

THE

Desert

M A G A Z I N E



JUNE, 1950

35 CENTS

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HERE ARE THE FACTS

SUBSTANCE	INDEX OF REFRACTION	CHROMATIC DISPERSION
AMETHYST	1.544 - 1.553	.013
EMERALD	1.564 - 1.590	.014
RUBY, SAPPHIRE	1.760 - 1.768	.018
DIAMOND	2.417	.063
TITANIA	2.605 - 2.901	.300 (APPROX.)

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DESERT CALENDAR

- June 2-4—Arizona District 20-30 Club convention, Flagstaff.
- June 3-4—Hobby show, China Lake, California.
- June 3-25—Navajo and Apache painters' exhibit at Museum of Northern Arizona, Flagstaff, Dr. Harold S. Colton, director.
- June 4—Sports Day, fly and bait casting, trap shooting, at Storrie Lake, Las Vegas, Nevada.
- June 7-9—Rocky Mountain Federation rock show, El Paso, Texas. In the Coliseum.
- June 7-10—Grand lodge annual convention of Elks Auxiliary, Ogden, Utah.
- June 8—Buffalo dance at Santa Clara Pueblo, New Mexico.
- June 10-11—Eighth annual Mineral and Gem exhibit, Long Beach Mineral and Gem society, Sciots Hall, 1005 East Sixth Street, Long Beach, California.
- June 11—Corpus Christi Sunday, outdoor religious processions, Santa Fe, New Mexico.
- June 13—Annual fiesta, Sandia Indian pueblo, 12 miles north of Albuquerque, New Mexico.
- June 16—Tri-State conference of Western Mining Council, Reno, Nevada.
- June 16-17-18—First annual Art Festival, Federated Artists of Utah, at Springdale, Zion Canyon, to be held in conjunction with formal opening of the Springdale Mormon Craft village.
- June 16-17-18—New Mexico Future Farmers of America rodeo, Santa Rosa.
- June 17-18—California Federation of Mineralogical Societies convention, at Trona, California. First true outdoor Rockhound convention. Camping space and facilities available at Valley Wells, convention site, six miles north of Trona.
- June 23-24—State Young Democratic convention, Newhouse Hotel, Salt Lake City, Utah.
- June 24—Corn dances at San Juan Indian pueblo, north of Santa Fe, New Mexico; at Taos pueblo, near Taos; at Acoma pueblo, west of Albuquerque.
- June 25—Historical-religious procession commemorating the Spanish reconquest of New Mexico from the Indians in 1692, at Santa Fe.
- June 28-30—Annual convention and exhibition of National Federation and Midwest Federation of Geological and Mineralogical societies, Milwaukee, Wisconsin.
- June 1-30—Photographs of Honduras and the Mayans, accompanied by Mayan objects from the Museum's collections, at Southwest Museum, Highland Park, Los Angeles, California.



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Death Valley. Photograph by Josef Muench

CONFIDANTE

By EVELYN PIEPMEIER ROSS
Kansas City, Missouri

"I have a secret to tell you," the Desert
whispered to me,
But only those may know it whose hearts
really are free.
For I've hidden it deep in the sunset
Of Life's perfect day;
And covered it with the veil of evening'
Along Coronado's golden way.
It's pinned with a star's own silver
Against night's obsidian stone,
And culled in the warm day's sunlight
When the turquoise rain is done.
It quivers on the quickening air
And leaves no sign or trace
Upon the sand blowing o'er the dunes
Or upon the "Old Man's Sleeping Face."
It is here—the untouchable melody
Of little remembered things—
The far-off coyotes unanswered call,
Greasewood crushed in Fate's finger-roll,
A dove's gentle whirr of wings.
I've desert winds in my heart that are blow-
ing still:
Ah yes, I know her secret—and always
will!

Death Valley

By EULA G. KLEIN
Los Angeles, California

Death has ridden hard along these trails,
Touched his dreary hands to many a man;
Stalked each passing traveler along these
Wasteland paths; but by his side he can
Boast a gallant friend, an angel known as
Beauty tips his brush, and brown hill
Turns to red and gold or shifts to purple
Splendor as the sun curves by. The thrill
Of Death's bright angel friend is always
here

And man can see this paradox I'm told;
Light and dark, two angels winging by
Touching hearts with death or desert gold.

THAT MAN MAY UNDERSTAND

By PAUL WILHELM
Thousand Palms, California
Desert! Wake earth, sing rocks and shiver
hills!
Bestir the sluggish rattler in the bush!
The sly coyote within his den!
Give man your earth that he may dream
again!
Give him your sky, white sand and clean
winds blowing!
Horizons clear, your distances for thought!
Awaken man that he may own his heart!

NOSTALGIA

By SYBIL J. LAKE
Dumas, Texas

A wanderer born, I glimpsed the desert land.
Vague memories, and half-formed dreams
Outlined my kinship to this endless sand.
But bread and butter must of course be
bought—
And here I'm chained, although my soul
is not.
It roams the peaceful wastelands, wild and
free;
Forever close to earth, yet near to Thee.

Hope

By TANYA SOUTH

New Hope still beckons. Everywhere
New Hope lifts up from burdened
care.
It looks beyond, above, away,
And sees new dawn, a brighter day,
New vistas vast, new gleams fore-
telling
That Life and Hope are one upwell-
ing
And deathless spiritual course
Back to One Source.



Here is part of the rock collecting field described in this story. The rocks apparently are part of an alluvial deposit in lakes which occupied the Mojave desert thousands of years ago. In this area were found petrified wood and palm root, chalcedony, jasper and moss agate.

On the Trail of Alvord's Lost Gold

By HAROLD O. WEIGHT
Photographs by the author
Map by Norton Allen

LOST mine hunting can be real fun—if you have side hobbies to entertain you if you don't find the mine. Early this spring, in the Alvord mountain region northeast of Yermo, we hunted a fabulous gold ledge which its discoverer, Charles Alvord, said was rich enough to pay off the national debt. In two trips we didn't even locate the spring which was the key to further search. But we enjoyed ourselves tracing out an almost forgotten sector of the Old Spanish Trail and collecting rocks which will cut into beautiful jewelry.

The rich ledge was found and then lost about 1860 when a group of adventurers searched for the Lost Gunsight silver lode of Death Valley. Alvord was a well known prospector

and leader of the group according to one story, and an elderly easterner who knew nothing about prospecting according to another version. Asabel Bennett of the original Death Valley emigrants also was on the expedition.

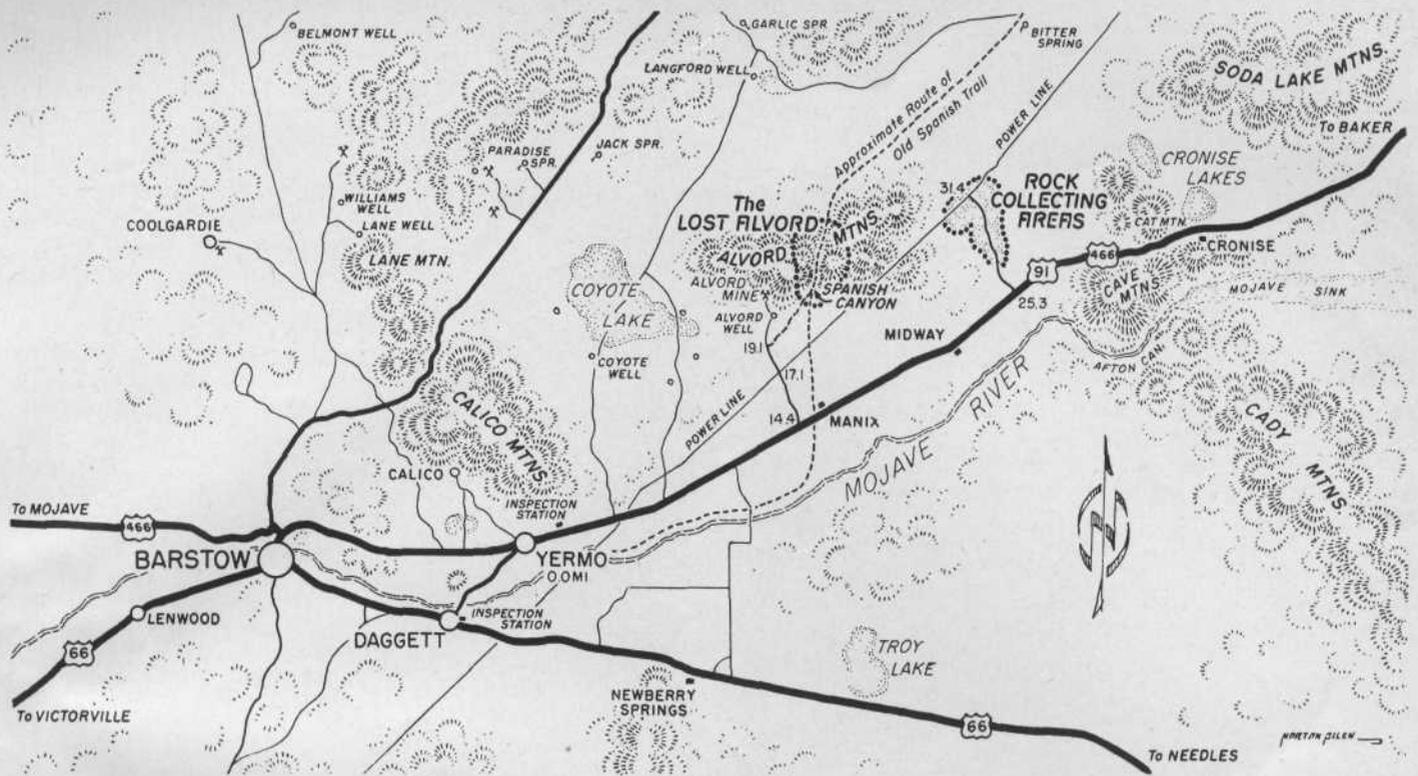
The group followed the Old Spanish Trail from San Bernardino to the Amargosa, then into Death Valley. They did not find the Lost Gunsight, but somewhere in their wanderings Charles Alvord stumbled onto high grade—black manganese linked with wire gold. One story has it that he concealed his find from his partners. The other is that they were looking only for a cliff of silver and, considering him a tenderfoot, ignored his specimens.

When an assay disclosed the value of the ore, his partners insisted that Alvord lead them to the ledge. On the second trip they became bitter and quarrelsome and Alvord could not or

The Lost Alvord gold mine is still lost as far as Harold Weight is concerned, but in searching for it he found some very fine mineral specimens which will interest all those who explore the desert country in quest of pretty stones. Here is a field trip to the Mojave desert that has everything—history, botany, geology, gemstones and a few clues to a historic lost mine.

would not relocate his strike. He made one more attempt to return to the ledge, taking with him Joe Clews, the only member of the first party with whom he remained on good terms. Others of the original group overtook them. There was gunplay and the trip was abandoned. Shortly thereafter Alvord is said to have been murdered.

Many of the searches for the Lost Alvord since then have been concentrated around the southern end of Death Valley and the Owl Holes region. The version locating the ledge in the Alvord Mountains was called to my attention by Phil Cooper of Roscoe, who hunted for it there himself, then decided the whole thing was a fancy bit of imagination. This version, which appeared in a Los Angeles newspaper 31 years ago, is far more defi-



nite in topographical details than any other I have seen.

According to Cooper's story, Alvord told Joe Clews: "If you can remember where we camped when you were left on guard and Bennett and myself went out together, you will know the place from where we started the day I found the gold. Once there I can find it again because it was in sight of a striped butte."

Clews had seen the wire gold ore, and for 18 years had hunted the elusive campsite. Finally he became convinced that it had been at Mule Spring on the Old Spanish Trail, not many miles from the Mojave River. Still he could not locate the ledge. He took Tom Holmes of San Bernardino along on some of his trips. Once when they were at Mule Spring, Clews pointed to a saddle in the hills to the southwest. "I remember watching Alvord and Bennett disappear through that saddle," he insisted. After Clews died, Holmes continued the search, and was still hunting when the newspaper story was published in 1919. He had found a striped butte and manganese ore—but no gold.

First therefore, we must find Mule Spring which sounded simple since we knew the canyon in the eastern Alvords in which it supposedly was located. Unfortunately, Mule Spring is an inconstant seep first uncovered by a mule pawing damp sand. Dix Van Dyke of Daggett, who has traced out most of the Old Spanish Trail in his part of the desert, relocated the spring

in 1942. So when our first expedition failed to reveal any sign of it, we went to see Dix. And Dix told us that he had not been able to find it himself on a return trip in 1947. The only helpful information that he could give was that the seep was formed where an underground ledge across the wash forced water to the surface during wet seasons.

Although this canyon through the Alvords—known both as Spanish and Mule Canyon—was one of the important desert thoroughfares during most of the nineteenth century, it is rarely visited today and there is no regular road into it. The wash itself is negotiable only to expert sand drivers or those with four-wheel drive vehicles. On this second trip, in March, we started from Yermo with my mother and my sister, Viola, in the seat of the jeep and Lucile and Mary Beal sitting Indian-fashion in the truck bed. Leaving Highway 91 and 466 at 14.4 miles east of Yermo, we took the dirt Alvord mine road north. Operations are being resumed at the mine and the road has been dragged. Until it packs down, it will be found very soft in spots.

The last real road was left behind at 19.1 miles, when we swung right into a large sandy wash which we followed into Spanish Canyon. It's a colorful canyon, and there's a particularly beautiful section 22.4 miles from Yermo, where the sand and gravel wash is confined on the west by almost vertical hills of green, rust and purple,

cream and rose, which are half buried in their own talus. A rock headland cuts into the channel from the east bank, and there are rock outcrops in the streambed. Gnarled and ancient desert or orchid willows, *Chilopsis linearis*, grow larger here than elsewhere in the canyon.

It seemed the logical place for a ledge to force water up, and I stopped the car and started looking for a damp area. Viola and my mother were immediately on the track of bright pebbles and artistic dead root and limb sections for dish gardens. Mary and Lucile were checking for spring wildflower possibilities.

