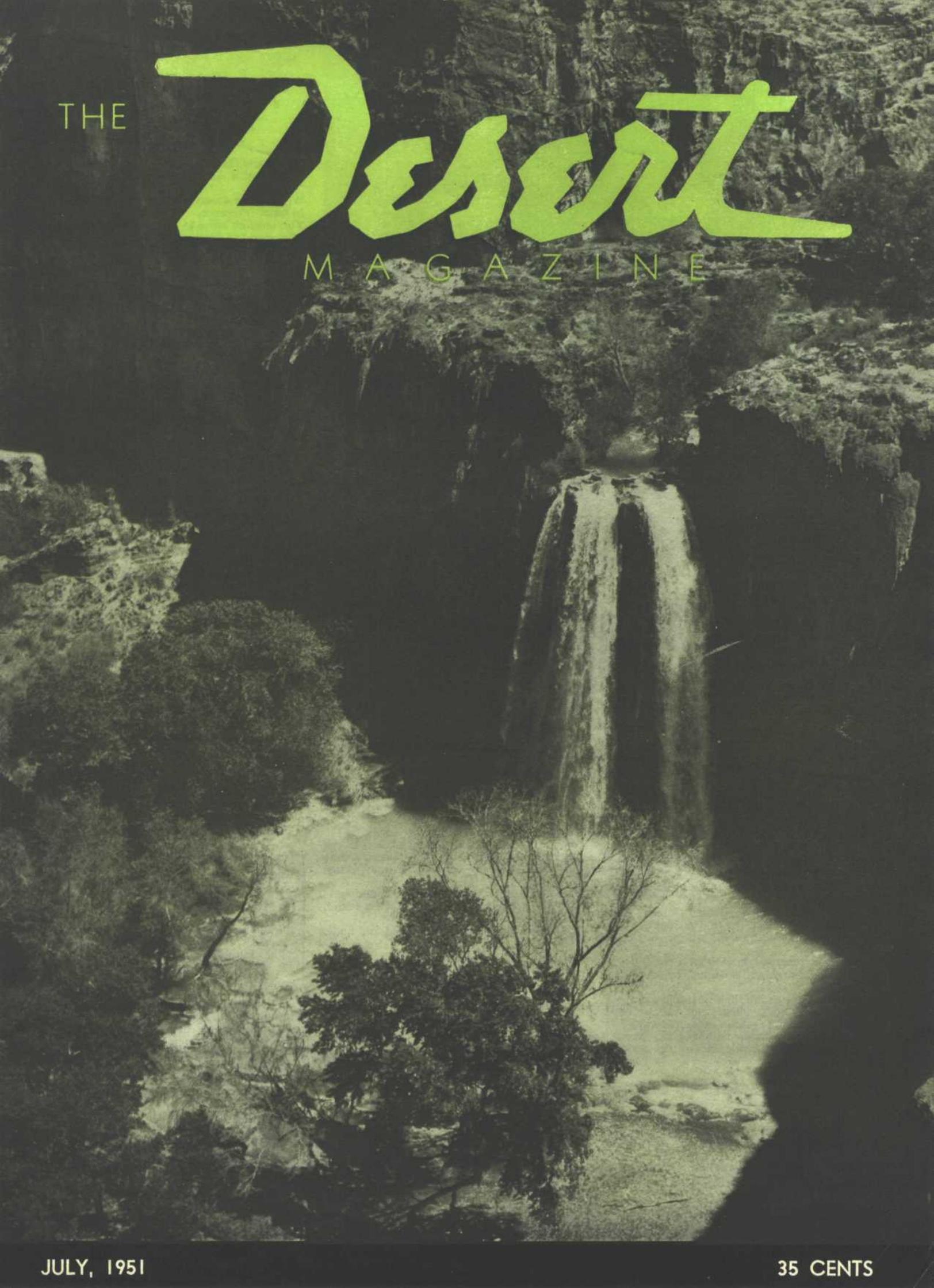


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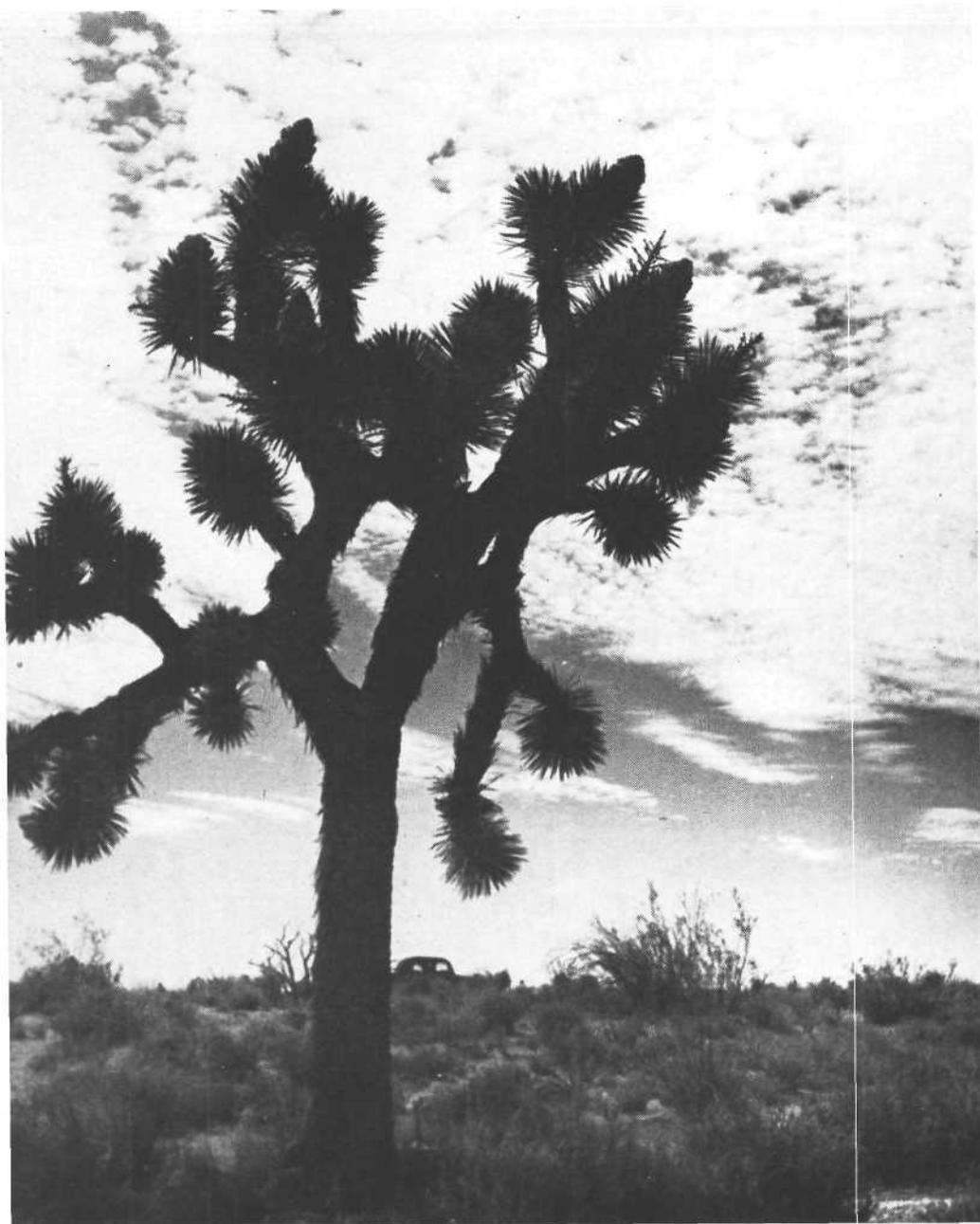
Desert

MAGAZINE



JULY, 1951

35 CENTS



Photograph by William Schoeb

DAY OF WRATH

By PHILIP L. COFFIN
Yucaipa, California

Noon on the desert. The meridian sun
Brands the pale zenith with a blazing torch
Under whose furnaced tyranny the dun
Scarred sand and the black shoals of lava
scorch

And smoulder in a vibrant, dazzling haze.
Noon on the desert. In the lonely sky,
Wheeling on balanced wings, a vulture
sways

Over the lonely plain without a cry,
A noiseless ghoul, nurtured by this bleak
waste,

Where, through infinities of tropic day
And arctic night, silent and without haste,
Relentless nature moves upon her way,
Forging grim barriers that bold men pass
To hear death rattle from the withered
grass.

• • •

THE PROSPECTOR'S GAIN

By AMY VIAU
Santa Ana, California

The prospector's eyes are squint and keen
From searching the hills and the depths
between,
From scanning and testing earth's varied
lays

As he pushes through uncharted ways.

The prospector's heart is tough and fit
With the adventurous hope and heroic grit
As he courts and bears all Nature's fling
For the chance to riches earth may bring.

The prospector's gain is sure and sound
Though riches from ore may not be found,
He's richer far for the solitude
With the mighty earth, unmanned and nude.

• • •

AFTER THE SHOWER

By MARY PERDEW
Santa Ana, California

Jeweled thorns on the
Prickly pear,
Diamond tear drops
Brilliant and rare,
Dull leaves painted
A new bright green,
Sagebrush touched
With a softer sheen,
Zestful breezes
Clean washed and free,
Birds trilling gaily
From bush and tree:
All Nature jubilant, shining, and gay—
Magic of rain on a desert day.

The Joshua Tree

By CHARLES C. STEVENSON
Los Angeles, California

Oh ageless One,
You stand a silent sentinel of a time gone
by,
While gentle desert sands sweep your feet
In quiet reverence.
You have no voice to utter warnings
Of a world to come,
Or tell of Earth's upheavals
In the pre-historic.
Your uplift arms compel the weary traveler
To raise his gaze above mortal vein.
Your unearthly beauty is enhanced
When pale moonlight throws your gro-
tesque shape
In sharp relief against a jeweled sky.
Yet you remain unmatched by hand of
man;
Unshaken by atomic force,
For only God creates eternity.

• • •

DESERT INFLUENCE

By MARGARET HORMELL
North Palm Springs, California

I think of God, in greasewood after rain—
Its pungent incense girds the desert sod;
And when the winds assault my drowsy
plain
I think of God,
And know that slumbering seed within the
pod
Cannot without a rousing jolt attain
New growth, nor man a broader path has
trod
Without conflicting tastes of joy and pain.
But, always under stars of goldenrod,
When velvet-footed Quiet descends again
I think of God.

• • •

AN ELUSIVE LASS

By ELSIE MCKINNON STACHAN
Santa Ana, California

The desert breeze, an elusive lass,
Lithe and warm and fair,
Skirts mesquite, in sandaled feet;
Yet leaves no footprints there.
Much against being housed or fenced,
Or tethered anywhere,
The desert breeze, an elusive lass,
Shakes star-glint from her hair.

Earthly

By TANYA SOUTH

What we have wrought, or good or
bad,
The Future's written in the Past—
A world with blood and gore gone
mad.
It will not last, it cannot last!
No, nothing lasts. The gamut gained,
The tide recedes again. And we,
Upon this little earth sustained,
Bowed by life's seeming mystery,
Pause unseeing in our course,
Refusing to admit the source
Of what has been and is today.
We always learn the hardest way.

And yet the Earth is but a school,
And only certain lessons brings.
And we, to rise above Earth's rule,
Must grow and learn to use our
wings.

DESERT CALENDAR

- June 29-July 1—Rodeo at Elko, Nevada.
- June 30-July 1—Sierra Club members will climb San Jacinto peak from Strawberry Valley. Toni Gamero, leader.
- July 1-2—Annual rodeo at Silver City, New Mexico.
- July 1-4—Annual Fiesta and Devil Dance at Mescalero Apache Indian reservation, Mescalero, New Mexico.
- July 1-4—Reno Rodeo and Livestock Association holds its annual rodeo at Reno, Nevada.
- July 1-4—Frontier Day Roundup, Prescott, Arizona.
- July 2-4—All-Indian Pow-Wow at Flagstaff, Arizona.
- July 2-4—Hillbilly Jubilee, rodeo and barbecue. Idyllwild, California.
- July 3-5—Lions Club rodeo at Gallup, New Mexico.
- July 4—Annual Roundup at Cimarron, New Mexico.
- July 4—Rabbit Ear Roundup rodeo at Clayton, New Mexico.
- July 4—Annual rodeo at Grants, New Mexico.
- July 7-9—Ute Stampede at Nephi, Utah.
- July 8-9—Onate Spanish and Indian fiesta, Espanola, New Mexico.
- July 14—Annual Fiesta and Corn dance at Cochiti Indian Pueblo, New Mexico.
- July 15-16—Round Valley rodeo at Springerville, Arizona.
- July 21-22—Members of Rock Climbing section of Sierra Club will have practice climb at Tahquitz peak. Phil Johnson, leader.
- July 25—Annual Corn dance at Taos Pueblo, New Mexico.
- July 26—Annual Fiesta and dance at Santa Ana Pueblo, New Mexico.
- July 27-30—State convention of Arizona American Legion, Nogales, Arizona.
- July 28-29—Sierra Club 100-peakers will make knapsack trip to top of San Gorgonio. Frank D. Sanborn, leader.
- July 28-30—Racing meet at Cedar City, Utah.
- During July Southwest Museum in Los Angeles will exhibit the collection of Indian objects gathered by Mrs. Louis J. Gillespie of Long Beach. Museum is open daily except Monday, 1 to 5. Admission free.



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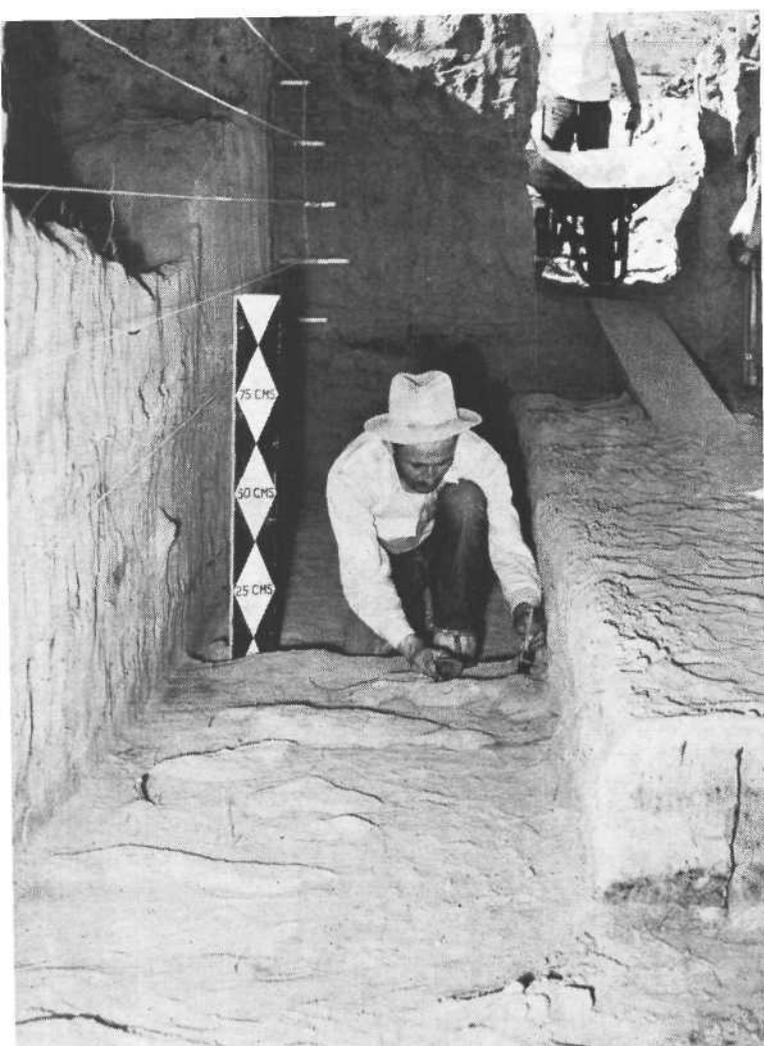


Bunch Grass Lizard

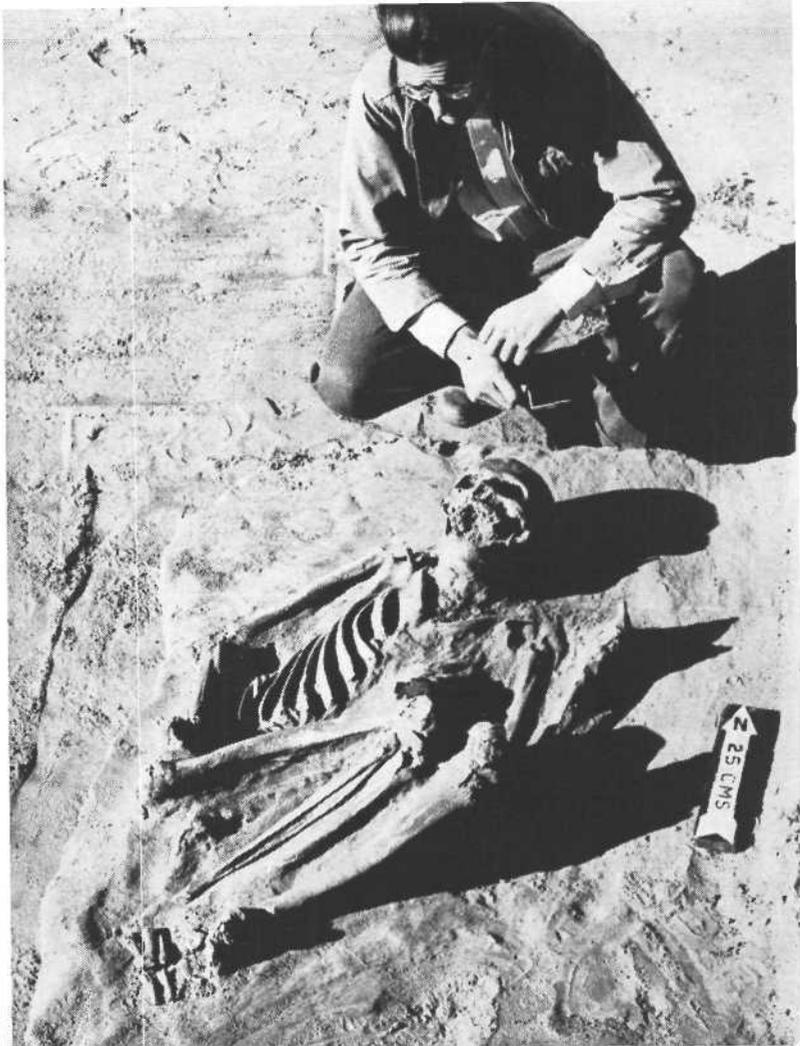
(Sceloporus scalaris slerini)

By GEORGE BRADT

This small beautifully patterned lizard bears a very excellent descriptive name. Never have I found one more than a few feet away from clumps of coarse grass which appear to be its habitat. Occasionally they will make a dash from the sheltering bunch of grass as if indulging in a reptilian game of pussy-wants-a-corner. I can assure any one who wants to collect one of these little fellows that he will literally have to tear the clump of grass apart blade by blade to find the wary lizard. These saurians are seen in Southern Arizona.



Archeologist Schroeder carefully brushes away earth from excavated specimen of pottery as campsites are unearthed in various layers of the silt along Colorado river.



Archeologist Gordon Baldwin of the National Park Service gazes thoughtfully upon skeleton of prehistoric Indian uncovered in excavations along Colorado river. The Indian was buried a thousand years ago.

Clues to the Tribesmen Who Lived by the River

By LAURA BELL

Photographs courtesy National Park Service

WHILE SPORTSMEN are looking forward to a great new fishing paradise and the Chamber of Commerce is readying a folder on the scenic and recreational attractions of Lake Mohave which is now forming behind Davis dam on the Colorado river, the National Park Service is busy salvaging records that ancient man left in this basin which soon will lie forever submerged beneath lapping waves.

