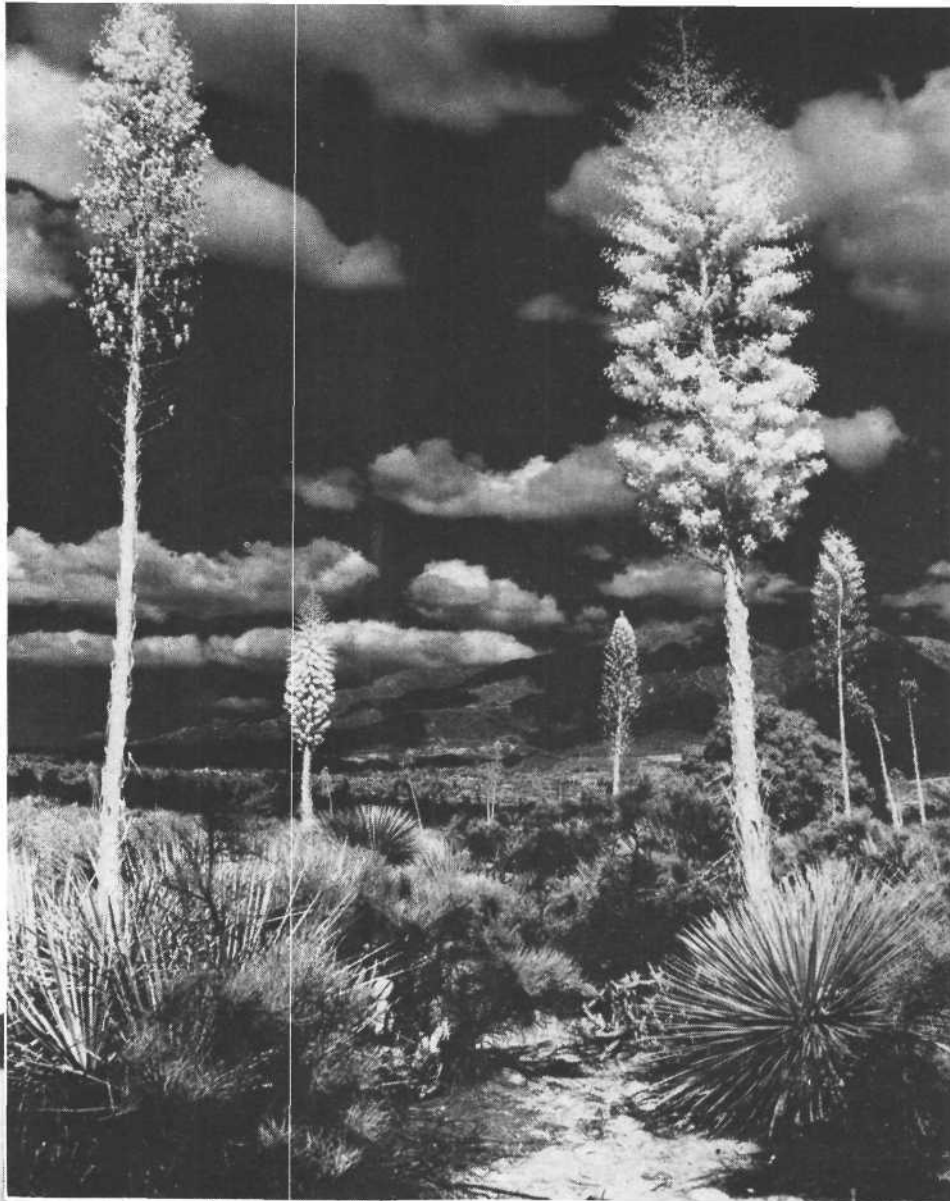
"One day when Pete wuz prospectin' over in the Funeral range the burro wandered over into the next canyon, an' when Pete finally caught up with the critter it wuz chewin' on a rock. An' then it spit that one out an' started chewin' on another one. Animal kept that up fer quite a while and Pete finally got curious about that burro's appetite fer rocks and pried open its mouth to see what's what."

"An' believe it or not, that burro had nearly a full set o' gold fillin's in its teeth. Course Pete wuz curious about where that gold came from an' when he examined the quartz outcrop where the burro wuz standin' he found it full o' wire gold."

"An' that was how the Jackass mine got its name."

Mojave poppies and sand verberna. The mountain areas, blessed as they were with more rain and snow, should have good flowering in late April and May."

PICTURES of the MONTH...



Desert Sentinels...

Clair Stone of Montrose, California, came upon this garden of flowering yuccas on the desert near Sunland, California. His picture won first prize in Desert Magazine's Picture-of-the-Month contest for March. It was taken with a 4x5 Bush Pressman camera, Raptar lens, Wratten A Filter, Eastman infra-red film, 1 second at f. 20.

Sleeping Pueblo...

This study of Taos Pueblo, New Mexico, drowsing in the midday sun, won second prize in the March contest for A. La Vielle Lawbaugh of Whittier, California. Lawbaugh used a 4x5 Pacemaker Speed Graphic camera, 5" Ektar lens, A filter, Super XX Panchromatic film, 1/50 second at f. 16.



The Blond Mayo rode alone on his trips to the secret mine. He took no mining tools, but always came back with his six mules loaded with rich gold ore.

Lost Mine of the Blond Mayo

By JOHN D. MITCHELL
Illustrated by Bill Edwards
Map by Norton Allen

7EN MILES northeast of the old mining town of Arivaca, Arizona, half way between Baboquivari Peak to the west and Old Baldy or *El Pelon*, stands the Black Princess, a natural rock formation carved by wind and sand to resemble the body of a woman lying outstretched on top of the highest ridge in the Cerro Colorado Mountains. Vividly outlined against the sky, the Black Princess glows and gleams in the sunset and looks so realistic that she has long been held sacred by the Opatas and Papago Indians.

In winter she is feared. On wild stormy nights when the wind howls down across the Catalina and Cerrita mountains, lightning leaps from the black clouds that settle down over the head and shoulders of the Black Princess and eerily silhouette her form against the sky. Thunder rolls back and forth across the steep canyon walls, rain comes down in sheets and swirls that loosen huge boulders from the steep mountainsides, hurling them into the raging torrents to be left stranded on the floor of the desert below. Wild boars seek shelter from the raging elements in the dark caves under the shelving lava flows, and giant jaguars from the Moche Cowie country in Sonora stalk their prey around the few rock tanks and the one natural spring that bubbles from under the

Each week, the blond Mayo Indian would mount his silver-saddled horse and ride off alone into the hills around the Black Princess mountain near Arivaca, Arizona. And each trip he would return, his six burros loaded down with rich gold ore. Here is John Mitchell's story of a lost mine first worked by the Spaniards, re-discovered by the blond Mayo and his brother, and, with their deaths, now lost again.

tufa beds on the north side of the mountain.

But when springs come, the Black Princess looks down serenely from the mountaintop upon desert plains brilliantly carpeted with wildflowers. The sun, setting behind the ragged edge of the Baboquivari range, crowns her with gleaming gold. When the moon comes up over the Santa Rita mountains and sheds its long rays of silvery light down across the Cerrita and Colorado mountains, and the desert breezes begin to stir, the snow-white yucca blossoms that cluster around the feet of the Black Princess are turned into swaying ghosts with fleecy veils.

There are many legends about the Black Princess mountain. Perhaps the most interesting is the tale of the lost gold mine of the Blond Mayo Indian.

It was in 1861, about the time the

United States Government withdrew its troops from Arizona to fight in the Civil War, that the two Mayo Indian brothers, Juan Morales, the blond, and Fermin, his younger brother, came to the Arivaca country from the Mayo Valley in southern Sonora. Upon the departure of the troops, the Apaches and Mexican bandits again renewed their raids on small mines and outlying ranches, and the pioneers were gathering in Tucson and Arivaca for protection. John Poston, superintendent of the Silver Queen mine at Cerro Colorado, and a number of his employes had just been murdered by Mexican bandits from Sonora. Upon the grave of John Poston and many others, both American and Mexican, the men of Arivaca swore the *Vendetta*—the "Vengeance of the West"—and kept it.

The two Morales brothers, Juan, locally called *El Guero Mayo*, and Fermin made their living panning placer along Arivaca Creek and on the surrounding mesas which were rich in gold. In the course of time the Blond Mayo quit his panning operations and made many trips into the surrounding country. He seemed to be searching for something. One day he came into camp from a northeasterly direction, his six pack mules loaded with rich gold ore. The quartz was matted together with wires and masses of bright yellow gold and had a blue indigo tinge, probably bromide of silver. The

ore looked as though it had been mined more than a hundred years before. Adhering to many of the pieces were small bits of a porous lava rock suggesting that it might have come from one of those rare pipes or chimneys found in lava flows. Wherever found in any part of the world these pipes or chimneys have produced millions in gold.

The Blond Mayo made many weekly trips into the northeast end of the district in the vicinity of the Black Princess, always returning with his six pack mules heavily loaded. The rich gold ore was treated in arrastres that still stand on the north side of Arivaca creek about three miles west of town.

On these weekly trips to and from his mine, *El Guero Mayo*, like young Lochinvar of King Arthur's court, "rode all alone and through all the wide border his steed was the best." However, unlike the gay young knight, he did not ride unarmed. Across the pommel of his silver-mounted saddle rested a long rifle, and from the two well-filled cartridge belts around his slender waist dangled a pair of heavy Colt revolvers. The Blond Mayo was a dead shot; the way he picked off an Apache chief or buck at long range was a continual source of wonderment to his many friends as well as to the tribespeople back in the hills awaiting the return of the victim. He was gaunt, eagle-eyed, tireless and remorseless as doom when it came to avenging the

death of a friend at the hands of an Apache. He rode the high ridges and the skyline, as Indians do, avoiding as much as possible the narrow passes and the mesquite-choked washes where an ambush might be laid against him.

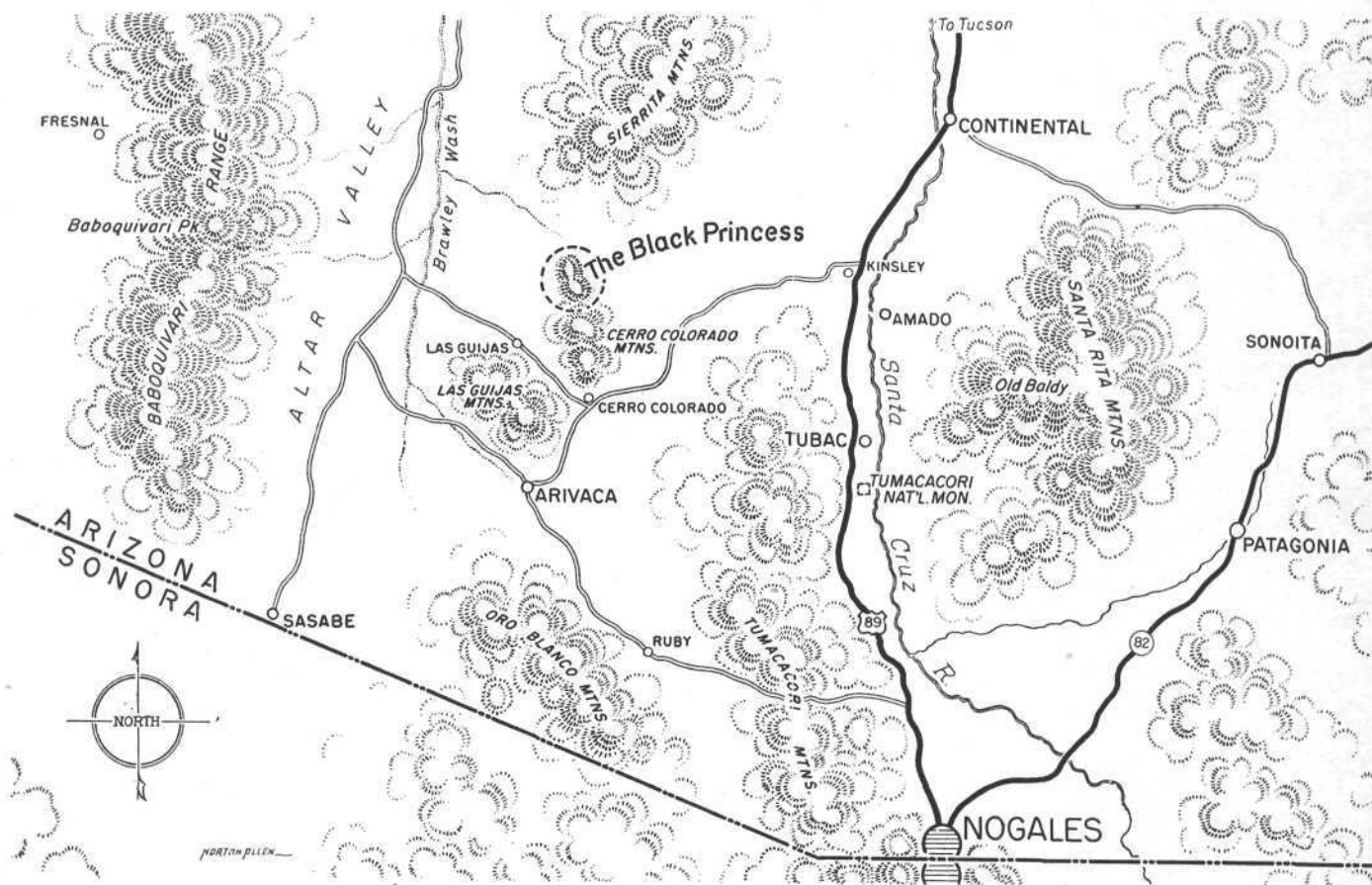
Old timers in Arivaca, like Don Manuel Gonzales and Don Teofilo Ortiz, who knew the Blond Mayo when they were young men, say that normally he was quiet and stayed away from strong drink. But occasionally, when he received an extraordinarily large return on his ore, he went on a rampage—a "ramtooch" they called it. On these rare occasions he came into town six guns blazing at the sky and yelling like a Comanche Indian. The sound of his horse's clattering hoofs and the roar of his guns were signals for all the little brown *muchachitos* and some of the older ones to rush into the dusty street to scramble for the handfuls of silver coins that *El Guero Mayo* would throw at their feet.