A few minutes later I heard Mary yelling at the top of her outdoor lungs. But not about flowers. She had found rocks! When we gathered around her, the enthusiasm seemed justified. Even the most optimistic rockhound doesn't expect to find specimens already assembled, as if some super-packrat with excellent collecting tastes had laid them out and was inviting trades.

There were geodes, nodules, carnelian bits, colored mosses and agates. In fact, the variety was too great. The nodules and geodes looked as if they belonged in the Black Hills of Imperial County, and I think some of the mosses would have been more at home in the Cadys. But what really wrecked an incipient rock stampede was the discovery of a perfectly halved geode and cut pieces of moss and agate.

Still, it was an interesting problem. We were eight miles from paving and

four up a sandy wash from any road. Had a rabid collector hauled a portable rock saw to this point, then sampled and sorted his gleanings from various fields? If so—why? If not, whence came the cut rocks?

However, such speculation wouldn't help me find Mule Spring. But neither did a renewed search disclose as much as a damp spot in the sand. If there's a seep in Spanish Canyon, it should be at the narrows, but if it is at the narrows, I didn't locate it. But if Alvord and Bennett had headed southwest from this general area, they would have been in mineralized country. Would, in fact, have hit close to the Alvord gold mine which has operated intermittently since 1885. Lost mine hunters deny, however, the possibility that the Alvord and the Lost Alvord are identical. They point out that the gold in the former occurs largely in hematite, calcite and jasper—not manganese. Its values in the early days when the ore

was being milled at Camp Cady were only \$12.75 a ton.

With the sun angling toward the mountain tops, I was forced to admit that the lost ledge probably would never be located on one-day excursions. I think I'll go out right after a rain next time, and take a mule along to help me find that seep.

We decided the remainder of the day could best be spent in tracing the old pioneer trail through the upper canyon and to the summit, a spot mentioned often in emigrant journals. There, Dix Van Dyke had told us, we could still see the old dugway which had been cut to enable wagons to enter or leave the canyon.

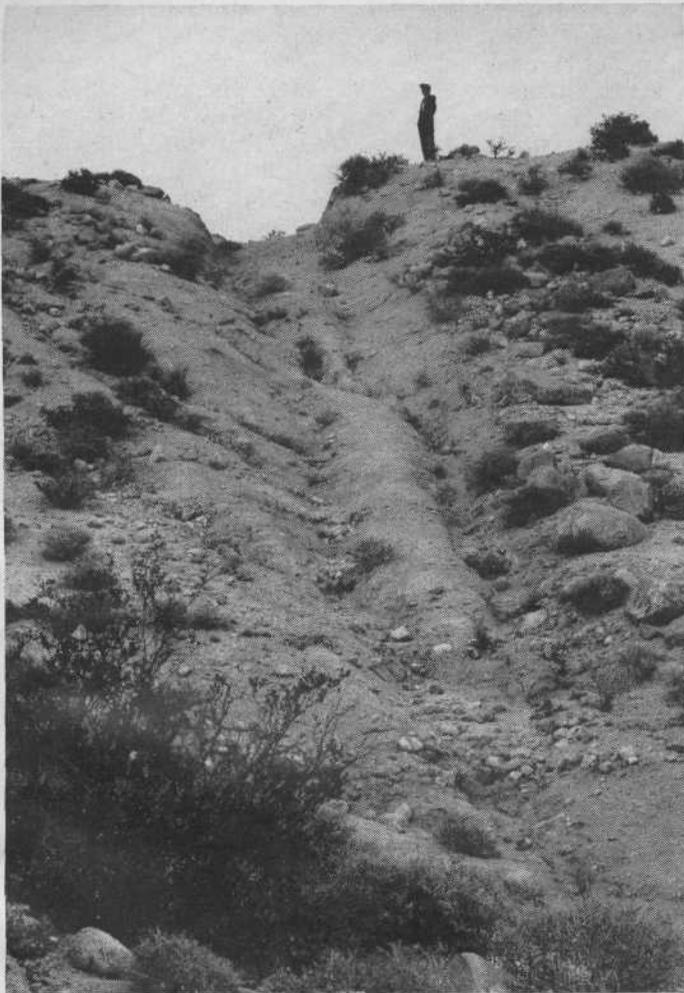
Above the narrows the faint road became a confusion of scattered tracks and the canyon broadened and branched. On the trip before, from a hilltop, I had sighted a definite cut through an upper bajada which could have been nothing but the pioneer

road. This time we reached it—now a straight, narrow wash with a deep sand bed—and its undisturbed surface showed we were the first car to attempt it, at least since the last heavy rains. The light-colored cut of the old dugway was visible at its upper end, but before we reached it the car refused to fight the soft sand and grade, and stalled. But with all four wheels churning, it did manage to scabble over the bank and onto the bajada where bushes and shrubs gave enough traction to keep us going.

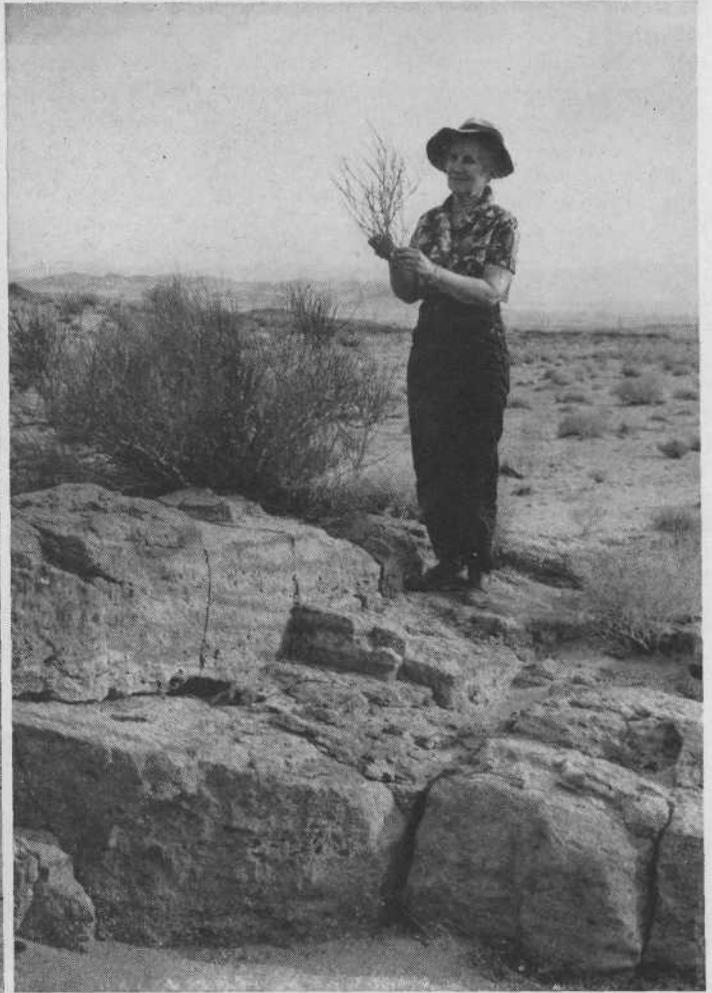
During the last slow half mile across country, Lucile and Mary had an opportunity for intimate observation of the passing vegetation. They reported a few blossoms of Fremont peppergrass, a tiny *Gilia*, popcorn flowers, desert holly, a minute cruciform, beavertail and *Echinocactus polycephalus*. Lycium shrubs were fairly common and the creosotes, galleta grass and burroweed were plentiful.

One of the lures of collecting in this type of deposit is that you never know what the next rock will be. Here is the fossil of an ancient reed or marine plant, replaced in beautiful chocolate brown and white jasp-agate.





Dugway at the summit in Spanish Canyon. This road first was built to permit emigrant trains to pass this way on the trail to the Mojave River.



Mary Beal of Daggett, California, holding a branch of ephedra or desert tea. This astringent tea was widely used by Indians and early desert settlers.

Near the summit, the bluish *Ephedra nevadensis* joined the more common California form.

We stopped at the foot of the dugway, a little less than three miles from the canyon narrows. Wagon ruts eroded into deep gullies told of the long years since travelers had passed this way. Even with a jeep, it would be necessary to do a lot of digging and filling before the old trail to Bitter Springs could be followed beyond this point.

Using the little light left, Mary, Lucile and I shot pictures up, down and across the cut and summit pass. As we packed our photographic equipment before turning back, the present guardian of the summit came out to investigate us. He was a sand-colored baby horned lizard not over an inch and a half long, but he made up in boldness whatever he may have lacked in stature.

Although he certainly had never seen human beings before, he let Lucile rub his spiny head without protest. But when I tried it, he opened a mouth seemingly almost as wide as he was long and hissed in what obviously

was intended to be a fierce manner. I rubbed him under the chin, and that he enjoyed. But every touch on the top of his head brought a fit of hissing. And he wouldn't leave us. When we put him down away from the car to insure his safety, he promptly plodded back under foot. Just before we left, Viola removed him from the path of the wheels and he was hurrying back when we started.

It was dark when we reached the narrows again, and we were hungry. By harvesting dead willow branches and collecting drift roots of burroweed from the wash we accumulated a wood pile. Then we started a little blaze in the sand-bottomed cove in the rocky headland—a perfect protected campsite probably used many times by previous generations of travelers.

The dried *Chilopsis* burned rapidly, making a lovely crackling fire. When a big bed of red coals had developed, Lucile put a pot of coffee and a one-dish desert dinner on the grate. The dinner was easy to prepare, satisfying, and yet not included in the usual run of campfire dishes. Its principal com-

ponents were pre-cooked rice, canned chicken, onions and peas.

We considered trying some desert tea — Ephedra — which Mary had picked earlier. Some desert people praise the beverage made from this common leafless green desert plant—known also as squaw, Mormon and Brigham tea—which can be prepared by steeping either the green or the dry stems. But Mary, who had tried it both ways, was so noncommittal about its merits that we chose coffee.

Later we tried the Ephedra. I think it tastes like hay with some sort of astringent added. I suppose it should taste more tonic than pleasant, since Indians and pioneers used it for ailments ranging from coughs to kidney and stomach trouble. The dried flowers also are used in tea making. They appear later in the spring, male and female catkins on separate plants. The former are rather showy, with a profusion of yellow stamens. The latter are less-conspicuous nut-like seeds, which were roasted and eaten by the primitives.

A dead willow log on the coals, after

the meal was prepared, brought up a fine blazing fire whose light and warmth reflected from the cliffs. We lazed around it with a second cup of coffee, talking of the rock-field we planned to visit in the morning, of lost mines and of the old trail beside us and those who followed it long ago.

The Old Spanish Trail, the Old Mormon Road, the Old Salt Lake Road — for generations men and women had struggled along that sandy wash now lit uncertainly by our campfire. First, in 1830-48, came picturesque traders between New Mexico and California, both then part of Mexico. Their mule trains carried blankets and woven goods to California and they returned with Chinese silk and California mules for the Santa Fe Trail. Trappers passed here, and Indian, Mexican and American horsethieves—including legendary Pegleg Smith—who had raided richly stocked California valleys.

Explorer John C. Fremont, at this very spot in 1844 with his Creole and Canadian trappers, American adventurers and Delaware Indian hunters, described waterholes dug by the "wolves." "They were nice little wells," he said, "narrow and dug straight down and we got pleasant water out of them." Kit Carson, who was Fremont's guide, came this way again in 1848 with Lieut. Brewerton, with official reports for Washington and what prob-



This little horned toad did not appear to resent the invasion of white visitors.

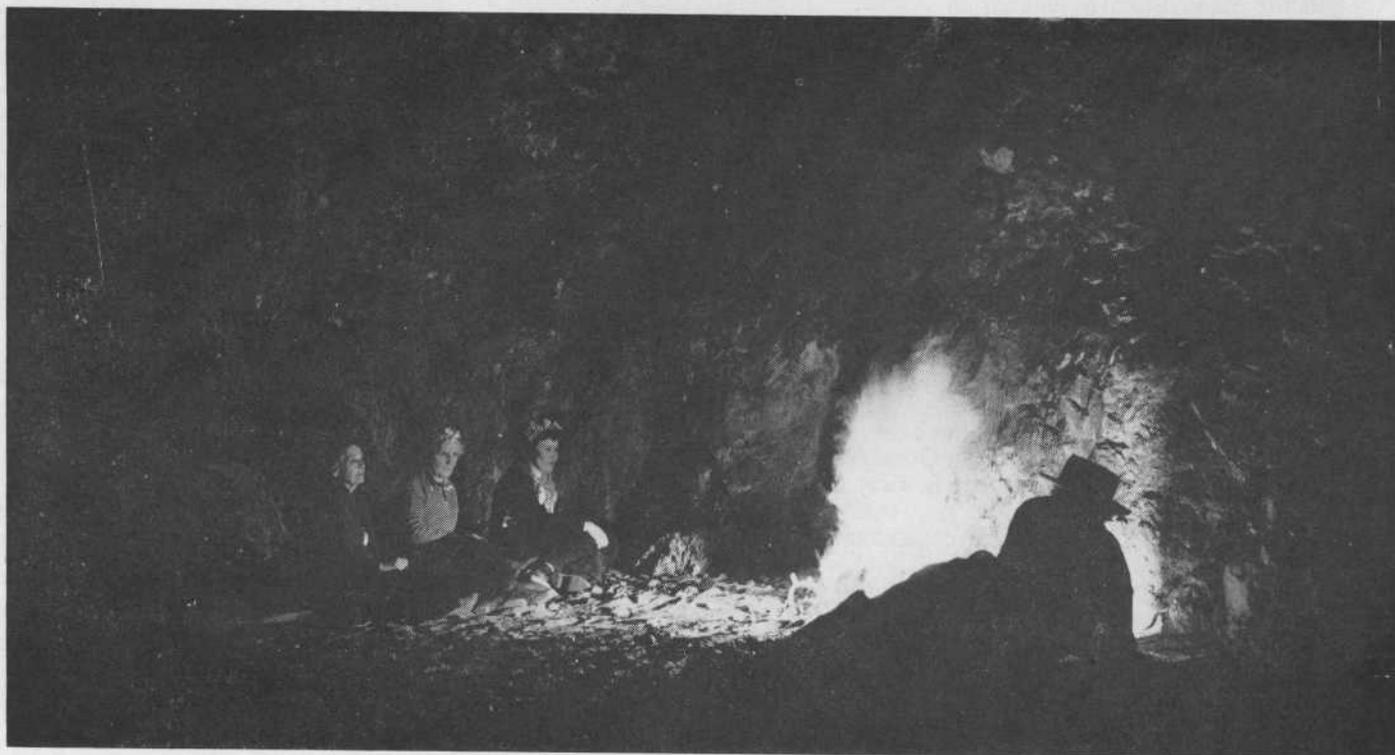
ably was the first official confirmation of the California gold strike.