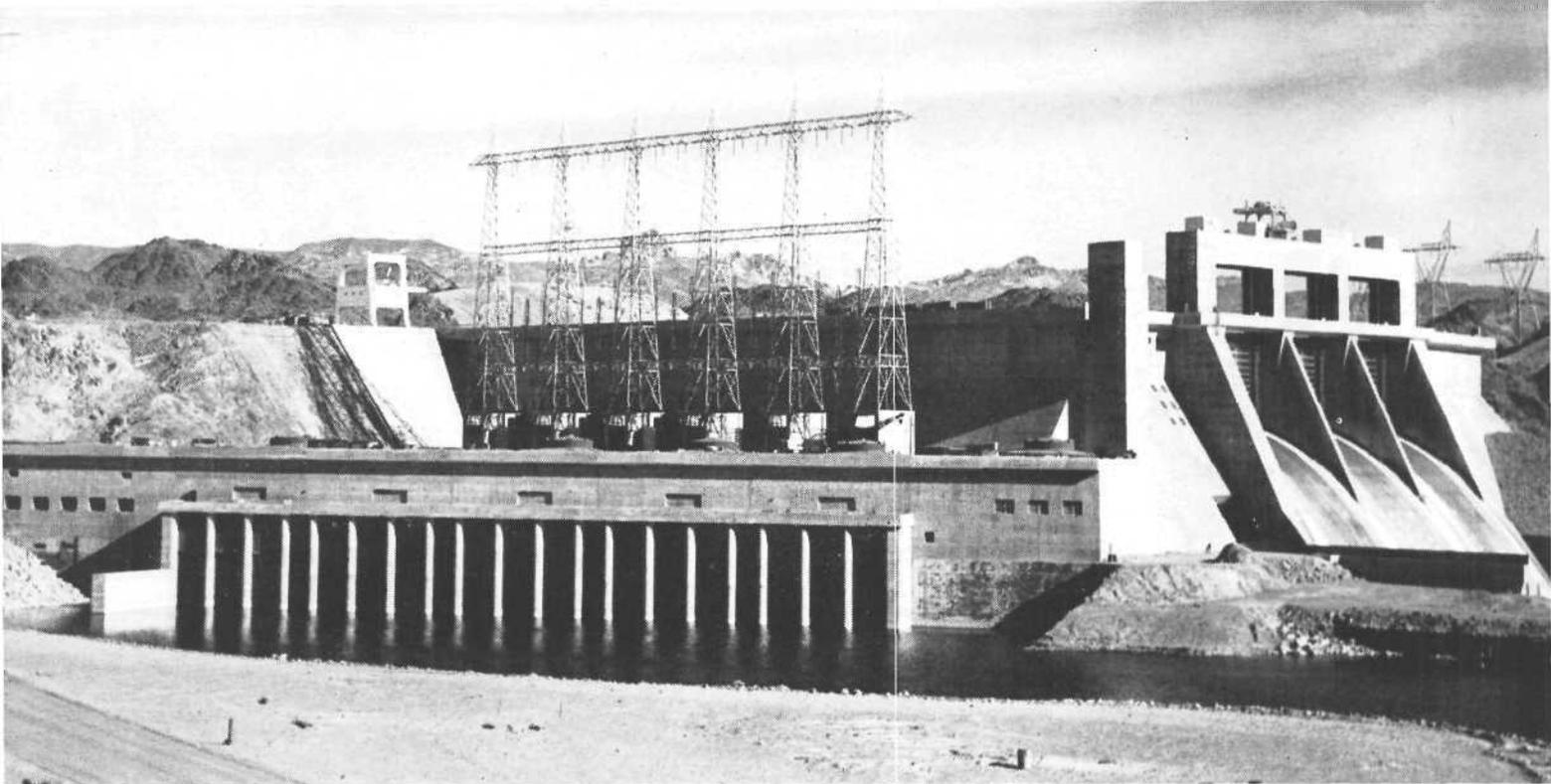
George F. Bagglely, superintendent of the Lake Mead National Recreational area, in which Lake Mohave lies, points out that it is vital to preserve these records on rocks and in buried campsites because so many of

As the waters of the new Lake Mohave slowly are spreading over the lowlands along the Colorado River above Davis dam, archeologists of the National Park Service have been waging a race against time to recover what artifacts could be salvaged from ancient Indian sites in the area to be inundated. Here is the story of some of the interesting discoveries they have made in this land of prehistoric Indians.

them tie in with prehistoric remains of other areas.

Petroglyphs which can be moved are being taken out by truck and boat, while larger ones are being photographed and sketched. Landmarks and Indian trails are being mapped and photographed, and a series of moving pictures is being made showing the effects on wildlife of the encroaching waters of the Bureau of Reclamation's most recent gem in the necklace of lakes it envisions on the Colorado river.

One of the most interesting phases of the salvage operations has been the uncovering and removal of material from several campsite levels on the Arizona bank of the river about 15 miles below Hoover dam. To carry



Downstream face of recently completed Davis dam, 67 miles below Hoover dam on the Colorado River, which is backing up water to form the new Lake Mohave. Waters of the new lake are gradually covering data of prehistory which the National Park Service is recovering for future study. Photo by Phil Blew.

on these excavations of prehistoric Indian artifacts, Albert H. Schroeder, National Park Service archeologist, was transferred to the Boulder City, Nevada headquarters from the Montezuma Castle national monument in Arizona.

Whether the broken artifacts of these nomadic peoples — called “Patayan” by scientists—will explain why they once camped along the river and then disappeared, never to camp there again, is one of the secrets to which he is seeking the key.

During these excavations, eight burials were found and the skeletal material sent to the Smithsonian Institution in Washington, D. C. for further study. All were associated with layers in which pottery was discovered and on this basis the archeologist dates them between 700 and 1100 A.D. It has been concluded from field observations that the Colorado River Indians made pottery during that era. However, the river Indians apparently were in the habit of cremating their dead; so the burials may have been of visiting southern Nevada Pueblos who carried on trade with the river Indians.

Such questions may be cleared up at leisure, now that the excavations have been completed and the materials removed to the safety of the Park Service museum in Boulder City for classification and study.

Excavating was done in such a way that reconstruction of the scenes will be possible. The soil was removed in

blocks three and a half feet by seven feet, and 10 inches deep. The material from each block was screened, put in a separate container and labeled. Careful measurements were kept.

Pottery, roasting pits, and implements found in the various layers are similar to those of other prehistoric groups that once lived along the Colorado. Nomadic habits are indicated by the fact that the various layers excavated were plainly campsites. Some Pueblo pottery and turquoise were found, probably traded in by the visitors, Schroeder says.

The grinding stones or metates are the basin type used by nomadic peoples for grinding seeds and nuts, rather than the trough type used by the Pueblos for grinding corn.

Thus the story of these peoples who lived before history, is gradually pieced together from bits of broken pottery, stone arrow points, scrapers and knives, shell and turquoise beads, a few bone implements.

The pottery levels were restricted to the upper four feet of soil, then there were alternating layers of sterile material, laid on by the river in flood, and layers containing stone implements of the prepottery eras before 700 A.D.

Dates of these might forever remain a mystery except for an astonishing new development in the study of radioactive materials. Scientists have found that charcoal has an element, carbon-14, which is radioactive. Furthermore they have determined the rate at which

it disintegrates, and thus have given themselves a measuring stick for the age of a piece of charcoal unearthed from the site of a prehistoric campfire.

Another interesting salvage operation was the removal, a few days after Christmas, 1950, of 16 petroglyph rocks from a slope on the Arizona side which was covered with volcanic lava boulders, on many of which the prehistoric Indians had left pictures of mountain sheep, suns, arrows, men, and various geometric figures.

So far, no one has been able to make anything out of them, according to Schroeder. They are not unique to this site; though nothing so extensive has been found elsewhere. They seem to be along river trails leading to the Colorado, with an odd distribution in northwestern Arizona, southern Nevada, and southeastern California.

To salvage these petroglyphs, Park Service personnel waited until the lake rose to their level on the formerly inaccessible slope; then approached them by boat and loaded the best specimens (of a size that could be handled) aboard. They rowed across the lake to the Eldorado Canyon fishing camp, transferred the boulders to trucks, and hauled them to the museum in Boulder City.

There they now lie, silently guarding secrets they may someday disclose, while Lake Mohave deepens over the site from which they were removed.

Some of them will remain in the

museum, others will be incorporated in structures of native rock which the Park Service contemplates building on lookout points above this sparkling new attraction in the Lake Mead National Recreational Area which is drawing more than a million and a half visitors a year.

The lake is expected to reach its maximum depth during the summer of 1951 when it will reach an elevation of 643 feet above sea level. At that point there will be only slight fluctuations in the shoreline, making possible permanent installations of recreational facilities by the Park Service and its concessionaires. This is in contrast to Lake Mead, behind Hoover dam, 67 miles above Davis dam, whose shore recedes as much as 40 feet from high level in July to low level in April. Lake Mohave can be kept level by releasing water from Davis dam at the same rate it flows in from the huge hydroelectric power plant at Hoover dam. By August the new scenic lake will extend 67 miles to the tailrace of this plant, and sightseers on scheduled boat trips will be able to look up at and photograph the tallest dam in the world.

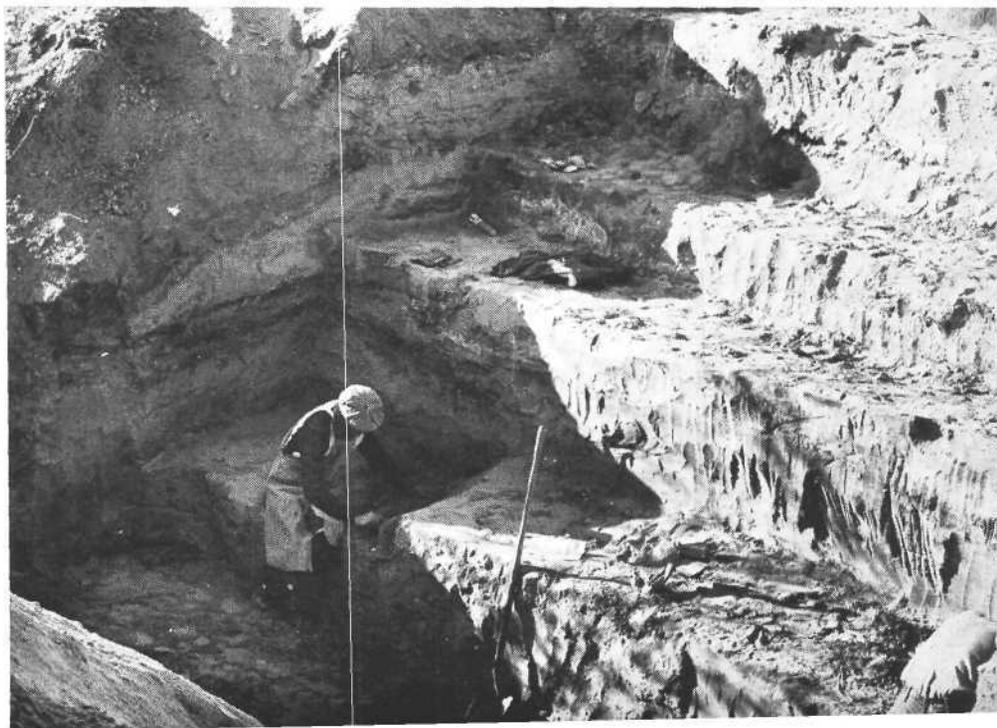
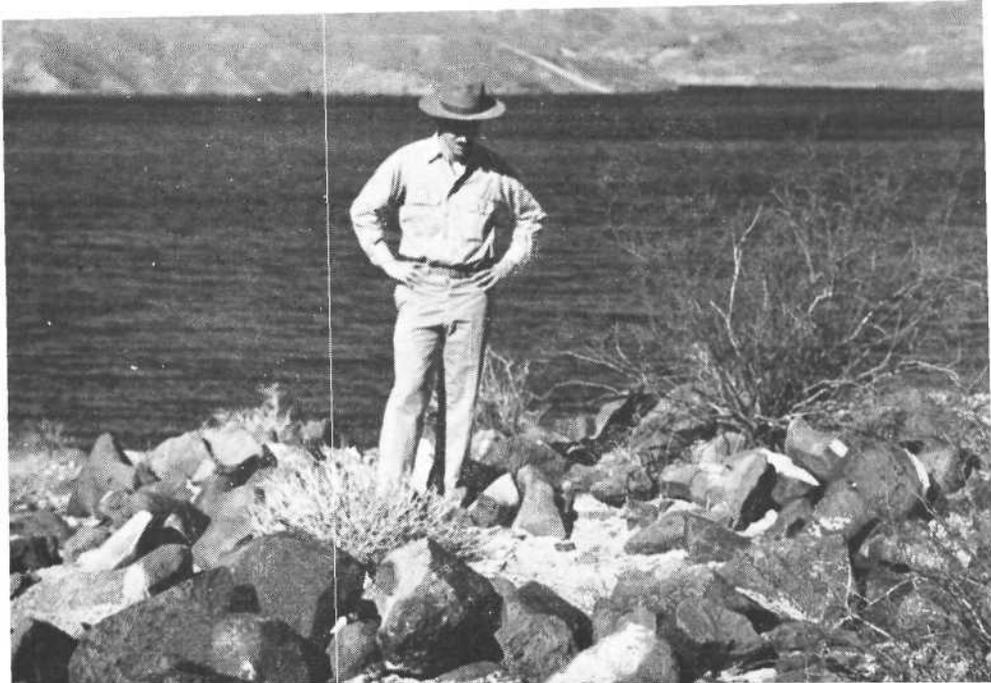
Evidence unearthed by the Park Service archeologists indicates that a considerable population of Indians once lived on the shores of the Colorado River where the new lake is being formed.

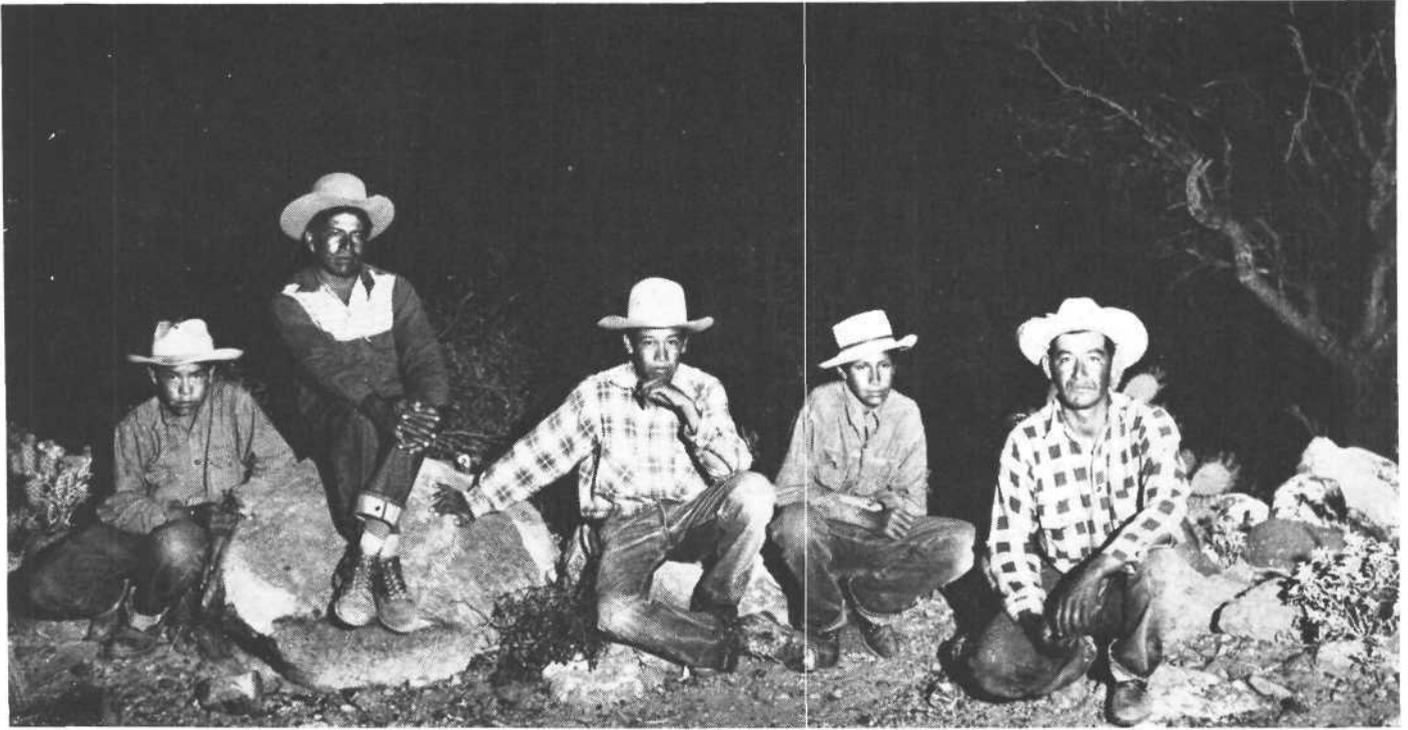
After a lapse of many hundreds of years, it appears that the rocky terrain of this Colorado River valley is again to become a popular mecca for human beings — for Rainbow trout, planted several years ago, thrive in the cold water of the Hoover dam tailrace. Sportsmen are confident that Lake Mohave will soon become the largest Rainbow trout pond in the West. And if this proves to be true, new roads and resort accommodations will attract thousands of anglers to the area.

National Park Service archeologist Albert Schroeder views for the last time a prehistoric campsite, marked by a circle of rocks. A few days after this picture was taken the ring and nearby petroglyphs were covered by the rising waters of Lake Mohave.

As many of the petroglyph-covered boulders as could be removed by boat were taken across the lake and placed in the National Park museum in Boulder City.

Showing the method of excavating the prehistoric campsites to recover what artifacts and data could be salvaged before the rising waters of the lake had buried them forever.





Men of the Pai Pai tribe came down to our camp to spend the evening. Second from the left is Ramon Arvallo, the chief of this little band of Catarina Yumas. On the right is Hector Borquez, who helped roast the mescal.

We Camped With the Pai-Pais

In a remote desert canyon in Baja California, Randall Henderson and his companions came upon a little band of Indians, descendants of tribesmen who once harassed the Dominican fathers at the Santa Catarina mission. Here is the story of this unexpected encounter with Indians who, although quite peaceful today, are still following many of the ancient customs of their fathers.

By RANDALL HENDERSON
Map by Norton Allen

WE WENT hunting for palm trees—and found a tribe of Indians. That, briefly, is what happened in mid-April this year when I accompanied my old *companeros* of the trail—Arles Adams and Bill Sherrill—on a two-day jeep trip into the desert wilderness of Baja California. The fourth member of our party was Arles' 17-year-old son Tony.

Arles had suggested the trip. As superintendent of the California Central Fiber corporation's mill in El Centro, he employs many Mexicans. One of them had told him about an almost inaccessible palm canyon known as Santa Ysabel on the desert side of the Sierra Juarez range. According to the report of a vaquero who had seen the canyon it was about 60 miles south of the California border, and had good water and many palms.

On previous trips into that region we had learned that some of the most

gorgeous scenery in North America is found in those palm canyons of the Baja California desert—and that despite the absence of good roads, a majority of them can be reached by jeep.

Early in the morning of April 14 we passed through the international gateway at Calexico and Mexicali. The Mexican immigration officers waved us on without even asking for our visas. I was told that since the new 140-mile paved road has been opened to the gulf fishing village of San Felipe, the Mexicali inspectors have relaxed their restrictions on visiting motorists. While it is still advisable for those going beyond the city limits of Mexicali to have tourist passports, they may never be called upon to show them.