Arivaca was a wild camp in those days, filled to overflowing with muleskinners, bullwhackers, miners, *gambucinos*, *vaqueros*, saloonkeepers, tin horn gamblers and dance hall girls. Money was plentiful, the people were happy despite the raids of marauding Indians, and bailes, fandangos and fiestas were held with or without provocation. Brilliantly caparisoned cabaleros rode their fine horses up and

down the dusty streets and courted beautiful señoritas sequestered behind grilled windows. Music was romantic, soft, low and continuous. The fires of the smelting furnaces along the creek shown blood red in the night sky, and Apache warriors rode the skyline in the early morning light.

As the years passed, the Morales brothers prospered from their mining operations along the creek and back in the hills. Fermin, the younger brother, ran cattle on the Calera ranch three miles north of town, and *El Guero Mayo* established a cattle ranch on the Batamonte Wash below the Black Princess Mountain, presumably to keep an eye on his bonanza gold mine.

While the brothers were somewhat secretive when it came to discussing their private affairs, it is believed by many Hispano-Arizonans around Arivaca that they came north for the express purpose of locating and working this rich gold mine. There is much evidence to show that the mine—perhaps the old Sopori Mine—was first discovered by the Jesuits or other Spaniards that came north in the wake of the Coronado Expedition searching for the Seven Golden Cities of Cibola. Old Spanish and early American maps show the Sopori mine in the vicinity of the Black Princess Mountain. Many people confuse it with the old Isabelle shaft located one and one-half miles



Less Than Half Normal Run-off Expected for Colorado River Basin

February water supply reports compiled March 1 by the U. S. Weather Bureau and the Soil Conservation Service have increased the anxiety of farmers, ranchers, stockmen and river-runners in the southwestern states. In general, February precipitation was exceptionally light, averaging less than 30 percent of normal. From every watershed station came even lower

supply predictions than the discouraging ones published last month.

Streamflow forecasts for the various Colorado Basin watersheds are as follows:

Colorado River above Cisco—The current water supply outlook for the Colorado Basin above Cisco is not favorable. Median forecasts are for flows of 66 to 82 percent of the 1941-50 average, except for streams draining from the San Juan Mountains. Water run-off of only 53 percent of average is indicated for the Umcompahgre River at Colona; 56 percent of average for the Dolores River at Dolores.

Green River Basin—Forecasts this month are lower than those issued last month for all of the Green River Basin except the Wyoming portion. Decreases of 6 percent to 15 percent in forecasts for the Utah tributaries bring average predictions down to from 60 to 81 percent of normal.

San Juan River Basin—Water supply forecasts for the San Juan Basin are 8 to 15 percent lower than those issued February 1. Water-year streamflows for the basin are expected to range from 47 to 64 percent of aver-

age, assuming precipitation for March through June is near normal.

February was the third consecutive month that the Little Colorado, Salt and Verde River basins have had less than normal precipitation. The storm of the first few days of March, accompanied by precipitation amounts only slightly less than normal for the month, gave some assurance that the water supply picture would not be adversely altered during the ensuing month.

Little Colorado River Basin—Sharp downward revisions in the forecasts for the Little Colorado River Basin were a result of the light February precipitation. The March storm brightened things somewhat, but the current outlook remains poor. The November-June run-off for the Little Colorado at Woodruff is expected to be only 30 percent of the 1941-50 average.

Gila River Basin—Little change is noted in the poor outlook of last month for the upper Gila Basin. Median forecasts are for flows of only 19 to 33 percent of average. November-June streamflows for this area would fall short of average even if the March-June precipitation equalled the maximum of record. Current forecasts for the Salt and Verde River Basins are from 9 to 21 percent lower than those of a month ago. Water-year streamflows of approximately half of the 10-year average are in prospect for these basins.

south of the Sopori ranch house. The Isabelle was worked by the Jesuit fathers from the Tumacacori mission.

An old volume in the Arizona State library at Phoenix reports: "The Sopori mine was known all over Arizona and Sonora for the richness of its ores." The ruins of an old adobe smelting furnace on the arroyo west of the Black Princess and the walls of an old mission that stand on a long point of land jutting out into the Altar Valley east of Baboquivari peak would seem to indicate that the mine was known to and worked by the people who lived around this mission, perhaps by the priests and their Indian neophytes. The name of the mission has been lost. It may not have been a full-ranking mission, but a *visita* or a halfway station on the trail from other missions in western Sonora, where the padres stopped to rest and say Mass on their way to San Xavier del Bac, Tumacacori, Guevavi and Cocospra, all on the Santa Cruz River south of Tucson.

When old and full of years, *El Guero Mayo* died while on a visit to his old home in the Rio Mayo Valley in Sonora, Mexico. Fermin, the younger brother, died in Arivaca about 20 years ago and lies buried in the old Campo Santo on the north edge of the town.

Lester Fernstrom, a tungsten miner in the Arivaca district for many years, flew his plane over the Black Princess mountain a few years ago and reported having seen a long open cut on the side of the mountain. The cut was choked with huge boulders and could well be the entrance to the Blond Mayo's mine. The Indian was never known to have carried any explosives or mining tools with him to or from his mine, and those who knew him agree that he probably found the ore already mined by the former operators. The fact that the ore brought to the arrastres showed no fresh surfaces would seem to bear this out.

Prizes for Unusual Pictures . . .

There are still wildflower blossoms on the higher levels for those camera fans who like to roam the desert in quest of unusual pictures. Wildflowers are just one of many subjects eligible for Desert Magazine's Picture-of-the-Month contest. Sunsets, Indians, landscapes, wildlife, unusual rock formations and sun and shadow effects—in fact, anything on the desert holds the possibilities of a prize photograph. Commonplace objects such as Joshua trees and Saguaro cactus are not as popular with the contest judges, however, as are unusual shots of unusual subjects.

Entries for the May contest must be in the Desert Magazine office, Palm Desert, California, by May 20, and the winning prints will appear in the July 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.

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

Letters

Litterbug Levity . . .

Reno, Nevada

Desert:

Allow me to inject a little humor into the current and much too serious discussion about litterbugs.

W. J. Gilman's letter in the February issue of *Desert* suggests that throw-away articles such as beer bottles, cans, milk cartons and "one-blow hankies and diapers" be taxed to pay for highway clean-up. I personally can't see how a family living in Maine could be held responsible for highway misbehavior on the desert 3000 miles away.

Gilman's suggestion of trash containers for cars conjured a picture in my mind of an auto dashing along the



highway with a garbage can bulging from its side. His idea of trash service at service stations sounds somewhat unromantic; no motorist would want to be asked: "How's your oil? Water?—and, by the way, sir, shall I check the trash?"

Can your readers imagine signs along the highway: "Entering the desert. Get your trash cans here." Or: "Last Chance dump. Dispose of your trash before it's too late."

FRANK L. FERRARO

Closed Season for Rockhounds . . .

Denio, Nevada

Desert:

This is to advise the rockhound fraternity that no opal diggers will be permitted to go on my claims during the 1953 season, nor will camping courtesies on my home claim be extended. This action is made necessary by the fact that I have to earn a living digging opals for myself, and I simply will not have the time to keep tab on visiting firemen of the rock hobby. Sorry, but no means no! 1953 will be closed season for rockhounds at the Foster claims.

MARK M. FOSTER

The New Teacher . . .

Fullerton, California

Desert:

"Life on the Desert" in the February issue of *Desert Magazine*, about Louise Switzer Thompson's experience with the pack rat in her country schoolroom, reminded me of an incident which occurred while we were returning from a trip east in September, 1918.

As we were driving through the wide open country of Northern Arizona, we passed a schoolhouse that had obviously just been repaired. New glass shone in the windows; roof, sides and the outhouses were newly patched. It looked as though the buildings had not been used for years. There were new hitching racks and a recently built shed as shade for horses.

Less than half a mile farther we came upon a house to which a new room had just been added. Now there were enough children to justify a new teacher, we guessed. A few miles along we met a pony team pulling a high spring wagon in which two people were riding. A very slender man sat on the right side of the seat and a mite of a girl on the extreme left. She had on a very new dress and a saucy little hat — and she looked nearly frightened to death. In the back of the wagon were a shining new trunk, two unscratched suitcases and several boxes of groceries.

Many is the time I've wondered how the new teacher made out—also, how long she stayed in that country. I hope she may read this and recognize herself and write to *Desert* about it.

There was only the one house in sight for many miles. It would be interesting to have a sequel to what I saw.

CHARLES S. KNOWLTON

Only the Ghosts Remain . . .

Los Angeles, California

Desert:

One of the most interesting of the ghost towns of the West is fast disappearing.

Last fall we visited Aurora, Nevada (*Desert Magazine*, July 1947) by the only entrance road still usable. We found to our dismay that these old brick buildings dating back to the early 1860s were being torn down. In fact, many had already disappeared.

Some Nevada Road Department employees later told us that Reno junk dealers have been in there tearing down the buildings and carting the bricks off to Reno to sell.

It seems a shame that this interesting old place has to go this way.

HUGH TOLFORD

Custer's Last Stand . . .

Redondo Beach, California

Desert:

The short review of the book *A Trooper with Custer*, in the March issue of *Desert Magazine*, seems to have a mistake in the date of the battle. Shouldn't it have been June 25, 1876, instead of 1874, as the review reports?

I think of Billings, Montana, as my home, and it was here that General Custer's personal aide lived for years. Here also, my father had charge of the funeral of U. S. Scout Henry M. (Muggins) Taylor, the first white man to reach the scene of the massacre.

It would be a shame to add two years to the Little Big Horn controversy. The only ones who know the real story of that June morning on Custer Hill have been sleeping over three quarters of a century.

R. N. SHUART

Desert's book reviewer was sleeping too. Reader Shuart is right — correct date for Custer's Last Stand is June 25-26, 1876. Custer had led an expeditionary force into the Black Hills country in 1874.—R.H.

• • •

Canned Water . . .

San Francisco, California

Desert:

One of our members has inquired where he might procure canned water.

We have checked several sports stores in San Francisco. While they



"Hey, Ma! Where's the can opener?"

have heard of it, they do not know where it can be purchased. Perhaps one of your readers might help us out.

LOUISE LAWRENCE

Touring Counselor

Calif. State Auto. Assoc.

Desert's editors also would be interested in learning the answer to Mrs. Lawrence's question.—R.H.

Mines and Mining

Gallup, New Mexico . . .

Navajos in the Gallup area announced they would hold a blessing way ceremony "when the moon is getting large" as an apology to their gods because an atomic age has mutilated their sacred mountains. The ceremony was called because uranium mining has marred a portion of the Lukachukai Mountains near here. "The Navajo tribal council is permitting both Navajos and non-Indians to take ore from the Mother Earth without her permission," explained a tribal leader, "and at this time there will be profuse apologies for the act." The ceremony was expected to last four or five days. It is called the *hozhoopi*.—*New Mexican*.

Inspiration, Arizona . . .

Inspiration Consolidated Copper Company, which spent six years and \$15 million to make its properties here pay dividends, has developed a new technique in copper mining—an adaptation of the caved block method to eliminate long truck hauls in its open pit operation. Results of the first year's operation show reduction in costs, solution of the sizing problem with installation of a crusher, additional ore tonnage for open pit operation through solving of sizing and transportation problems and fuller use of existing facilities and equipment that might otherwise be idle. Last year 26 percent of Inspiration's copper output was handled by the caved block underground hoist operation while 39 and 35 percent, respectively, were from standard open pit and underground mining.—*Arizona Republic*.