In 1851, Captain Jefferson Hunt—who first opened the Old Spanish Trail to wagons two years before—guided through the big Mormon party which founded San Bernardino. Then followed the emigrant trains from the east, courageous individualistic Americans who were to build the new West. Down the canyon bonneted women

enticed starving, thirsty oxen with bits of grass held just out of reach. Later over this trail came soldiers, prospectors and miners. Eventually the road was abandoned and became a sandy wash; and the cove where we camped was now so lonely, so unfrequented, we could imagine that we were the first ever to rest in the firelight here.

The weather bureau had predicted

Harold Weight and his companions camped one night in this sheltered spot where freighters and emigrants on the Old Spanish Trail a hundred years ago also built their campfires. Left to right: the author's mother, Mary Beal and Viola Weight. Right, the author.



a Mojave wind storm, and by morning it had arrived, whipping the arms of the creosotes and turning the bushes into earth-bound dervishes. But we were determined to visit the rock field we had skimmed through the previous July when it was too hot to spend much time in the sunlight. With Yermo again our zero-point we took the same highway—91 and 466—east, turning north from it on an inconspicuous dirt road at 25.3 miles.

This is a good desert road, and it is possible to find small specimens of chalcedony and moss on either side of it almost as soon as you leave the highway. There is a fine collecting area up the slopes of a large blackish bajada (left) 27.9 miles from Yermo. Driving over part of it we found fortification agate, chalcedony and chalcedony rose, and moss jasper.

But the field we were eager to investigate was reached 30.5 miles from Yermo. Here, again on the left, is a series of low eroded hills carrying a great variety of waterworn rocks. They, like many others northeast of Yermo, apparently were left by one of the Pleistocene lakes of the Mojave. These deposits have produced a great variety of beautiful gem material, including the finest palm root found in the area.

The wind was really tuning up by then. I opened the car door and had it snatched from my fingers and almost torn off its hinges. Our collecting sacks, flying at the end of their straps and puffed like parachutes, would not quiet down until we ballasted them with rocks. But there was collecting material in plenty for ballast! Chalcedony and jaspers and moss jaspers

LOG TO SPANISH CANYON

- 00.0 Yermo. Follow Highway 91 and 466 east.
- 14.4 Leave pavement on dirt road heading north to Alvord well and mine. Mailbox at turnout marked "Camp Cady Ranch."
- 17.1 Cross power transmission line road. Continue north.
- 19.1 Turn left, northeast, on tracks leading up wash. *This wash is often soft and impassable except to four-wheel drive.* Follow wash, curving north, into Spanish Canyon.
- 22.4 Narrows of canyon, possible location of Mule Spring.

LOG TO ROCK FIELD

- 00.0 Yermo. Follow Highway 91 and 466 east.
- 22.3 Midway station.
- 25.3 Turn left, north, onto inconspicuous dirt road.
- 26.5 Road Y. Keep left.
- 27.9 Good but scattered collecting rocks on bajada, left.
- 30.5 Good collecting rocks on alluvial, rocky hills, left.
- 31.4 Power transmission line road.

TRUE OR FALSE

Here is another set of questions for those who are eager to learn more about the Great

American Desert—its history, geography and lore. The answers to all these questions have appeared in past issues of Desert Magazine. A score of 12 to 14 is fair, 15-16 good, 17-18 excellent, over 18 is exceptional. The answers are on page 19.

- 1—The Colorado desert is located in the state of Colorado. True..... False.....
- 2—The Navajos have the largest Indian reservation in the United States. True..... False.....
- 3—The tarantula is more poisonous than the sidewinder. True..... False.....
- 4—Traveling from Holbrook, Arizona, to Flagstaff, the most direct route would be on Highway 66. True..... False.....
- 5—Yucca is a member of the cactus family. True..... False.....
- 6—The Lost Dutchman mine is generally believed to have been located in the Superstition mountains of Arizona. True..... False.....
- 7—An atlatl was used by ancient Indian women for grinding corn. True..... False.....
- 8—The Spaniards taught the Indians of the Southwest how to mine and make ornaments from turquoise. True..... False.....
- 9—The Wasatch mountains are visible from Salt Lake City. True..... False.....
- 10—Iron ore is obtained from open pit mines at Ruth, Nevada. True..... False.....
- 11—The agave or wild century plant which is native to the Southwest dies after one flowering season. True..... False.....
- 12—The infamous Mountain Meadows Massacre took place in the state of Nevada. True..... False.....
- 13—Whipple Barracks are located at Prescott, Arizona. True..... False.....
- 14—Desert tortoises normally hibernate during the winter months. True..... False.....
- 15—Juan Bautista de Anza was the first white man of record to go through Southern California's San Geronimo Pass. True..... False.....
- 16—The historic Bird Cage Theater is located at Virginia City, Nevada. True..... False.....
- 17—Arizona was the 48th state to be admitted to the Union. True..... False.....
- 18—The famous Palm Canyon near Palm Springs, California, is a National Monument. True..... False.....
- 19—Death Valley Scotty does not live in Scotty's Castle in Death Valley. True..... False.....
- 20—Arches National Monument is located in Utah. True..... False.....

in combinations of pinks, reds, browns, yellows, blacks and greens. Striking mixtures and brecciated effects, and a considerable amount of fossilized rock with beautiful replacement. Much of the charm of these hills lies in the fact that you never know what will turn up next. I managed, even in this short foray, to find one piece of palm root and another of colored grained wood.

But the most confirmed rockhound soon tires of leaning at a 45 degree angle into a sandblasting machine, or of being dumped unceremoniously when he turns his back. Assured that there was plenty of material for a field trip, we turned back when the wind started throwing gravel instead of sand, and fought our way to the buffeted car.

When we reached the highway and headed toward Yermo, the air was clearer but the wind no less intense. The sand it carried was busy cutting little pits into the windshield as we passed the distant Alvords to our right. We looked eagerly for the mouth of Spanish Canyon, but it was hidden in a great wall of yellow dust half as high as the mountains.

We aren't through with Spanish Canyon, though. Ever since that last trip we've been wondering about those rocks Mary found. Maybe Nature, appreciating the tremendous growth of the rockhound tribe, has decided to supply her followers with some ready-cut specimens. Now when we go back we can hunt for two things—the Lost Alvord and the Lost Cut Agate mine. Probably we've got as much chance of finding the one as the other.



This ancient mural on the wall of Dry Fork Canyon near Vernal, Utah, with figures more than life size, was both carved and painted. Its ornate central figure is believed to represent the "Sun-Carrier," and is said to be the finest example of Indian petroglyphy in United States.

Murals Painted by Ancient Tribesmen

A thousand years ago a bare-skinned artist stood on a narrow ledge high up on a canyon wall and with crude stone tools incised the image of one of his gods—and then with colored pigments of stone, ground on a metate, he gave brilliant coloring to the image. This, briefly, is the story that has been reconstructed by archeologists who have studied the famous "Sun-Father" petroglyphs in Dry Fork Canyon north of Vernal, Utah. Here is the story of the glyphs as they are seen today.

By CHARLES KELLY

Photographs by Frank Beckwith

A WRINKLED old man and a small boy were resting against the whitewashed wall of their home in the Indian village of Zuni. It was a bright winter morning and they were enjoying the warm rays of the sun, which was about an hour high. For a long time the boy watched as

the sun slowly rose above the rooftops.

"Grandfather," he said, after a long silence, "what is the sun made of, and what makes it come up in the morning, travel across the sky, and go down again at night?"

"That is a good question," the old

man replied, "and since you are old enough to understand, I will tell you what my grandfather told me when I was about your age.

"The sun," he began, "is a big shield made of pure, shining crystal. It is carried across the sky each day by Yatoka, our Sun-Father. On his journey he collects all prayer-sticks set out for him by those whose hearts are good. When he reaches the great western ocean he hangs his bright shield in a cave and rests. Then he returns underground toward the east to begin a new journey across the sky.

"On his winter journeys he is beset by enemies, who drive him slowly back until he is far away. That is why it is cold in wintertime. But he finally overcomes them and returns to bring us summer."

"What does Sun-Father look like?" the boy asked.

"He is a very handsome being," grandfather replied. "Upon his body are garments of embroidered cotton. Fringed leggings cover his knees and he is girt with many colored girdles. Buckskins of bright leather protect his



This small formalized pictograph of the "Sun-Carrier" was photographed near Island Park on Green River by Jess Lombard.

feet. Bracelets and strings of beads ornament his neck and arms. Turquoise earrings hang from his ears. Beautiful plumes wave over his head. His long, glossy hair is held with cords of many colors, into which great plumes of macaw feathers are stuck. Fearful, wonderful, beautiful he stands."

To nearly all primitive people the sun was a personalized, deified being, the giver of all life. This was an obvious and reasonable conception which became the foundation of many sun cults and a great body of primitive mythology, some of which has been passed down by word of mouth almost unchanged to the present day.

Primitive man, like modern man, tried to discover an explanation for the various manifestations of nature. Most such attempts were so thoroughly mixed with complicated mythology that for a long time modern anthropologists were unable to fathom their significance. Petroglyphs, cut on smooth rock surfaces by prehistoric artists, representing well understood religious ideas of ancient times, were usually dismissed as mere doodling. However, recent study proves that these early artistic efforts had definite meanings if we only knew how to interpret them.

Through centuries of comparative isolation, various tribes developed their own individual mythologies, but certain fundamental concepts remain surprisingly common. The Sun-Father myth is one example.

Early Mayans had a Sun-Father story which was almost identical, except that the sun shield was made of

highly polished obsidian, a precious material with which they were familiar. Navajos, probably influenced by white contacts, speak of the sun as a shield of bright metal, and call their Sun-Father "Tsohanoai." Hopis believe the sun is made of polished turquoise and still greet its rising with song and prayer. The winter drama of Sun-Going-Away is enacted among several southwestern groups, who believe that without this important ceremonial the sun would be unable to return.

For a number of years Frank Beckwith and I traveled the deserts of Utah and surrounding states photographing every petroglyph we could find. Between trips we studied all recorded myths and legends. As time went on and our collection increased we began to recognize recurring designs on the rocks which appeared to represent definite mythological conceptions.

Eventually we learned, through Leo Thorne, of some unusual petroglyphs in Dry Fork Canyon north of Vernal. When we visited the place we found the finest expression of primitive art anywhere in the West, and one large group—really a mural—which is believed to be the masterpiece of Indian art in the United States.

This consisted of six figures (five of which are shown in the accompanying photograph), more than life size, carved on the face of a high cliff where it was visible for a long distance. Examining these through glasses we found that the figures not only had been carved with unusual care and thought, but had also been painted in

several colors, some of the paint still adhering.

The center of primitive culture for this area in Basketmaker times seems to have been in Grand Wash, a tributary of San Juan River. During the period known as Basketmaker III, a large group left Grand Wash and migrated east and north. Their movements can be traced through the distinctive petroglyphs they left on the rocks in their travels. Crossing the Colorado River at what is now called Hite, they went west along Fremont River to Capitol Reef National Monument where they remained for a considerable time, living principally on corn and the flesh of mountain sheep. Part of this colony then moved north into the Uintah Basin, where buffalo were plentiful. Here, because of better living conditions, they developed their culture and art beyond anything previously known. While their petroglyphs are found widely scattered in the Uintah Basin area, and they occupied two large caves on Yampa River, their headquarters were always in Dry Fork. While archeologists do not set a definite date for this period, my personal guess is that the older designs are at least 1000 years old, and the Sun-Father group possibly a century or two younger. The reason for their disappearance is still a mystery unless we attribute it to the great drouth of the 13th century.

If we can accept the above interpretation of this large group in Dry Fork, it means that the Sun-Father myth originated with the early Basketmakers, or their ancestors, and has been handed down, almost unchanged, to modern pueblo Indians.

At first Beckwith and I believed this Sun-Father petroglyph to be the only one of its kind. But further search turned up several others, smaller and less conspicuous, in the same general area. Their age cannot be determined, of course, but a logical conclusion is that the smaller designs were made first and that the large group or mural was a final blossoming of primitive art.

From all appearances it would seem that one artist was responsible for this group of six figures, since the technique is similar. The whole thing is beautifully executed to fit the available space, and the designs are large enough to be easily visible from below. The work had to be done from a ledge about 14 inches wide, 100 feet up on the cliff's face.

Whoever he may have been, the artist possessed ability and vision, and deserves to be known as the Michelangelo of the prehistoric Southwest, a great master of Indian art, whose work has never been excelled.



*George Benko
of Homewood Canyon.*

Prospector of Homewood Canyon

By PAT and GEORGE
STURTEVANT

Photos by George Sturtevant

GEORGE BENKO, desert prospector, never built a better mouse trap but the world is beating a path to his door anyway. More than 5000 people have made the trip in the last four years solely for the pleasure of visiting with the man whose creed is that "the only way to have friends is to be one."

These visitors have made the journey to George's cabin despite the fact that until recently it meant a jolting two-mile ride over an unimproved road. The road, which branches west

from the new Jayhawker Trail 10 miles north of Trona in Searles Valley, California, has now been blacktopped by the county as far as the Ruth mine. Only a half mile of dirt road remains between that point and Benko's place.