We followed the San Felipe road across the Colorado river delta where Mexican farmers with modern equip-

ment are growing grain and cotton on the most fertile land in their Republic. At 37.4 miles south of Mexicali we passed through the little adobe settlement of La Puerta where gasoline and groceries are now available for motorists. Hundreds of Anglo-American fishermen now going to San Felipe every month have become an important source of new income to the merchants here and at El Mayor further south.

At 9.2 miles beyond La Puerta we left the paved road and turned west to cross the Cocopah range over an old road which leads to a sulphur mine that has been worked occasionally for many years. The rocky trail led up a steep incline to the top of the range, and there we looked down on the great Laguna Salada basin, where James O. Pattie and his party of trappers nearly perished in 1830.

Pattie and seven companions had

worked their way down the Colorado River trapping beaver, and had reached the delta with heavy loads of pelts. There the Indians stole all their horses. The trappers buried their furs and started for the Spanish settlements on the Pacific coast on foot.

Laguna Salada, now dry, is a great level playa 18 miles wide and 60 miles long, much of it as barren of vegetation as a sand dune. The Cocopah range is on its east side, and the Sierra Juarez on the west.

Although it was February when Pattie crossed the playa, he described the experience of his party in these words: "The cloudless sun poured such a blaze upon it, that by the scorching of our feet, it might have seemed almost hot enough to roast eggs in." After a bitter three days without water, the Pattie party finally reached a canyon with a running stream, and eventually arrived on the coast.

When the sulphur mine road swung north to the old mining camp we continued west across the level playa, making our own trail. Several canyons could be seen slashing into the desert slope of the Sierra Juarez ahead of us, and we believed one of these to be Santa Ysabel. But we never reached it.

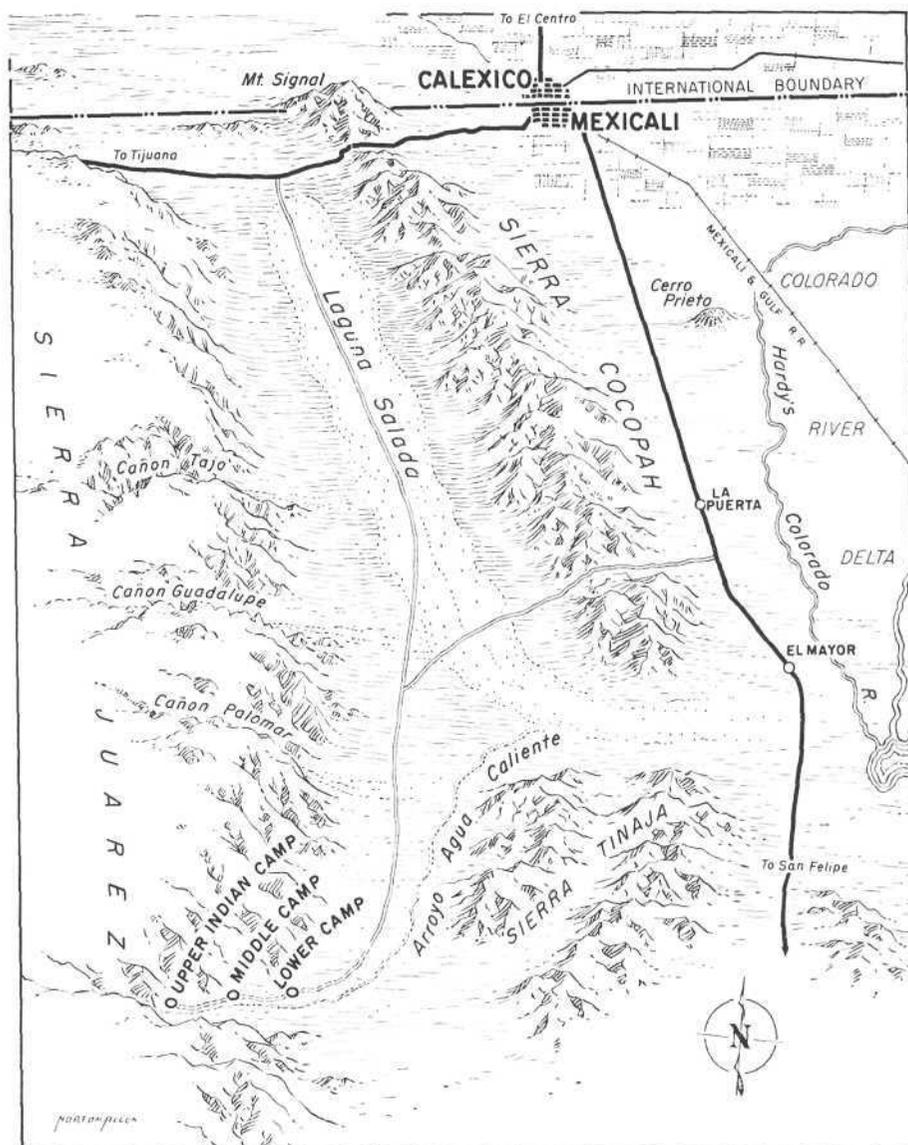
Climbing the gentle slope of the bajada on the west side of Laguna Salada we came upon a road running south, at right angles to our course. Although Arles and I have been in this area many times, we were not familiar with this road, and we were curious as to its purpose. It was just a winding pair of ruts across a gravel slope, but it evidently had been used in recent months, and we turned south to see where it would take us.

We followed that road 30 miles in a southerly course, with the Tinaja range on our left and the Sierra Juarez on our right. Then it swung into a canyon in the Sierra, and as we turned a bend our road came to an abrupt end before a rather spacious mud and thatch house beside a spring, with twin palms growing by the water.

There were women and children, goats, dogs and chickens in the doorway—and beside a gnarled hitching post a man was saddling his pony.

Arles spoke to him in Spanish. He replied, hesitantly at first, and for a little while we were not sure we were welcome visitors at this remote oasis. But Arles and Bill, both of whom speak the language of Mexico, assured him we carried no firearms and that our mission was friendly.

Ramon Arvallo was his name. He told us he was a brother of Juan Arvallo, chief of the little remnant of



Catarina Yuma Indians who still dwell on the other side of the range at the site of the old Dominican mission of Santa Catarina de los Yumas.

These Indians are known today as the Catarina Yumas, but they call themselves the Pai-Pai. Arthur W. North and other early day explorers in Baja California reported that they were hostile and thievish. This appraisal is borne out by historical records of the old missions which reveal that Santa Catarina was the last of the missions founded by the Dominican Frailes. Built in 1797, the 1500 Indians in the mission parish were never peaceful. After frequent revolts they finally killed or drove away the last of the padres in 1840 and burned the mission. It was never rebuilt.

During our two days with these Indians we learned that there are only about 100 of the Pai-Pai today, and that 20 of them, in two families, are living in this canyon, which we later identified as Arroyo Agua Caliente.

Ramon said their main camp was 5½ miles further up the canyon. When

Arles asked him if we might go there he was evasive. Our impression at first was that we would not be welcome. After some palaver, however, Ramon, who was the headman of this canyon segment of the Pai-Pais, gave his consent, but added that he did not think our cars could make it.

But he had under-estimated the prowess of the jeep. It was a sandy rock-strewn trail, overgrown in many places with brush. But we did make it, although at times it took careful driving to thread our way through the great patches of agave that grew on the floor of the arroyo. No tire will resist the needle points of those agave blades.

Soon after we left camp Ramon, on his pony, caught up with us and dispelled any doubts as to his goodwill by riding ahead and picking the best route for our cars. Later one of the Indians at the upper camp told us we were the first party of white men to visit them during his 30 years of residence in the canyon.

As we bucked the rocks and sand



and underbrush going up the arroyo there were little groups of native palm trees along the tiny stream of water. On the slopes above the creek were more wildflower blossoms than I have seen anywhere on the desert this season. Hedgehog cactus displayed clusters of silky cerise petals—one of the prettiest blossoms on the desert. There were many colors—the bright red of ocotillo, the reddish brown of a prickly pear species, the ghostly lemon yellow of bisnaga, and the pink of fairy duster, a lovely perennial found in Alta California only in the arroyos north of Ogilby in Imperial county.

Eventually we came to an impassable barrier of rocks and there we made camp for the night—a half mile downstream from the Indian village.

Our first thought was to establish friendly relations with the Indians in this camp, and with Ramon as our guide we hiked along the creek to the mud and stone buildings near the warm spring which gives Agua Caliente arroyo its name.

There, from Ramon and from his sister Benita, a very superior type of middle-aged Indian woman we were told much about the life of this little band of Catarina Yumas.

Loafing in the shade of the palms that grew beside the spring, and in later conversations when the Indians came to our camp, we learned that the teaching of the martyred padres of Santa Catarina mission more than a hundred years ago was still bearing fruit. Although a majority of these Indians have never been in a church, they regard themselves as Christians, and Benita was wearing a rosary.

They have a little cash income from two sources. During the cotton harvest in Mexicali valley the younger members of the tribe ride 80 miles on horseback and spend two or three months picking cotton. Also, they run cattle on the desert range, and drive a few steers over the trail to Ensenada 60 miles away on the Pacific coast. Their pack animals come back laden with flour, beans, clothing and a few other essentials.

Much of their food comes from the desert landscape. They gather chia



Above—Arroyo Agua Caliente is accessible only to jeeps.

Middle—Lower camp of the Pai-Pai Indians. They call this Rancho Palmitos and get their water from a spring beside the two palm trees.

Below — This is Agua Caliente spring, from which the canyon gets its name. The upper Indian camp is 100 yards away.

seed in May, and in August they go to higher elevations for pinyon nuts. There is fresh meat or jerky from their own herd. In April when the agave is in bud they have roast mescal, and also eat the flower stalks which have the sweetness and about the same texture as sugar cane. Tuna from the prickly pear which grows luxuriantly below the spring is another item of food. They mentioned certain roots and two or three other species of wild seed with which I am not familiar.

Below the spring is a fenced orchard of figs and pomegranates, no doubt grown from cuttings brought to the mission of Santa Catarina 150 years ago by the padres.

At Hector Borquez' home Arles Adams discovered an antiquated rifle, no longer usable, but a prize item for Arles' collection of old firearms, and after much barter he got the weapon in exchange for a woolen shirt he was wearing and a few pesos.

Bill Sherrill took a fancy to a beautifully braided cowhide reata — and bought it for the equivalent of \$2.50.

Here was an opportunity for me to learn the art of roasting mescal—and I made the most of it. Just before sundown I went out and found a young bud about two feet high. It resembled a huge stalk of asparagus, growing in the center of a rosette of dagger-like blades. The Indians in the olden days would gouge the bud out of the center of the plant with a sharp stick. The sharp stick was a fine idea for Indians who had no other tools, but I soon decided a machete we carried in one of the jeeps would be more effective—and it was. The Indians liked the idea too. While they were separating the bud stalk from its cluster of armored blades I began digging the pit.

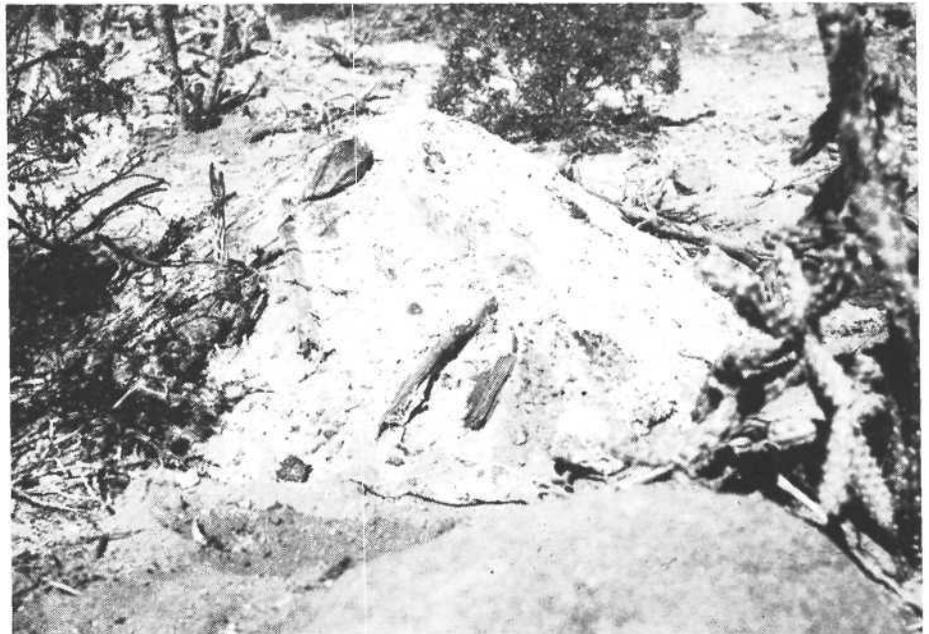
When my pit was two feet wide and 18 inches deep I laid down the shovel. Hector promptly picked it up—and when he had finished it was 2½ feet deep and three feet across. I was learning.

Then, at the direction of Ramon we all started bringing in small boulders and firewood, while he lined the hole with rocks. A huge fire was

Above—Upper camp of the Pai-Pai Indians. They said no white man had visited them here for 30 years. The women put on their best clothes for this photograph.

Middle—Arles Adams, Tony, and Bill Sherrill sample the mescal which was roasted overnight. It tastes like sweet potatoes.

Below—This mound is the mescal roast as it remained covered over among the hot rocks for 14 hours.





Youngest member of the tribe is Alejandrina Castro—this picture taken in the doorway of her mud and stone home.

lighted in the pit. After it had burned down to a bed of red-hot embers he tossed the mescal—about the shape and twice as big as a pineapple—into the center of it. More hot rocks were pushed in around the mescal, and then a foot of dirt was spread over the top.

Scene two of the mescal roasting party was at nine o'clock next morning when the Indians came down from their camp to help us uncover the pit. The entire tribe was there. After much dirt and many rocks had been removed we found the charred "pineapple" shrunken to about half its original size.

The Indians pulled off the charred husks much as one would go about

eating artichokes. The meaty core in the center was split open with a hunting knife — and it was a delicious looking morsel, about the shade of the meat in a ripe cantaloupe.

Hector told us it would have been better if we had left it in the pit a few hours longer. Then the center would be about the color and consistency of a southern cooked yam — sweet and gooey.

More than anything else it tasted like sweet potato, and the cooking job could not have been too bad, for after we visitors had each eaten a slice the Indian women finished it with relish. I much prefer it to artichokes.

There were palms growing far up on the mountainside a mile above the

Indian camp, and when we expressed a desire to visit them Ramon volunteered to go along as guide. He took us along a fairly good trail that followed an arroyo. Once he called our attention to a group of petroglyphs on the face of a huge boulder near the trail.

Ramon knew the Indian or Spanish names for all the wild shrubs on the hillside. Once when I pointed out a little plant with a pungent odor he replied that it was *hediondilla*. That was a surprise, for I had always heard the Mexicans refer to creosote bush as *hediondilla*. Arles explained that the word merely means "little stinker" and is applied by the Mexicans to any shrub which has an unpleasant smell.

The palms at the upper level appeared to be both the *filifera* and *robusta* species of *Washingtonia*, although I had not previously known that the *robusta* grew native in Baja California.

From the higher elevation we could see many tributary canyons coming into Arroyo Agua Caliente, with palms in practically all of them.

By noon we were back at camp, resting on the grassy bank of the little pond formed by the spring. The water comes out of the spring only lukewarm, and when a breeze is blowing, the surface of the pool is cool enough for drinking—and it was good water.

It would have been pleasant to have spent several days with these hospitable descendants of the once warlike Pai-Pai. But since the Indian village had not been on our original itinerary we had not allowed time for such a visit. They were quite willing to have their pictures taken, and we gave them simple gifts, mostly food, and departed with their goodwill, I believe.

On the return trip to Mexicali we followed a road the length of Laguna Salada to its junction at the base of Mt. Signal with the newly paved Mexicali-Tijuana highway. I was told that this road is completed except the grade that climbs to the top of the Sierra Juarez range. This new grade, when finished, will be much better, and will eliminate the hairpin turns of the old road which former Governor Cantu built here 40 years ago.

I had expected to be writing this story about palm trees—but I am glad we came upon the old trail which led us to the camp of the Pai-Pai Indians. For after all, the most interesting things on the desert are the people who live on it—and despite the evil reputation of their ancestors they are today a stalwart little band of friendly tribesmen whose kindness to us will remain a pleasant memory.

While some of the incidents of this lost gold story have been dramatized—it is not fiction. In northern New Mexico and southern Colorado the legend of the buried gold in the upper San Animas River valley persists today, and many of the older Spanish-American residents of that region believe that some day the golden treasure buried by Pierre and his companions in the ill-fated expedition will be uncovered.

Lost Loma Gold

By KARL HUDSON

Illustration by John Hansen



Riding on to the northern edge of the mesa Pierre suddenly whirled and rode back, holding up his hand for caution.

THE SUN shone warm on the south wall of the flat-roofed adobe house. Flies buzzed tentatively around the door. Across the placita a robin sat in the alamo and in the field below was the first spring song of the meadowlark.

"I tell you it is there, senors, enough for all of us. A wide vein rich enough in gold to work with the arrastre. A few weeks and we will live like kings."

Pierre was speaking. All winter he had lived in the little village in what is now New Mexico. From the far northern country of Canada he had trapped the beaver down through the Rockies, sold his fur in Santa Fe and had one grand fling. Without a peso he had left the capitol city to spend the winter in this hospitable country village.

"Had it not been so late in the season I would have taken out enough to give me the life of a *rico*. Think of it! A wide vein of ore like this."

For the hundredth time the piece of quartz, held together with veinlets and masses of pure yellow gold, was passed from hand to hand.

Juan Sanchez walked to the end of the 'dobe and looked north. A view

of cold snow-capped mountains met his eye. Spring had not yet come up there. "You say there are Indians?" he asked nervously.

"*Ciertamente*, there are Indians everywhere, but have I not traveled over 2000 miles among them? Indians hold no terrors for Pierre. Where is the blood of your ancestors? Was this country settled by old women?"

Many years had passed since the Conquest, however the lure of gold was still there. Hundreds of Spanish soldiers-of-fortune had settled the country, always dreaming of tales of riches greater than those of Montezuma. Perhaps the tide of conquest had halted to enjoy a way of life moulded from the customs of the Indians and the Spanish in the villages. Life was not bad in these sunny valleys but the tales of treasure never failed to awake the love of adventure.

"We are the sons of our fathers," said Juan.

Mamacita listened quietly inside the door. Stoic Indian by inheritance she said nothing. Hers would be the misery of a life alone if plans failed. How-

ever she was of part Spanish blood and could not but feel the desire for gold. Perhaps they could go to the great city of Santa Fe where gold would make them one of the *ricos*. Perhaps she would have many servants, the fine shawls from Manila and she could wear nice shoes while she bought their food at the market. Perhaps they would even have a carriage drawn by four prancing horses. Yes, it would be well to try.

A cloud of dust hung over the *placita*. Galloping horsemen could be seen rounding up more horses for pack animals to carry provisions for many weeks. Yes, and to carry back the great wealth of gold! Packs were lashed on securely as no time could be lost repacking bronco pack animals. In all, 28 horsemen and 30 pack animals made up the string. Only the old men, women and children were left to till the fields surrounding the *placita*. If this plan failed next winter would be very hard. If hostile Indians attacked the village little hope could be had.

Out through the sage flats spotted

with pinyon and cedar went the caravan. Clouds of dust were raised by recalcitrant pack animals but Spanish blood makes great horsemen. No time was lost. Pierre led the way on a fine gray horse, descendant of the Arabians of the Conquistadors. Superbly mounted even though somewhat ragged the group presented an appearance calculated to discourage any attack by hostile Indians. Arms were considered more essential than clothing.