Ely, Nevada . . .

Sale of the huge Dixie Valley copper deposit to Consolidated Copper Mining Company of Kimberley, Nevada, has been unofficially confirmed, but it may be some time before the transaction is completed. Terms included a substantial down payment, with a flat per-ton fee to be paid as copper is mined until the full purchase price has been paid. The claims involved were formerly held by Wayne Wightman of Fallon, Air Lanes Copper-Gold Mining Company and the Table Mountain Mining Company, all Nevada concerns. A crew has already started to work on the property.—*Fallon Standard*.

Farlington, New Mexico . . .

First commercial gas well on the Navajo reservation in New Mexico has proven to be one of the largest discoveries in the rich San Juan Basin. Van Thompson, manager of the exploration department of Southern Union Gas Company, said the well, located 10 miles north of Shiprock, tested 13,900,000 cubic feet per day.—*Mining Record*.

Monticello, Utah . . .

Bonus payments to uranium miners, being made at the rate of more than \$200,000 per month, totaled \$1,459,126 February 20, announced the Division of Raw Materials of the Atomic Energy Commission. Under the bonus program, designed to encourage and assist the development of new sources of domestic uranium, payments are made to producers on the first 10,000 pounds of uranium oxide in acceptable ore delivered to qualified mills or ore buying stations between March 1, 1951 and February 28, 1954. The AEC has certified 204 properties as being eligible for bonus payments since the program began.—*Dove Creek Press*.

Phoenix, Arizona . . .

An estimated \$200 billion dollars is currently being spent in the development of new ore bodies by five Arizona copper mining companies. When development work is completed late in 1957, the state's production of copper will be increased by 313,260,000 pounds annually. Largest project—involving \$125,000,000—is being carried on by San Manuel Copper Corporation in the Mammoth-Tiger district. Other development projects are those of Phelps Dodge Corporation, \$25,000,000; Silver Bell Unit of American Smelting and Refining Company, \$17,000,000; Copper Cities Mining Company, \$15,000,000; and Bagdad Copper Corporation, \$18,000,000.—*Arizona Republic*.

Mojave, California . . .

Five mills are concentrating tungsten ore in Kern County, which has become an important producer of the vital metal. Operating plants include Billington Mining and Milling and Mojave Mining and Milling companies at Mojave, Lone Star Mining Company at Claraville and Sageland Mining and Milling Company near Weldon.

Phoenix, Arizona . . .

Arrangements for mining a Mexican placer capable of producing an estimated \$20 million in gold are reported completed. Lowell Brakey, president of the Mexar Mining Corporation of Phoenix, said a party representing Mexican interests would turn over to his firm the mining operation on the Rio Bacubirto in the state of Sinaloa, Mexico. Brakey indicated the operation would be on a cooperative basis between Mexican and U. S. interests.—*Mining Record*.

Fallon, Nevada . . .

George Green Mining and Trucking Company of Willets, California, has been granted a ten-year lease on an iron mine 29 miles south of Gabbs Valley. The property is owned by Harry Howard, George H. Douglas, Claude W. Douglas and Audry Barrow. The magnetic iron vein is 130 feet wide and approximately 1000 feet in length. The lessee plans to ship about 500 tons of ore daily. There is presently a large tonnage on the surface, and there is very little overburden to be moved.—*Territorial Enterprise*.

Washington, D. C. . . .

The United States dug less copper in 1952 than in 1951 but consumed more, the Bureau of Mines reported. As a result, and despite higher imports, producers' stocks of refined copper were reduced 30 percent during the year. At the year's end, they totaled only 24,000 tons, the smallest amount on hand at the end of any year since 1906, the bureau said.—*Pioche Record*.

Kingman, Arizona . . .

J. R. Gardner of Los Angeles reports he is optimistic over the possibilities of establishing a 300-ton custom mill at Chloride. His company is investigating the feasibility of reviving, improving and expanding the milling operation on the Tennessee-Schuylkill chloride property.—*Mining Record*.

Richfield, Utah . . .

After two years of geological investigation by Dr. F. W. Christiansen of Salt Lake City, the Ancient River Channel Gold Mining Company of Las Vegas, Nevada, has decided the Mineral Hills property in Marysville justifies the expenditure of \$50,000 for immediate exploration and development. Arrangements have been made to complete the program without interruption. An incline shaft will be sunk to intersect the junction of the two major sheer zones present in the property.—*Humboldt Star*.

LIFE ON THE DESERT

By INA M. WELLS

IT TOOK some time to discover that the half-finished and abandoned house we had bought was already occupied. We learned it gradually, as our eyes adjusted to the hard light and our ears to the small sounds intensified by vast stillnesses, and — yes, our perceptions to an awareness of small creatures close at hand and on the alert.

We will never know how many day-sleepers and swing-shifters and grave-yarders returned to their man-made shelter to find glass instead of half-secured boards covering the windows, and the scent of humankind pervading the place. There must have been tragedy for some, hurrying to squeeze to safety from some larger enemy only to find the way blocked. But long after windows were in, there were wily ones who found a way inside. This had been their home too long; they were not to be so easily evicted.

In daylight, it is an adventure to re-identify sounds already classified in memory. The small scurrying sound of a mouse that turns out not to be a mouse but a lizard come in to look over his new neighbors; the sound, outside, of an old fashioned Hallowe'en ratchet coming, apparently, from the throat of a road-runner perched on a boulder. Even silence itself has a sound—or why do your eyes search a room until they rest at last on the silent-moving shadow that projects itself into a velvet-footed tarantula, about to make himself at home in the cool dryness of the house?

But sounds at night are something else again. Even in familiar surroundings imagination can run wild. Here in this strange silent land of velvet darkness unrelieved by even a distant glimmer of street lamps every small sound has terrifying implications. How does a rattler sound, inching across a floor? Or a black widow? Does it drop silently from the ceiling, or is that small clicking sound it? The centipede we saw outside today—does it travel by night and enter houses? Maybe the faint whirring sound is the sound of its many feet, bringing it closer.

It was a few nights after we had moved in that we were awakened by such loud, un-animal-like noises that new fuel was added to this fever of fear. Something was in the kitchen, rolling some heavy round object back and forth, back and forth across the floor. With only studdings where par-

When the Wells family moved to a long-abandoned cabin they soon learned they must share their quarters with denizens who had lived on the desert much longer than they. And here is the story of how they adjusted to that situation.



The author and her husband pose by the giant prickly pear outside their Spring Valley home.

titions were to be, the sound was as loud as though it were in the room with us. What living creature would make such a disturbance? Were we to become modern Rip Van Winkles, unwilling guests at some ghostly nine-pin game, as was Rip in the Catskills?

It seemed hours that the weird game continued. Neither of us cared to investigate. Surely it was more sensible to wait until daylight. As we later discovered, that was the wisest cowardice we ever indulged in.

In the morning we found a large jar of fig jam on the floor, its cover flung aside. Delicate claws had laced through and through the jelly-like mass. Some small animal had worked with infinite patience to remove the screw top and have himself a feast. We were sorry to have missed the show.

It finally took a city-bred kitten to discover the identity of our visitor. From his first moment in the house, the kitten had asserted the ancient right of house cats to investigate noises and deal with them properly. So, when the noisy one arrived, little Peterkins jumped silently from the foot of the bed and took off for the kitchen.

For a stunned moment or two we were sure that the Big Enemy had singled us out for a gas-bomb attack, it happened so suddenly and so com-

pletely. We rushed from the house as we were, forgetting the night time perils that might lurk anywhere in the path of our bare feet. Drawing deep breaths and holding them and dashing inside for quick grabs at robes and blankets, we somehow got together the make-shifts for a night in the open. But the kitten, crouched far under the bed, refused to be budged from his hide-out and his disgrace.

It was only after we were settled in bed atop the redwood garden table that we remembered what risks we had run, barefooted in the darkness. Thus we peopled the wilderness night with terrors, in the days of our inexperience.

This was by no means the last we saw of the little civet cat. He came often that summer, and became tame enough, finally, to share midnight snacks with us. He never had to discipline the kitten again. Peterkins had learned the hard way not to tangle with any member of the skunk family. We were a bit sorry when, in the course of finishing the house, the civet, too, had to be blocked out from his up-the-drain-pipe-hole entrance.

It was a time of open windows, of hammering and sawing and much talky-talk going on from inside to outside and around corners, as is the way with folks happily at work building. Often it was senseless talk, addressed to the strange new insects around us. Sometimes it was talk at cross purposes, as it was the day the snake came in. The Boss, was out front, working on the door-knob mechanism he had just removed.

"Hey, you!" he exclaimed. "You can't go in the house!" I, inside, thinking he was still arguing with the lizard that had been riding around on his coat sleeve, called out, "Of course he can come in. He comes in every day." And the daughter, just that day home from college, stared in stunned horror at a large king snake smoothly pouring his three-foot length through the round hole in the door where the knob had been.

There were little paths already made for us through the sagebrush. Now, nine years later, we still use them, as do the rabbits and the road-runners and the big black ants with their pack-trains of seed gatherers. It's hard-packed now, but it still belongs to the wild life. We have an unspoken law that man must tread lightly here, so

that no small creature be trodden down; that life on the pathways shall be inviolate. For we were the trespassers, and the wilderness moved over and made room for us. And now that our fear is gone, none fear us; certainly this is the completion of peace.

In the brief years of the rains, our acre became an oasis in the wasteland of the surrounding hills. Even the boulders had their lichen-like cover, in shaded spots. And then the rains came less and less and each spring the wildflowers came up smaller and fewer, until their rosettes of leaves were as sparsely and as evenly spaced as shrubs on the desert floor. There was a shrinking, a gathering together of leaves and stalks, as though each plant could thus hug to itself what little moisture remained. Even the water-storers retreated, giving up a few shrivelled leaves now and again, conserving for those that remained. And all the while the big prickly pear "tree" at the corner of the house grew and flourished, putting out great ellipsoidal arms which in turn became woody branches for more great arms. We threatened it, and pronounced anathemas upon it for being a garden robber with snaky 15-foot roots going

out in all directions. But somehow we never did more than threaten; it made such an excellent background for snapshot posing.

So, while Drouth became a palpable presence in the garden, and we debated which of the plants should go first so as to save water for the others, the self-sufficient cactus was well prepared for any contingency. It will be here, alive and hardy, after the green things have succumbed. And on moonlit nights, when the desert face flattens out pallidly and we feel nostalgia for the sight of tree shadows on spreading lawns, it will be here to weave for us its weird patterns of light and shadow, and cast its grotesque image in black on the boulder from which it seems to have sprung.

Peterkins is now known as the Old Man of the Mountain—a sage and gentle philosopher observing a nice workable rule of live-and-let-live. Occasionally he rides into town with us to catch a brief glimpse of the bright lights, and his face in the car window reflects the wonder and excitement of it all. But he prefers the quiet of our rocky knoll and the peace of its starlit nights, and the chance to sleep all day—if he wishes—in a chair of his own choosing.

THE *Desert* MAGAZINE CLOSE-UPS

Ina M. Wells, author of this month's Life on the Desert story, had her first glimpse of the desert in a library book. Then a young library assistant, she found in the desert book's pages a friend to be cultivated.

It was years later that she and her husband moved to their California desert cabin. "When we came to San Diego from Michigan in the early 1940s," she explains, "we were at once immersed to our necks in war work and volunteer service. For respite, we had to buy peaceful nights as far from the city as our car could carry us each day. The rock spur between two canyons in the foothills in San Diego County was the answer.

"We paid a rugged price for peace the first year or so, when our only modern conveniences were a dependable car and a good road home. But the returns on our investment were so infinitely greater than any hardships that we stayed on. Now our only worry is the steady encroachment of civilization. Our acre is secure, but too many people might drive away the roadrunners and the meadowlarks."

• • •

Historical research, such as that which produced "Where Mormons Found a Mountain of Iron" for this issue of *Desert Magazine*, is a hobby with Gustive O. Larson. Larson, a former history instructor at the University of Utah and Weber College, is director of the Institute of Religion of the Church of Jesus Christ of Latter-day Saints. The institute is operated in connection with Branch Agricultural College, Cedar City, Utah.

• • •

Richard Logan, author of "Lilies of Kingston Pass," nolina story which appeared in the March issue of *Desert Magazine*, would like *Desert's* readers to know that the fine close-up study of the nolina blossom which illustrated the story was taken by Mary Beal, desert botanist of Daggett, California. Miss Beal accompanied the Logans on their trip to Kingston Pass.