George's popularity doesn't stem entirely from the fact that he is one of the oldest authentic prospectors in the Mojave desert, having first sunk a pick in the Rand Mining District in 1921. It is largely the result of an Old World charm and wit that instantly warms those who meet him personally. Once met, never forgotten, seems to epitomize his impact upon people.

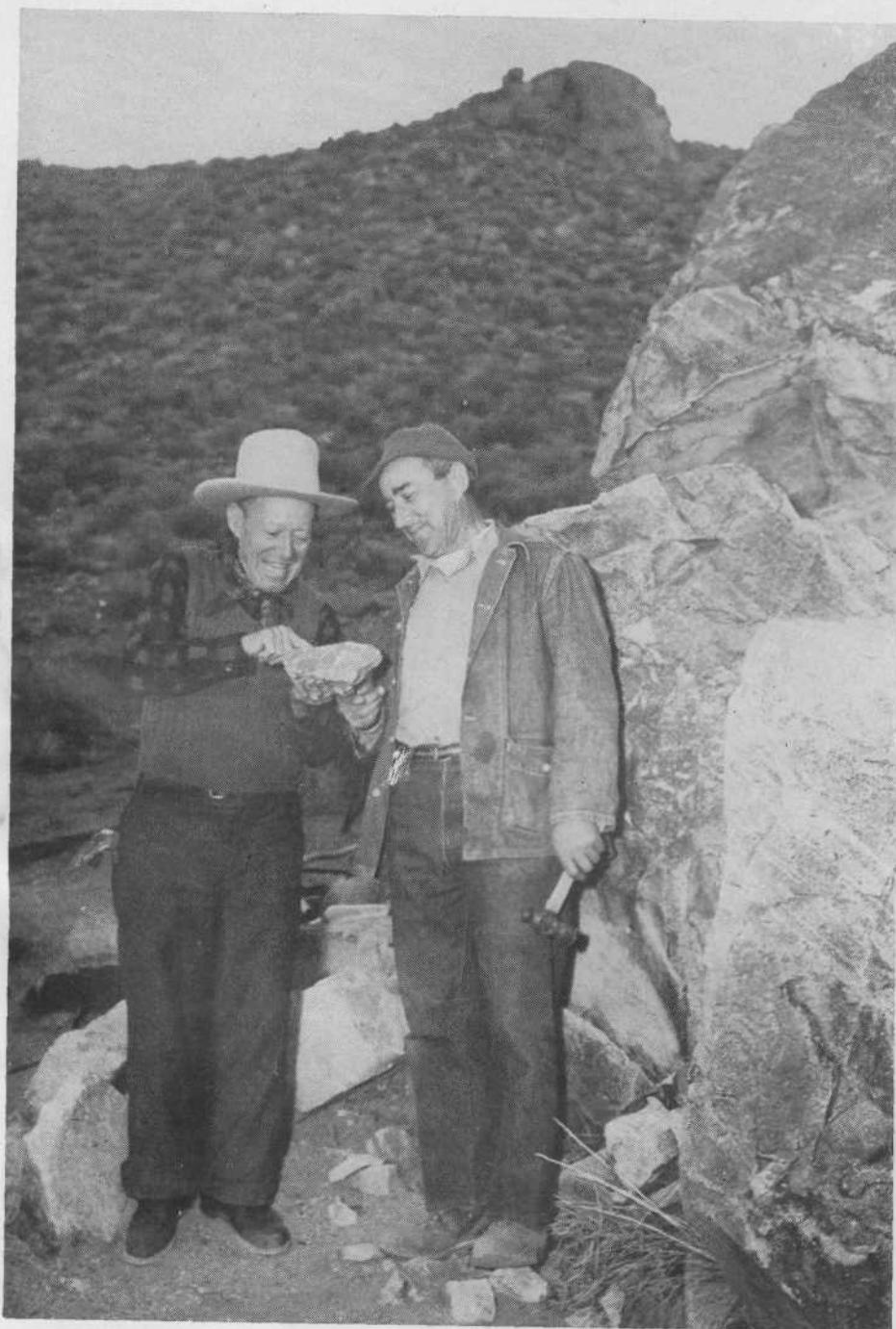
A slight man with a discernible stoop, George's weathered countenance

In a little desert canyon which runs back into the hills which border the northern Mojave desert in California lives a man old in years but young in philosophy and enthusiasm—a man who has been a miner and prospector but today values friendship, peace and the beauty of unspoiled desert above gold and riches. How and why he lives as he does where he does makes an appealing, human story.

and squinting blue eyes betray years spent out of doors. "I love the desert," he says.

Born in Austria 71 years ago, George got his first taste of mining in German coal pits. He came to this country in 1906 and immediately took a job in the Pennsylvania coal fields. But the open road soon beckoned him, and after trips to most of the 48 states he settled down for a 10-year job in Arizona's Copper Queen mine in Bisbee.

Having learned the miner's trade the hard way, George was ready by 1920



George gladly gives of his time and experience to advise prospectors. Here he points out an interesting specimen to John Pillott, a Searles Valley neighbor.

to try his hand and skill at locating. His first big strike came in 1925 when, with partner Roy Miller, he located the Big Dyke mine in the Rand Mining District.

"More than \$300,000 worth of ore came out of that property," George recalls. "But Miller and I didn't get much of it. We leased to Anglo-American in 1933 when the doctor told me to get out of mining, and they took most of the high grade from our lease."

Unlike many prospectors who rue the day they leased a rich claim too

quickly, George speaks of this incident with a tolerant smile that explains better than words his philosophy that money is not the important thing in life.

Coincidence leavened with skill and experience led George to Homewood Canyon. In 1939 he and a friend from Randsburg visited the Ruth Gold mine, perched on a hillside half a mile from George's present homestead. While waiting for the results of an ore assay, George toyed with a pair of bi-

noculars—peering at first one hilltop and canyon, and then another.

"That's when I saw this piece of land," he relates. "It looked good to me for some reason—I wanted to explore it. As I walked around the site, a fellow popped up. 'Are you interested in this claim?' he asked me.

"When I told him I was, he gave it to me—said he had too many others." George still wonders at his own good luck.

Actually, the new Homewood Canyon host found limited quantities of gold at Homewood—but he's far more excited about discovery of water on the land and his subsequent gardening projects.

Friends first laughed when George told them about a vivid dream he had concerning the discovery of clear, good water nearby his diggings. He persevered in the digging and blasting of a hill, and after going 60 feet and then through a layer of clay, the water gushed out, more than enough for all his personal and gardening purposes.

Ingenuity and delight in pioneer living are in evidence throughout Benko's quarters and grounds. A cave-like desert cooler, made by himself, keeps pure and cold all of the necessary perishable goods. Through an ancient nutritious method taught him by Indian women he met on a ranch near Sulpha Springs Valley, five miles out of Bisbee, Arizona, George sun dries parsley, and other home-grown vegetables and fruits.

"Digging in the dirt and making things grow makes me feel good," he explains simply. In past years he has coaxed out of the desert floor dahlias, daisies, morning glories, carnations and roses, as well as a wide variety of fruit trees.

A love of birds and all wildlife is reflected by cut-out illustrations that paper the walls of his desert home. He has placed a number of bird shelters about his property. A small grave erected nearby his cabin proclaims: "Cyclone's toll, April, 1949. Four baby goldfinches resting here."

George takes great pride in his wardrobe. For town wear, he goes in for smartly tailored whipcord trousers, fine western shirts, highly polished boots and a pearl gray Stetson. "I learned in the Old Country always to have two or three trunks full of clothes. There, to get the prettiest and nicest girl, a young man must call on her in a different suit every day. Nowadays —" George shrugs expressively, "anything goes."

He takes pride in showing off his diggings and describing visits of people



George Benko walking to his diggings. Ruth mine in the background.

from far off places. Within the last two months, cars from New York, Kansas, Washington, Montana and Pennsylvania have toiled up the serpentine road that leads from the Ruth mine to George's "Casa Blanca." Hundreds of others have registered in the notebook he keeps for that purpose. He recently welcomed visitors from Denmark and England.

"It's remarkable how many people he remembers after just a casual meeting," a friend commented. George is chagrined when he cannot immediately recall your name after a lapse of several months. "It's that grasshopper brain of mine," he'll say apologetically.

Although it is old age George blames for his lagging memory, he takes great relish in proving himself a better rifleman than far younger men. He can still light a match by flicking its head

off at a distance of 25 feet! For more relaxing pleasure he reads desert and mining literature — *Desert Magazine* has been a gift subscription for several years.

Last year, when this part of the Mojave was heavily blanketed with snow and completely isolated for a few days, a number of his admirers began to worry about the state of his health and the extent of his provisions. A caravan of cars plowed through the canyon's deep snowbanks, and at the final lap a human train of packers trudged along with provisions on their backs to George's place.

"They brought food enough for six months," George recalls.

No matter how much he is given of food and personal gifts, he always shares it with guests, although his only income now is from social security. With a courtly bow he has bestowed

countless silken western scarfs, hand-woven baskets and heaping bags of fruit and flowers from his desert garden.

George has a talent for friendship that has made him one of the desert's most loved men. He seeks no publicity. His reputation is not built solely on showmanship, nor has he attempted to trade on the skill and experience he gained as a prospector. He continues to live happily in the present, rather than wistfully in the past.

• • •

More Game Birds Planted . . .

WINNEMUCCA—More than 150 adult Mongolian pheasants, both cocks and hens, were recently released on the Humbolt River by the Nevada State Fish and Game Commission. There were already a few pheasants along the river believed to be from plantings further upstream.



Tuzigoot pueblo, on a ridge 120 feet above the Verde River, has been partly restored by the U.S. Park Service

Tribesmen of Tuzigoot

By HELEN ASHLEY ANDERSON
Photos courtesy U. S. Park Service

IT WAS the year 1300 A.D. and the last rays of a blazing sun beat down on the busy pueblo of Tuzigoot perched atop a butte overlooking the Verde Valley in what is now central Arizona.

A brown man of average height and slender build paused for a moment to rest as his eyes sought the outlines of his hilltop home. His black eyes were bright, his face impassive as he continued on the trail up the steep slope where he singled out a room, shifted his side of deer, and descended by ladder into the gloomy interior of his apartment. A small brown woman looked up from where she was poking the fire in a rocked hollow in the center of the floor, and then took her place on a twilled weave rush matting beside her metate. She reached into a

Considering the crude tools with which they had to work, the Indians who lived in a two-storied Tuzigoot pueblo overlooking the Verde River in Arizona were craftsmen of extraordinary skill. Why they abandoned their fortress-like home remains a mystery, but the artifacts uncovered by archeologists tell a revealing story about the life of these ancient people.

large basket for some corn, and began to grind it with a mano that had been slowly shaped through long years of labor.

The man stood for a moment looking down on his little son who was playing with one of the clay toys he had made him, then his eyes sought the bundle on the yucca mat in the

corner, and both his and the woman's faces clouded. They were worried. The finger of death had touched many of the pueblo's babies, and the tiny girl there in the corner was wasting away with the sickness that brought terror to their primitive hearts.

As the dusk came down to fade the sunset painted hills, the woman rose and poked the embers of her fire and then placed a steaming bowl of beans in front of each of them. The dying light cast shadows over the room as they ate in silence, and except for the sound of the baby's breathing or the occasional unconscious laughter of the boy, there was no noise.

It was peaceful, and at the moment the aroma of woodsmoke filled the air. It was hard to ventilate the crowded pueblo, but it was a shelter from the elements, a burial place for their dead, and a protection from the hostile tribes that roamed the desert land.

Brown Man was the first to finish his meal, and when he rose from his squatting position, Brown Woman put her house in order. First she cleaned and stacked the serviceable brown and red ware. Then she cared for the more prized pottery that lent color to the dingy room. Obtained by trade with other tribesmen this beautiful pottery was worthy of care.

While Brown Woman finished her tasks her husband looked over his stock in another corner. A few concretions, a couple of fossils, a stalactite and a stalagmite, quite a pile of pipestone, some azurite, malachite and hematite, a few nodules of obsidian, jasper, chert, flint, chalcedony, moss agate, turquoise and a couple of quartz crystals. He fingered them with pleasure.

Brown Man was a rockhound first because of necessity, second for the personal adornment of himself and his family, and third for pleasure. He loved the feel of the stones as he ground and drilled them into shape, and he felt a certain pride in achievement. He knew his arrows and spear points were works of art as were the things he fashioned into jewelry. The spear points were a special pride for he made them of obsidian. The arrows he made from chalcedony, moss agate, black flint, grey chert, and yellow and brown jasper. The stalactite and stalagmite, concretions, fossils and odd stones were just a rockhound's vanity, but the turquoise

was precious because it held a sacred meaning. The quartz crystals were for ceremonial purposes, and the pipestone (argillite) he made into pendants and bead blanks.

Brown Man's eyes glowed as he picked up the mica schist palette. It was beautiful as well as useful for it was on this palette he mixed his paints of azurite, malachite and hematite. He made a note in his mind that his stock was getting low, and that he would soon have to dig for more, but a strangled cry from the baby put a stop to his reflections. He stared helplessly as Brown Woman rushed to her child, took her into her arms and rocked her back and forth, her eyes wide with fear. Two hours later the baby died, and the next morning Brown Man scooped a hollow in the floor while Brown Woman wrapped the tiny body in a matting made of bear grass. When everything was in readiness, they placed the body flat on the back with the face up, and Brown Man slanted a slab of limestone over the grave and filled it in with the dirt of the floor. But for the silent grief, the family went on as before.