Skirting the San Juan Mountains through desert country was easy, but the sage and pinyon gradually disappeared in some areas and great forests of yellow pine bordered the trail. Game was plentiful here and with many mountain streams for water, camp life was easy and pleasant.

After many days travel and the crossing of a number of rivers which broke onto the desert from the mountains through sheer canyon walls, Pierre at last stopped on a low sage covered mesa which jutted out from the wall of a wide valley through which a sizeable river ran.

"This is the stream," he said. "Two more days ride and we will dig for gold." Riding on to the northern edge of the mesa Pierre suddenly whirled and rode back, holding up his hand for caution.

Leading Juan to a clump of trees at the edge of the mesa they looked out over the valley carpeted with pine. Up through the forest wavered numerous wisps of smoke.

"Indians!" said Juan.

"Many of them," replied Pierre. "We will have to take to the ridges."

"But Pierre, there is snow and many cross canyons," said Juan.

"True, but snow and cross canyons are better than Indians," replied Pierre.

For three days the caravan rode up ridges and around cross canyons, through snow on the northern slopes and through heavy spruce forest until at last Pierre brought them down a ridge to the deep canyon of the river. On a wide bench covered with grass which ran along the river for some distance he stopped.

"This will be our camp," he said.

After a wild rush to unpack and hobble the horses Pierre led the men up a narrow canyon above the camp and there it was! A quartz vein intersected the canyon walls and even without digging, gold could be seen in the quartz.

Jubilantly the men made a permanent camp. They soon had built an arrastre near the river and were mining and packing rich gold ore down to it. The vein narrowed and widened as gold veins have a habit of doing but daily more gold was added to the store. Game was plentiful, life was

easy and the days dragged into months. Occasionally men appeared serious and thoughtful. There were Indians in the valley below them they knew.

* * *

On a bench of meadow above what is now called the Upper Animas River Valley was the camp of a Ute Chief.

"You say the white men have gone into the deep canyon. What do they do there?" he asked his scouts.

"They dig the yellow metal," was the reply.

The Chief pondered. He had been told that many years ago white men had come into the valleys to the south looking for gold, that they found little gold but stayed, some to plunder the Indian villages, to steal their women and to drive the men from their ancestral homes during cold winter months. They had taken the fertile valleys and had killed the game. These Indians to the south were not friends of the Utes, but what had happened to them could also happen to him and his people, the Chief well knew.

"The white men shall not leave this valley," he said.

* * *

A sudden heavy snow storm on the ridges above them warned the miners that winter had come to the mountains. It also made the route by which they had come into the canyon impassable. They would be forced to travel down the valley before winter caught them in the icy grasp of certain death. Hurriedly they packed their animals and started down the canyon. One afternoon they arrived at a point where they could see the wide valley below. No smoke nor an Indian could be seen. Pierre shook his head. He looked at the sheer cliffs at the head of the valley. Only down the river did the way appear clear.

Down past hot springs bubbling from the hillside below red cliffs came the caravan to a small hill. Late afternoon overtook them and they made camp on the hill which was at that time surrounded by the yellow pine forest. A meadow could be seen toward the river in which wranglers hobbled the horses.

With the clearing of a light mountain fog after dawn the next morning not a horse could be seen. They were never seen again. Five of the men went to look for them but did not return. Pierre and the others knew the answer. Utes!

With no water on the hill the men knew that they must leave it soon. They made a large hole and rolled the buckskin sacks of gold into it covering it first with dirt and then pine needles and brush. Taking what provisions they could carry the men separated and set out. Pierre and Juan went together and after many hard-

ships and narrow escapes finally reached the *placita*. Not one of the others was ever seen again.

During the year 1899 a Spanish-American, Pedro Giron, knew "Pierre" at a New Mexico village. Pedro was then a young man. The French-Canadian was at that time old and broken. He had never fully recovered from the hardships of this trip back from the expedition. He had never returned to the valley in which the gold was buried. All desire for adventure was gone. He gave Pedro all the details of the expedition, of the route taken and of landmarks along the way and in the valley in which the gold was buried. The trip had occurred many years before when he was a young man, but he described the hill on which they had buried the gold, the hot springs and the red cliffs in detail. He stated that most of the 30 pack animals were loaded with gold. He also stated that some of the gold was in "rough lumps as large as the hand," presumably rough lumps of highgrade gold ore.

• • •

Pedro was sure that the Animas River valley of Southwestern Colorado was the place. There are no other combinations of wide valley, hot springs, red cliffs and the other landmarks in the area. He also believed that he had found indications of the camp and arrastre in the canyon above.

Snow and rock slides may have covered the mine with debris. Indians may have done some camouflage work on it and the small hill on which the gold was buried. A narrow gauge railroad was built up the canyon during the late 1800s. This may have erased many indications of the arrastre and camp.

Pedro Giron is now dead, killed in a car accident. He had confided in the writer of his dreams of locating the gold or the mine from which it came and gave me the details of the expedition. Pedro was an industrious person and had worked his way up to section foreman on the narrow gauge railroad which runs through the area in which he believed the gold was located. He spent much time fishing in the supposed locality of the mine. He believed the story his old friend had told him and thought that the old man was trying to help him.

There are many local versions of an ill-fated Spanish expedition into the San Juan area and of its buried treasure. Perhaps Pedro Giron was the last living person who had talked to a member of the expedition. Some of the details died with him.

Local history does not tell of the discovery of the cache of gold or of the mine from which it came. Perhaps some day—well, perhaps there is a little gold-lust in all of us.



Author's car crossing the playa of Black Rock Desert in northwestern Nevada.

On Black Rock Desert Trails

When Dora Tucker and Nell Murbarger first began exploring the Black Rock country in northwestern Nevada they did not realize what a high, wide and wild country it was. On the Black Rock a hundred miles doesn't mean a thing. In the 10,000 square miles of this desert wasteland there isn't a foot of pavement nor a mile of railroad—neither gasoline station nor postoffice. Antelopes outnumber human beings fifty to one. There's plenty of room here for exploring.

By NELL MURBARGER
Photographs by the author
Map by Norton Allen

AS AN illustration of what the Black Rock country affords in the way of variety and contrast, we made a 150-mile loop trip out of Gerlach last June. Our previous exploring of the region had been mostly in the northern and eastern sections, so we hadn't the slightest idea of what we might find in the southern part. We knew there was a ghost town—Leadville—approximately 50 miles north of Gerlach, and we'd heard rumors of a petrified forest somewhere in the vague beyond. Otherwise, it was anyone's guess.

When I had finished gassing the car and filling our two five-gallon water cans at the Gerlach service station and Dora had replenished the grub box at the little grocery store and postoffice across the street, I asked the station operator if he thought we could make it through to Leadville.

Running a critical eye over our dust-covered car and clothing, the old man nodded. "Reckon so. But I'll be damned if I know why you should

want to! Ain't nothin' there!"

Thanking him, we accepted his report as a favorable omen and headed out into the desert. Almost invariably we find our best prowling in places where folks have told us there "ain't nothin'."

Rising precipitously from the dead white flat where the gypsum-mining town of Gerlach swelters in the summer sun, the Granite range lifts its rocky brown crest to a height of nearly 9000 feet. As our road skirted the eastern base of this gaunt escarpment, we ranged our eyes up one rough canyon and down another, searching for a single green tree, one sign of water or one evidence of human life. None was visible.

To our right lay a land equally austere but arranged on a horizontal plane, rather than vertical. Beyond the narrow tangle of greasewood that fringed our road spread all the sweeping immensity of the Black Rock desert.

While all this northwestern region

is known as "the Black Rock country," the desert from which it derives its name actually is a stark white alkali playa, averaging a dozen miles in width and stretching for 100 miles from Gerlach to Kings River. Merging imperceptibly with the Black Rock on the southwest is the section known as Smoke Creek desert, inclusion of which extends the overall length of unbroken playa by at least one-third.

Sixteen hundred square miles of bare, dead nothingness; a silent void where no flowers bloom and no birds sing; a million flat acres producing scarcely enough vegetation to sustain a jackrabbit. Such is the Black Rock desert—one of Earth's most spectacular monuments to a vanished way of life which had its beginning in the Glacial Age of many thousand years ago.

As changing climatic conditions gradually brought about melting of the ice cap which blanketed most of temperate North America, run-off waters collected to form lakes. In the region



which is now Nevada, the largest of these bodies is that known to geologists as Lake Lahontan. From a point considerably south of present-day Carson City, one arm of Lahontan stretched north along the present line of the Black Rock desert and up Quinn River valley to the Oregon line, or a trifle beyond. Another arm spread west to the vicinity of Susanville, California—giving the lake a total surface area of roughly 8400 square miles.

From what science tells us, Lake Lahontan must have been a pleasant place. Its clear, cold waters teemed with fish of many varieties. Prehistoric Indians camped on its shores, cast their spears at humpless camels, lured ducks with feathered decoys, and implanted their strange picture writings on cliff faces. Giant ground sloths lumbered along the shoreline, browsing on low-growing shrubs and leaving their paw prints in the soft ooze where

delighted paleontologists would discover them eons later.

Naturally, the melting glaciers could not last forever. When their waters no longer cascaded down the mountainsides, Nevada's climate grew arid; and with evaporation exceeding inflow, Lahontan began her long march into oblivion. In the first recession of water from her shallower fringes, the Black Rock desert emerged.

Pausing on the powdery shore of that ancient lakebed, we looked across its somnolent breadth to the blue line of the Kamma Mountains, 20 miles to the east. Black pyramids of volcanic rock—the "black rocks" for which the place is named—here and there broke the stark surface of the dry sea like the dorsal fins of giant sharks, while shimmering heat waves gave to the expanse an illusion of billowing swells. As heat increased with advancing summer, this place

would become a virtual cradle of mirages. Even at this time, in early June, we soon had spotted three. Two appeared as islands surrounded by cool, blue, lapping water; the third involved a row of green trees and a meadow where we knew that no green blade existed.

Fanning out over the lakebed was a network of roads; this million-acre playa in dry weather being one vast race course, so hard and smooth that a car may be driven anywhere on its surface at high speed. Wet weather transforms the same area into a morass as slick as grease and completely impassable. A few small wind twisters, or "sand augurs," as the natives call them—were spiraling lazily over this flat. Otherwise there was no visible motion.

We had been on the road since six o'clock that morning and even when we left Gerlach were already in the mood for lunch. As our road veered away from the lakebed to head north into the desert hills, we spotted a clump of trees a little way off to the right. Except for the mirage, these were the first trees we had seen since leaving Gerlach, and, so far as we knew, might be the last before our return there. It seemed a logical place to eat.

To our surprise they proved to be Russian olives, and apparently were very old. Their gray-leaved boughs were tipped in the gold of a million tiny trumpet flowers whose heady fragrance came to us in the car even before I had stopped the engine. A pair of robins had a nest in one of the upper boughs and in another of the half-dozen trees, a mourning dove was giving voice to his plaintive call.

While no remnant of house or out-buildings remained, it was evident there once had been located here an establishment of considerable size, possibly a ranch or stage station. The charred truck of a burned freight wagon lay a few yards distant and scattered over the hard-packed earth beneath the trees were chips of ancient harness leather, a few square cut iron nails, and enough sun-purpled glass fragments to fill a water bucket. Many of the pieces were tinted so dark they appeared nearly black.

Dora, who has been my desert prowling partner for 25 of her 70 years, is at heart a rockhound—but when eligible rocks are not available, she turns an equally covetous eye toward Indian and pioneer relics—everything from prehistoric pottery to battered bullwhips. The result is an unsurpassed zest for living and an overflowing house, porch and garage full of trophies at her home in Las



Baffled by a chunk of petrified wood too big to carry home, Dora Tucker sits on the fossilized trunk of the fallen giant and contemplates the number of cabochons which might be cut from one section of the three-part trunk.

Vegas. Naturally, the possibilities of this place held tremendous fascination for her.

Even before we had removed the mess box from the car she was stealing calculating glances at our surroundings, and as quickly as she could assemble a Dagwood sandwich she was off prowling the old building site, eating as she searched.

If I remember correctly, the stop netted her a slightly delapidated hash-knife and the major portion of an ox-shoe.

Soon after leaving the old oasis of the olives we saw a strange appearing, cone-shaped formation about a half-mile to the northeast. Similar in form to the brick charcoal ovens occasionally encountered in old mining camps, the cone seemed to be emitting jets of smoke or steam.

We could see that the formation was of thermal nature, but not until we had waded through the marshy area to its base could we realize the magnitude of it, or the magnificence of its coloring. Composed of layers of lime and silica deposited by the hot, mineral-impregnated waters which coursed down its sides, the cone had the soft, rippled texture of rich velvet and ranged through all the shades from deepest maroon and brilliant orange to dappled fawn and pale ivory.

Spouting from invisible fissures in the apex of the cone, five streams of hot water played constantly in the air. Shooting fountain-like above the rock a height of five or six feet, their boiling spray cascaded over the rock and its terrace according to the vagaries of the wind.

While the place had every aspect of

a natural formation thousands of years old, we learned later that this is Nevada's youngest geologic wonder. When a local stockman drilled a well in 1919, he brought in this untamable hot geyser instead of the cold water he had anticipated. Useless for stock purposes because of the high mineral content of the water, the outlaw well was left to flow and in 30 years has built up this amazing landmark!

We were enjoying a lazy sort of discussion on the unfailing democracy of the desert waterhole, where a man and his horse and the little creatures of the wild will drink fearlessly, side by side, when two buck antelopes, which had been drinking at the far end of the dam, bounded off through the sage, their white rump flags flashing against the sombre landscape. Gaining the summit of a low ridge



The author cooking a supper snack over a sagebrush fire in a land where there is no other firewood.

they came to a halt and abruptly backfaced for a last look at us, then moved on over the ridge and out of sight.

The road was surprisingly good. Occasional stretches were a little corrugated and in certain sections it was somewhat dusty. These, however, are minor faults compared to wracking chucks, jagged rocks and high centers. Of these evils it was completely free.

We had been keeping sharp watch for a side trail which might take us to the old mining camp of Leadville, situated high on the east flank of Mt. Fox, in the Granite range. When Dora spotted the yellow splash of mine dumps and a few unpainted buildings at the head of a steep ravine, a mile or so to the left of our road, we felt certain this was the place we sought.

Turning the car into the first side road leading in that direction, we headed up a rough canyon which grew

rockier and steeper as it climbed the range. Few stretches of the trail, if any, were wide enough to permit passing but this wasn't too important since no one else appeared to be using it. In many places the wheel tracks were badly guttered by winter storms and some careful maneuvering was necessary to avoid high centers.

As the garageman in Gerlach had forewarned us, there was virtually nothing left of the old camp. Several large mine dumps, a few prospecting holes, half a dozen tar-papered shacks, a tunnel, some old mine buckets—that was about all.

Unlike most of Nevada's historic mining camps, little glamour is attached to Leadville's name, her youthful days having been marked by more hard work than hard liquor. Original development work was carried out here in 1909 with production begin-

ning the following year. While the ore showed good values in lead and silver, with minor content of zinc and gold, production costs were high and the effort failed to pay out financially.

In 1927, after more or less regular production for 17 years, all operations ceased and the camp folded. There are those who believe that plenty of good silver ore still remains in the mine, which, they declare, "was getting better with depth."

Assisted by low gear and four-wheel brakes we eased back down the ravine and again took up our northward course.

Another seven miles and we arrived in a forest of petrified stumps! The first we glimpsed—a handsome specimen which stood close to the road on the left—was nearly six feet in diameter and broken into three neat cross sections, stacked one atop the other. A well-preserved length of the main trunk lay where it had fallen at the stump's base. Soft buff to golden brown in color, the wood was beautifully grained with black concentric lines and appeared to be of fine gem quality.

Dora, the relic hunter and botanist, speedily reverted to Dora, the rockhound. By the time I had my camera and equipment out of the car, she and her rock sack and pick were disappearing over a ridge 200 yards distant.

Browsing along the slope, up one gully and down another, we found the remains of many trees, some of them rather badly disintegrated, others splendidly preserved. Well up on the steep hillside, where it could overlook its lesser contemporaries as well as a wide desert valley beyond, we found a gigantic stump—"The Monarch" of the Black Rock.

It was a magnificent specimen. In height it ranged from 15 feet on the lower side (where the hill dipped down sharply) to six feet on the upper side. Its diameter still is open to question. Using a steel tape I measured the stump as accurately as possible under the difficult circumstances of its growth. I felt I was being conservative in figuring its circumference at 45 feet—an average diameter of roughly 15 feet.

Since returning home, however, I have read that the world's largest known petrified tree is in Big Bend National Park in Texas, and that it measures 14 feet at its greatest diameter.

Whether our Monarch of the Black Rock sets a new world's record, or whether my measurement was in error, is something we eventually hope to learn.

After a night's sleep under the stars and a good breakfast cooked on a campfire of sagebrush—the largest

living growth in this strange land where 15-foot trees once flourished—we sorted our rock specimens, obliterated all evidence of our camp, and headed back down the wash.

For half a dozen miles north of the forest, our way led through a dense stand of sage, climbing and descending a series of rolling hills and gullies. Some of the draws were alive with jackrabbits and once a fat sagehen stalked across the road in front of us. There were no fences, no houses, no sign of man's presence. Somehow, one knew instinctively that this wild desert land surrounding us had not changed in the slightest degree since John Charles Fremont dragged his little howitzer through here more than a century ago.

Riding over these same hills in 1846—possibly down the very defile through which we were traveling—Capt. Jesse Applegate and two companions had pioneered the famous Applegate Cutoff to Oregon, a route which was to be followed by scores of bearded emigrants toiling Westward in pursuit of a dream.

One of Applegate's men—a scout named Garrison—had been slain by Indians in High Rock Canyon, only a short distance to the east of our road; and Levi Scott, third man of the party, had been seriously wounded in the attack. This was no isolated instance. For 50 years Black Rock had been known as bad Indian country.

While on a prospecting trip to the western edge of the Black Rock desert in 1850, the veteran frontiersman, Peter Lassen, and a companion, likewise were slain by Indians in this same vicinity. As we angled through the rimrock gash of Little High Rock, a tributary of the main canyon, we gained a vicarious thrill from the knowledge that near its mouth—possibly five miles from our road—the last Indian massacre in the United States had occurred in January, 1911.

Three sheepmen and a cattleman of Surprise Valley, in California, had been attacked and murdered by renegade Indians as they rode through Little High Rock en route to their stock camps on the edge of the Black Rock. Spurred by the natural lust for vengeance, plus huge rewards offered by the men's families sheriff's possemen and aroused citizens had pursued the offending tribesmen until every member of the band, with exception of a young squaw and her baby, had been overtaken and slain.

We were approaching the broad swale of Long Valley and were undecided whether to go on to Vya or turn back to Gerlach. The problem was neatly solved when we came suddenly



Boiling mineral waters, charged with lime, silica and other elements, have in 30 years built this huge geyser cone. Its colors range from deep maroon to vivid green and jet.

upon an unexpected trail branching to our left. Pointing down it was a small faded sign which read "Lost Creek Canyon."

The road was narrow and crooked and so seldom used that desert weeds had grown up between the wheel

tracks and sagebrush raked our car on either side. It was a friendly little road, however; one that bounded over hills and hummocks like a roller coaster and eventually led us to the top of a broad, flat tableland.

Throughout the morning we had



Only waste dumps, an abandoned tunnel, a few miner's shacks and old iron buckets mark the site of Leadville, Nevada ghost town.

been noting scattered pieces of obsidian, but upon gaining this high mesa top, we found the surface of the ground literally paved with cobbles of jet black volcanic glass. Roundish in shape and unusually pure in composition, the globules were oddly uniform in size, averaging perhaps a pound each in weight. For mile after mile this strange black paving flanked our road on either side, the sun glinting from broken shards of the glass as from a million faceted diamonds.