• • •

Due to an unexplainable mix-up of color transparencies, *Desert's* April cover picture was mis-titled "Yucca" and erroneously attributed to Esther Henderson, Southwestern photographer of Tucson, Arizona. *Desert* apologizes to Josef Muench of Santa Barbara, who took the unusual photograph, and to all desert botanists who recognized the plant as a nolina.

SCRAMBLED WORD QUIZ

This month the editors of *Desert* have prepared a new kind of quiz to test your knowledge of the desert country. Here is a list of 20 words from the vocabulary of a person who has a general knowledge of the Great American Desert. Most of them are place names. They include the names of cities, mountains, people, towns and common objects on the desert landscape. If you only get 10 correct answers you are still a tenderfoot. Twelve to 14 is fair, 15 to 17 good, 18 or over, superior. The answers are on page 39.

To unscramble this quiz, take the letters in the scrambled word and rearrange them into a new word which fits the description given. For instance: if the question was "Daaven. The name of a desert state," the answer would be Nevada.

- 1—**Goappa**. The name of an Indian tribe in Southern Arizona.
- 2—**Naimpant**. A well known desert mountain range.
- 3—**Hexinpo**. A desert state capital.
- 4—**Drang Ancony**. A southwestern national park.
- 5—**Moeringo**. An Apache Indian chief who played an important role in western history.
- 6—**Copkrish**. A well known landmark in New Mexico.
- 7—**Torpscet**. Where the white men dance with snakes.
- 8—**Buebhee**. An extinct volcanic crater on the California desert.
- 9—**Caleensta**. Padre who blazed a trail across Utah.
- 10—**Libl Millisaw**. Mountain man and fur trapper.
- 11—**Nomiac**. Spanish word for highway.
- 12—**Chatsaw**. Mountain range in Utah.
- 13—**Hilrotey**. Ghost town in Nevada.
- 14—**Bojac Binlahm**. Buckskin apostle of the Mormons.
- 15—**Dooncar**. He sought the seven cities of Cibola.
- 16—**Bonmostet**. The town too tough to die.
- 17—**Asuorag**. State flower of Arizona.
- 18—**Squoritue**. Gem stone favored by the Navajos.
- 19—**Slonage**. Town on the Mexican border.
- 20—**Oregoswade**. Common name of the most common perennial shrub on the American desert.

Here and There on the Desert

ARIZONA

Papago Program Begun . . .

SELLS — A 10-year program of economic and social improvement for Papago Indians on the sprawling reservation in southern Arizona has been started by the federal government. The program calls for a total expenditure of \$23 million for improvement of stock and farm lands, roads, additional schools and a better health program. Present work includes approximately \$235,000 for road construction — principally the highway from Covered Wells to Casa Grande—and \$350,000 for improved irrigation at San Xavier. Other portions of this year's \$1 million appropriation are being used for general water development and soil and moisture conservation on the reservation.—*Arizona Republic*.

Apaches Okay State Board . . .

SAN CARLOS—Pending legislative bills that would create an Arizona Commission of Indian Affairs have received the support of the San Carlos Apache Tribal Council. A resolution urging passage of the legislation has been sent to members of the house and senate. The bill would set up an 11-man commission to study the problem of integrating the state's Indian population into the general economy. Five of the members would be Indians.—*Arizona Republic*.

Indian Fete at Winslow . . .

WINSLOW — Indian affairs committee of Winslow Chamber of Commerce has announced plans for an all-Indian festival to be staged in Winslow the weekend of July 31 and August 1. Indians from all Arizona tribes will be invited to be the guests of Winslow at a giant barbecue, to show their handicrafts and to perform native dances.—*Arizona Republic*.

Museum's Silver Jubilee . . .

FLAGSTAFF — Special exhibits and events are planned this summer by the Museum of Northern Arizona in observance of its silver anniversary. The museum opened 25 years ago, in 1928, in the women's club building, now Flagstaff Public Library, and in 1936 moved to its present location on the Fort Valley Road, three miles from Flagstaff. The research center, opposite the museum, was started in 1946 to provide laboratories and living quarters for the many scientific field parties which use the museum as headquarters. Silver anniversary events will include a junior art show, a competitive showing of the finest art of the Indian reservation schools of Arizona and New Mexico and an exhibit showing the growth and accomplishments of the museum during its 25-year history.—*Arizona Republic*.

Casa Grande Mountain Park . . .

CASA GRANDE — Casa Grande City Council has authorized City Attorney Eugene K. Mangum to take legal steps to procure Casa Grande Mountain from the federal government for use as a recreation park. The area involved includes most of the mountain, approximately 2000 acres. The Casa Grande Rotary Club has offered to pay annual lease fees to the government, and its members already are building picnic tables and benches for public use at the park.—*Casa Grande Dispatch*.

Museum for Buckeye . . .

BUCKEYE — Buckeye Historical and Archeological Museum, housed in the old city hall, was opened to the public in March. The museum displays relics of Buckeye pioneer days as well as the archeological collection of W. J. Simmons of Phoenix.—*Arizona Republic*.

No New Wells This Year . . .

PHOENIX—In an emergency move to protect Arizona's dwindling groundwater supplies, the state legislature blocked until March 31, 1954, the drilling of new irrigation wells in large sections of the state. The action came close upon a decision by the state supreme court holding that groundwater belongs to the landowner. Governor Howard Pyle, who signed the bill immediately, said it would set the stage for a court test to determine the extent of the legislature's police power under the decision that groundwater is private property. The bill expanded established critical areas under the 1948 groundwater code and extended the life of the present Arizona Underground Water Commission.—*Arizona Republic*.

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Seven-day voyage through the scenic canyon wonderland of Utah and Arizona.

Boats leaving Mexican Hat, Utah, May 4, May 14, May 25 (9-day trip), June 8, June 18. Trips end at Lee's Ferry. Two post season runs between Hite, Utah and Lee's Ferry, Arizona.

Rates — 7-day trips: 1 person \$200; party of 2 or 3, \$175 each; party of 4 or more, \$160 each. 9-day trip, \$200 each.

" . . . A flight on the magic carpet of adventure into a canyon wilderness of indescribable beauty and grandeur." wrote Randall Henderson in the *Desert Magazine*.

For detailed information write to—
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THE WELL KNOWN Indian Stone Age Museum complete collection for 1/2 its value. Thousands of pieces of prehistoric stone, bone, shell and pottery. 8 large glass show cases, 1 large oak cabinet with 34 drawers. Collection suitable for trading post or private museum. H. F. Strandt, 1025 E. Broadway, Anaheim, California, phone 4759.

FOR SALE—Rare Indian Collection. Best private collection outside of a museum. Things that very few have ever seen. 20 frames of arrowheads, 4 frames and equipment that was used to work with. Also petrified dinosaur bone and wood. A rare rock collection of all kinds. Collected by Laura Babb in five western states. Owners will sacrifice. Nellie Smith, Henrieville, Utah.

FOR SALE: Collection of 57 Paiute, Shoshone and Seri baskets. Gathered in Death Valley region and Sonoma, Mexico, 1915 to 1935. \$200.00. Eva Huey, 2629 32nd St., San Diego, California.

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BOOKS — MAGAZINES

"KNIGHT'S FERRY — Gateway to the Mother Lode" by Claude E. Napier. Historical facts—some never before printed—and tall ones—by author. A "must" for scholars-students of California gold days and collectors. 250 copies first edition. Many photos and illustrations of historically famous "Knight's Ferry" district. Autographed, postpaid, \$2.75. Napier, Box 984, Oakdale, California.

CHAMBERS' MINERALOGICAL Dictionary, with forty plates of colored illustrations, \$4.75. Hastings Typewriter Co., Hastings, Nebraska.

STORY OF the desert in word and picture. History, legends, etc. \$1 postpaid. Palm Springs Pictorial, 465 No. Palm Canyon Drive, Palm Springs, California.

DAWSON'S BOOK SHOP in Los Angeles, one block north of the Hotel Statler has a large stock of out of print and new books relating to western history and travel including Death Valley, Arizona, Lower California, Colorado River. Catalogue 269 sent on request. Dawson's Book Shop, 550 So. Figueroa, Los Angeles 17, California.

PANNING GOLD — Another hobby for Rockhounds and Desert Roamers. A new booklet, "What the Beginner Needs to Know," 36 pages of instructions; also catalogue of mining books and prospectors' supplies, maps of where to go and blue prints of hand machines you can build. Mailed postpaid 25c, coin or stamps. Old Prospector, Box 729, Desk 5, Lodi, California.

BOOKS FOUND—Any title! Free worldwide book search service. Any book, new or old. Western Americana a specialty. Lowest price. Send wants today! International Bookfinders, Box 3003-D, Beverly Hills, California.

GEMS AND MINERALS, collecting, gem-cutting. Illustrated magazine tells how, where to collect and buy, many dealer advertisements. Completely covers the hobby. The rockhound's own magazine for only \$2.00 year (12 full issues) or write for brochure and booklist. Mineral Notes and News, Box 716B, Palmdale, California.

BUSINESS OPPORTUNITIES

COUPLE: Trained and experienced want to lease or manage motel in Arizona or New Mexico. Good references. J. Wes Bradley, 404 W 3rd St., Phone 757 W. Hereford, Texas.

BORREGO DESERT: Hwy 78, Ocotillo Wells, San Diego County: Opportunity for couple who appreciate Desert life. Mobilgas station, cafe and five rental units. Will sell or lease to competent experienced couple. Write Rogers, Box 86, Del Mar, California.

IMPORT-EXPORT! Opportunity profitable, world-wide, mail-order business from home, without capital, or travel abroad. Established World Trader ships instructions for no-risk examination. Experience unnecessary. Free details. Mellinger, 545, Los Angeles 24, California.

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LOCATED in the heart of the Desert away from fog, smog and atom bombs. Excellent climate for arthritis, asthma and rheumatism. Five room modern house and cabin. Priced for quick sale. Mining possibilities. Mrs. Ludmilla Arnold, P.O. Box 307, Bouse, Arizona.

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IF YOU LIKE the Desert You'll love Newberry. Great opportunities for all year income. Build modern housekeeping rentals. Write Chamber of Commerce, Newberry, California.

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FOR SALE—600 acres patented in national forest 45 miles northwest of Wheatland, Wyo. Marketable saw-timber, 2 miles trout stream, beaver dams, 1/8 oil rights. No improvements. Owner, Box 572, Phoenix, Arizona.

MISCELLANEOUS

QUIET DELUX ROYAL Portable Typewriter, standard size Pica or Elite (small size) \$103.58 including tax, delivered anywhere in the U.S.A., Hastings Typewriter Co., Hastings, Nebraska.

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PAN GOLD: 75 spots in 25 California counties for placer gold, township and range, elevation, geological formation, near town. Pertinent remarks. \$1.00. Box 42037, Los Angeles, California.

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REAL PINE CONES—Postpaid. Decorative, interesting, creative, genuine. Untreated \$1.00 per doz. Shellac dipped \$1.25 per doz. Box 221, Big Bear Lake, California.

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PLACER OR LODGE location notices, 60c Doz. Blank township plats, single township, or 4 townships, on 8 1/2"x11", \$1.00 pad. Westwide Maps Co., 114 1/2 W. Third St., Los Angeles, California.

Indian Welfare Arizona Job . . .

PHOENIX — Beginning in April, the entire burden of welfare payment to its needy reservation Indians will fall on the state of Arizona. Preble E. Pettit, state welfare commissioner, has requested an additional \$225,000 from the state legislature to meet the added expense. Pettit's action followed dismissal of an Arizona suit in U. S. Federal Court in Washington asking determination of whether federal or state funds should pay for reservation Indian welfare. The federal government indirectly warned Arizona immediately to assume the reservation welfare burden alone or federal welfare funds for all Arizona residents might be cut off. The U. S. Indian Bureau had been paying 90 percent of Indian relief to Arizona's 10 percent.—*Yuma Daily Sun*.

CALIFORNIA

Campaigns for Office . . .

PALM SPRINGS — First political advertisement ever placed by an American Indian seeking election to a tribal office appeared in the *Desert Sun* in March. Frank Segundo, member of the Agua Caliente band in Palm Springs, placed the ad in his campaign for chairman or chief of the tribal council.

Coachella Valley Homesteads . . .

INDIO — The U. S. Bureau of Reclamation will open 21 units of farm homestead land, covering 1400 acres in the All-American Canal Project, to public entry in May. The California State Department of Veterans Affairs says World War II and Korea veterans have first priority in the acquisition of these farms. Persons interested in filing applications should write to the Reclamation Board, Sacramento, California, and ask to be placed on the mailing list for public announcements and application forms when these are released.—*Date Palm*.

The Desert Trading Post

GHOST TOWN ITEMS: Sun-colored glass, amethyst to royal purple; ghost railroads material, tickets; limited odd items from camps of the '60s. Write your interest—Box 64-D, Smith, Nevada.