Some weeks after the burial a general restlessness pervaded the pueblo. The threat of sickness, and attacking hostile Indians, alarmed the once happy people. Brown Man who had been one of the late comers, driven out of his own homeland by drouth or some other reason, and his fellow

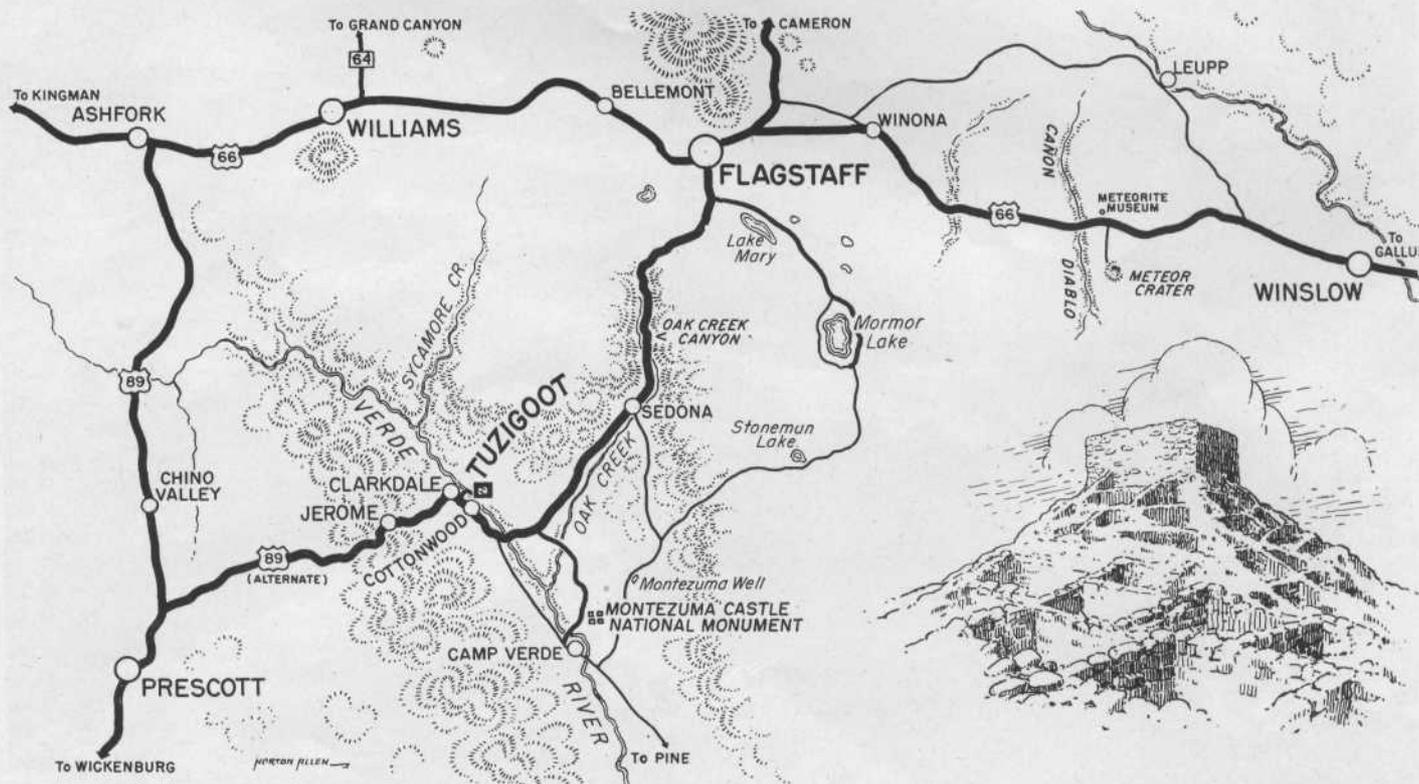
builders began to think seriously of abandoning the castle that they had once considered with so much satisfaction.

Brown Man's eyes grew tender even now as he thought of the old pueblo as he had first seen it. There had been but 50 people living there then but it had seemed a place of great beauty perched above the Verde after the drouth-stricken plateau of his boyhood to the north. He had helped his father carry the stones up the slope to build. Through the years it had grown to 110 rooms, and housed 450 people. He loved the pueblo that had stood since some time prior to 1000 A.D. and he still gloried in the beauty of it as it sprawled down the hill in a kind of wild abandon. He admired the white and pinkish stones of the rooms as they clung to one another in distorted folds. He liked their shimmer in the sun, and their shadowed beauty by moonlight.

It was a good site, standing on a ridge 120 feet above the Verde River where there was ample water for growing corn and squash.

Brown Man may not have regarded his pueblo as unusual, but we, the people of today, wonder why these Indians built on a hilltop during a period when other tribesmen were occupying cliff-dwellings.

The story of Tuzigoot was told by Everett Bright, Park Service custodian, as my husband, Clinton, and I accompanied him over and through



the ancient ruins. We climbed the limestone steps that approached what is left of the great pile of masonry erected by many generations of Indians, until we gained the top room. So revealing have been the artifacts uncovered here that it was not hard for me to visualize the scene perhaps a thousand years ago when Brown Man and Brown Woman were occupying the little room where a glass cover now protects the tiny skeleton of their infant in the place where it was found by the archeologists.

Tuzigoot means "Crooked Water" and is the Tonto Apache name for Peck's Lake, a body of water formed by the ridge where Tuzigoot lies blocking Verde River.

Tuzigoot grew without general plan. Archeologists date the first building around 1000 A.D. There was an increase in building about 1200 A.D. and the peak was reached some time in the latter part of the 13th century.

Great industry and excellency of workmanship in jewelry, etc., prove that the people of Tuzigoot were a happy and contented race, yet at the very peak of building, something went wrong and the pueblo was abandoned.

Archeologists cannot be sure just what happened, but believe that some kind of disaster overtook the people. There was increasing sickness among them before the final desertion probably due to bad ventilation, or disease. And it may have been that they could no longer withstand attacking hostile tribes.

Louis R. Caywood and Edward H. Spicer (field work supervisors, and authors of *Tuzigoot, the Repair and Excavation of a Ruin*) wrote: "At the very height of their expansion with apparently no long-drawn-out decadence, or no violent and sudden catastrophe, they were abandoned."

As we wound our way through the mass of irregular rooms of the ruin that is 500 feet long and 100 feet across at the widest section, we learned that a patio separates the main rooms from an outlying part of the pueblo. Most of these rooms are large, 18 by 12 feet average. The masonry was massive but structurally weak because some of the rough and unbalanced stones had slipped. Red clay had once plastered the inside walls, and it had been spread on by fingers.

The old ones had sealed up the side entrances but the walls were low enough for us to scramble over without too much effort.

In one of the rooms the excavators had sealed a niche containing a large olla. This is a thoughtful addition to an already interesting ruin, and helps the visitor gain a better understanding of the ancient people who lived there so long ago.

We picked our way from room to room, now open to the elements. Finally we reached the topmost room where we gazed with doubt at the ladder placed against a small opening, but once having touched the rungs, we descended with confidence into the gloomy interior, and as our eyes grew accustomed to the shadows, Brown Man and his family seemed very near. Not ghostly, but strong brown fingers seemed to be holding back the curtain of time, and a feeling of awe linked the present with the past, and so with a reverence that we did not entirely understand, we left our footprints upon the dust of the floor and climbed out on the rim of the wall where we stood looking over the fields below.

Over 100 small rooms clustered in one great structure have been uncovered by excavators.





Photograph taken in Tuzigoot museum, showing the size of the storage ollas uncovered in the ruins.

White clouds feathered and drifted in the blue sky, and except for the rustle of the wind, it was very still, still enough for our thoughts to drift farther into time. We feasted our eyes on the far-flung landscape, and let them linger on the distant hills.

Back at the foot of the slope we paused for a last look upward. Profiled against the hot blue sky, the crumbling ruin devoid of life seemed a thing of lasting beauty and I sensed the same sort of pride that Brown Man must have felt when he saw it in all its glory.

It was cool inside the museum after the glare outside, and we marveled as we touched the treasures brought from the protective earth.

The artifacts told a story of farming, hunting, manufacture, recreation—and vanity.

The most interesting ware in the rather large collection of pottery is the huge olla. There are 14 of these storage jars, and a wonderful job of restoring them has been done.

Tuzigoot yielded so many artifacts it is impossible to list them here, but I want to mention the fine grade of jewelry these old ones fashioned. The turquoise mosaics are beautiful and unravished by time. These mosaics and the shell ornaments establish the fact that the people of Tuzigoot traded with other Indians.

Basketry and textiles were in

abundant use, but only a few fragments were found.

The people of Tuzigoot cultivated their greater supply of food but there is evidence that deer and antelope were not lacking on the family fare. Unlike the cliff-dwellers, the hilltop people did not domesticate turkeys, for no turkey bone has come to light.

Most of Arizona is rich in Indian lore and there are many ruins still unexplored, but for something a bit different, and not too difficult to reach, Tuzigoot has much to offer.

The ruin is five miles off the main highway northeast of Clarkdale, Arizona. It is a land of white limestone, red sandstone and dark shades of lava blending with the verdant green of growing things.

When we travel this highway again we'll make it a point to revisit this ancient homesite of a primitive people who accomplished so much with tools so crude. And when we do follow that trail again we hope that Everett Bright will be there to greet us.

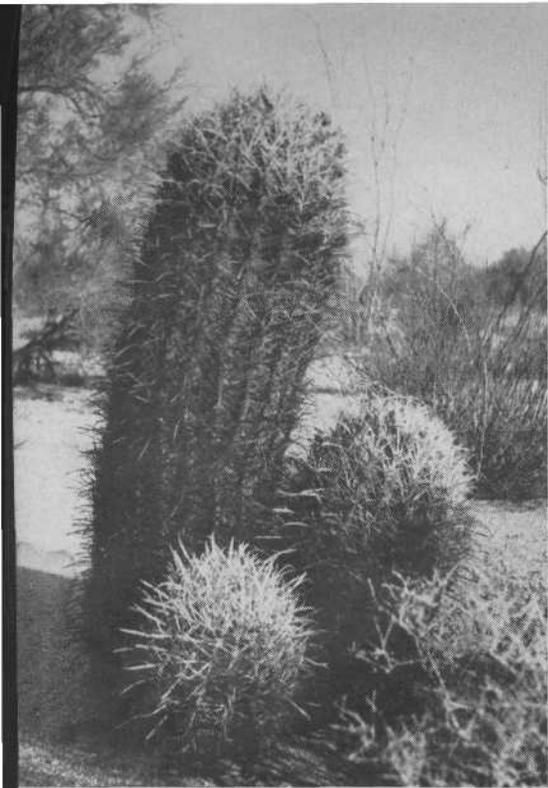
Everett, though new to the work, was a good guide, and he took a personal interest in our visit. We enjoyed his courtesy almost as much as we did the ruin. He seemed to fit the desert, and to enjoy the peaceful surroundings. The peace was well deserved for he had been a former major in the army, and a veteran of the South Pacific area where he had been wounded 25 years to the very day

after he had been wounded in World War I.

TRUE OR FALSE ANSWERS

Questions are on page 10.

- 1—False. The Colorado desert is in Southern California.
- 2—True.
- 3—False. The tarantula bite is not serious.
- 4—True.
- 5—False. Yucca belongs to the lily family.
- 6—True.
- 7—False. An atlatl was a weapon for hurling darts or spears.
- 8—False. The Indians were mining turquoise and making ornaments of it before the Spaniards came to America.
- 9—True.
- 10—False. The open pit mines at Ruth produce copper.
- 11—True.
- 12—False. The Mountain Meadows Massacre took place in Utah.
- 13—True.
- 14—True.
- 15—False. De Anza's route was up Coyote Canyon, the first important pass south of San Geronio.
- 16—False. The Bird Cage Theater is at Tombstone, Arizona.
- 17—True.
- 18—False. Most of Palm Canyon is in the reservation of the Cahuilla Indians.
- 19—True. Death Valley Scotty resides in a small cabin not far from Scotty's Castle.
- 20—True.



This is the cactus selected for the author's experiment. It is *Echinocactus acanthodes*, the most common species in Upper and Lower California. The cactus was about 3½ feet high with two younger cacti growing from the same root system.



Bill Sherrill scalped the cactus with a machete, the best tool for this job. The spines are long and tough and while the top can be removed with a pocket knife or sharp stones it is a laborious task, and often painful.



With the top removed, Arles Adams used the handle of his prospector's pick to break down the cells of the fiber. After a few minutes of pounding (like mashing potatoes) a little pool of milky-water appeared in the cavity.

Bisnaga Quenched Our Thirst

The feud goes on! Is bisnaga or barrel cactus a life-saver for thirst-crazed victims of desert heat? Or is this merely one of the many myths of the desert country, with no basis of truth? You'll find both scientists and desert rats on both sides of this long-standing controversy. Here is the story of an experience with bisnaga—not the final word, but some facts that will clear up many of the disputed points.

By RANDALL HENDERSON

FOR years the scientists and desert rats have been feuding over the value of barrel or bisnaga cactus as a thirst-quencher for desert travelers in distress.

The most recent outburst in this long-standing controversy took place last winter when Phoenix newspapers quoted W. Taylor Marshall of the Desert Botanical Gardens as stating that the legend attributing life-saving value to the juice of the bisnaga is pure myth—that the juice actually is "acrid to the taste and thirst-producing."

When the Desert Magazine, along with other publications, quoted Marshall's views, there was a prompt response from Ladislaus Cutak, in charge of succulents at the Missouri Botanical Garden in St. Louis.

Cutak is a defender of the bisnaga. He has published two papers presenting his conclusion "that barrel cactus juice can be drunk to allay thirst and save a life."