As we topped a low rise, Dora pointed to a small, natural clearing along the road where half a dozen pronghorns were taking their ease in the morning sun. For a single, startled instant, every head was turned our way; and then they had whirled and were gone, bounding lightly over the sage like giant jackrabbits. In the next five miles we encountered other

antelopes; a pair here, a lone buck there, or a solitary doe. While not inclined to stand idly by until they might be photographed, they seldom ran far before turning back to regard us curiously.

We had been traversing the mesa for perhaps an hour when we came to a ravine and eventually were surprised to find a tiny, clear stream bubbling over the rocks alongside our road. We knew then that this must be Lost Creek Canyon.

Half a mile farther and rounding a bend, we caught our breath in incredulous wonder. The sloping sides of the ravine suddenly had narrowed to red rock cliffs which rose sheer on either side. Filling the canyon's bottom, from wall to wall, was a grove of tall quaking aspen, as beautiful as any we had ever seen in the high mountains.

In the broken rubble at the base of the cliffs, choke-cherry bushes were hanging white with their fragrant blooms, and great thickets of wild pink roses were just beginning to break into flower.

Stopping beneath the giant trees we replenished our water tanks from the cold little stream, and on sudden impulse decided to lay over here for a couple of hours so that we might cook and eat lunch in this pleasant and wholly unexpected oasis.

We still didn't know where our little lost road might lead, but if it continued in the direction we had been traveling for the last 20 miles, we knew that it must eventually intersect Nevada 81, the graded road between Gerlach and Eagleville, California. On that chance we voted to continue for another ten miles. If, in that distance, the road reached an unforeseen end or otherwise became impassable, we still would have adequate gasoline to take us back the way we had come.

It was this decision which added to the trip's other experiences—a jasper bed and an Indian campsite.

Dora, who has an eye like a predatory eagle, first spotted the jasper from the moving car, but not until we began ranging over the field did we find that Indians, too, had known of this deposit and extensively used it.

Everywhere on the ground there were flakings of flint, jasper, chalcidony and obsidian, and in less than an hour we had gathered our pockets full of chipping stones, crude scrapers, and a few pieces which might conceivably have served as spear heads. All the work was poor and most of it appeared unfinished, causing us to believe that these might have been pieces of stone which failed to chip satisfactorily and were discarded before completion. A portion of broken arrowhead found at the same place showed fine workmanship.

Some of the jasper was of good quality with nice coloring and before we left, Dora had cached several pounds of it in various nooks about the car.

About a mile beyond this point, our adventurous little trail unexpectedly merged with Nevada 81, and with a tug of regret we turned left toward Gerlach, 50 miles to the southeast. As we entered the fringes of town, I asked Dora if she realized that in two days of exploring and 150 miles of travel we had not seen a single automobile or one human being.

She nodded. "I was thinking the same thing," she said. "I was thinking what a wonderful thing it is that there are a few places on earth where that is still possible."



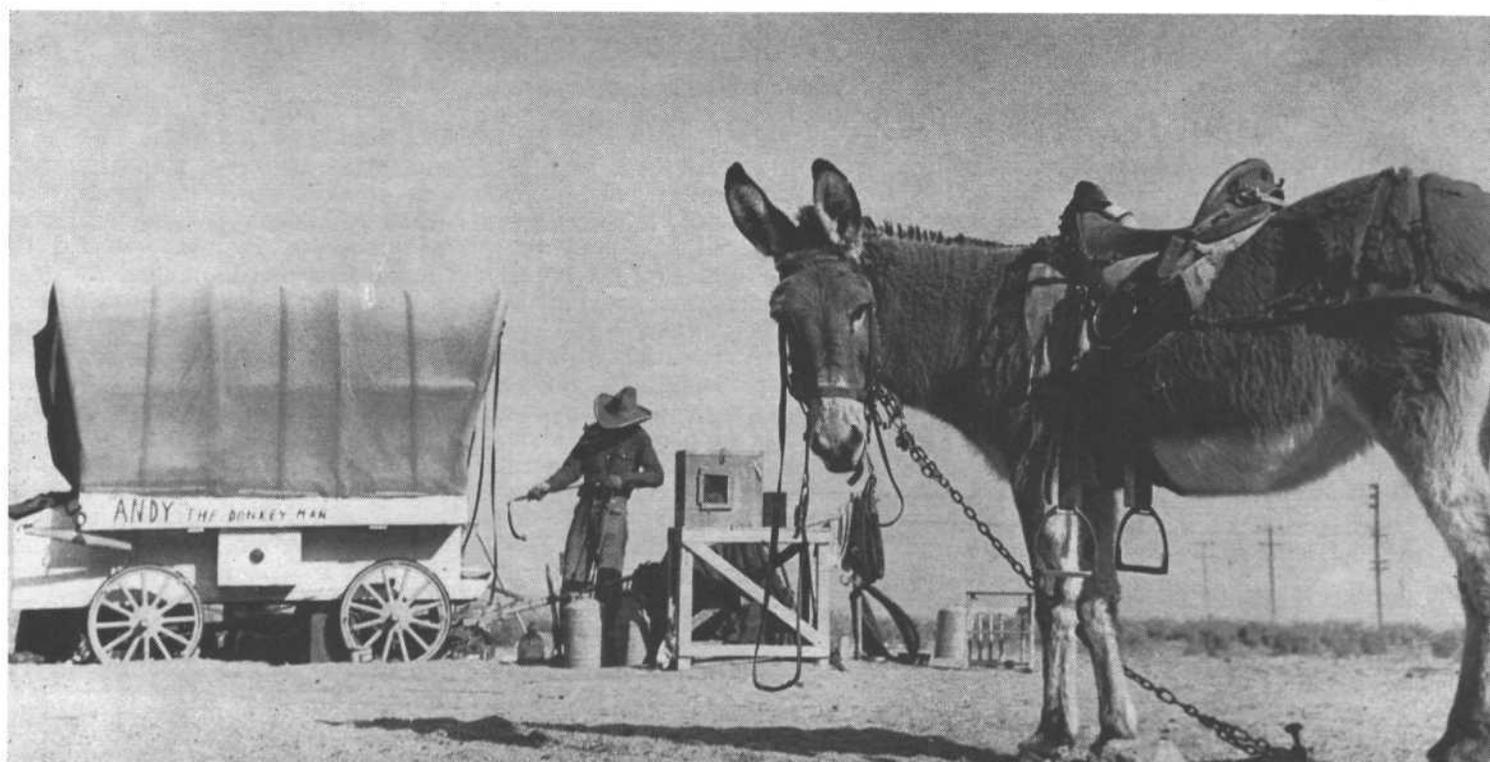
PICTURES OF THE MONTH

MITTEN BUTTE . . .

First prize in Desert Magazine's Pictures-of-the-Month contest in May went to Don Ollis of Santa Barbara—this beautifully framed picture was taken in Monument Valley, Utah. Photograph was taken with a 4x5 Speed Graphic with 8-inch Ektar lens. Super XX film, Orange (G) filter, 1/5 second at f.45.

ANDY THE DONKEY MAN . . .

John R. Hamilton of Los Angeles was winner of second award with the accompanying picture of one of the well known characters along Highway 111 near Palm Springs. Photograph was taken at three in the afternoon with a Rolleiflex, Super XX film, 1/100 second at f.11. Yellow filter was used.



MINES AND MINING . . .

Salt Lake City, Utah . . .

The idle blast furnace at Ironton, Utah county, has been leased by Geneva Steel company from Kaiser-Frazer Parts corporation and will be placed in operation immediately, Dr. Walther Mathesius, Geneva president, has announced. He estimated it would require 40 days to get the furnace into production and would take 250 additional employees to operate and maintain. The lease is for a period of three years, renewable for an additional two years and contains a purchase option. The entire output of the blast furnace, Dr. Mathesius said, will be applied to support Geneva's current steel and pig iron production program, which requires operation of all available blast furnaces and open hearth facilities at full capacity to serve the demands of defense production and essential civilian needs. — *Salt Lake Tribune*.

Ivanpah, California . . .

Possible establishment of a new lead, copper and zinc mill at Ivanpah on the Mojave desert near the California-Nevada line has been disclosed by Howard Kelly, mining engineer for the Claremont Mining company. He said the mill will handle ore from the newly re-opened Sagamore mine in the New York mountains east of Ivanpah Valley. Kelly said his company hopes to locate the mill near the Union Pacific railroad, using water from existing wells owned by the Union Pacific. — *Mining Record*.

Beaumont, California . . .

The oldest tourmaline mine in California, formerly called the Columbian, has been relocated and recorded as the Desert Rose. It is at about the 6500 foot elevation on Thomas Mountain in Riverside county. The vein, 40 to 50 feet wide, in some places consists of pure feldspar or feldspar and quartz. According to the late George F. Kunz, the location was first worked in 1872 by a Henry Hamilton. At that time fine gem tourmalines up to four inches in diameter were recovered as solitary crystals and in pockets. Tradition credits the Columbian with having produced about \$15,000 in tourmalines before it was abandoned. Paul Walker and Dick Gilmore of Beaumont are working the mine, Walker having hunted for it for many years before locating it during the winter of 1950. — *Mineral Notes and News*.

Tonopah, Nevada . . .

The first shipment from Nye county's latest gold strike made by Mr. and Mrs. Magnus Peterson in the Hot Creek range east of Tonopah last fall, has been made to the McGill smelter. It consisted of 10 tons. Grab samples on the lot returned \$93.70 in gold per ton. Mrs. Peterson made the original strike, finding pieces of ore at the foot of a small hill which was subsequently traced to the vein. Recent development work by the Petersons indicate a strong north-south vein. Selected samples have assayed as high as \$300 per ton in gold with a small amount of silver. Recent prospecting of veins on adjacent property indicates gold ore in commercial quantities. — *Times Bonanza*.

Las Vegas, Nevada . . .

Shipment of 2500 tons of low grade manganese ore from Artillery Peak district in Arizona to the U. S. Bureau of Mines pilot plant in Boulder City, Nevada, is scheduled to start soon. The pilot plant, built at a cost of \$600,000 is about ready for service and the Artillery Peak ore will be used to test a new concentration process. If the process proves successful this nation may become independent of foreign manganese sources.

San Francisco, California . . .

Recent announcement has been made of regulations and terms under which the government, through Defense Minerals Administration, will help prospectors and mine operators finance the cost of searching for new ores vitally needed in the nation's military and civilian defense production program. \$10,000,000, made available by the defense production act of 1950, will be used in a matching principle. The percentage of government funds supplied will depend upon the cost of an approved project and the mineral; 50 percent being the government contribution in the case of copper, fluorspar, iron ore, etc.; 75 percent for antimony, manganese, mercury and tungsten; 90 percent for cobalt, niobium-tantalum, industrial diamonds, platinum group metals, talc, tin, etc. The applicant's share of the expenses may be paid in form of labor at reasonable rates, rental of equipment owned by him, and similar contributions as well as cash. Applications will be received in Washington, D. C. or at the regional offices of Defense Minerals Administration. — *Mineral Information Service*.

Indio, California . . .

Known deposits of tungsten ore in the Dale mining district and other mineralized areas surrounding the Coachella Valley may be opened for exploration and development under terms of a new federal ruling. Miners who want to sell tungstic ore at a guaranteed price of \$63 a short ton for the next five years must notify the General Services Administration, 630 Sansome Street, San Francisco, by June 30, Robert Bradford, GSA's regional director, announced. Buying will begin July 1. The guaranteed price applies only to newly developed ores or production above 1950 levels where there is existing production. A miner may write on a penny post card, "I want to join in the Government's Program and will prospect for and produce tungsten," sign his name and give his mail address. He will receive a certificate authorizing him to bring tungsten to specified locations where it will be assayed and weighed and immediately paid for. — *Date Palm*.

Twentynine Palms . . .

A new Iron Age mine crusher is scheduled to begin turning out high grade ore in the Pinto Mountains southeast of Twentynine Palms. Mining engineers of the Kaiser Steel Corporation, after a survey of the Iron Age site, have estimated 3,000,000 tons of high grade ore are on the surface and an undetermined amount underground. A Salt Lake City road contracting firm, Gibbons and Reed, owns and will operate the mine, delivering ore to the railroad at Amboy. A 10-mile road has been built from the mine site to the Dale Chemical Industries plant and to a junction with the Amboy road about three miles north. Production of iron in that immediate area is said to be a new mining venture. — *Desert Barnacle*.

Tonopah, Nevada . . .

Desert Milling company of Searchlight is reported negotiating for control of a huge deposit of gold-silver tailings at Millers near Tonopah, estimated to contain 2,000,000 tons of material. The company, headed by Charles Chandler, is milling 100 tons of gold-silver tailings daily, deposited by plants formerly operated at the Duplex and Quartette mine, major producers half a century ago. Ore reduction plants were operated at Millers on ore from Tonopah mines in the early days of the Tonopah district. Later mills were built to treat tailings carrying appreciable amounts of gold and silver. The tailing dump is owned by Albert Silver and Mark Bradshaw, Nevada mining men. — *Mining Record*.



Mrs. Onegoat Weaves a Rug

By SANDY HASSELL

Art work by Charles Keetsie Shirley, Navajo Artist

TWO DAYS back Mrs. Onegoat had finished weaving her rug just when the sun had completed its trip across the sky. That was a lucky time. Yesterday she had unlaced it from the loom and had given it a final going over. First she had carded it lightly with her wool cards. Then with her sheep shears she had clipped off all the tufts of wool. Next both sides were covered with a thin paste of white clay. The paste was allowed to dry and then removed. The clay removed much of the grease and the sheep smell. It also made the rug much brighter.

Today she would take it to the Bent Tree trading post. As usual Hosteen, her husband, would go along with her. The horses and wagon belonged to him.

This rug had caused her much worry and trouble for it was a special order. Strong Man the trader had given her a string with two knots in it to show her the size of the rug he wanted and she had lost the string. She had wrapped the string in a piece of paper, taken it home and placed it on top of the canvas bag that held her weaving tools. It disappeared while she was putting away the purchases she had

made that day. The pet goat must have eaten it when he was making his daily inspection tour.

The pattern of the rug hadn't bothered her for Strong Man had shown her a picture of one he wanted duplicated and she had stored this picture away in her mind. Of course she wouldn't make a rug just like it but she would make one similar and it would be prettier.

When the rug was about half finished she discovered there would not be enough black wool. She then had to shear the black wether. He had been saved for just such an emergency. It was much too early to shear the rest of the sheep but the wether was strong and she had taken only the wool from his back.

This morning the family arose before daylight. Moccasins were slipped on, wood was added to the smoldering fire and the coffee pot with what was left in it from yesterday was put on the coals. A handful of coffee, a little sugar and some water were added to it. Cold fried bread cooked without any grease was what they had for breakfast. If the bread had been fried in grease it would have been a very good meal, but they had used up all the grease several days ago. They had eaten no mutton for several months—just white salt meat from the trading post. Their sheep had been too poor to kill.

After breakfast they dressed for the trip. Their hair had been washed yesterday in suds made from yucca root and done up in yards and yards of clean white yarn. Mrs. Onegoat put on a clean skirt over her others and Hosteen donned an extra pair of blue serge pants that he always wore on trips away from home. The "keep box" was opened and their best jewelry brought out. Large concho silver belts, white shell beads spaced with many turquoise and an extra bracelet set them apart as prosperous Navajos. The rug was folded and wrapped in a clean white flour sack. The ends of the sack were securely tied with a square knot. Only a few minutes were required to harness the horses and hitch them to the wagon.

Arriving at the trading post the team was driven up to the hitch-rack but was not tied. This wasn't necessary. The tongue was loosened and dropped on the ground and the tugs were left hooked to the single-trees.

Going inside they were greeted by Strong Man with a gentle handclasp and a low murmur. They liked Strong Man for he often acted just like a Navajo. Without saying anything more Strong Man opened a large can of tomatoes, drank some of the juice and then filled the empty space with sugar.

He placed the tomatoes, two spoons and some sweet crackers on the counter. This was a treat that Mrs. One-goat expected—and received—when she brought a rug to the trading post. Hosteen took charge of the offerings without comment or thanks and placed them on the floor where they were to have their meal.

When the feast was over Mrs. One-goat was ready to trade her rug. She placed it on the counter without unwrapping it. Strong Man weighed it and then carried it into a side room. Mrs. One-goat and Hosteen followed. The rug was unwrapped and spread on the floor. Strong Man sighted along the sides to see if it was straight and then folded the ends together to see if they were the same length. When he measured the rug he discovered that it wasn't the size that he had ordered and told her about it. She then told him about how she had lost the string. Strong Man smiled and said the goat was no good. Otherwise the rug pleased him very much and he said so. Yes, he knew that she was the best weaver in the district and always paid her a little more for her rugs than he did other weavers—so he said.

It was time now to buy the rug. Strong Man looked her straight in the eyes. "Fifteen dollars" he offered. Knowing that he would have to pay twenty to get it.

Giving him back a look as straight as the one he gave her she countered: "Twenty-five!" Knowing that she was only going to get twenty.

The difference was soon settled and Mrs. One-goat was given a trade slip for twenty dollars. She liked trade money better for she could always count her change after each purchase, but for some reason the Big Boss at Washington had frowned on trade money so Strong Man and all the other traders were giving trade slips instead.

The trading was fast for Mrs. One-goat had the money to spend and knew what she wanted. Her first purchase was two-bits worth of hay for the horses. Hosteen took the hay out for the horses and in a short time returned. He was now ready to assist his wife with her other purchases. Next in order were flour, baking powder, coffee, sugar, grease and two bits worth of spuds with a couple of onions thrown in. Then six cans of milk for two little lambs that had lost their mother. Also a small nipple that would fit over a pop bottle.

Next she decided to buy the front leg of an old goat that had been shipped in. She knew that it was tough but it was very fat. She didn't care if it was tough. The tougher it was the longer

it stayed with you. That is what she had heard a lot of Indians say. Now came apples and candy for the children; some of the round mixed kind with bright colors and a couple of sticks of the long kind with red stripes.

A trip to the drygoods counter and all but two dollars was soon spent. This she turned over to Hosteen. A bright silk handkerchief with a bucking horse on it caught his eye, then a package of cigarets that tasted cool when you smoked them. He would smoke these at the trading post and pass them around among his friends. One sack of Bull was enough to take home. One or two smokes a day was enough for a man when he was at home. Another can of tomatoes, some sweet crackers, more candy for the children and he found he had a nickel left. Strong Man suggested chewing gum and the nickel was spent.

They were starting to leave when Mrs. One-goat turned to Strong Man: "Oh, my friend, I have spent all my money and have forgotten to buy matches, will you give me a few?" She well knew that matches were Strong Man's parting gift to all his weavers.

ARIZONA LEADS IN PRODUCTION OF COPPER

Arizona is the top copper producing state in the union. Its mines scattered over a 300 mile wide circle in the south central part of the state, last year turned out over 400,000 tons, nearly half the country's output. Because copper is an essential metal, government help to the extent of many millions of dollars is available. It takes the form of loans to help pay for construction, contracts to buy the output and permission for speedy tax writeoff of the investment. The expansion program is further encouraged by the high price of copper. At 24½ cents a pound, the highest level since World War I, marginal mines are operated profitably. The most sizable gain in Arizona's copper output will come from Magma Copper company's San Manuel mine at Tiger, some 40 miles northeast of Tucson. When production gets going full blast, it is estimated San Manuel deposits will yield 60,000 tons of copper yearly.—*Mining Record*.

Picture-of-the-Month Contest

Every month is a picture month on the desert—in summertime on the higher elevations, and during the winter season on the floor of the desert. And in order to bring the best of the desert photographs, both amateur and professional, to the readers of *Desert Magazine*, two cash prizes are offered monthly for the camera artist sending in the best prints.