BEAUTIFUL FREE GOLD specimens \$1.00 each, postpaid and returnable if not satisfied. J. N. Reed, Bouse, Arizona.

SHEAFFER WHITE DOT Desk Pen with new brown onyx base, only \$15.79 including tax, prepaid anywhere in the U.S.A., Hastings Typewriter Co., Hastings, Nebraska.

SILENT SMITH CORONA Portable Typewriter, standard size Pica or Elite (small size) \$100.37 including tax, delivered anywhere in the U.S.A., Hastings Typewriter Co., Hastings, Nebraska.

Seek to Resume Pageant . . .

MECCA — "Resumption of the Mecca Easter Pageant in 1954 is a real possibility," the Mecca Civic Council announced after a conference with the Coachella Valley Recreation District which has expressed interest in sponsoring the event. Pageant directors are eager to resume production "but only if it can be properly financed. The practice of having to beg for materials and technical assistance will not continue."—*Date Palm*.

Hunters Active, Films Show . . .

TRONA — Burro hunters have been active in the Homewood Canyon area, representatives of the Society for the Prevention of Cruelty to Animals and the Southern California Humane Society discovered on a recent trip to Trona. The societies took pictures of burro remains they found and planned to show the films on television, in their campaign urging legislation protecting the desert animals.—*Trona Argonaut*.

Study Sheep Damage . . .

INDIO — Sheriff Joe Rice has begun an investigation to determine whether sheep ranchers are violating a county ordinance that protects wildflowers against grazing. Riverside County supervisors asked for the investigation after Supervisor Homer Varner reported that sheep men were moving the animals into the Coachella Valley by railroad and attempting to graze them there. A county ordinance establishes wildflower reserves and makes it a misdemeanor to graze sheep in them during March, April and May.—*Desert Sun*.

Desert Ranger Goes East . . .

TWENTYNINE PALMS — Frank R. Givens, Superintendent of Joshua Tree National Monument, has been made chief ranger of Acadia National Park in Maine. Superintendent Samuel A. King of Saguaro National Monument in Arizona will take Givens' place at Joshua Tree.

The Deadline is Near, for Life-on-the-Desert Stories

As this issue of *Desert Magazine* comes off the press the deadline is close at hand for the submitting of entries in *Desert's* annual Life-on-the-Desert contest.

For the best story of from 1200 to 1500 words submitted by May 1, an award of \$25.00 will be made. Each other contestant whose manuscript is accepted for publication will receive a \$15.00 award. Entries will be judged on the basis of story content and writing style.

The story must relate a true experience, preferably of the writer—no yarns or tall tales or heresay will qualify. The experience may involve danger while lost on the desert, an adventure while living or traveling on the desert or in Indian country, while homesteading, rockhunting or prospecting. It may be the meeting of an unusual character, revealing a phase of human nature or a distinct way of life. It may recall "good old days" in the mining camps or frontier towns. Perhaps it will contain a lesson on desert wildlife or plants or desert living.

The contest is open to amateur and professional writers alike, but those who plan to submit manuscripts should carefully observe the following rules:

All manuscripts must be typewritten, on one side of the page only.

Entries should be addressed to Editor, *Desert Magazine*, Palm Desert, California, and must carry a dateline not later than May 1, 1953, to qualify for the awards.

If good sharp 5x7 or larger pictures are available, an extra \$3.00 will be paid for each photograph accepted. Pictures are not essential, however.

Writers must be prepared to supply confirmation as to the authenticity of their stories. Only true experiences are wanted.

All stories must be essentially of the desert, and the scene is limited to Arizona, Nevada, Utah, New Mexico and the desert area of California.

True names of those involved must be given, although with the knowledge of the judges, fictitious names may be substituted in special cases where there is reflection on personal character.

If the story has appeared previously in print, this fact and the time and name of the medium in which it appeared should be given.

All readers of *Desert Magazine* are invited to submit manuscripts. Unaccepted manuscripts will be returned if accompanied by return postage.

Urge Calico State Park . . .

YERMO—Pointing out the interest the Calico Mountains hold for historian, geologist, mineralogist, photographer and sightseer, the Yermo Chamber of Commerce has sent a folder, *Yermo, Gateway to the Calicos* to the California Division of Beaches and Parks. Yermo and Barstow are urging that the Calico area be made a state park. "Here the first borax was discovered in sufficient quantities to justify commercial mining. Here in one

mountain alone—Old Calico—\$67 million worth of silver was mined in the roaring '80s, and here the Mormons passed with their wagon trains, and before them the Spanish Conquistadores," the pamphlet reminded division chiefs.—*Barstow Printer-Review*.

NEVADA

New Flag for Nevada . . .

CARSON CITY — A new Nevada state flag would be created under terms of a bill introduced in the senate by

John Robbins of Elko and Kenneth Johnson of Ormsby. Johnson, who said the new flag culminated 12 years of study, asked the senators to approve a design which calls for a tri-color of blue, gray and white. Upon the central white stripe would be placed a blood-red map of Nevada. The words "Battle-born" would appear on the map in white letters and "Nevada" would be written across the bottom of the central stripe in red letters.—*Battle Mountain Scout*.

Snowpacks Light, Surveys Show . . .

HUMBOLDT — Lowest snowpack measurements since 1934 were recorded in two Nevada areas during March surveys. Wayne Cloward, forest ranger in Paradise Valley, reported finding an average of 23.7 inches of snow—less than half of last year's record fall — on the Paradise Valley and Martin Basin courses. The lower courses at Lemance and Buckskin were the lowest in 19 years. Not only was there less snow, Cloward found, but the water content was considerably below normal.—*Humboldt Star*.

Nothing Like a Good Fight . . .

CARSON CITY — Nevada would participate in the Supreme Court battle between Arizona and California over the water rights of the Colorado River under a bill offered the Nevada Senate by Rene Lemaire, Lander County Republican. The measure points out that the pending suit jeopardizes Nevada's rights to water and seeks a \$75,000 appropriation to finance the attorney general of the state to intervene with whatever legal means he deems necessary.

Nevada Publicity Bureau . . .

AUSTIN—Nevada's historical and scenic points of interest, its "lenient laws and general lack of restrictions on living" will be publicized by a Nevada Information Committee to be appointed by Darwin Lambert, president of the Nevada Chamber of Commerce Executives Association. Nevada publicity heretofore has been left entirely to individual cities and communities, said Lambert, and has been local rather than statewide. The highways and parks department magazine, *Nevada*, has been issued only now and then because of limited funds.—*Reese River Reveille*.

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Muskrat Trapping Program . . .

FALLON—A goal of 12,000 muskrats was set by the Stillwater Wildlife Management Area in a concerted 10-day trapping drive in March. Muskrat hides bring from a few cents apiece to more than a dollar for fine hides. Half the revenue goes to the trapper and half to the district. Stillwater hoped to net \$6000 in the March effort. The muskrat program is administered by the U. S. Fish and Wildlife Service without charge. — *Fallon Standard*.

Ask More City Land . . .

BOULDER CITY—Boulder City Advisory Council has recommended the addition to the dam community of a mile-long stretch of Lake Mead shore and another 45-acre proposed airport site southeast of town. The plan to annex the land, which lies within the Lake Mead Recreation Area, was strongly opposed by the recreation area's superintendent, George Baggeley. Approval of the federal government must be obtained before annexation can proceed.—*Las Vegas Review-Journal*.

Pioche Landmark Destroyed . . .

PIOCHE—One of the old landmarks of Pioche was almost completely destroyed when an oil stove exploded and set fire to the Alexander Hotel, a structure more than 75 years old. Damage was estimated at between \$5000 and \$7000.—*Caliente Herald*.

NEW MEXICO

"Long Walk" Over . . .

GALLUP—An aged Navajo woman, widow of an Indian scout who helped track Geronimo, died in March in the family hogan near Gallup. Mrs. Bah Charley, widow of Old Navajo Charley, was believed to be at least 97 years old. She participated in the famed "long walk"—a roundup of Navajos accused of depredations against white settlers—during the Civil War. Then 8 or 9 years old, Mrs. Charley made the walk from Ft. Defiance, Arizona, to Bosque Redondo near Ft. Sumner, New Mexico, a distance of about 400 miles.

McKay Urges Indian Citizenship . . .

WASHINGTON—Interior Secretary Douglas McKay admits the government's record in Indian affairs has been bad for 125 years. Recently he urged "full citizenship with full responsibilities" be given the estimated 40,000 Indians still on reservations. He said he thought his proposed Indian reforms could be accomplished but declined to say how long he thought it would take.

New Mexico Ranges Improve . . .

GALLUP—"Recent precipitation has improved grazing prospects in central and Western New Mexico and Arizona," the U. S. Department of Agriculture reported March 1, "and range and pasture feeds are good." Elsewhere range forecasts were not so favorable. Dry conditions reduced grazing in Utah and Nevada, and the prolonged drouth reduced native feed in California, with a record decline in conditions during February.

Chimney Rock Curio Cave . . .

ALAMOGORDO—The cave in Chimney Rock which once served as an Apache stronghold and later as the hideout of Billy the Kid, has been reopened as a curio shop for tourists traveling Highway 70 between Alamogordo and Roswell. New owners are Mr. and Mrs. George Fuchs, who purchased the cave building from Mr. and Mrs. Bill Brem. Brem had enclosed the cave with large plate glass windows, leaving intact the jagged rock walls and great overhanging roof ledge. The spring of fresh water within the cave has been transformed into a drinking fountain. — *Alamogordo News*.

Experiment Fails . . .

SANTA FE—The billboards have won the battle between highway-side advertising and the New Mexico landscape. By a vote of 34 to 20, the state house of representatives passed a measure which removes most restrictions formerly imposed by the state in an attempt to control signboard advertising. Groups opposing the bill contend it opens the way for more and larger billboards along New Mexico roadways.—*New Mexican*.

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Pass Thorne Museum Bill . . .

TAOS—New Mexico's House of Representatives has passed the Thorne Museum Bill, appropriating \$45,000 for purchase of the old Thorne house in Taos for use as a museum. The legislation also provides for establishment of a governing board to operate the museum and to set an admission fee, not to exceed 50 cents, to help defray maintenance expenses. In addition to the house, the Thorne property includes three acres of land adjoining Kit Carson State Park. — *El Crepusculo*.

Indian Bills Introduced . . .

WASHINGTON—Several bills aimed at improving the lot of the American Indian have been introduced in Congress. Senate bills offered by Senator Butler of Nebraska advocate the following: (1) transfer of Indian health services administration, including operation of hospitals on reservations, from the U. S. Indian Service to the Public Health Service; (2) state jurisdiction over crimes committed by or against reservation Indians; and (3) transfer of trust funds from the U. S. Treasury to accounts of individual Indians in home town banks. Most of the bills have counterparts in the House.—*New Mexican*.

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San Mateo	20x32	1.00
Santa Barbara	36x38	1.50
Santa Barbara	33x23	1.00
Santa Clara	25x33	1.00
Santa Cruz	19x24	1.00
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Most maps are drawn to scale of 1/2 inch to the mile. Maps obtainable flat or folded.
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UTAH
Even Papoose Pays . . .
ROOSEVELT—For the first time in history, Ute Indians on the Uintah-Ouray reservation shared the white man's allergy to the Ides of March. They had to pay income taxes. Even children had to pay, since they are listed in government records as self-supporting if they were born before August 21, 1952. This is because they shared in per capita payments of tribal oil royalties, from which most of the Indians' income stems.

A special per capita payment from the tribal treasury was set up by federal officials. Each registered member of the band—man, woman and child—received \$300 for tax purposes. Indians who received no money other than per capita payments, which totaled \$1070 apiece last year, were assessed \$54. Not only were oil royalties taxable, but income from restricted land and trust property likewise was taxed for the first time in Ute history. Thus tribal members paid tax on incomes ranging from the \$1070 minimum to as high as \$48,000, top income on the reservation.—*Salt Lake Tribune.*

Dry Year Ahead . . .

SALT LAKE CITY—Below average water supplies, both for the irrigation season, April to September, and the water year, October, 1952, to September, are forecast for most of Utah. January's heavy precipitation over Great Salt Lake basin proved only a brief respite in an otherwise dry season, reported the U. S. Soil Conservation Service and Weather Bureau, and outlook for this section is only 75 percent of average run-off. Streamflows for Sevier and Beaver River basin are expected to be about 65 percent of average. Unusually warm weather during the winter has melted

a considerable portion of the snow at low elevations, decreasing irrigation season prospects. Dry soils at higher elevations further decrease the expected run-off from snowpack at these elevations.—*Salt Lake Tribune.*

Emigration Canyon Popular . . .