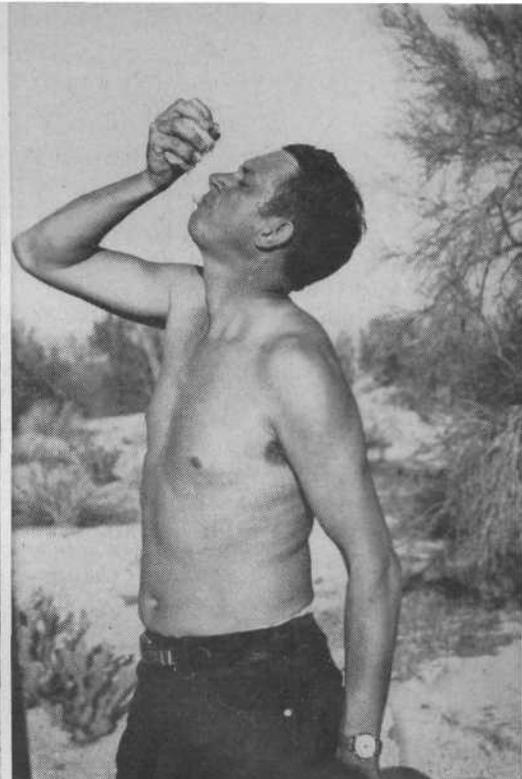
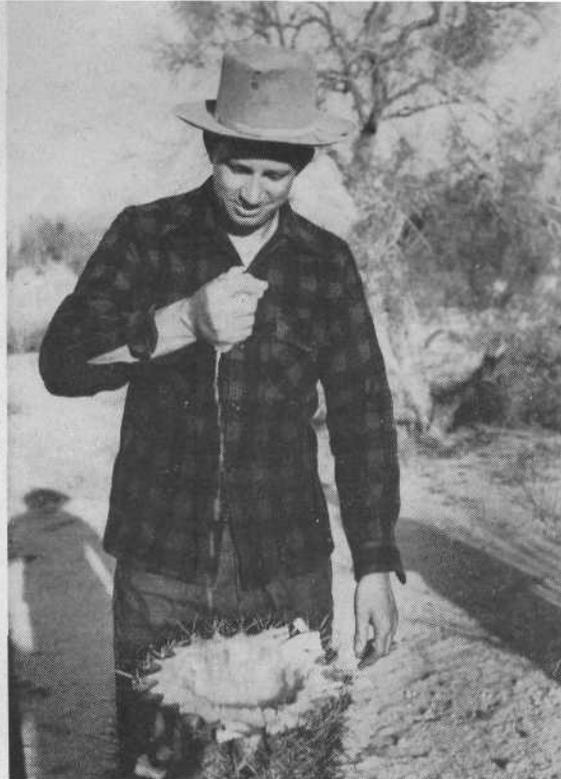
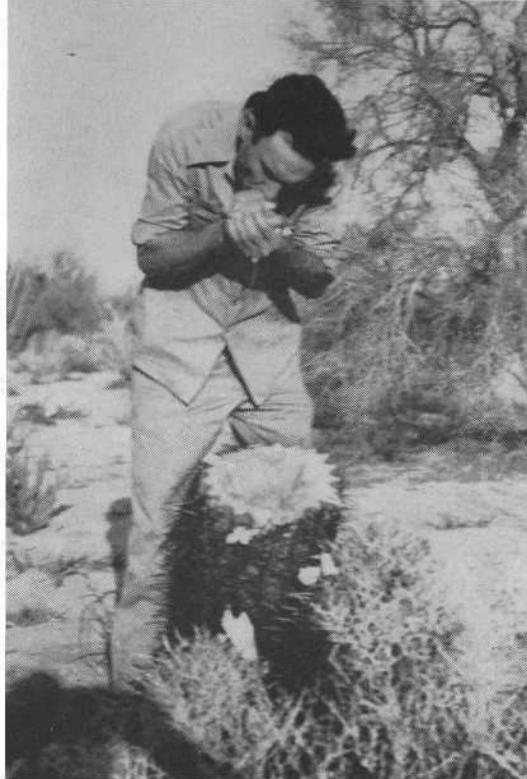
It is somewhat bewildering to the layman when two eminent botanists offer conclusions as opposite as are the views of the scientist from Phoenix and the scientist from St. Louis.

So, I decided to settle the question for myself—and to present what information I could to others who may be interested. I am not a botanist, and I have no desire to engage in a controversy with experts. I merely am relating a bit of my own experience.

The opportunity to sample the juice of the bisnaga came last winter when I accompanied Arles Adams, Bill Sherrill and Walter Gatlin on a two-jeep excursion to La Mora Canyon in Baja California in quest of an oasis of native palm trees. We found the palms, but that is another story, which will be published in a later issue of Desert Magazine.

The bajada and foothills of the Sierra Juarez range in Baja California are covered with thousands of bisnaga—the species *Echinocactus acanthodes*. There are no laws protecting cactus in Baja California, and since this was a remote area where billions of desert shrubs mature and die without ever being seen by a human being, we felt no hesitancy in selecting one of the bisnagas here for our experiment.

We selected a 3½-foot barrel cactus with two young cacti growing from the same root system. The smaller plants were not disturbed. The cactus had blossomed early in this sheltered spot, and dry petals were still clinging to the top of the plant.



After a little pounding, the sponge-like pulp was saturated with water. With a tin cup it would have been possible to have dipped up the juice, a little at a time. Without a cup, Arles sucked the liquid from a handful of pulp.

The pulp was like a sponge full of water. Slicing off successive layers of the cactus showed that the water content continued almost to the base of the "barrel", the fiber becoming more woody as the cactus was cut closer to the ground.

Lacking a cup there are other ways to drink the juice. It has a rather bitter taste but quenches thirst and the bad taste soon disappears. It was estimated this cactus contained no less than a quart of liquid obtainable by this crude method of extraction.

Fortunately for our purposes, Arles had a machete in his camp kit. Bill took a vicious swing at the crown of the cactus—and the blade bounced off the thick spines as if they were made of indestructible rubber. After two more attempts to scalp the cactus by the strong-arm method we went into a huddle and decided on other tactics. We finally solved the problem by slicing the spines from one side of the barrel and then cutting through from that side.

The pith inside the cactus is similar to that of a watermelon rind. It is a little whiter than a ripe cucumber. There are of course no seeds within the barrel.

With the handle of his rockhound's pick Arles Adams pounded the pulp to a soggy mass, and as the cells were broken down a little puddle of milky-white water appeared in the bottom of the cavity. If there had been a dipper available we might have gotten a little of the juice in the cup. But a dipper is not necessary, for the soggy mass after it had been pounded a few minutes was as full of water as a sponge. Arles got his drink by sucking it from a handful of the pulp. Bill satisfied his thirst by tipping back his head and squeezing the pulp until a trickle ran into his mouth. Walter Gatlin and I tried both methods, and we also chewed some of the pulp before it had been crushed.

The flavor was bitter. It reminded me of the taste when I take an aspirin tablet without a drink of water to wash it down. But in 30 minutes the unpleasant taste had disappeared. We all drank heartily of the juice and none of us felt any ill effects from it. Nor did it produce undue thirst afterward.

We continued to cut cross-sections from the trunk, and found the water content continued toward the base although the pulp became somewhat more woody as we neared the ground.

We estimated that we could have obtained at least a

quart of milky juice from this bisnaga by the simple method of pounding the pulp and squeezing out the water. Run through a hand press it probably would have yielded more.

Without a machete or hatchet it is a laborious and sometimes painful task to reach the pulp. Once years ago I tried it with a Scout knife. It took 40 minutes to scalp the bisnaga with the knife, and I got many skin punctures in the process.

I have never tried getting into the barrel by hammering it with rocks, as is recommended for thirst-crazed desert explorers who have no other tools, but I am sure it could be done. But it would take time and considerable effort.

Legends of the notorious Camino del Diablo—the trail across southern Arizona followed by Mexican gold-seekers of '49—include reports of thirst-crazed travelers who arrived at the famous Tinajas Altas watering place and, finding the lower tank dry, died of thirst because they lacked the strength to scale the wall to the tanks of good water higher up.

I think bisnaga offers to the thirst-crazed man or woman about the same hope as Tinajas Altas where the lower tank is nearly always dry. I am sure the juice of the barrel cactus would give some relief in an emergency—but woe be to the victim of desert thirst who has become too exhausted to break through that tough vicious armour of spines to reach the refreshing liquid within.

Some of the species of prickly pear cactus also have palatable juice which will allay thirst, but of course not in such quantities as is yielded by the barrel cactus.

The Saguaro cactus of Arizona, until it reaches a height of four or five feet, bears a slight resemblance to the bisnaga—and is sometimes mistaken for barrel cactus by uninformed travelers. The juice of the Saguaro, I am told, is sticky and bitter, and quite unpalatable as a beverage.

MINES AND MINING . . .

Silver Reef, Utah . . .

Utah's ghost town of Silver Reef (*Desert*, March, 1950) may again come to life as Alex Colbath, owner of most of the property that once was the fabulous silver production camp, has always maintained it would. For now uranium ore is being taken from the area. The first 20 tons of ore were shipped April 1 to Monticello for processing. Most notable of the finds is the claim of Frank M. Willis, former member of the AEC and with the U. S. Bureau of Mines. Last fall Willis obtained a lease from Colbath, began prospecting for carnotite, finally located several rich pockets which he has been working. It is high grade carnotite. Willis is confident other deposits exist in the one-time silver mining area.—*Washington County News*.

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Prescott, Arizona . . .

Discovery of rich uranium ore in the extensive workings of an old mine near Hillsdale has been reported by the United States Geological Survey. Three new high grade uranium minerals were discovered, but no early large-scale production is promised. The new minerals were described as containing 30 to 40 percent uranium. The three rich uranium showings were found in small quantities, but it is possible that larger deposits may be found in other mineral mines formed under similar geologic conditions as those that formed the Hillside mine area, the Survey stated. This is the first reported discovery of such high-grade uranium ore in this country.—*The Mining Record*.

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Bisbee, Arizona . . .

Copper mining may be resumed at Bisbee this year, it was revealed in New York by Louis S. Cates, chairman of the board of the Phelps Dodge Corporation. At the same time he said that because of exhaustion of ore reserves it is probable that mining will be discontinued in 1951 at the United Verde branch at Jerome and Clarkdale, Arizona. Copper mining at Bisbee, suspended in May of last year, will be resumed "if economic conditions warrant."—*Tucson Daily Citizen*.

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Mina, Nevada . . .

Construction of a mill and installation of a pump is scheduled immediately by K. Dunham at his tungsten property 24 miles from Mina, he has reported.—*The Mining Record*.

Baker, California . . .

Discovery of what appears to be a large deposit of fluorspar (calcium fluoride) was made recently by Jerry Korfist of Baker while prospecting silver leads in the vicinity of Clark Mountain, 33 miles northeast of Baker in San Bernardino County. It is believed the deposit may be of industrial importance, according to A. O. Weidman, Los Angeles, co-owner. Surface development has been underway, work done indicates the deposit is quite wide and more or less continuous for 1000 feet. Field engineers of the USGS and State of California division of mines recently made a thorough geological examination and took samples. The fluorspar find is near the recent Clark Mountain discovery of rare earth and uranium mineral bastnasite made by two prospectors, and which is now being developed.

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Vernal, Utah . . .

Approximately 100 geologists from the Rocky Mountain states and the mid-continent area are scheduled to make a field trip in June through the Uintah Basin—Utah's major oil producing area. They will be members of the Intermountain Association of Petroleum Geologists. Their purpose is to compile a "Guidebook to the Geology of Utah."—*Vernal Express*.

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Kingman, Arizona . . .

A new strike of high-grade silver ore on one of the upper levels of the old Sixty-three mine, located about 15 miles from Kingman in the Stockton hills, has been reported by its new owners. They are Peter Bartmus Jr., Richard Brock and Stanley and Earl Duke. The mine was one of Mohave County's first discoveries, first strike was made there in 1863. It was from the first a heavy producer of rich silver ore. Management difficulties and subsequent decline in the market value of silver led to discontinuance of work. Assay reports of samples from the latest strike reveal the silver runs \$1115.82 per ton—*Mohave County Miner*.

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Reno, Nevada . . .

The Western Mining Council will hold a tri-state conference on mining problems in Reno, June 16, according to Ralph Morgali, director of the Nevada chapter. Purpose will be to stimulate interest in mining and help launch a "concentrated effort to help the mining industry regain its feet."—*United Press*.

Beatty, Nevada . . .

A potentially rich mine which has lain dormant because of its inaccessibility in nearby Death Valley is being developed at last through the ingenuity of Mike Harris, Beatty, and his son James. It is the Keane Extension, located at an elevation of 2600 feet in barren rocky terrain, trucks have never been able to get within 4000 feet of the property. Through the years sporadic attempts have been made to remove gold-silver ore that would reward the operator handsomely—if it could be shipped at reasonable cost. But ore could be brought out only on pack mules, cost of the short trek to nearest roadway averaged \$12.50 per ton. This, plus other expenses, was prohibitive. Last year Harris and his son took a five-year lease on the property from Mrs. Howard Miller. By dint of hazardous back-breaking labor and inventive genius, they have strung a 4000-foot overhead cable from the mine to the nearest road. An engine for the hoist was taken up the mountain on mules. Tests have proved that 1000 pounds of ore can be unloaded into a roadside bin in 20 minutes, the cost is only 50 cents a ton. Mike estimates there are 3000 tons of ore in sight, a good deal more than that hasn't been exposed.—*Goldfield News*.

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Ely, Nevada . . .

Oil fever has gripped this community following announcement that the Continental Oil Company plans to drill on land here right away, and was scheduled to truck in 400 tons of drilling equipment during the past month. Leasing of public lands has continued with increased tempo, both by individuals and companies, maps are outdated almost as fast as they can be prepared. Blocks already leased sweep the entire western White Pine, southern Elko, northern Lincoln and north central Nye Counties, tapering off west toward Ely. The Union Oil Company has established offices in East Ely and the Shell Oil Company was slated to open offices in the Hotel Nevada. From 60 to 100 geologists and land men have been in Ely in recent weeks.—*Ely Record*.

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Aztec, New Mexico . . .

Second new gas pool to be discovered in San Juan County since January has been announced by the Oil Conservation Commission. The new well—the Culpepper-Martin No. 1—is about 12 miles northwest of Aztec, is from a zone which has not been explored before. In January the Commission reported discovery of the Herff pool in the same area.—*Aztec Independent Review*.



PICTURES OF THE MONTH

"Badwater"

First prize in Desert's April photo contest went to Robert D. Mundell of Bishop, California, for the accompanying picture taken in Death Valley, California. Picture taken with a 3½x4½ Graflex k2 filter 1/100 sec. at f.16.

Saguaro Blossoms

Don Ollis of Santa Barbara, California, won second prize with his picture taken in the Saguaro National Monument in southern Arizona. With 4x5 Graphic View Camera, 5-in. Ektar lens, Super XX film, no filter, 1/5 sec. at f.32. Early morning picture from tripod on top of car.