There is a wide range of subjects—landscapes, wildlife, strange rock formations, sunsets, prospectors, Indians—there is no limitation as long as the pictures were taken on the desert, and all *Desert* readers are invited to participate.

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

HERE ARE THE RULES

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

Address All Entries to Photo Editor

The Desert Magazine

PALM DESERT, CALIFORNIA

LETTERS . . .

Where the Desert Begins . . . San Jose, California

Desert:

In my classroom I have been trying to teach my pupils something about the California deserts—the Colorado desert, the Mojave desert, and Death Valley.

But the maps do not show the Colorado desert. We've searched the maps, encyclopedias and the Book of Knowledge in vain for this information. Your magazine has been so helpful as a source of desert material we wonder if you would not clear up the boundaries of these various deserts for us.

V. R.

George Wharton James wrote a very informative book entitled "Wonders of the Colorado Desert." As he defined the area it is that region in Southern California east of the Sierras, north of the Mexican border, west of the Colorado river and south of a line which would follow approximately the ridges of the Little San Bernardino, Iron, Marias, and Riverside Mountains.

The Mojave desert is all that part of the California desert lying north of the Colorado desert.

Death Valley is of course the Valley which bears that name, but when the term Death Valley region is used it refers to that portion of the Mojave desert which includes the Valley proper, the Amargosa and Panamint Valleys, the Panamint, Funeral, Cottonwood, Grapevine and Black Mountains.

These boundaries, as defined, are more or less arbitrary—since desert regions never can be outlined with the same precision as political subdivisions. —R. H.

• • •

Amazing Museum . . . Tustin, California

Desert:

Yesterday my husband and I had the pleasure of visiting the Western Trails Museum of Mr. and Mrs. Marion Speer at Huntington Beach, California.

They have a most amazing collection of Indian artifacts and rocks—and Mr. Speer attributes his good health to the time he has spent in the desert collecting these items.

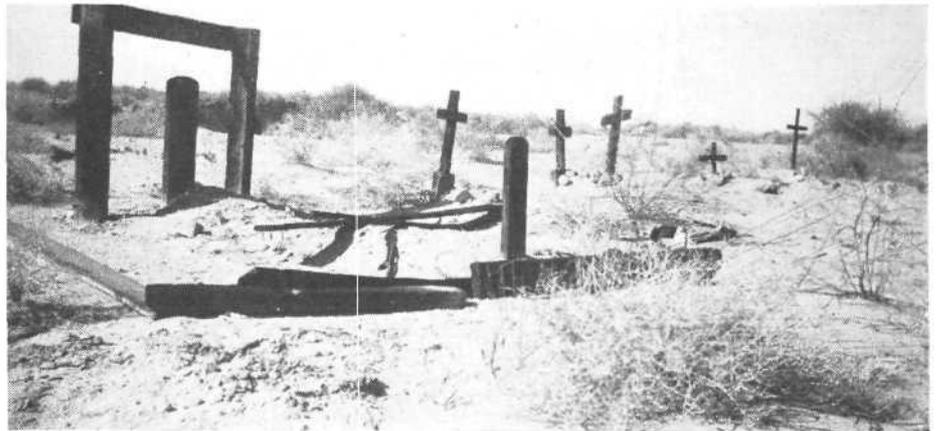
In addition to their mineral and Indian exhibit they have 22,000 pictures taken on travels covering 476,000 miles.

I feel that this collection should be brought to the attention of *Desert Magazine* readers who are not already acquainted with it. The address is 7862 Speer avenue, Liberty Park tract. I understand the museum is to be closed during August and September while the Speers are away on a collecting trip.

Mr. Speer is a graduate of the Colorado School of Mines, and was geologist for the Texas Company for 30 years. Since his retirement three years ago he and Mrs. Speer have devoted all their time to their collection of rocks and relics. They are fine people, and have made no effort to commercialize their hobby. A visit to their museum is made doubly enjoyable by the interest and enthusiasm of the owners.

OLLA MAE ALDRICH

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Who Was Buried There? . . . Santa Ana, California

Desert:

Several years ago while hiking across Dos Palmas Valley, I came upon a very old wooden marker at the head of what appears to be an adult's grave, and alongside of which are five wooden crosses each at the head, apparently, of a child's grave. The marker is so worn and sand-blasted that it is impossible to decipher the name or the date on it.

Recently, I visited the spot again and took a picture of the graves, which I enclose. I have made several inquiries regarding these graves, but have found no one who could enlighten me as to their history.

If you or some reader of *Desert Magazine*, to which I have been a subscriber for many years, can furnish any information regarding these six graves, I would appreciate it.

The graves are located about 100 yards north of Highway 111 and 500 or 600 feet west of the bridge over Salt Creek, and can easily be seen from the top of the railroad grade.

O. W. HUMPHREY

When a Snake Is Hungry . . . Lucerne Valley, California

Desert:

Recently I came across a red racer with about half of its body protruding from a hole in the ground. When I touched the snake it paid no attention, so I remained to see what would take place.

In a few minutes the racer backed out of the hole. In the crook of its neck it brought dirt to the surface and with a flip of its body pushed the dirt to the right. It went into the hole again and the next bit of earth was flipped to the left. It continued this pattern for some time, flipping the dirt alternately to the right and left. When the pile became high it would level it off with its head while its body remained coiled at the mouth of the hole.

Gradually the snake was working deeper into the hole. When only six inches of the tail was showing, it remained stationary for a long time. Thinking it might be stalled, I got a shovel and removed some of the dirt from under its tail. This brought the snake out in a hurry. It remained coiled in the spot where I had scraped the dirt away, darting its tongue and looking the situation over.

Then it went into the hole and disappeared completely.

Later I returned to the place to see if there was any evidence that the snake had come out. Instead I saw the tracks of a rodent which had left many foot-prints around the hole.

I will never know just what happened, but all the evidence indicates that the squirrel or gopher probably had been in the hole all the time, and was protecting itself by blocking the hole with dirt as it dug deeper to escape its enemy. Evidently its tactics were successful for the gopher tracks were the last ones to be seen at the mouth of the hole. I have seen nothing more of the red racer—and I presume it is still hungry.

WILLIAM E. MILLER

"We Didn't Lock Our Doors" . . .

San Diego, California

Desert:

"Toward the end of the last century in quiet, green Mason Valley at the base of the Singatse Mountains in Nevada, the 'Messiah' lived. The 'Messiah' was Wovoka — a full-blooded Paiute also known as Jack Wilson, since he had been brought up by David Wilson, a pioneer rancher of the valley." Thus wrote Harold O. Weight, in February's issue of *Desert*.

Forty years ago I also lived at the base of the Singatse. When Old Jack came to our door with painted face and Indian headdress but white man's clothes, to tell mother he was going to Cheyenne or Laramie, maybe three months — six months, we knew that Big Medicine was in the making.

Mother was Jack's private secretary. Strange as it may seem the frequent calls for a "council fire," came by U. S. mail and in the white man's tongue. Immediately upon receiving a letter, he would hasten to mother for her interpretation. If it required an answer Jack would stride up and down the length of our kitchen, hands behind his back, telling her what he wanted put in the letter. It might be the makings of a pow-wow, and then again only a request for a certain type of red paint obtainable only in South Dakota.

Jack and his small band of Paiute tribesmen maintained a camp on the site of the old brick yard, just a stone's throw from our home, from 1911 to 1918.

Now history may call him Wovoka, or just plain Jack Wilson, but to us he was a trusted and dependable friend and neighbor. When I use the terms friend and neighbor, that is exactly what I mean. We lived a mile and a half from town, and only a few yards from the railroad tracks, where countless hoboes plied their trade. My brother drove stage to Aurora, and father worked at the nearby Mason Valley Mine. This meant countless hours both day and night that mother and I spent there alone.

No unsavory character, be he white man or Indian, ever darkened our door or eyed mother's flock of hens with appraising eye, but that Jack or some of his tribesmen didn't appear out of nowhere to speed their departure. If our Rochester lamp burnt far into the night, they came to see if everyone was all right. If we wanted to be gone for a few days, all that was necessary was to tell Jack. We didn't even bother to lock our doors.

This is the Wovoka, who tried to live as the "Great Spirit" told him.

MRS. J. H. CREIGHTON

Desert Quiz

Get your pencil, relax in a comfortable chair —and then proceed to find out how much or how little you know about the Great American Desert—its geography, history, plants, wildlife, Indians and lore. Even if you get a low score it will not be time wasted, for you will have learned something about this fascinating region in Southwestern United States. Twelve to 14 is a fair score, 15-16 is good, 17-18 excellent, and over 18 is rare. The answers are on page 30.

- 1—Bitten by a tarantula, an old-timer on the desert would: Get to a doctor as soon as possible..... Apply a tourniquet and try to draw poison from the wound..... Go to bed and put cold packs on the wound..... Address a few uncomplimentary remarks at the creature and forget about it.....
- 2—Betatakin is the name of: A Navajo Indian chief..... Cliff dwelling ruins..... A mountain range in Utah..... A town in New Mexico.....
- 3—On a camping trip you would use a "tarp" to : Kindle a fire with damp wood..... Open the canned food..... Spread under or over your bedroll for warmth or protection from water..... Prime the the gasoline stove.....
- 4—Farthest south of the seven dams now in the lower Colorado river is: Laguna dam..... Morelos dam..... Imperial dam..... Davis dam.....
- 5—The legendary god Tahquitz of the Cahuilla Indians, is said to live in a cave on: San Jacinto Mountain..... San Gorgonio Mountain..... Thomas Mountain..... Santa Rosa Peak.....
- 6—When you hear a botanist talking about *Larrea* he is referring to what you and I call: Ironwood..... Ocotillo..... Arrowweed..... Creosote bush.....
- 7—Wild game sometimes seen in the Petrified Forest National Monument in Arizona are: Antelope..... Bear..... Turkeys..... Peccary.....
- 8—If the man at the service station informed you that you were in Salt River Valley, you would know you were in the state of: New Mexico..... Nevada..... Utah..... Arizona.....
- 9—Galena is an ore of: Lead..... Gold..... Copper..... Tin.....
- 10—Lieut. Ives is remembered for his: Famous camel train..... Discovery of Death Valley..... Campaign against the Apache Indians..... Exploration of the Lower Colorado River.....
- 11—Hohokam is the name given one of: Arizona's highest peaks..... A county in Nevada..... A prehistoric tribe of Indians..... The dialect spoken by the Mojave Indians.....
- 12—Headwaters of the Little Colorado River are in: Wasatch Mountains of Utah..... White Mountains of Arizona..... Rocky Mountains of Wyoming..... Sangre de Cristo Range in New Mexico.....
- 13—A packrat's nest generally is made of: Twigs and sticks..... Wild galleta grass..... Rocks..... Feathers.....
- 14—The Havasupai Indians of northern Arizona are closely related to the: Hopis..... Apaches..... Hualpais..... Navajos.....
- 15—The famous Bird Cage theater was and still may be seen in: Rhyolite..... Virginia City..... Tombstone..... Carson City.....
- 16—Phainopepla is the name of a desert: Bird..... Lizard..... Plant..... Rodent.....
- 17—Climbing the side of a desert mountain the evergreen tree first encountered likely will be a: Pinyon pine..... Yellow Pine..... Juniper..... Douglas Fir.....
- 18—If you came to a sign which read "Tinajas Altas" you would know you were on the old: Butterfield stage road..... Bradshaw stage road..... Camino del Diablo..... Mormon Trail to California.....
- 19—If your guide pointed out two buttes and told you they were known as "The Mittens" you would know you were in: Monument Valley..... Death Valley..... Grand Canyon..... Joshua Tree National Monument.....
- 20—Jacob Hamblin was: A famous stage driver..... Scout for Kearny's Army of the West..... A Mormon pathfinder and missionary..... Discoverer of the Comstock lode.....

HERE AND THERE . . . on the Desert

ARIZONA

Old Mining Town Ghostly . . .

OATMAN—Once a town of 3000, Oatman situated 27 miles southwest of Kingman, is now down to a few dozen people and is about to be taken off U. S. Highway 66. When the new section between Kingman and Topock is completed, thousands will skim by, unaware of the little ghost. During World War I, Oatman was a second El Dorado, a new Goldfield, yet it did not contain a single saloon, a gambling hall or bootlegger. Old timers recall when mining men came to Oatman for their reunions. Before the coming of the miners the area was the hunting ground for the Mohave Indians. Soldiers discovered gold in the area in 1864. By 1900 mining was paying big dividends, dropping steadily after a peak production during World War I.—*Los Angeles Examiner*.

Plan to Restore Ancient Tubac . . .

TUBAC—This old community, once Spain's farthest outpost, situated just off the main highway between Tucson and Nogales, was the first center of western civilization and culture. From it, in the 1770s Captain Juan Bautista de Anza led an expedition to colonize California. In 1858, Arizona's first newspaper came off an old hand press in Tubac. Harold R. Sisk, publisher of the Nogales Herald, believes the old presidio should be a state park supported by the people. A movement is underway for a restoration program. A committee, comprising most of the best known ranchers in the Santa Cruz Valley has been organized to direct the work.

Collects for Stolen Cattle . . .

TOMBSTONE—Fred Bennett recently received a check in partial settlement of claims against the government for damages resulting from cattle stolen by Mexican rustlers in the sixties. After the Mexican and Civil wars cattle in southeast Texas had run wild and increased beyond the capacity of the land until it became necessary to remove thousands from the ranges. Markets became glutted so a hide and tallow factory developed. Then during the winters of 1872-73 unprecedented severity killed cattle by the thousands, threatening the new industry. Rustlers began to supply the tallow factories. The check Bennet re-

ceived was to cover in part the losses suffered by his father from raids of the rustlers serving the last of the illegal factories.—*Tombstone Epitaph*.

Highway 66 Favored Route . . .

FLAGSTAFF — Although tourist travel in Arizona during April showed an overall drop, the Holbrook inspection station on Highway 66 reported a gain of 3500 automobiles over the westbound travel for March. The station counted 24,003 automobiles, far above the total count of any other state inspection station. Highway 60-70 at the Ehrenberg station counted 21,250.—*Coconino Sun*.

CALIFORNIA

Future Farm Area Tested . . .

EL CENTRO—Another chapter in the growth of the Imperial Valley, which annually produces crops and livestock well in excess of \$100,000,000, is currently being written on the East Mesa of the valley where the Imperial Irrigation district is proving the feasibility of farming. American war veterans will be given the preference in developing homesteads when the Department of Interior gives the go-ahead signal. The Imperial Irrigation District's board of directors in 1947 established an experimental farm near

power Drop 2 on the All American canal. Development work on the farm began in 1948. Crops raised include sesbania, black-eyed peas, alfalfa and clover planted with barley. The farm is located 30 miles east of El Centro just north of Highway 80. At present the area is planted to alfalfa and barley, providing pasture for 550 beef cattle.—*Los Angeles Times*.

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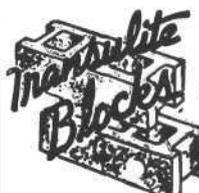
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"Wetback" Labor Banned . . .

INDIO—Ranchers of six western states, including the Imperial and Coachella Valleys of California, have been warned they must immediately stop using Mexican "wetback" labor. Glen Brockway, regional director of the U. S. employment service told farmers' associations in six western states they must conform to international agreements on the use of Mexican labor, singling out the Imperial Valley Farmers' Association as result of hearings held in El Centro in January. Any found using "wet" labor will be denied the use of Mexican farm workers legally contracted for, he warned.—*Date Palm.*

New Safety Light Tested . . .

PALM SPRINGS — Palm Springs and the desert area was chosen as the west coast sales test area for the introduction of a radically new safety device for night motorists, because its traffic arteries are at peak loads at this time of year. Moreover, this section's roads are preferred good-weather routes for thousands of trailer dwellers whose migrations are at a seasonal high. The unique device consists of a 2¼ pound flash lamp with self contained dry battery which provides a flashing red signal visible over a mile for 80 hours or for 60 hours in combination with a powerful working white light with a beam projecting more than 1000 feet. Russel Hough of Morongo Valley was chosen by the Handilite company of Sturgeon Bay, Wisconsin, to pioneer the new device.—*Desert Sun.*

Frames of Monorail Still Stand . . .

DEATH VALLEY—Beaten by torrential flash floods and warped by the hot desert sun, a 30 mile stretch of timber frames, less than 20 miles from Death Valley, still stands as a memento to an ill-fated monorail transportation system. According to Dr. Richard Jahns, professor of geology at the California Institute of Technology, the monorail was built, starting in 1922, to provide transportation for a magnesium salts mine in the badlands of Crystal Hills in San Bernardino County. It replaced trucks used by the Magnesium Company of Los Angeles, who owned the mine. The monorail line crossed Panamint and Wingate Valleys to connect with the Trona railroad on the southwestern shore of Searles Lake. The riding beam was a T shaped rail supported by A frames spaced eight feet apart, supporting siderrails to help balance the straddle-type engine and cars. Today little remains to mark the venture.—*Los Angeles Examiner.*

Indians Hold Roundup . . .

BANNING — Indian cowboys on the Morongo Reservation have completed their annual spring roundup, accounting for 400 head of cattle and placing 35 different brands on calves. All young stock was inoculated against blackleg. The herd was in good condition as the meadows above the village are watered by springs and produce plenty of feed despite the general water shortage.—*Los Angeles Times*.

Hatchery Releases Pheasants . . .

CALIPATRIA — The state pheasant hatchery, four miles south of Calipatria are liberating 1000 young pheasants, according to Al Farres, farm manager. This is a forerunner of 8000 birds to be released this summer in preparation for the 10 day hunting season opening November 18. The young pheasants are three months old when freed and weigh about a pound and a half. How many survive is a question. It is a drastic change from the wire covered feeding pens to brush covered river bottoms, alfalfa fields and grain stubble. Farres is of the opinion there are a good many who survive since he has seen more young broods than ever before this spring.—*Los Angeles Times*.

NEVADA

License Plan Explained . . .

BOULDER CITY — The plan for all fishermen from boat, raft or other floating object on Lakes Mead and Mojave to have a \$2 stamp attached to their regular license was recently explained at a meeting of Boulder City sportsmen by Wayne Kirch, of the Nevada fish and game commission. Arizona will issue stamps to dealers in Nevada. These must be bought and attached to a valid Nevada license, regardless of where you fish. Nevada will issue such stamps to Arizona. The state will receive the money from sales of stamps they issue. The stamps will allow Nevada fishermen to use roads and launch boats from the Arizona shore and to fish anywhere on either the lake or river within the Arizona boundaries. The same applies to Arizona fishermen with respect to Nevada. The plan will be on a trial basis and can be cancelled at any time by either state.—*Las Vegas Review Journal*.

Perennial Grass Halogeton Control

WELLS — Three separate plantings near Wells, Nevada, to determine the ability of perennial grasses to control halogeton, show the poisonous weed cannot grow in an area already occupied by crested wheatgrass. A sagebrush area, burned over in 1944, was used for the experiments. Plantings

were made in the fall of 1945-47-49, drilling crested wheatgrass directly into halogeton stands. Within three years none of the weed could be found in the plot although it was present in adjoining areas. In chemical experiments, sprays produced greater killing effect if applied toward the end of the susceptible period of the plant. — *Times Bonanza*.

Scotty's Castle Road Opening . . .