SALT LAKE CITY—More than half a million persons are expected to visit the This Is the Place monument at the mouth of Emigration Canyon this year. "Funds provided by the state legislature are making possible improvements which will materially increase attendance," reported John Giles, executive secretary-treasurer of the Utah Monument Commission. Eight bronze inscription tablets will outline the history of the region from the coming of the first Catholic missionaries in 1776 until the arrival of the Mormon pioneers in 1847, and a new water system will be installed. Last year 400,000 persons visited the monument.—*Salt Lake Tribune.*

MOAB—After 42 years of publishing the *Moab Times-Independent*, L. L. Taylor has left his editorial desk to serve on the Industrial Commission of the State of Utah. Until Taylor's son returns from army duty to assume *Times-Independent* responsibilities, publication will be handled by Mr. and Mrs. B. C. Spencer who have obtained a three-year lease on the paper.—*Moab Times-Independent.*

Consider Moab Bridge . . .

MOAB—Construction of a new bridge across the Colorado River at Moab will be begun next winter and will be ready for travel the following spring. The new structure will be approximately 1200 feet long and downstream from the present bridge.

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Amateur Gem Cutter

By LELANDE QUICK, Editor of The Lapidary Journal

Since August 1942 this column has been appearing here unremittingly. It averages about 1200 words per issue so that in the nearly 11 years since it began there has appeared approximately 156,000 words about the rockhounding hobby.

A file of all these columns presents a history of the fastest growing hobby in America but more important it presents for the first time many new phases of gem cutting and procedure that have later become adopted and accepted. Now and then something controversial has appeared and some real experimenting by the amateurs has followed.

Nothing within our memory however has stirred up the immediate response of the readers to an idea like the discussion of the tumbling process in the March issue. We find that there is a tremendous interest in baroque gems. This was evidenced by our recently concluded Desert Rockhounds Fair, where we had 37 commercial dealers with about 25 of them selling baroque stones. One dealer, who has had wide experience making tumbled gems, told us that no one would ever achieve success using the methods we told about in March. Our informant however has been following those methods with great success for a long time in the lapidary classes of the Chicago Parks District.

He (Ray C. Mitchell) now comes along with some more valuable pointers on tumbling which we are happy to pass along to our readers. Mr. Mitchell has been deluged with inquiries and many shops advise him they have installed tumbling equipment. The following information may correct some misconceptions that have arisen before they become firmly established.

The tumbling process is not a noisy operation but lined barrels must be used. Unlined barrels are noisy but when barrels are lined with vinyl plastic or other synthetic coatings the noise is no louder than grinding and sawing equipment. A lined barrel also has its life extended several times. A person may line a barrel with old automobile inner tubes, cemented to the interior with a good water proof linoleum or tile cement. The rubber pieces should be overlapped at the seams and in the direction of rotation of the barrel. Commercially manufactured barrels are already lined by spraying a thick coating of plastic over the interior surface.

It is impractical to process a batch of quartz, or materials of about seven in hardness, in lots smaller than 35 pounds. If you have less than that weight to tumble you should add additional poundage of material of the same or greater hardness. Materials of about 5½ in hardness (turquoise is 6) may be handled efficiently in batches of 10 pounds. A good rule of thumb is—the softer the material the smaller the minimum batch. Turquoise nodules surface and polish very rapidly in small batches. Finer abrasive (about 150 grain) should be used for surfacing softer material as against the 40 to 100 grain abrasive used on agate and other quartz materials.

The time consumed in tumbling is definitely conditioned on the original material. Sweetwater agates, beach pebbles, "moon-

stones," Monterey jade pebbles, etc., have already been tumbled for centuries by Nature. Relatively little tumbling will bring them to the final polishing stage. But rough broken rock chunks, deeply pitted nodules, and geodes with a thick outer matrix require much more time in the tumbler to achieve a smooth surface. These three questions—noise, size of batch and time—are the most repeated queries.

"In practical use the tumbling process quickly develops into a continuous operation" writes Mr. Mitchell. "Each batch will contain some material that will finish quite rapidly and this may be removed when finished and new material added to maintain the weight. Frequently a few pounds or special pieces are to be tumbled. They are added to the barrel and processed with the routine batch until the desired surface is secured."

As batches are therefore normally inspected every few hours facilities should be provided to simplify handling of materials, abrasives and water so that inspection does not become a major chore.

The charging opening should be located on the periphery of the drum and an interchangeable strainer cover provided. The machine should be stopped with the cover to the front, the regular cover removed, and the strainer cover placed in position. The barrel is then hand turned so that the strainer is at the bottom, with a large pan beneath to receive the strained water and abrasive. The water is decanted and the remaining abrasive is inspected to determine its further fitness for use. The stones are now dumped on a flat surface for sorting and inspection under a strong light. Material requiring more treatment is replaced in the barrel with the water and the abrasive. The finished stones are sorted or laid aside for the next stage.

When the stones are ready for polishing the drum should be cleaned and the stones tumbled in clear water for a time to be sure all grits are removed. After a rinsing the surfaced gems are placed in the barrel with water and a polishing agent (levigated alumina is preferred) and inspections follow as with the rough surfacing. Unless they become contaminated these polishing mixtures are never discarded but saved for further use. The chance of grief is eliminated if two barrels are used; one for surfacing and one for polishing. When polishing quartz materials add a little washing soda to neutralize the acid, particularly if you are burnishing without any polishing abrasive and using a detergent such as TIDE.

When tumbling materials from which a great deal of surface must be removed time can be saved by adding chunks of old grinding wheels to the batch, broken to a size matching the material being tumbled. Do not discard smoothly surfaced stones you find you do not care for as they may be used in making bulk for polishing or burnishing a small batch. Add some clay flour when using 100 grit or coarser. This causes the grit to adhere to the surface and gives a faster cutting action. If you missed the earlier article on tumbling (March issue) it is still available for 35c postpaid.

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Gems and Minerals

BOOK OF LETTERS RECALLS FIRST BITE OF ROCKHOUND BUG

"Why did you become a rockhound?" Marguerite Beymer asked amateur gem and mineral collectors throughout the United States. The answers—68 of them—make interesting reading in Mrs. Beymer's newly published book, *Rockhounds in the Making*.

Some of the writers were interested in rocks from childhood; others were introduced to the hobby later by friends, in school or through a business assignment. A few—like Mr. and Mrs. Emil Waisanen of Custer, South Dakota, turned to Nature and rock-collecting as comfort in time of sorrow.

Every collector has a story about his interest in rocks, his first specimen, the initial field trip. Not only do these stories make good reading, but they also suggest unique projects—like G. W. Weber's rock urn constructed of stones from every one of the 48 states—and introduce potential traders to rockhound readers planning vacation trips.

Of particular interest to jade lovers is the story of the late J. L. Kraft of Chicago, president of Kraft Foods Company and dean of American jade collectors, and the history of his jade window in Chicago's North Shore Baptist Church. A picture of the window accompanies his letter.

A few other photographs of collectors and specimens illustrate the book.

Published by the author, printed by Caxton Printers, Caldwell, Idaho, 112 pages, paperbound, \$2.50.

ANNUAL ELECTION MEETING HELD BY ALBUQUERQUE CLUB

After ballots were counted at the annual election meeting of Albuquerque Gem and Mineral Club, the following members were announced as officers for the coming year: Dean Wise, president; E. R. Wood, vice-president; Sam Ditzler, treasurer; Marie Nickolls, recording secretary, and Ellen C. Wood, corresponding secretary. Meetings are held in the administration building of the University of New Mexico.

TOURMALINE MINERAL SHOW NEAR SAN DIEGO

Fourth Annual Gem and Mineral Show of the Tourmaline Gem and Mineral Society of San Diego County, California, will be held May 2 and 3 at Grossmont Union High School, 12 miles east of San Diego on U. S. Highway 80. Included among displays will be specimen cases showing the year's field trip yields in rough, polished and mounted stones. Trips were made to Jade Cove, Crystal Hill, Pinto Mountain, Moonlight Beach, Mesa Grande and Ramona, California. Working exhibits will provide demonstrations of lapidary techniques.

JUNE GEM SHOW SLATED IN GRANTS PASS, OREGON

Rogue Gem and Geology Club of Grants Pass, Oregon, has selected June 13 and 14 as dates for its 1953 show. Andy F. Sims is president of the sponsoring society.

"FROM ROCK TO BEAUTY" GEM FESTIVAL THEME

Sixth annual gem and mineral show of Glendale Lapidary and Gem Society will be held May 16 and 17 at Glendale Civic Auditorium, 1401 Verdugo Road, Glendale, California. Hours will be from 9 a.m. to 9 p.m. Saturday, from 9 a.m. to 7 p.m. Sunday.

Theme of this year's Gem Festival is "From Rock to Beauty." Rough and polished stones, crystals, mineral specimens, flats, cabochons and faceted gems, fluorescent, jewelry and fossils will be displayed, and demonstrations will be held of the lapidary arts. Also featured will be artistic arrangements of driftwood and flowers.

Special displays will include the Kazanjian Brothers' 1151-carat rough ruby; work of the noted woman sculptor, Cornelia Runyon; J. C. Chow's collection of carved semi-precious stones from the Orient, and Erna Clark's popular "Dinner of Rocks."

SAN JOAQUIN VALLEY ANTICIPATES FIRST SHOW

First annual show of San Joaquin Valley Gem and Mineral Club will be held May 9 and 10 at the San Joaquin County Fairgrounds, Stockton, California. Co-sponsors are the Mother Lode Mineral Society, Calaveras Gem and Mineral Society, Lodi Gem and Mineral Society and the Stockton Lapidary Club. Parking and camping space will be available on the grounds, and food will be served. Inquiries regarding commercial space or other information should be addressed to Mrs. Dorothy Norris, 1019 School Street, Stockton, California.

THIRD ANNUAL SHOW FOR DOWNEY'S DELVERS

The Bellflower Park building has been secured for the third annual show of Downey Gem and Mineral Society, Downey, California. The show is scheduled for the weekend of May 9 and 10. Every hobbyist who has lapidary work, minerals, crystals, specimens, shells, artifacts, fossils or other material is invited to display.

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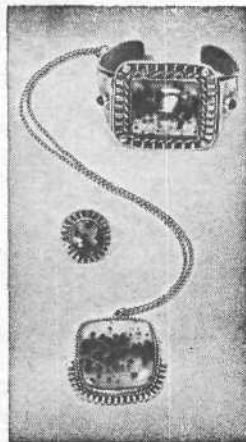
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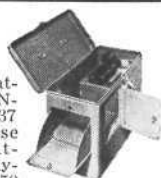
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AMONG THE ROCK HUNTERS

EVENTS SCHEDULED FOR JUNE CONVENTION IN ST. LOUIS

Three field trips are among events planned for the 13th annual convention of the Mid-west Federation of Mineralogical and Geological Societies in St. Louis, Missouri June 26-28. Visitors can look forward to visiting the Ruepple Mine, the barite deposits of Washington County and Ozark Mountain sites. Also scheduled are talks by Dr. Albert Frank, St. Louis University geology professor; Dr. Ben Hur Wilson, chairman of the earth science department of Joliet, Illinois, High School; John F. Mihelcic, William J. Bingham, Dr. Gilbert O. Raasch of the Illinois State Geological Survey Division, and Dr. Garrett A. Muilenberg, assistant state geologist, Missouri Geological Survey.

NORTHWEST FEDERATION SELECTS LABOR DAY DATES

Oregon Agate and Mineral Society will be host for the 1953 convention of the Northwest Federation of Mineralogical Societies, planned for the Labor Day weekend in Portland, Oregon. The show will be held in the basement and on the ground floor of the Portland Public Auditorium, which affords ample floor space for individual, club and special displays, commercial exhibits, lectures, movies and demonstrations. Scheduled trips will be offered to nearby rock locations and places of interest. The annual banquet will be held September 5 at Portland's Multnomah Hotel.

Fresno Gem and Mineral Society, Fresno, California, held its annual show April 18 and 19 in the cafeteria building on the Fresno County Fairgrounds. Featured were exhibits and practical demonstrations of the lapidary arts.

Commercial jewelers evaluate gems by their color, hardness, transparency and rarity; but craftsmen, Mrs. Caroline Rosene told members of the Gem and Mineral Society of San Mateo County, California, are interested in the color and pattern of a stone—not necessarily a gem—in modern jewelry design. Mrs. Rosene, president of the Metal Arts Guild of Northern California, spoke on "New Uses for New Stones in Contemporary Jewelry Design." She mentioned the use of serpentine, amazonite, crystals frosted on one surface, onyx, dinosaur and whale bone, snowflake obsidian, polka-dot chalcodony, beach pebbles, green aventurine, hematite, chrysoberyl and red jasper as being particularly effective in contemporary designs.

Pasadena Lapidary Society members gained new ideas for silver mountings for their polished gemstones when Walter Sommer, a commercial artist and member of the Los Angeles Lapidary Society, spoke before the group. Sommer is particularly partial to insect forms in jewelry design.