RINGTAIL: This fascinating southwestern inhabitant owes its popular name to its long, brownish-black tail which accounts for more than half of the animal's total length, and is vividly marked with seven broad white bands. Also known as "cacomistle" it eats all kinds of small desert rodents and insects, measures about 30 inches in total length, and weighs on an average of two pounds. They are expert mousers, though they are no relation to the house cat, and are often encouraged to live about homes for this very reason.

Marauder With a Ringtail

George Bradt tried to trap a ringtail cat, and got a skunk instead. It was an odoriferous experience—but George still insists that the villain of this story—the skunk—is one of his favorite desert animals.

By GEORGE M. BRADT
Photographs by the author

THE Cacomistle or Ringtail Cat is known by sight to relatively few persons. This is because of its restricted range and nocturnal habits. It is found throughout the Southwest, particularly along the slopes and canyons of the desert-bordered mountains.

I first made the acquaintance of this beautiful little carnivore in the Santa Catalina mountains of southern Arizona. Late one November night I was awakened by what sounded like someone trying to tear off one side of my tiny cabin. I was sleeping outdoors at the time and it was a matter of but a few seconds until I had a flashlight pointed in the direction of the noise. To my surprise the wall was still standing. As the noise had ceased, and I could see nothing out of place, I began to think myself the victim of a nightmare. Then I saw something move away from the corner of the building. A tiny phantom came trotting along the beam of light toward me. With sharp-nosed head held high, black eyes glistening, and

long black-and-white tail standing straight on end, a little animal came to within six feet of me before stopping. It then hesitated a moment, did a neat about-face, and unconcernedly walked off into the night. When I had recovered from my surprise I realized that my recent visitor had been *Bassariscus astutus*—the Cacomistle or Ringtail.

Although I now knew the identity of the nocturnal intruder the mystery of that unearthly racket was still unsolved. I decided to investigate. I squirmed out of my warm sleeping-bag and into the cold night. Approaching the cabin I saw the solution to the mystery hanging from a hook screwed into the wall. It was a quarter of freshly killed beef. The hungry little beast in search of a free meal had tried to reach the meat by scaling the loose dry boards of the cabin wall. I went back to bed resolved to devise some means of capturing the graceful creature on the following night.



SPOTTED SKUNK: Here is one of the desert's most interesting citizens. While it shares the ability to "gas" an enemy with the other skunk species, this little fellow is so lively and so strikingly marked it is hard not to like him. If you will admit that a skunk's odor is used only in self-defense and that he is never the aggressor, you will come to count the spotted skunk among your favorite desert animals. Often you can hear it called "Phoby Cat" or "Hydrophobia Skunk."

Next morning after breakfast I began work on a figure-four trap. I was certain that the "cat" would return after dark and I wanted to be prepared. The efficient figure-four trap is very simple. Within an hour I had nailed together a few boards to form a strong, lidless box, and had fashioned the ingenious trigger from three small sticks. As that was all there was to the trap I assembled it and tested it a few times.

That evening I carefully baited the trigger with a piece of juicy beef and set the trap. I placed a large stone on top of the box to insure its falling quickly and to prevent the husky little animal from turning it over and escaping. I even moved my bedroll indoors so as not to discourage the hoped-for visitor.

Long before sun-up I awoke and rushed outside to the trap. Sure enough it was down—but a small hole in the soft earth under one edge of the box told eloquently how the quarry had made good its escape. On the edge of one board above the hole a few black and white hairs were clinging.

The next night I made the same arrangements for welcoming the cacomistle, but placed a piece of chicken wire lightly covered with dirt beneath the box. This time I slept outside.

Soon after the sun had set I heard the trap fall with a dull thud. I jumped out of the sleeping bag and hastened to the box.

At this point I was faced with the problem of removing the animal without letting it escape. The only solution I

could think of at the moment was to reach under the box and grab the little captive. As I was determined not to lose my prize this time I put on a pair of heavy leather gloves to protect my hands against the ringtail's sharp, strong teeth. Carefully lifting one corner of the box I thrust in a gloved hand and began groping about inside. Beneath my fingers I soon felt a soft furry body. I quickly seized it. Almost immediately I realized that I had made a horrible mistake. Within a few seconds I was completely enveloped in a clinging evil-smelling mist. My cacomistle was a skunk!

As it was now far too late to turn back I forced myself to pick up the fateful trap and take a good look at my betrayer. It was a skunk all right, but the weirdest specimen of *Mephitinae* that I have ever had the misfortune to run across. Instead of being black with a simple white stripe like the hog-nosed skunk, or two white ones like the common skunk, this little wretch was spotted! It was an Arizona Spotted Skunk (*Spilogale arizonae arizonae*), and a creature I would have been delighted to meet under more favorable circumstances. After a few moments of mutual observation the smelly little fellow, apparently aware that I had been definitely put out of action, slowly lowered its vividly marked tail and ambled away into the dark.

After this odoriferous experience I thought it wiser to abandon all ideas of trapping the cacomistle, and to concentrate on photographing it instead.

As I had nothing to do the following evening—my

friends having developed a sudden and intense aversion to my "gamey" presence—I made arrangements for photographing the elusive visitor. Above the prone trunk of a dead saguaro cactus I hung the quarter of beef. With camera and flash-gun focused on the saguaro ribs I hid behind my ocotillo fence to await the coming of the cacomistle. A little before midnight my patience was rewarded by the appearance of a shadowy form which climbed onto the "log" and walked up to it to a point directly under the meat. I pressed the flash-gun button, and the intense light from the bulb illuminated my model—the spotted skunk again! So unperturbed was the creature that even after all that light it went right on sniffing the air trying to locate the food. I had to leave my fence-blind to scare the hungry animal away.

Still determined to wait for the ringtail I substituted a palo verde limb for the saguaro trunk, and again retired behind the fence. Less than an hour later another indistinct body approached the bait. This time I felt sure it was the cacomistle. In my excitement I made some sort of faint noise which served to focus the animal's attention on my position. It was at that moment that I fired the flash-gun and finally got the ringtail's portrait—the picture accompanying this story.

COVERS FOR DESERT MAGAZINE

Prize Contest

June is the month of Desert Magazine's annual cover contest. This year, the staff hopes to obtain many of the photographs which will be used on the magazine during the ensuing 12 months. To make the contest worthwhile for photographers, a cash prize of \$15.00 is offered to the winner, and \$10.00 for second place. For acceptable cover pictures which do not receive prizes, \$5.00 will be paid.

Entries in the cover contest should be approximately 9x12 inches—vertical shots. Photographers should keep in mind that the pictures should be so composed that the masthead to be printed across the top will not block out any important feature of the photograph. Any desert subject is acceptable including scenics, wildlife, rock formations, flowers, etc.

HERE ARE THE RULES

- 1—Prints must be black and white verticals, about 9x12 or larger, printed on glossy paper.
- 2—All prints must be in the Desert Magazine office by June 20, 1950.
- 3—Each photograph should be labeled as to subject, time and place.
- 4—PRINTS WILL BE RETURNED ONLY WHEN RETURN POSTAGE IS ENCLOSED.
- 5—Contest is open to both amateur and professional photographers. Desert Magazine requires first publication rights only of pictures accepted.
- 6—Time and place of picture are immaterial except that they must be from the desert Southwest.
- 7—Desert Magazine's editorial staff will serve as judges, and awards will be made immediately after the contest.

ADDRESS ALL ENTRIES TO PHOTO EDITOR.

THE *Desert* MAGAZINE
Palm Desert, California

Accommodations at Grand Canyon . . .

For the information of Desert Magazine Readers who are interested in the services and rates for summer visitors to the Grand Canyon National Park the following data has been furnished by Park Superintendent H. C. Bryant:

South Rim—Open All Year

Public Camp Grounds: Available at Grand Canyon Village and Desert View, and also at Bright Angel Creek 10 miles down the trail at the bottom of the canyon. Wood, water and sanitary facilities furnished without cost. No electrical or water connections for trailers.

El Tovar Hotel: Rooms \$3.50 up, with bath \$5.00 up. Breakfast and luncheon \$1.50 up, dinner \$2.00 up.

Bright Angel Lodge and Cabins: \$3.00 up, with bath \$4.00 up.

Phantom Ranch: At bottom of canyon. American plan, for hikers, \$12.25 day. Overnight all-expense trip including saddle mules \$32.75. Leaves South Rim 11 a.m. daily, return 4 p.m. next day. Advance reservations advisable.

Auto Camp and Cafeteria: Auto lodge, rates \$1.50 up. Double rooms with bath \$4.50. Housekeeping cabins, linen but no dishes or cooking utensils, 2 persons \$3.50 day. Breakfast a la carte. Luncheon 95c to \$1.25, dinner \$1.15 to \$1.60.

Trail Trips: Mule trips to the Colorado River and return daily, leave South Rim 9 a.m., return 5 p.m. Cost including lunch \$10.00.

Motor Tours: Combination bus trip along Rim \$7.00 plus tax. Charter trips to Navajo and Hopi reservations.

Saddle Horse Trips: Horse with guide in regular party \$4.00. Two hours.

Motor Service: Grand Canyon Service station open 6:30 a.m. to 9 p.m. daily.

Supplies: Groceries, dry goods, hardware and soda fountain from 9 a.m. to 6 p.m. daily except Sunday.

Photo Service: Kolb Studio provides film, developing and printing. Lookout Studio provides similar service.

Transportation: Santa Fe Railway and Bus lines arrive and depart twice daily at the South Rim. TWA has one eastbound and one westbound flight daily during summer months making flag stop at Valle airport, 31 miles from Grand Canyon Village. Advance arrangements should be made for transportation from airport to Canyon.

Aerial Tours: Scenic flights over Grand Canyon daily during summer from Grand Canyon airport, 16 miles from South Rim. \$10.00 plus tax. Charter flights across canyon to North Rim.

North Rim—Opened May 16

Public Campgrounds: Bright Angel Point and Neal Springs. No charge.

Grand Canyon Lodge and Cabins: \$2.50 up. Deluxe cabins \$6.50 up. Meals at specified hours. Breakfast \$1.50, luncheon \$1.50, dinner \$2.50 up.

Auto Camp and Cafeteria: Standard cabins \$4.50 room. Breakfast 70c to \$1.25, luncheon 85c to \$1.25, dinner \$1.25 to \$2.00.

Motor Supplies: Service station near cafeteria.

Reservations

During the operating seasons reservations for North Rim accommodations should be made with Utah Parks Company, North Rim postoffice, Arizona. South Rim reservations should be sent to Fred Harvey, Grand Canyon, Arizona.

Big Paintings With a Little Brush

Recently one of Conrad Buff's paintings of Monument Valley, hanging in the Palm Desert Art Gallery in the Desert Magazine pueblo, was sold for \$1,000. All of which is proof of the soundness of the artist's philosophy that "anyone with enough energy and the grit to keep plugging" can reach the top. Here is the story of a Swiss boy who has never ceased to be grateful for the freedom of opportunity he found in the United States.

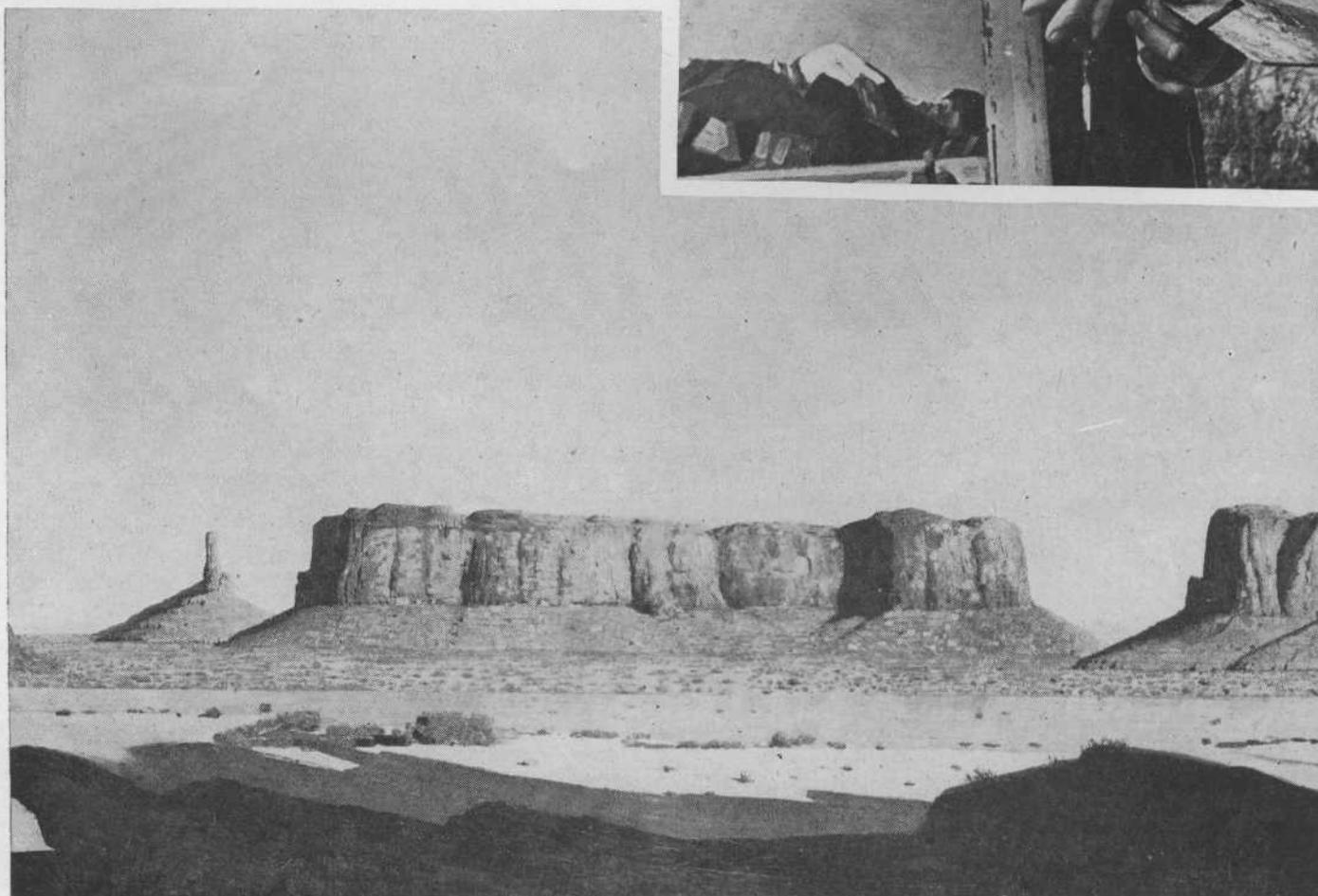
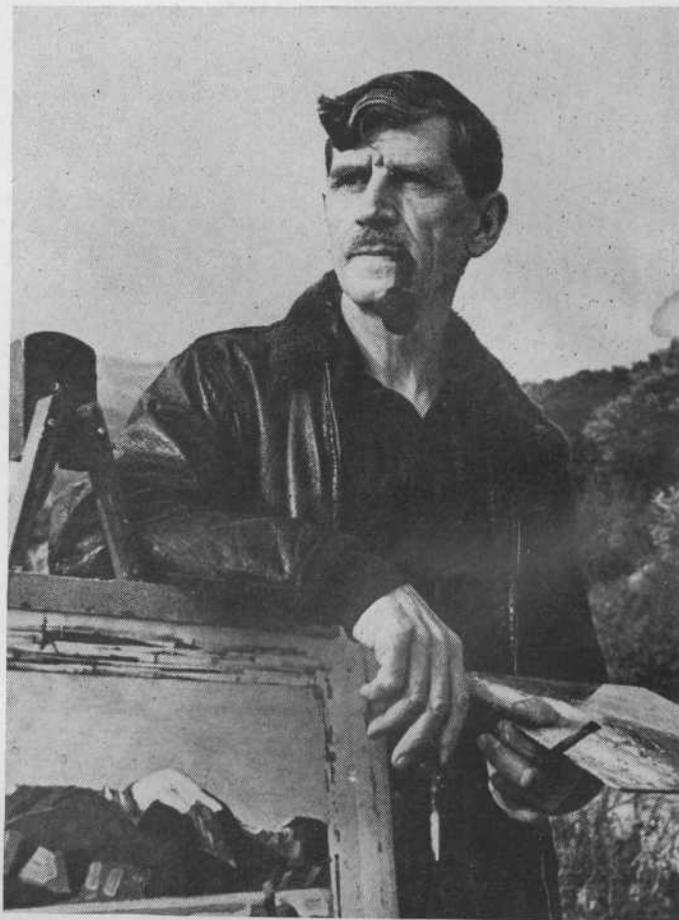
By JOHN HILTON