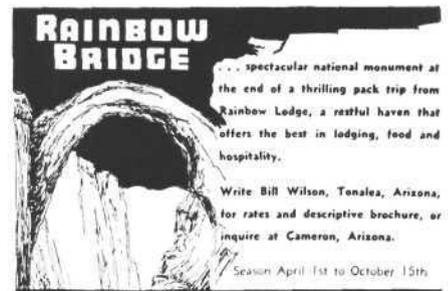
GOLDFIELD — Governor Charles Russell recently accepted an invitation to be guest of honor at the ribbon cutting ceremonies scheduled for June 2, formally opening the Scotty Castle Road. Many other notables have been invited to the affair, the first of its kind to be held in Nevada. Officially designated as Highway 72, the new Castle road connects with U. S. Highway 95 some two miles north of the former junction.—*Inyo Register*.

Water Storage Good . . .

FALLON — The combination of accumulated water storage, recent storms and unmelted snows in high areas combine to make a bright irrigation water supply picture for this year, according to TCID watermaster, Harry Richards. Storage at Lahontan reservoir passed 250,000 acre-feet recently, over 16,000 acre-feet above a year ago. Reservoirs at Boca and Donner are full and Lake Tahoe is at its highest level since 1946. Tahoe is expected to fill to its legally-allowed capacity of six feet of vertical storage for irrigation. No discharge is expected to be made from Lake Tahoe for several weeks. The ideal situation, which local officials hope for, is that Lahontan will almost fill about July 1 each year. If this happens there is a substantial storage carryover into the winter for the following season.—*Fallon Standard*.

Contracts Open for Bids . . .

BOULDER CITY — The Bureau of Reclamation will add the finishing touches to Davis dam and power plant under two major contracts now open for bids, according to regional director, E. A. Moritz. The architectural finish contract involves miscellaneous installations such as doors, windows, louvers, plumbing, heating, and interior finishes including acoustical ceilings and concrete floors. The other contract includes completion of the stilling basin, repair of existing concrete, excavation of the spillway outlet basin and bituminous surfacing of roadways and parking areas. Major work now underway is the installation of the generating units and other power plant equipment, the first of five 45,000 kilowatt units having been placed in line last January. The plant will furnish nearly a



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billion kilowatt hours of energy annually to power market areas in Arizona, southern Nevada and southern California.—*Las Vegas Review Journal*.

Poison Hemlock, Parsnip Appears . . .

FALLON — Poison hemlock and parsnip have appeared in the valley pastures and along irrigation ditches in the Lahontan Valley. Extension agent, Charlie York, after examining a three acre tract containing several hundred plants, urged ranchers to be on the lookout in wet pastures. Tops of the weed will not kill livestock but will throw them off-feed and reduce milk yield. The roots will kill. Both weeds are easily controlled, either by pulling or by spraying with 2, 4-D, York said. Since the weeds will not grow where there is no water, York urges farmers to use tank water for

stock drinking wherever possible rather than letting water run continuously in ditches.—*Fallon Standard*.

Conservation Popular . . .

RENO—Soil and water conservation farming methods are gaining in popularity in Nevada. Soil conservation districts encourage farmers to use conservation methods by holding demonstrations, organizing community projects, renting specialized heavy equipment and by supplying trained technical workers to help farmers plan, select and install the right conservation measures for their land. Farmer cooperation is voluntary. The soil conservation service assigns resident technical workers to districts on request. Information may be obtained from the State Soil Conservation Committee, University of Nevada, Reno.—*Battle Mountain Scout*.

Salt Cedars Waste River Water . . .

LAS CRUCES—Heavy growth of salt cedars along the Rio Grande is one of the reasons for the current shortage of irrigation water, according to J. Grady Wilson, extension soil conservationist at New Mexico A. and M. Wilson pointed out that estimates by the bureau of reclamation have shown that salt cedars, willows and other trees growing along the river, cover 55,000 acres between the Cochiti Indian pueblo in Sandoval county and the Caballo reservoir in Sierra county. Prior to 1941 only about 10 acres were infested with salt cedar in the Bosque del Apache wildlife refuge. By 1950 more than 7000 acres in the refuge were covered. The Caballo reservoir site was cleared in 1937 but today more than 5000 acres are covered, becoming denser yearly. — *Las Cruces Citizens*.

Navajos Hope Drouth Over . . .

GALLUP—Navajo stockmen and farmers are gazing at the skies and hoping that recent rains over the reservation mean the end of the longest drouth on record. However, the rains came too late to prevent losses among new-born lambs. Two years of dry weather have had a two-fold effect on the sheep industry, one of the main-springs of Navajo economy. First, the surface water has been reduced to a mere trickle, necessitating hauling water to the stock. Second, the lack of rain has resulted in a shortage of natural fodder. The result has been losses of up to 50 percent of new-born lambs in the larger flocks on the more arid pastures. — *Gallup Independent*.

Lake Mojave at Capacity . . .

BOULDER CITY—Lake Mojave, behind Davis Dam, is expected to reach its scheduled capacity of about 643 feet above sea level soon, according to officials of the bureau of reclamation at Boulder City. Although the level will be maintained through June, because of water requirements downstream, it may lower somewhat during the summer, probably dropping 10 feet by the end of September. Davis dam was built to take care of a level 647 feet above sea level. However, according to officials, it is not probable this height will ever be reached in the foreseeable future.—*Las Vegas Review Journal*.

NEW MEXICO

Can Rainmakers Succeed . . .

GALLUP — Worried farmers and ranchers who have backed their faith in artificial precipitation with at least \$115,000 will be watching closely during the next month for the answer. Five groups have signed contracts with water resources development corporation of Denver, Colorado for rain increasing operations over all the state. The firm, headed by Dr. Irving Krick, can make up to \$75,000 more in bonuses, if it can produce enough rain. Although the contracts have been in effect since March 1, so far the amount of rain produced has barely dampened the ground. The firm warned that no results could be expected until late May or early June. In the meantime, some communities are having trouble finding domestic water and the U. S. forest service is worrying about the worst fire year in the state's history.—*Gallup Independent*.

ANSWERS TO QUIZ

Questions are on page 26

- 1—Address a few uncomplimentary remarks at the creature and forget about it.
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Mouthless Carp Caught . . .

CARLSBAD — A carp without a mouth was recently taken in the Lake McMillan fish trap. The mouthless fish was brought to Artesia by Deputy Game Warden L. W. Simmons and preserved, then placed on display in the window of the Artesia Advocate. The top of the head ends just below the eyes. The rest of the fish seems normal, according to the Advocate's description. There are small holes in front of each eye, similar to nostrils. Simmons believes the fish took into its oral cavity, through gill action, sufficient food to keep it alive. He feels certain the fish was hatched in the form found since the skin formation over the front of the jawless head is solid.—*Eddy County News*.

Travel Conditions Good . . .

GALLUP—Harry Goulding, Monument Valley Indian trader reports all the main roads in and out of the monument are in good condition. The north road toward Bluff has been worked and damage done by the ore trucks last year has been repaired. He said a little rain to help maintenance and the tourists will find the roads in better condition than usual.—*Gallup Independent*.

UTAH

Cloud Seeding Successful . . .

ST. GEORGE—Clouds, seeded with silver iodide crystals, dropped more than 1½ inches of water on a large part of Iron and Washington Counties during a three day period, is the claim of cloud seeding experts who have been on the job. A record-breaking storm, termed the most beneficial in more than a year, poured more than 1.30 inches on Cedar City, bringing total precipitation for the month to nearly 2 inches, according to the county agricultural agent. While Cedar City's water came in the form of snow, St. George and the surrounding area had a steady soaking rain, with heavy snow in higher areas. Many stockmen who had planned to transport their stock to other areas during the summer or cut numbers drastically, are optimistic over prospects for sufficient feed to continue present operations.—*Washington County News*.

Park Openings Begin . . .

CEDAR CITY — W. P. Rogers, manager of Utah Parks operations, the Union Pacific Railroad subsidiary operating facilities in Zion and Bryce National Parks, the north rim of the Grand Canyon and Cedar Breaks Nation monument, announced the 1951 season open on May 15 with the lodges and dining rooms open June 18

through September 5. All expense tours will be handled through this period, starting from Cedar City. They will range from one to five days. Seven hundred college students have been hired for the summer season, many having already taken up their positions at Zion, Bryce and Grand Canyon. Evening programs of music and singing are voluntary contributions from the young workers, that add to the enjoyment of guests at the parks.—*Iron County Record*.

To Start Work at Echo Park . . .

VERNAL — Secretary of Interior Oscar Chapman has given authorization for work to proceed on the Echo Park project in the Colorado river in northeastern Utah. The 200,000 kilowatts of power to be generated at the dam is essential to defense needs, the secretary stated. Conservation groups protested vigorously against the project on the ground that it would commercialize one of the most scenic areas in the West.—*The Vernal Express*.

Funds for Monument . . .

SALT LAKE CITY — Legislative clarification of a bill to permit acquisition of land around This Is the Place monument was asked recently by attorney general Clinton D. Vernon. In appropriating funds to acquire additional private lands surrounding the monument, the Legislature did not make it clear how much money was to be used nor from what source it was to come. Mr. Vernon said the wording of the law leaves the entire matter in doubt. Governor Lee said the question of the funds probably will be presented to the special session.—*Salt Lake Tribune*.

Coyotes Top Bounty List . . .

CEDAR CITY — Coyotes top the list of predatory animals killed in Utah since the passage by the state legislature in 1943 of the present predatory animal control law. According to figures given out at the state capitol the following bounties have been paid for

animals killed: 77,608 coyotes, 10,067 bobcats, 872 cougars and 13 wolves.—*Iron County Record*.

Utah Is "Most Educated" . . .

SALT LAKE CITY — Utah leads the nation in the percentage of its total population enrolled in college, according to figures given out by the Utah Foundation. Three and one-fourth percent of its population is attending institutions of higher learning. Colorado is second with 2.65 percent. National average is 1.62 percent. Public expenditures for education in Utah were 4.261 percent of total personal income, compared with 2.821 percent for the nation as a whole.—*The Vernal Express*.

Universal Pictures has announced that it will film a new production, the "Battle of Apache Pass," in technicolor near Moab starting about July 1. Jeff Chandler is to be starred in the picture.



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By LELANDE QUICK, Editor of The Lapidary Journal

The article we have been expecting to appear in the *National Geographic Magazine* is now in process of being written by George Switzer, Associate Curator of the Division of Mineralogy and Petrology at the Smithsonian Institution. The illustrations, in color, were taken by Mr. Culver on his trip among the rockhounds in the Southwest last Fall and we anticipate that the article will be a fine job and a great boost for our hobby.

In a recent letter from Mr. Switzer he says—"It is quite important that I be able to give statistics about the number of collectors in the United States, the number of societies, whether or not there are societies in all 48 states, the size of this hobby compared to other well known ones such as photography and stamps and any other pertinent data of this type. I believe that for my purpose all those interested in the earth sciences as a hobby should be counted, although it would be interesting to have it broken down into specialties if possible. I am hoping that one as experienced in the field as yourself will be able to furnish me with a considered estimate in round figures that will approximate the truth."

We can dispose with certainty of some parts of this question by saying that all states are not represented by societies and that last December we published a list of all the known earth science societies in the country. This report indicated that at that time there were 220 mineral, gem and geological societies in 36 states and the District of Columbia. About half of these societies (106) were on the Pacific Coast with 68 in California, 21 in Washington and 17 in Oregon. Few of them are large and only two are known to have a membership of more than 300. About half of them have over 100 members each and we estimate the average membership to be about 50. This would give a society membership of about 11,000.

We also possess a list of more than 600 firms who cater to the needs of the mineral collector, the gem cutter and the amateur jewelry craftsmen but it is impossible to break these down into separate groups. Most people in the lapidary business estimate that between 3 and 5 million hobbyists are cutting rocks but they also believe that a small percentage of that number are actually gathering their own rocks.

We have long maintained that no more than 1 percent of people interested in the earth sciences belong to any society anywhere and that the strength of the hobby is in the other 99 percent, or the grass roots. That is true of most hobbies. Let us examine some others. There are many garden clubs throughout the land but for every garden club member it is certain there are thousands of garden enthusiasts who never attended a club meeting. This holds with the stamp collector, the fishermen and hunters and almost any group you can name.

There is a preponderance of evidence to indicate that the number should be in the millions. If 1 percent of the collectors and gem cutters do belong to a society

that would give us a figure of 1,100,000 but we believe the figure is easily three times that number. We publish a magazine about gem cutting that is read by about 25,000 people and we do not believe we number in our reader list more than one out of 100 persons interested in the lapidary art as a hobby. That would give a figure of 2,500,000. One could easily double this figure to 5 million by adding the great number of mineral and fossil collectors who are not interested in cutting rocks at all.

If the dealers, doing business with the hobbyists, would reveal confidential figures we could get somewhere with certainty. But it is unreasonable to expect them to do so. For instance, it is probable that of the folks following the hobby for as long as a year that at least 5 percent of them have made a purchase from either Grieger's in Pasadena or Ward's Natural Science Establishment in Rochester, N. Y. Multiply this by 20 and you would come somewhere near a figure that would "approximate the truth," as Mr. Switzer expresses it.

Mr. Grieger recently published a catalog of mineral and gem supplies that he sold for a dollar a copy. He sold 17,000 of them. When a hobbyist will put up a dollar for a catalog he is matched by 99 who will not and that gives us a figure of 1,700,000. And then a couple of months ago V. D. Angerman, Editor and Publisher of America's fastest growing craft magazine, *Science and Mechanics*, published a book by Russell P. MacFall entitled *Gem Hunters Guide*. At \$3.00 a copy the first edition of 10,000 was sold out in three weeks and Mr. Angerman expects to sell 50,000 before the Christmas bells ring out again.

But we believe Mr. Switzer is more interested in how many people are going out in the field after rocks rather than in the number of persons who get their rocks via the silver pick . . . buying them. We don't know the answer, Mr. Switzer, but we believe that a small portion of people interested in the rocks of the earth have ever been on a field expedition. But they all yearn to go and they do love to read about it. We hold to the belief that the stone hobbyist is the fastest growing group of hobbyists in America because with the great increase of leisure time more and more people are discovering that it is a completely satisfying pastime for it covers many fields. It gets people outdoors; gives them an interesting occupation indoors; reactivates their Yankee ingenuity of attempting to do something with their hands; enables them to become students again and amateur scientists and, through lapidary work, they can satisfy that longing in every man's heart to fulfill an ambition . . . they can become *artists*.

Every rockhound in America is anxiously looking for your article and we believe most of them will back up our best "considered" guess, Mr. Switzer. We say there is a minimum of three million Americans interested in rocks and at least half of them will read your article if they can get it.

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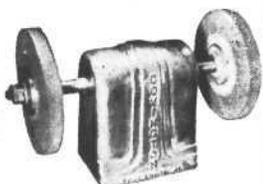
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Gems and Minerals

GLENDALE LAPIDARY SHOW OUTSTANDING SUCCESS

Gems by the pound were on display at the Glendale Civic Auditorium when the Glendale Lapidary and Gem society staged its fourth annual show. Total value of finished and unfinished jewels and semi-precious stones, rocks and ores was estimated at more than \$1,000,000 by Orma Foote, president of the society. The largest stone on display was a 15 pound aquamarine owned by Edward Swoboda. Many of the display cases contained exhibits of precious and semi-precious stones found in Southern California. Among the oddities was a collection of 83 year old Morris Schick, a nurseryman, an entire case containing fossilized shells, polished to gem finish.

SOCIETY SPENDS BUSY APRIL AND MAY

The Whittier, California, Gem and Mineral society was entertained at its April 3 meeting by Jack Estlick who spoke on Rocks from Montana; sapphires, garnets, amethysts, smoky quartz and agates. A report on the April 1 field trip revealed specimens of agate, jasper and petrified wood found in the Castle Butte area. On April 17 Walter Abramson told of his trip to Dawson and the Ashley mines at Pala. Blanche Hutchinson described the Twenty-nine Palms area and the dry lake at Amboy. On May 1 a film entitled Nickel Plating was shown and the Junior Rockhounds were given bags of specimens donated by the senior club. Edwin Roth talked on the Quartz Family of Minerals at the May 14 meeting, showing many specimens from his large collection.

SANTA MONICA SOCIETY ELECTS NEW OFFICERS

The eleventh annual dinner meeting of the Santa Monica Gemological society was held May 2 in the parish hall of St. Matthews' Episcopal church, Pacific Palisades, California. The following officers were installed to serve for the coming year: Florence Strong, president; Vern Cadieux, first vice-president; Professor W. R. B. Osterholt, second vice-president; Harold Hagen, treasurer; Doris Baur, recording secretary; Lefa Warth, corresponding secretary. Membership now stands at 87. The library contains 52 books and a complete file of Desert Magazine from 1940 to 1949. Mrs. Charles Eberhart, who has written a rockhound song, conducted a community sing with William Ellfeldt at the piano. Dan White, past president of the Glendale Mineral society, entertained with colored slides of sagenite, plume, moss and iris agates from western deposits.

The San Fernando Valley, California, Mineral and Gem society is completing plans for its seventh show scheduled for August 25-26 at the Burbank recreation center, 1111 west Olive avenue. At the May meeting Mrs. D. H. Clark of the Orange Belt Mineralogical society gave a talk on Iris Agate.

MINERAL ROCK AND GEM SHOW A SUCCESS

The Yermo, California, Chamber of commerce held its second annual mineral, rock and gem show April 28-29. Although the weather was rugged a good crowd attended both days, some coming from considerable distances. Outstanding were the crystal displays, featuring collections from all over the world. A display of local polished specimens of all kinds won one of the grand prizes. In addition to the rocks and minerals, there were some fine paintings of nearby scenes on display, as well as a number of old photographs and relics from Calico.

OREGON HAS NEW AMATEUR ROCKHOUND SOCIETY

Devoted to the study of geology, mineralogy, gemology and lapidary, 20 charter members have formed a society at Warrendale, Oregon, to be known as the Columbia Gorge Rockhounds. Meetings will be the first and third Fridays of each month. Officers are: Frank Bacon, president; Francis Klemann, vice-president; Edra Klemann, secretary-treasurer. The organization applied for membership and has been accepted into the Northwest Federation of Mineralogical societies. Mrs. George Chamberlin will act as Federation director.

OREGON SOCIETY SCHEDULES AGATE SHOW FOR MID-SUMMER

The North Lincoln Agate society, Nelscott, Oregon, is planning its ninth Annual Agate Show for July 21-22 in the Lion's Club rooms at Oceanlake, Oregon. Demonstrations of grinding and polishing agates will be a feature of the show. A small admission charge will be made to help defray some of the expense of the show.

Rockhounds Disband . . .

The Ramona, California, Rockhound's society has disbanded. Members have joined the San Diego society or the La Mesa Tourmaline society.

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The Los Angeles Lapidary society, meeting the first Monday of every month at the Van Ness Playground building, Second Avenue and Slauson, had as guest speaker at the last meeting, James Coote. Although the society is primarily interested in lapidary and rocks, Coote's talk on pearls, the "Queen of Gems," was thoroughly enjoyed. He explained the difference between oriental, cultured and imitation pearls, pointing out the difficulty in positively identifying them.

The following officers have been elected by the Mineral and Gem society of Castro Valley, California, to serve for the ensuing year: Al Breeden, president; Tom Robb, vice president; Alice Robb, secretary; May Meyers, treasurer; Von McBride, director. Preceding the election, J. M. Blair of Berkeley, discussed and displayed his collection of agates and minerals, garnered from many sources throughout the world.

Mr. and Mrs. C. H. Smith, well known to the rockhound fraternity around Los Angeles for their "Rock Shop on Wheels" are planning soon to leave for Applegate, Oregon, where they will make their future home. Their trailer rockshop has already gone north. Mr. Smith recently resigned after 24 years with the Davies Warehouse company, and his plans for the future include only his two hobbies — rocks and fishing.

The Kern County, California, Mineral society made a field trip to Tick canyon on April 29. Everyone found howlite nodules and some picked up agate geodes. Fred Dunn took home the slab rock given by Emrie Harman at the last meeting for the correct answer to the riddle published in the April Pseudomorph.