Movies of volcanoes in action were shown at the February meeting of San Fernando Valley Mineral and Gem Society, California. The Java-Sumatra island region was featured, and the narrative emphasized the 1883 volcanic eruption at Krakatoa, near Java, which killed 36,000 people and upset weather, tidal and temperature conditions of the area for more than two years.

INSTALLATION RITES SEAT OFFICERS OF SEATTLE CLUB

Installation of officers was main order of business at the February meeting of the Gem Collectors' Club of Seattle, Washington. J. B. Loop took office as president; Henry Bock, vice-president; Mrs. Harry M. Streams, secretary, and H. D. Ostrander, treasurer.

Wiley Well was the destination of 30 carloads of friends and members of Delvers Gem and Mineral Society, Downey, California, on a March field trip. Good finds were made at the fire agate beds and geode collecting areas.

Two mineralogy division field trips were scheduled in March by the San Diego Mineral and Gem Society. Barring rain, members planned first to visit the Fargo mine at Pala. The following week-end they hoped to search for calcite, wollastonite, grossularite garnet, zoisite, clinozoisite, diopside, tremolite, massive quartz, chalcedony and opal at Dos Cabezas.

"Man's Place in Nature" was Dr. Frank L. Fleener's subject when he spoke at a meeting of the Marquette Geologists Association, Chicago. Dr. Fleener, a historical geologist, traced the development of mammals from late in Pliocene time.

The break-up of an Alaskan glacier was recorded on film and shown by Charles Lloyd at a recent meeting of Everett Rock and Gem Club, Everett, Washington. Featured among display specimens were gems and minerals from Alaska and Canada.

Quartz family minerals were spotlighted at the February meeting of the Minnesota Mineral Club. Mr. and Mrs. Cedric Erickson were speakers. They showed slides of three groups of quartz minerals—crystallines, crypto-crystallines and pseudomorphs.

L. G. Howle conducted a competitive quiz at a recent meeting of the El Paso Mineral and Gem Society, El Paso, Texas.

James Lewis Kraft, founder and chairman emeritus of the board of Kraft Foods Company and one of the world's most enthusiastic jade collectors, died in February. Kraft, author of a book on jade, just a few months before his death had seen his jade window completed and dedicated at the North Shore Baptist Church of Chicago.

Hemet-San Jacinto Rockhound Club was awarded first prize for its exhibit at the Hemet Farmers Fair, held in August in Hemet, California. The club display emphasized crystal groups, quartz specimens and petrified wood.

Answers to SCRAMBLED WORD QUIZ

Questions are on page 28

- | | |
|-------------------|-------------------|
| 1—Papago. | 11—Camino. |
| 2—Panamint. | 12—Wasatch. |
| 3—Phoenix. | 13—Rhyolite. |
| 4—Grand Canyon. | 14—Jacob Hamblin. |
| 5—Geronimo. | 15—Coronado. |
| 6—Shiprock. | 16—Tombstone. |
| 7—Prescott. | 17—Saguaro. |
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| 9—Escalante. | 19—Nogales. |
| 10—Bill Williams. | 20—Greasewood. |

Remembering old fashioned quilting and cornhusking "bees," the membership committee of San Diego Lapidary Society suggested a cabochon-making bee for a future meeting. The group also has plans for a "cab-of-the-month" contest to increase interest of non-members in club activities.

A return trip to the Woodpecker Mine was planned by the Mineralogical Society of Arizona after bad weather discouraged many members from joining the November outing to the site. The 40 rockhounds who braved the storms, reported finding fluorite in small groups of deeply colored crystals. This is one of the few locations in Arizona yielding colored fluorite crystals — most Arizona fluorite is gray or white. Mined commercially, it is classified as metallurgical grade used for fluxing in the steel industry. No amount of acid grade, used for making hydrofluoric acid, has been found, nor is any quantity suitable for the ceramic industry.

Joseph W. Baker of Yuma, Arizona, discussed basic rocks at the first fall meeting of Shadow Mountain Gem and Mineral Society, Palm Desert, California. The program followed pot luck supper.

Ida Coon won the March cover contest of the Compton Gem and Mineral Club's bulletin, *Rockhounds Call*. Her design followed a St. Patrick's Day motif.

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SAMPLES OF LAPIDARY ART BOOKED FOR LONG BEACH SHOW

First Annual Long Beach Lapidary and Gem Show, which is being held at the Long Beach, California, Municipal Auditorium on August 14, 15 and 16, has chosen as its theme "Lapidary Art Through the Ages."

According to Jessie Hardman, chairman of the show, the history of the lapidary art will be traced through Aztec engravings, Egyptian gems, early Chinese jade carvings and cameos of the Middle Ages to present day techniques as illustrated by the Addison collection of cameos and the Phillips collection, among others. Several hundred amateur displays will be shown along with professional work, films, lectures and working exhibits.

Fifteen hundred members, from 12 gem and mineral clubs in the Los Angeles area, are sponsoring the Long Beach show. Hundreds of members have requested that Southern California have its own lapidary show, and plans are to make the event an annual affair.

Last show held in Long Beach was in 1948 and was the most successful ever held on the West Coast. More than 40,000 persons attended the show and expectations are that the 1953 show will exceed this figure.

The men took charge of dinner and program at the February meeting of Northern California Mineral Society, San Francisco. The male members proved their adeptness as waiters, cooks, dishwashers, photographers, table decorators, planners and entertainers.

Seventh anniversary of Chicago Rocks and Minerals Society was celebrated at the February meeting.

The swap and whatzit tables are popular features of Earth Science Club of Northern Illinois meetings. One holds trade materials, the other offers puzzling rocks for analytic speculation.

Tacoma Agate Club, Tacoma, Washington, now has a grinder, sander, buffer, trim saw and two extra arbors in its lapidary shop.

Jim Brown told the Indian history of Starved Rock, Kaskasia and Buffalo Rock in Illinois at the February meeting of the Earth Science Club of Northern Illinois. The group was waiting for spring thaws, when they could again take to the field and visit old Indian sites in the area.

NEW SOCIETY FOUNDED IN EVANSVILLE, INDIANA

Interest generated by an informal field trip last May of a group of jewelry students has culminated in the formation of a new society—the Evansville Lapidary Society of Evansville, Indiana. First meeting was held January 31, and the following officers were elected: Ida Black, president; Roy Noecker, vice-president; Glenn H. Hodson, treasurer, and Fan Rumer, secretary. A monthly *Newsletter* was launched immediately, and the February issue is an excellent job of editorial, art and printing work. Featured was a profile sketch on Mrs. Black, illustrated with a line portrait; an article on amethyst, February's birthstone; news of meetings and events and a "Gemmary" column of lapidary shop tips.

A fossil display was featured exhibit at a recent meeting of Fresno Gem and Mineral Society, Fresno, California.

For newcomers to the gem and mineral hobby, the *Pick and Dop Stick*, bulletin of the Chicago Rocks and Minerals Society, reiterated the six different crystal systems of mineralogy: (1) isometric or cubic, into which system crystallize the diamond and spinel; (2) hexagonal, in which are beryl (emerald and aquamarine) and corundum (ruby and sapphire); (3) tetragonal, as in zircon; (4) orthorhombic, as in topaz and chrysoberyl; (5) monoclinic, as in moonstone and jade; and (6) triclinic, as in turquoise and labradorite feldspar.

NEW OFFICERS AT HELM OF YUMA, ARIZONA, CLUB

New officers of the Yuma Gem and Mineral Society, Yuma, Arizona, are Mrs. Pauline Lohr, president; Earl Mayer, vice-president and Otto Joaquist, secretary-treasurer. One of Mrs. Lohr's first duties was the appointment of committee chairmen: Elwin Fisk, program; Earl Mayer, trek; Mrs. Laura Fuquay, historian; Mrs. Verelene Fisk, hostel; Anthony DeCrescenzi, publicity. Fisk and DeCrescenzi joined forces to present a recent program on fluorescent minerals. They explained and demonstrated the use of ultra-violet light and geiger counters.

Cutting the fifth anniversary cake of Dona Ana County Rockhound Club, Las Cruces, New Mexico, brought a pleasant surprise. The cake had been molded of plaster of Paris by Program Chairman Mildred Saunders and decorated with artificial flowers. Opened, it yielded a variety of rock specimens which were distributed to attending members as birthday gifts.

William E. Phillips of Phillips Jewelry Company was invited by Southwest Mineralogists to tell them about his collecting experiences at the March meeting in Los Angeles. Phillips is a well-known gem collector.

Fifty members and guests joined Glendale Lapidary and Gem Society's search for black petrified wood at Boron Dry Lake near Mojave, California.

Former Vice-president R. C. Farquhar took over presidential duties of the San Antonio Rock and Lapidary Society after the resignation of Colonel A. S. Imell, Sr.

Seventeen candles were lighted at the 17th annual birthday banquet of Sacramento Mineral Society. After-dinner speakers included six past presidents who told of outstanding field trips the society had made during their terms of office. The evening program featured an illustrated lecture by Scott Lewis.

East Bay Mineral Society's new slide projector and screen was initiated with slides of Mr. and Mrs. H. A. Dafoe. They showed the Dafoes' recent trip into the Escalante district, Garfield County, Utah.

Monthly potluck dinners are a new feature of Victor Valley Gem and Mineral Club, Victorville, California. At the last one, Chang Wen Ti was guest speaker, explaining oriental methods of carving jade.

Bernard M. Bench was scheduled speaker for the March meeting of Colorado Mineral Society, Denver. His topic: "People and Places of India and Burma."

Members of Fresno Gem and Mineral Society, Fresno, California, anticipated a March field trip outing to Venice Hill to look for chrysoprase.


Charles Hansen told Shadow Mountain Gem and Mineral Society members about his hobby of pearl collecting at the March meeting in Palm Desert, California.



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ELECTIONS OPEN YEAR FOR CALAVERAS SOCIETY

First 1953 meeting of Calaveras Gem and Mineral Society, Angels Camp, California, was highlighted by two events—burning of the mortgage on the society clubhouse and election of officers. Rev. M. F. Rasmussen was elected president; Earl Holden, vice-president, and Archie Mecham, secretary-treasurer. They were installed at the February meeting, at which new directors were elected as follows: Earl Holden, Archie and Awaitha Mecham and W. G. Daniel, out-going president, for three-year terms; F. E. Rankin and Felice Stevano, for two-year terms created by the retirement of Fred Swallow and Mrs. Burt Winslow. Ira Marriott was re-elected federation director. Daniel, Stevano and Joe Sousa met in Stockton in March with three other rock clubs to formulate plans for a joint show there May 9 and 10.

Slides cut from rock sections were projected by H. W. Boblet at a meeting of San Fernando Valley Mineral and Gem Society.

The ladies had a night off when male members of Long Beach Mineral and Gem Society did the cooking at a recent potluck dinner meeting. As entertainment, Mr. and Mrs. Joe Nilson told of their trip to Florida.

Havasut Canyon and the Big Bend country of Texas were viewed by members of the Mineralogical Society of Arizona when Jim Blakeley showed his colored slides.

Varicolored quartz silicate, equal in hardness and brilliance to Italy's famed Etruscan stone which, carved and polished, adorned Emperor Hadrian's villa on the outskirts of Rome 20 centuries ago, has been found in Arizona. Discovery of the Etruscan stone's counterpart was made by George Crossett, Phoenix rockhound. Samples of the stone were first shown at the Maricopa Lapidary Society and Mineralogical Society of Arizona joint show in March.

When they discovered that the March meeting would fall on Friday the 13th, the program committee of Coachella Valley Mineral Society, Indio, California, decided to be superstitious. They asked members to do research, find superstitions concerning rocks and gems and report them at the meeting.

Arizona's Woodpecker mine was visited by the Mineralogical Society of Arizona on a recent field trip. Three colors of fluorite crystals were found; most were dingy yellow without crystal outlines; deep purple specimens were found as crystal groups in built-up block arrangement and as tiny individual crystals, sometimes perched on the faces of pale quartz crystals; and a few choice specimens were water clear.

More than 6000 visitors passed through the turnstile at the second annual Desert Rockhound Fair in Indio, California. Sponsored by Shadow Mountain Gem and Mineral Society of Palm Desert, the fair was held at the Riverside County Fairgrounds. Two buildings housed commercial and private displays.

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LOST MOUNTAIN GEMS

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Sanding and polishing of Panamint Valley Onyx cabochons highlighted the March meeting of NOTS Rockhounds, China Lake, California. First prize for the best stone, judged on symmetry and quality of polish, went to Henry Peckham. He received a complete hand lapidary outfit. John Walker, a junior member, won second prize—choice cutting material.

K. O. Stewart was scheduled to speak on "Optical Properties of Gem Stones and Their Use for Identification" at the March meeting of Wasatch Gem Society, Salt Lake City, Utah.

Searles Lake Gem and Mineral Society will hold its 1953 show at the annual 49er Brawl, tentatively scheduled for October 10 and 11 in Trona, California.

BY-LAWS ADOPTED BY NEW CLUB IN NEEDLES, CALIFORNIA

By-laws were adopted by the newly-organized Needles Gem and Mineral Club at its January meeting, and officers were elected in February. F. B. McShan will direct 1953 activities as president; E. R. Becker is vice-president; Mrs. Celia E. Becker, secretary, and Mrs. Tillie Smith, treasurer. The young society, already 26 members strong, now is making plans for incorporation and for membership in the California Federation of Mineralogical Societies.

Clark County Gem collectors, Las Vegas, Nevada, traveled to Vegas Wash for a recent field trip. Members presently are learning button-making techniques in their lapidary workshops.

Two motion pictures on the Paricutin and Mauna Loa volcanoes were planned for the March meeting of the Mineralogical Society of Southern California, which meets in Pasadena. Stan Hill, instructor at Pasadena City College, would narrate.

Two films, "River Excursions Through Grand Canyon" and "Arizona and Its Natural Resources" were shown on the March program of Santa Monica Gemological Society, Santa Monica, California.

If you have trouble removing finished stones from the dop stick, put them in the freezing compartment of your ice box for 10 or 15 minutes, advises the editor of *Delvings*, bulletin of Delvers Gem and Mineral Society, Downey, California. Upon removal from the box, they will usually come off quite easily.

March field trip of the Hemet-San Jacinto Rockhound Club of Southern California was to the Garnet Queen Mine in the Santa Rosa Mountains.

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COLONEL LIVINGSTON HEADS CAPITOL CITY MINERALOGISTS

Colonel J. J. Livingston of Arlington, Virginia, heads the new slate of officers of the Mineralogical Society of the District of Columbia. Assisting President Livingston in club activities this year are M. C. Gleason of Washington, vice-president; Paul J. Rees of Chevy Chase, Maryland, secretary-treasurer; Mrs. C. G. Gerber of Arlington, assistant secretary-treasurer, and French Morgan of Washington, editor of the club's bulletin, *Mineral Minutes*. Philip R. Cominsky of Falls Church, Virginia, was named director.

Earl Mayer, trek chairman of Yuma Gem and Mineral Society, led a group of rock-hunters to Blue Bird Hill near Ogilby, California. Most of the field-trippers were successful in finding good specimens of kyanite and black tourmaline in talc, also calcite and limonite pseudomorphs.

"Nature's Building Blocks" was Dr. Ben Hur Wilson's topic when he spoke before members of the Chicago Rocks and Minerals Society. He discussed space and matter, elements, minerals and the various classifications of rocks.

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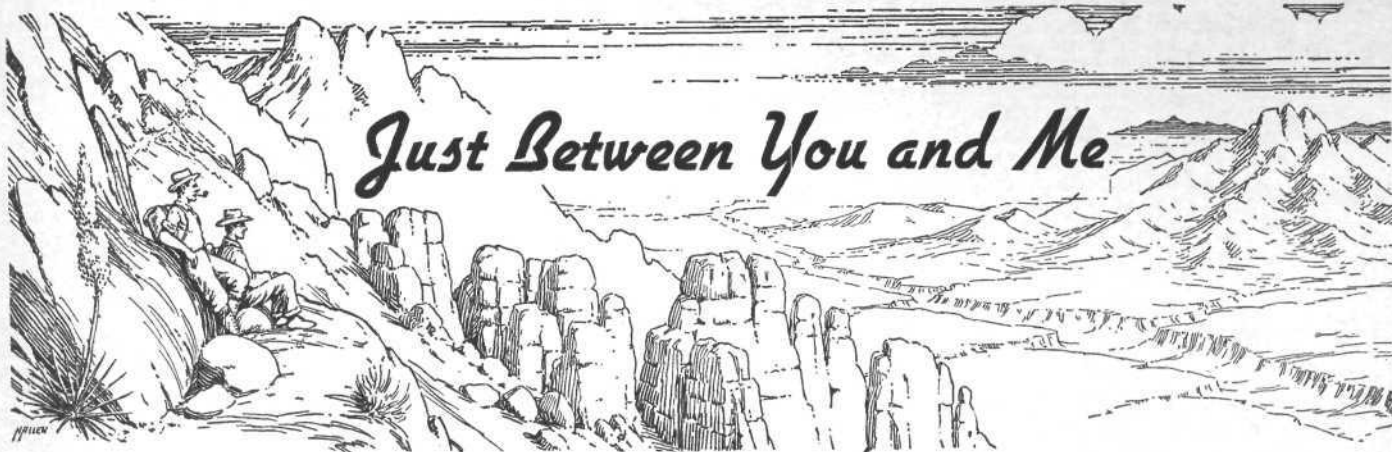
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By RANDALL HENDERSON

SINCE THE April issue of *Desert Magazine* went to press, Cyria and I spent two weeks in the Big Bend National Park in Texas, getting material for a feature story which is to appear later in these pages.

The Big Bend country is desert—pure desert. It is almost as arid as California's Death Valley, and no less interesting. However, the Big Bend is a comparatively new park, and there are many roads and trails to build and signboards to erect before its scenic charm will be fully revealed to visitors.

* * *

Motoring along the roads in west Texas I gained the impression that the state has a very efficient highway department. The Texans not only maintain their roads well, but they keep the rights-of-way clean and attractive. Along the highway between El Paso and Alpine and on many other routes, trim native yuccas have been planted at irregular intervals to give added character to the landscape.

Every few miles along the highway are little roadside parks installed and maintained by the state highway crew. These parks consist merely of a picnic table or two with benches, under a rustic ramada, or shade tree, if there happens to be one available, a barbecue fireplace, and an incinerator—all built of native stone. The incinerator provides a place for garbage disposal, and perhaps explains why the roadside gutters in Texas are not as cluttered with beer cans and debris as they are in California and other states.

I think those roadside parks are a fine idea for the western states where the towns are far apart and the landscape generally is barren of forests.

* * *

When the moon was full in April the Navajo Indians assembled in the Lukachukai Mountains in northeastern Arizona for an all-night sing. Their medicine men had told them the gods were displeased because some of the tribesmen and *bilakana* (white men) were robbing Mother Earth by taking uranium ore from reservation lands. So they must hold a chant and do sand paintings to appease the anger of the *Yei*.

To the Navajo, the Earth is a sacred place. Once many years ago they killed two prospectors who had dared come on the reservation to take ore out of a rich silver mine.

Foolish superstition?

No! I would not say that. For the Navajo's feeling about the Earth is part of his religion, and it is the American creed that the religion of others should be given respectful tolerance.

Perhaps the Navajos are wiser than we think. It is quite possible that a future generation of Anglo-Americans will wish that the men of today had been less zealous in robbing the Earth of its mineral wealth and the soil of its fertility. For if we are to believe the men of science, the two leading economic systems of this age — both capitalistic and communistic—are burning up the earth's resources faster than Nature is able to replace them.

Perhaps the *bilakana* also should hold a sing—not to appease the gods, but to listen to the chant of those learned medicine men of our own race whom we call "Conservationists."

* * *

If you are a resident of California, and wish to lend your help toward the protection of the wild burros, it is suggested that you ask your state legislative representatives to vote for California Senate Bill 190.

This bill would amend Section 1403 of the Fish and Game code by making it *unlawful to kill any undomesticated burro*. An undomesticated burro, for the purpose of this chapter, is a wild burro or a burro which has not been tamed or domesticated for a period of three years after its capture.

* * *

This is spring on the desert—the season when the Southwest, from Palm Springs to Albuquerque, is thronged with visitors who come from the East, or from Pacific coast cities, to bask in desert sunshine.

They are a strange tribe—these sun worshippers from distant places. Rather, I should say they are just ordinary people—generally with a little more money than the most of us have—who assume strange manners and costumes when they are on the desert.

They come here not only because they like the desert sun, but also because this is a place of escape from the conventions and disciplines of business and social life at home. They wear the most disreputable clothes, or a minimum of clothes, as a revolt against those dictators of the style world who prescribe the lines of conventional dress for sedate society.

They take up sun-bathing, golf, horseback riding, rock collecting and other forms of recreation which they have shunned all their lives—as a revolt against the boredom of being conventional human beings.

They come out here to the land of far horizons to do things because they want to—not because they have to.

And to the extent that their better impulses prevail I am all for them. I hope we may always preserve this desert land as a retreat where folks may come and be themselves.

Books of the Southwest

NEW BOOK REVEALS RELIGION OF HOPIS

Down through the centuries the Hopi Indians of northern Arizona have gone their own serene way, little impressed by the so-called progress of the white man. The Hopis have a stable economy, a steadfast morality, and a pervading spirit that have never wavered either in times of global inflation or national depression.

Walter Collins O'Kane of the University of New Hampshire has been a student of the Hopi culture for many years, and has lived with them for months at a time. His first book on the Hopis, *Sun in the Sky*, published in 1950, was a faithful portrayal of the manner in which these tribesmen live, their ingenious agriculture, their highly functional homes, their family life and the native arts.

And now Prof. O'Kane has written a second book about these Indians, *The Hopis; Portrait of a Desert People*, in which the author takes his readers into the dwelling places and kivas for an intimate view of the tribesmen and their religion.

The Hopi "looks out upon the world and the universe as the manifestation of a Power which has always been the object of his prayers." While white civilization has derived much of its impetus and progress from competition, the Hopi questions whether the price too often paid is not too much. A reading of *The Hopis* will give much information and what may be still more important, may stimulate thought and analysis of what constitutes a true standard of values. The book is entertaining, informative and thought provoking — with a gallery of portraits which in themselves tell as much as the printed page.

Published by the University of Oklahoma Press, Norman, Oklahoma. 267 pp. 24 color portraits. \$5.00.

When *California Was Young* by Belle C. Ewing is a child's history of the Golden State, told in a series of true stories. Chapters cover such phases of Western history as the building of the missions, the Gold Rush of 1849, the pioneer treks across Death Valley, the California Indians and the growth of the ranchos. Fact summaries, quizzes and projects are designed for class use.

Published by Banks Upshaw. 239 pages, halftone illustrations, maps. \$3.

DEATH VALLEY'S GHOST CITY OF GOLDEN DREAMS

"Against the dark Bullfrog Hills, the ruins of Rhyolite—bone-white in the light of the early sun—seem fantastically out of place and time. The very permanence of these stone and concrete walls is an offense against reality. For Rhyolite is a city that should never have been, and its ruins are the ghosts of a dream . . ."

Thus Harold and Lucile Weight, editors of *The Calico Print*, introduce the first publication in their new Southwest Panorama Series of booklets of the early West—*Rhyolite, Death Valley's Ghost City of Golden Dreams*.

The 32-page paperbound booklet presents the story of the substantially built but short-lived mining town which spring up after Shorty Harris' discovery of the famous Bullfrog claim.

Numerous historical photographs and two maps supplement the text.

Published by *The Calico Press*. Regular edition, 50 cents; special edition, printed on heavier paper, \$1.00.

OLD MINING TALES BROUGHT TO LIFE

The gold rush days, most colorful period in western history, left a heritage of legends, narratives and tall tales which have whiled away the hours around dying campfires for the past century.

Margaret Stimson Richardson in *A Handful of Nuggets* has collected over 30 of these and retold them in a readable text.

Too often, bad grammar was the chief constituent of these old west stories. In *A Handful of Nuggets* only actual conversation contains the vernacular of that day, enough that the book still has the true flavor of the Old West. Snake-Bite Jones, Pumpkin-seed Pete, Cackling Hank, Black Bart, the famous bandit Joaquin Murietta—colorful characters all—live in brief chapters.

Amusing sketches by M. J. Davis add much to the charm of the book and there is also a useful glossary of mining terms and slang, and an informative bibliography.

Published by The Steck Company, Austin, Texas. 130 pp. \$2.00.

• • •

Books reviewed on this page are available at
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ROCKS, RIVERS AND THE CHANGING EARTH, by Herman and Nina Schneider—Simply yet lyrically written, this logically planned first book of geology was designed for youngsters but is valuable and enjoyable reading also for the adult who has never formally studied earth science. Profusely illustrated with pen sketches and diagrams by Edwin Herron. 181 pages, index. \$3.00

THE FIRST BOOK OF STONES, by M. B. Cormack—Written by an expert and full of good pictures which help keep things clear, this handbook tells the junior rockhound how to start a mineral collection, how to identify specimens through simple tests, how to arrange display boxes and how to plan field trips. Makes stone collecting easy and fun for the young beginner. 93 pages, index. \$1.75

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