The April field trip of the El Paso, Texas, Rockhounds, took members to the great limestone beds on Mount Franklin for fossils. The long slope up the cliff is composed of debris from the mountain, white, grey and black in color. Bob King was in charge of the trip. Although the slope was steep and the footing treacherous, everyone found plenty of fossils.

The following officers have been nominated by the Gem and Mineral society of San Mateo County, Burlingame, California: Francis Marshall, president; Walter Reinhardt, vice president; Alice Sharp, secretary; Dale Atwood, treasurer. After the nomination Walter Reinhardt talked on petrified wood of Arizona.

April was an active month for the various divisions of the San Diego Mineral and Gem society. At the general meeting Harold Baker gave a talk titled Around the World on a Rock Trip. The Gem and Lapidary division heard Fred Van Pelt on the grottos in West Bend, Iowa and Roy Elliot on the April birthstone, sapphire. Crystals of orthorhombic system were displayed and discussed at the meeting of the Mineralogy division. Felix Kallis spoke on working and living conditions in Russia during 1937, at the meeting of the Mineral Resources Division. He was sent there by Consolidated Aircraft corporation as an aircraft engineer. This division made a field trip to calcite deposits at Rosarito Beach. The Mineralogy division went to Clark mine, Rincon, on April 22.

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The April meeting of the Delvers Gem and Mineral society, Downey, California, was preceded by a covered-dish dinner. The program which followed was handled by Mr. Purkheiser who delivered a talk on polishing jade. He explained how, by wet sanding, he was able to secure a high polish, demonstrating with the tools and materials he used. Purkheiser displayed many polished gems to prove his point.

The April issue of the Mineral and Gem News of the Rocky Mountain Federation of Mineral societies recommends *The First Book of Stones* by W. B. Cormack as suitable for youngsters who can read and are interested in minerals. The book is illustrated with line drawings.

As usual, the first meeting in April of the Mineralogical society of Phoenix, Arizona, presented a program in charge of the Juniors. Maryanna Weber gave a talk on stalactites and stalagmites. Gordon Levine discussed fluorescence, illustrating with fluorescent minerals. Following the Junior program Harry Foulks of Stockton, California, gave a talk on opal mines. He formerly owned the Rainbow Ridge opal mine in Virgin Valley, Nevada. Foulks brought along a large display of Rainbow Ridge opals.

At the April 27 meeting of the Humboldt Gem and Mineral society George Lampke, engineer and photographer for the government during the past six years, spoke on the Flora and Fauna of Alaska and the great mineral deposits there. Colored slides gave a vivid picture of life in Alaska. Refreshments were served by Lois Petterson.

Individuality in jewelry design was the keynote of a talk given by Jessie Chittenden at the April meeting in Plummer Park of the Hollywood Lapidary society. Mrs. Chittenden, a member of the Los Angeles Lapidary society, has had 15 years experience in the lapidary and jewelry hobby. She recommends simplicity and brought out the following points: make your own interpretation of designs, design pendants so they are attractive on both sides, avoid equal quantities of stone and metal, have no more than three line movements in a design. The speaker used pieces of her own individual jewelry to illustrate her points.

At the April 13 meeting of the Earth Science Club of northern Illinois, Dr. Bruce Lineburg, Professor of biology at Lake Forest college, lectured on continental glaciation. He explained the difference between snowfields and glaciers and the commercial advantages of prehistoric glaciation to the areas covered. Dr. Lineburg has made field trips with his students to every state in this country and into several areas in Mexico.

According to scientists of the Middle Ages, gold needed extreme heat for its formation. Early in the Sixteenth century, Vannoccio Biringuccio, the famous Italian metallurgist, said that gold occurred in certain regions where the sun seemed to shine with greatest vigor. On his map, drawn in 1529, the Spanish cosmographer, Ribero, indicated the area around the mouth of the Mississippi River was too far from the tropics to abound in gold.

The oldest dated piece of jewelry is said to be an Egyptian bracelet set with turquoise. Turquoise has long been used throughout the Middle East as an amulet to protect horses from falling.

The San Gabriel Valley, California, Lapidary society held its monthly meeting May 12, at the Washington school. Sixty three were present, several exhibiting faceted stones and finished cabochons. H. L. Sampson of Arcadia talked on one of his trips through the northwest, illustrating with colored slides of the California and Oregon redwoods, scenes from British Columbia and Alaska as well as from Glacier National Park and the Grand Teton Mountains. Refreshments were served by Mabel Cone and her committee.

At the April meeting of the Pomona Valley, California Mineral club Heber Clewett spoke on the use of quartz crystals in the radio and electronics field, illustrating with a demonstration of electronic apparatus. The following officers were elected to serve for a year: B. W. Cohoon, president; L. B. Penhallon, vice-president; Marion Hillen, secretary, Elizabeth Dillin, treasurer, Fred Kroger, director. It will be Cohoon's second term as president.

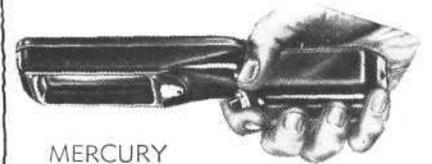
Burton Stuart, who has been editor of the San Jose, California, Lapidary Bulletin for the past three years, is turning the job over to Ross Page. Stuart has been elected President of the San Jose Lapidary society. Serving with him will be: Milton W. Gillespie, vice president; Dorothy Harrington, secretary; Alexander Tihonravov, treasurer.

The Yavapai County Archeological society held its first exhibition in the main room of the Congregational church youth center in Prescott, Arizona. Kate Cory, honorary member of the society, who spent seven years with the Hopi, brought two of her paintings illustrating Hopi life; two pottery specimens, one by Nampeyo; the Hopi equivalent of a boomerang; beads and a pair of child's moccasins. Viola Jimulla, chief of the Yavapai, only tribal woman head in the United States, brought several Yavapai baskets. Emma Andres displayed a collection of artifacts and Vayan Hartfield spoke briefly on the Navajo rugs loaned by Mrs. W. J. Oliver. Others contributing to the success of the exhibition were Mrs. Charles Leake and Wallace Duncan, Helen Feddish, Herman Womack, Alva Sims, Ernest Michaels and Harland Ludwig. Harold Butcher, club president, announced the June, July and August meetings would be field trips and picnics.

The Dona Ana county Rockhound club of New Mexico held its May 11 meeting at the Mesilla Park school, about 40 members and guests attending. During the business session the main topic was the convention of the Rocky Mountain Federation of Mineral societies. W. F. (Bill) Smith of A&M talked on Palenque, a city in Chiapas, Mexico. Photographs were passed around, making the talk more enjoyable. Ruth Perkins and Sue Evens were in charge of refreshments.

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AJO ROCKHOUNDS HOLD EXHIBIT

The Ajo, Arizona, Rockhounds held their annual mineral exhibit in the highschool gymnasium recently. The school exhibit, which won first place at both the Rocky Mountain Federation show in El Paso last June and the State Fair in Phoenix in November, was on display. Also on display was the Phelps-Dodge corporation trophy which was awarded the Ajo public schools for the most outstanding mineral collection in Arizona for 1950-51. Awards for individual exhibits went to John Kane, James Conway, Peter Kimes, Norman Godfrey, Wanda Strange. Judges were Ezra Voyce and Henry Hall.

The regular monthly meeting of the Pomona Valley, California, Mineral club was held May 8 in the Chemistry Building of Pomona College in Claremont. Mrs. D. M. Clark of the Orange Belt Mineralogical society, gave a talk titled "A Rockhound Abroad" which is an account of her European travels from Norway to Italy. The club has been requested to again sponsor the mineral exhibit at the Los Angeles County Fair, held every fall in Pomona.

Featured at the April meeting of the Colorado Mineral society, was a talk illustrated with motion pictures, on the coal mining industry. Thomas Allen, executive director of coal mining in Colorado, was the speaker. He gave the history of coal mining methods from about the year 300 B.C. to the present. The motion picture dealt with modern machinery, with a few scenes showing primitive ways of mining still in use in a few small mines. The door prize was carried home by Raymond Baty.

In Roman times opal was next to emerald in value, the name itself coming from the Sanskrit word meaning precious stone.

Rings, first among the Greeks and later among the Romans, in addition to their decorative value, had a medicinal value. A gold ring engraved with a fish was supposed to ward off colic.

The symbolism of gems ranges from the charming, through the bizarre to the merely ridiculous. The pleasant custom of wearing a special gem that belongs to the month in which one was born seems to have had its origin in Germany or Poland during the sixteenth century, the arrangement possibly corresponding to the signs of the zodiac. This idea can be traced back to the 12 foundation stones of the holy city, New Jerusalem, described in the 21st chapter of the Book of Revelations. Each of the stones was inscribed with the name of an apostle.

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BOOKS OF THE SOUTHWEST . . .

STORY OF A TEACHER AMONG THE NAVAJO

In 1900 Minnie Braithwaite left her home in Virginia to accept a position as teacher in the Indian school in remote Blue Canyon in northern Arizona. It was a daring adventure for a Southern girl—but Minnie had the blood of pioneers in her veins.

Her adventures began in Kansas City where she inadvertently found herself in a riotous mob following the rampaging Carrie Nation, and almost missed her train.

When she reached Winslow she lacked funds to pay for a hotel room, and insisted on heading out across the reservation at once, although the Little Colorado river was in flood. She made the dangerous crossing in a Conestoga wagon, escorted by a sheriff and a cheering posse of cowboys.

Letters and notes covering her two years in Blue Canyon and later at the Indian school at Fort Mohave—and a fine memory for the details of her life on the reservation—are the material for *Girl From Williamsburg* by Minnie Braithwaite Jenkins, a day-by-day story of her life as a school teacher.

Life at Blue Canyon was made very difficult by the bad temper of her superiors, the man and wife team in charge of the school. But she found that in most instances the Indian Service employees had a genuine interest in the welfare of the Indians.

She learned to love the Navajo for their attachment to their children, the sincerity of their beliefs, their customs and their interest in education.

There was hardship for those early-day teachers on the reservation—but the Indians have a fine sense of humor, and life on the reservation was not lacking in gayety.

Even in those days benevolent persons and societies were sending cast-off clothes to needy Indians—sometimes items which were quite ridiculous. For instance there was the bundle which contained a whale-boned silk waist with leg o' mutton sleeves. The Navajo who drew this prize was not puzzled for long. It made a good saddlebag, with melons in one sleeve and corn in the other.

Delightful and informative is this story about the life of a school teacher in the reservation nearly a half century ago.

Published by the Dietz Press, Richmond, Va. 9 illus. 343 pp. \$3.00.

Books mentioned on this page are available from Desert Crafts Shop, Palm Desert, California.

FOR THOSE WHO WOULD KNOW THE DESERT FLOWERS

Written for those who, lacking a scientific knowledge of botany, would still like to learn the names of the more common species of desert flowers and shrubs, Natt N. Dodge, naturalist for the National Park Service has prepared a new handbook entitled *Flowers of the Southwest Deserts*.

Both the scientific and common names of 145 species are given, and 110 of these plants are illustrated by line drawings by Jeanne R. Janish. The desert area covered is Texas, New Mexico, Arizona and California.

Published by Southwest Monuments Association, Santa Fe. 112 pp. Paper cover. \$1.00.

NEW HANDBOOK FOR THE CACTUS GARDENER

No doubt many persons, outside the scientific fraternity, will be interested to know that the cactus family has the same ancestry as roses. At some remote period in the evolution of the plant a modification took place which eliminated the leaf structure. Adaptation to drouth took the form of water storage in the stem—hence the cacti—or cactuses as W. Taylor Marshall prefers to have them known today.

Marshall is the author of a new hand-

book on cactus written in non-technical language for those interested in an elementary knowledge of this plant and its many species.

The author is director of the Desert Botanical Gardens in Papago Park near Phoenix, where 20 acres are devoted intensively to cactus, and the new handbook is announced as Science Bulletin No. 1.

Illustrated with halftone engravings, the paper-bound book catalogs in simple language and picture the most common among the hundreds of species found in the Americas. The book is titled *Arizona Cactuses*.

Published by Desert Botanical Garden. 111 pages. Illus. Paper cover. \$1.

Published as a monograph of the School of American Research at Santa Fe, New Mexico, a report of the excavation and repair of the 17th century Mission of San Gregorio de Abo has just come from the University of New Mexico Press. The monograph was written by Joseph H. Toulouse, Jr., who was appointed by the University to excavate and repair the mission. The ruins were purchased by alumni and presented to the University in 1937 and the property established as a state monument in 1938. The report is illustrated by detailed drawings of the construction and artifacts recovered, by Betty Thomas Toulouse, wife of the author, and by halftone reproductions. 42 pp. with paper cover.

At last, a new edition of Lieut. Emory's story . . .

LIEUTENANT EMORY REPORTS:

Written in 1846 by an observer with Gen. Kearney's Army of the West

Day by day from July, 1846, across the desert Southwest and through the battle of San Pasqual until January 20, 1847, Lieut. W. H. Emory kept an accurate diary of what he saw in a land previously known only to the Indians and the Mountain Men.

In simple sentences Lieut. Emory described the incidents of the long march, the character of the terrain—and finally the historical battle at San Pasqual which has long been a subject of controversy among historians.

This is a book which should be in the library of every student of Southwestern history—just published by University of New Mexico Press.

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Palm Desert, California



By RANDALL HENDERSON

7 WISH TO join with other desert people in extending well wishes to Walter Knott and his associates in their plan to restore the old mining camp at Calico to the glamour of its boom days. No one is better qualified for the task than Walter Knott—he has proved that, in the amazing institution he has created at Buena Park, California.

Calico has a colorful history, and fortunately there are sufficient records available to enable Walter and his associates to re-create the old camp in accurate detail. That it will become one of the most popular tourist attractions in the desert country is a foregone conclusion, for Walter Knott is a master showman. But he is something more than that—he is one of those rare persons who has discovered the fine art of combining the cultural with the commercial — of giving important cultural value to a successful commercial project.

• • •

Recently *Desert Magazine's* editorial staff rejected a well-written manuscript accompanied by excellent pictures. The story was about a rockhound, and one of the pictures showed his backyard piled high with tons and tons of cutting material which he had trucked in from the desert. There was agate and chalcedony and jasper and petrified wood enough to keep a lapidary busy for hundreds of years.

The rock collectors have a name for members of their fraternity who go out and strip the specimen fields clean—with no thought for those who come after them. It isn't a pretty name.

Desert Magazine rejected the story because it is not our policy to glamorize the kind of thoughtlessness practiced by this type of collector.

There will always be mineral specimens on the desert. The forces of erosion will insure that—but Nature operates on a very slow time-table, and it is quite unfair to other collectors when any one of them hauls in more material than he can use in a life-time. Excess material of this type eventually becomes a burden to someone who is not interested—and probably ends up on the dump.

My friend Chuckawalla Slim suggests a remedy that has considerable merit. Slim proposes that every rock and mineral society have an annual "reverse field trip" when members who have their yards piled high with material they will never use, will haul it out to the first good hill and drive to the top and throw it as far as they can—to give added pleasure to the next generation of rockhounds.

• • •

Late in May, Cyria and I spent 10 days in southern Utah—in that gorgeous land of red and white sandstone framed in pinyon and juniper.

There is little rainfall in southern Utah—it is part of the Great American Desert—but tiny streams of water come down from the high mountains, and the thrifty Mormon farmers utilize every drop of this moisture to create in the valleys little checkerboard farms of grain and fruit trees.

I like those Mormon folks. They work hard, and they give generously in support of their church.

If our capitalistic system runs true to form, this wild orgy of high wages and high prices which we are now experiencing will not last forever. And when the crash comes and the bread lines begin to form, the Mormons in Utah will be the most secure people on earth. For Utah is primarily an agricultural state despite its limited rainfall, and in the farming communities every Mormon depends largely on the vegetables and chickens and cows in his own back yard for his subsistence. And the church takes care of those in need.

Uncle Sam could throw his social security and his subsidies out the window—and the Mormons would still be happy, industrious and well fed people.

• • •

In Utah I camped with friends beside a little water-hole high up on the Kaiparowitz plateau. It rained three of the nights we were there, but rain is music to a desert dweller—provided there is a good waterproof tarpaulin to keep the bedroll dry.

We were prying into the affairs of human beings who lived on that plateau a thousand years ago. Only their little cliff dwellings, and a few scattered artifacts remain today. But it is amazing the extent to which trained archeologists can reconstruct the lives of those prehistoric people from a few old corn cobs, chips of flint, broken pottery and tumbled down walls of stone and mud. I will be writing the story of what we found on the Kaiparowitz for the September issue of *Desert*.

• • •

Printed on many of the guide books now being issued by the National Park Service are these lines:

*Let no one say, and say it to your shame,
That all was beauty here until you came.*

I wish those words could be posted in every canyon and oasis in the desert country. I would even suggest that they be placed along every roadside were it not for the fact that most of the highways already are cluttered up with too many sign boards.

Hard Rock Shorty

of Death Valley



A howling sandstorm was blowing across Death Valley. Not only was the air so full of sand it was impossible to see 10 feet away, but the wind was cold.

The party of dudes who had arrived at Inferno store just ahead of the storm were hovering around the wood stove.

"Yu'd better not try drivin' in this gale," Hard Rock Shorty had warned them. "It'll take the paint all off yer car."

"Did it ever blow this hard before?" one of the tourists asked.

"Seen a lotta worse storms than this'n," Shorty assured them. "Always blows in from over Panamint way in the winter, an' the opposite direction in summer."

"Remember one winter when Pisgah Bill wuz buildin' hisself a log cabin over at the mouth of Eight Ball crick, an' just as he got the roof finished one o' them December blizzards come along an' the last Bill saw of his house it wuz sailin' over the Funeral Mountains headin' fer Nevada. Bill got purty hungry that winter. All his grub was stored in that cabin.

"But he came out all right on that deal. In April when the wind changed, the first big wind brought 'im back a four-room bungalow with one o' them deep freeze contraptions full 'o fresh meat.

THE *Desert* MAGAZINE CLOSE-UPS

The responsibilities of a home, a husband and three children do not keep Laura Bell of Boulder City, Nevada, from spending a little time at her typewriter every day writing copy for various publications, including both newspapers and magazines. Mrs. Bell, who wrote the story about the National Park Service's emergency excavations

of the prehistoric Indian campsites in the area to be inundated by Lake Mohave, is correspondent for the Salt Lake Tribune and the Las Vegas Morning Sun in addition to writing an occasional magazine feature. She also is active in community affairs, holding offices in the Parent-Teachers Association, the American Association of University Women and the Girl Scout Council. She is a graduate of the Stanford school of journalism.

George Bradt, who writes many of *Desert's* Nature stories, is spending the month of June with Mrs. Bradt in Sonora, Mexico, gathering specimens for the American Museum of Natural History. George expects to get material for future illustrated features for *Desert Magazine*, including one on methods of remote control photography he has worked out to secure wildlife photographs.

Louise and Niles Werner — both mountain climbers of the Sierra club

—left in May to spend the summer touring Europe and the Scandinavian countries. Before her departure Mrs. Werner wrote a story for *Desert Magazine* about another of their mountain-climbing experiences—this one about a hike to the top of Avawatz peak in the Mojave desert. This will appear in a later issue.

The story of the Lost Loma Gold in this issue of *Desert Magazine* comes from New Mexico where many of the older-generation Spanish Americans believe implicitly in its truth. Karl Hudson, who wrote the story for *Desert Magazine* gleaned the information from his association with New Mexico people over a period of many years. Hudson's home is now a log cabin near Hermosa Creek 12 miles north of Durango, Colorado, but he was employed for many years on highway construction in New Mexico. Writing and photography merely are hobbies of Hudson's.

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