MY FIRST thought when I saw a group of Conrad Buff paintings was "what a big man this must be." His bold lines, heavy masses and precise forms struck me, a struggling artist, as the dramatic essence of the rugged desert I was trying to paint. There was an impact to these pictures which I noticed did not please some of the visitors in the gallery.

His canvases stagger a timid type of person who perhaps has never seen the bold landscapes that Buff paints. There is also the possibility that these same gentle souls, if they were to visit the scenes of his paintings, would still

Above—Conrad Buff. He was a baker, and then a lace designer before he took up painting.

Below—Buff's oil painting, "Monument Valley."



not see what he depicts. It may be that they have built for themselves a defense mechanism that keeps them from really sensing true bigness, since this might make them feel even smaller.

The years went by and eventually I found my own works hanging in the same galleries with those of Conrad Buff. My admiration for his work never waned and my respect for the workman grew along with my own knowledge of how really difficult it is to render a simple clear-cut subject in a truly interesting manner.

His technique impressed me more with each painting I studied. It baffles imitation. Look at a Buff landscape from a distance and the strong colors and solid masses impress one with their simplicity, yet there is a feeling of space and air and light which cannot be accomplished by a simple process. On close examination, one finds that this man's paintings are unbelievably complicated.

Over the massive groundwork of color are laid thousands of tiny cross-hatched lines of contrasting color. This is what gives the work its atmosphere and depth. These hair-thin lines of just the right brilliant hue are mixed by the eye of the beholder to produce the impression of transparent haze in the shadows and shimmering heat in the highlights. It is this intricate cross hatch that brings to life what would be otherwise only a well-designed poster, and makes it a significant and convincing work of art. The more I saw of the paintings the greater was my desire to meet the painter, but somehow our paths failed to cross.

Then, only a few months ago, Mr. and Mrs. Buff visited my desert studio in the company of our mutual friend, Edith Dixon. Conrad did not prove to be the physical giant I had visualized all these years. It took only a hand-

shake and a few minutes of conversation, to bring me to the realization that his bigness was even more impressive than I had thought. His is a stature of the spirit that cannot be weighed and measured.

That evening we went to a sheltered cove near the hills and broiled steaks over a desert campfire. It was around this campfire with Conrad Buff and his talented wife that I was able to learn the other facts about this man whose work starts an argument wherever his pictures are shown.

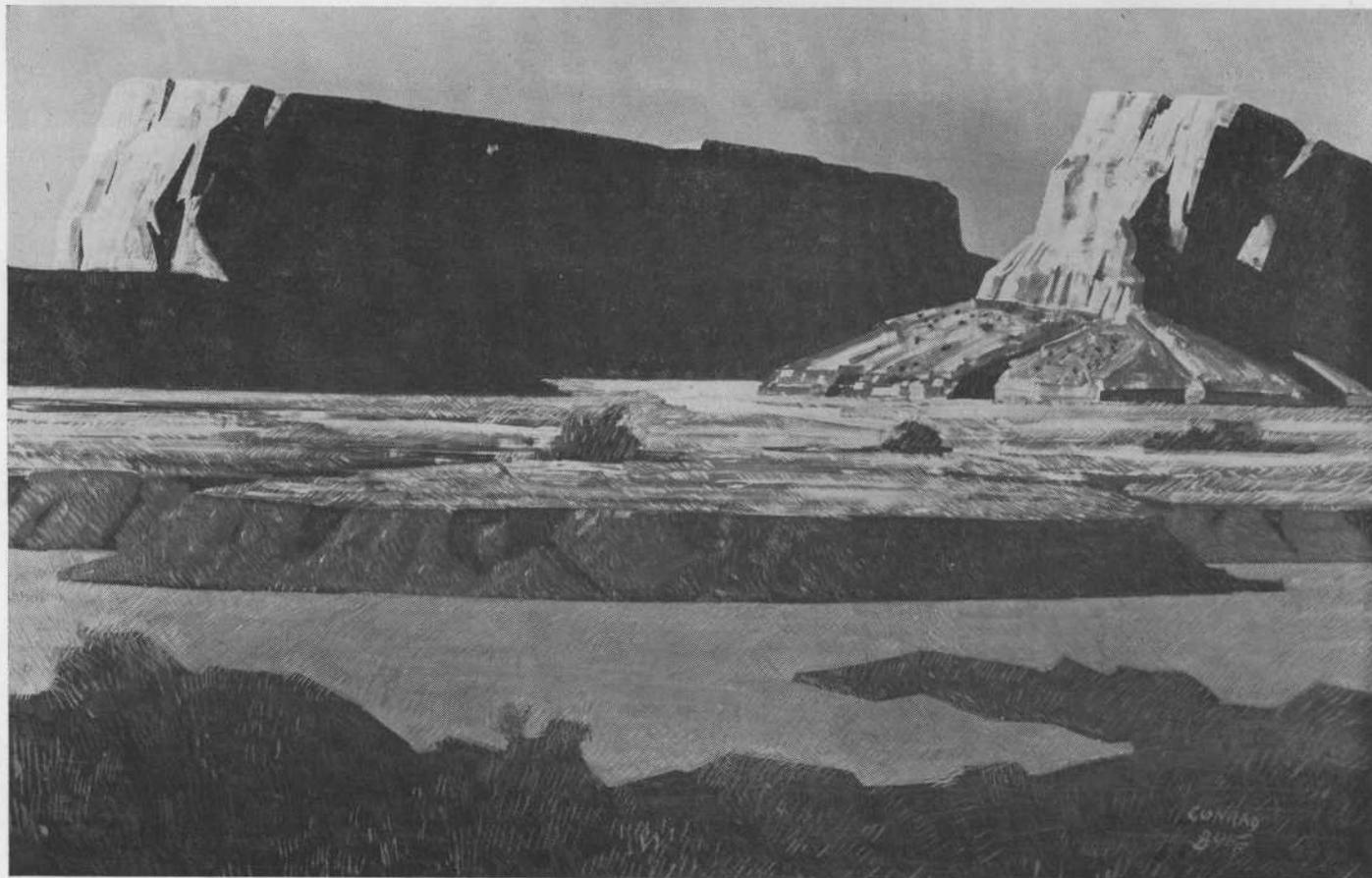
He was born in a small village near Lake Constance in Switzerland, in the German-speaking canton of Appenzell. He began drawing at an early age. A broken slate was his pride and joy and it was augmented from time to time by bits of scrap paper or discarded pasteboard. The urge was there but no one seemed to notice or care to do anything about it.

He was apprenticed at the age of 14 in his uncle's bakery and confectionary shop. During this time he learned something about baking which has never left him. His wife tells me his pies are a joy to visitors in the Buff home.

Later he entered school to learn the trade of lace designing, which is an important industry in Switzerland. But he failed to develop any enthusiasm for the lace business. However, it may have had two profound psychological effects on his painting. A natural rebellion against the smallness and frivolity of this work probably found expression in the massive, indestructible quality of his later paintings. On the other hand, the almost mathematical precision with which his paint is applied to canvas, may well be the subconscious product of the discipline of hand and eye which was taught by the lace-makers.

Finally young Conrad rebelled and went to the big

The countless tiny lines which are characteristic of Conrad Buff's technique are visible in this painting titled "Southern Utah."



city, which happened to be Munich. The pleasure-loving atmosphere of the place was like a breath of fresh air to the boy who had been raised in a drab Calvinistic community. It taught him that there were other horizons, and beauty everywhere. It took money to live in Munich and money was hard for a partly trained artist to obtain. He heard stories of America and its opportunities, and dreamed of going there.

His dreams and hopes finally were realized, and when he landed on the shores of the new world he knew that he could never go back to live and work in Europe. Almost instinctively he took a train for the West. The farther he went the more freedom he felt. He wanted to paint the things he saw and share them with others, but there was little time for this at the beginning.

The first years were hard. Conrad drove mules, worked on a railroad construction gang, washed dishes and cooked in cafes. He was chore boy in boom-town saloons, but he did not mind. At every opportunity he would turn to his canvas and brushes. He felt there was opportunity for anyone with enough energy and grit to keep plugging.

Gradually he spent more time painting pictures and less time at such jobs as painting houses. Little by little the grandeur and dignity his canvases gave to the western landscape began to attract attention. This was not as easy as it sounds, but today Conrad Buff shrugs off the struggles with a gentle smile. The important thing is that he came, saw and painted the West until he conquered it.

In 1922 he met and married Mary Marsh who became an excellent writer of children's western stories. Conrad illustrates her books and together they produce some of the most popular books in the juvenile field.

Between painting easel pictures and illustrating his wife's books, Buff found time to produce some important murals. Many public buildings in the West are more impressive and interesting for his work. He also explored the field of lithography, drawing directly on stone or zinc plates and making the prints on his own press. Another interesting medium he has mastered is the making of prints with a silk screen. Some commercial reproduction of art work had been accomplished by this process but Buff went on from where the others left off, with five or

ten separate printings. Some of his pictures are the product of as many as 50 separate silk screen printings.

It was not until he was in his late forties that he finally reached the point where he could afford to spend all of his time painting. After that, award followed award, and his pictures became part of many permanent collections which include the British Museum, Metropolitan Museum of New York, Boston Museum of Fine Arts, the National Gallery, Washington D. C., the San Diego Museum and the Los Angeles Museum.

The Encyclopedia Britannica, whose permanent collection contains a Conrad Buff painting, has this to say about his work:

"His is the sort of painting that accepts any implication of eternity, not as a threat, but as a solace. . . . There might be to a shallow mind, an implacable quality, a frightening austerity in those gigantic rock formations and dark crevices that stand against the rolling of the centuries. . . . But he softens the implication by permitting a benevolent sun its full play of radiance and shadow until a second glance reminds one that there will always be this beauty for those who can rise above a personal ego long enough to see and be comforted by it."

SPRING COLORADO FLOOD BELOW NORMAL

For the Colorado River and its tributaries, the U. S. Weather Bureau office at Kansas City has issued the following rainfall and run-off forecast for the season:

Upper Colorado watershed: Precipitation during March was below normal with the exception of the Uncompahgre River.

Green River basin: April 1 forecast indicates runoff near normal, or possibly above.

San Juan River: March rainfall was from 30 percent to 80 percent of normal. Forecast is for a season runoff about 55 percent of normal.

Little Colorado River: Forecast is from 63 percent to 75 percent of normal, provided the remainder of the season is up to normal.

Gila River basin: Precipitation has been low in January, February and March and present outlook is for 60 percent of normal season's runoff, with a slightly better outlook for Verde tributary.

MOUNTAIN TIME ZONE EXTENDED IN ARIZONA . . .

WASHINGTON—The entire state of Arizona is now on Mountain time. Zone boundaries of the Standard time zone have been changed by the Interstate Commerce Commission so that an area of about 13,000 square miles in northwest corner of Arizona, previously in the Pacific time zone, is now in the Mountain time zone. With California now on Daylight Saving time, Arizona and California time is the same during the summer months.

Billboard Fight Getting Hotter . . .

TAOS—The fight being waged by the New Mexico Roadside Council against highway billboards has been taken up by the Outdoor Advertising Association of New York, and now the state highway department, newspapers and public opinion have all joined the controversy. The Roadside Councils wants billboards restricted and controlled so they will not mar New Mexico's natural beauty.

LOST GOLD OF THE DESERT . . .

Harry Oliver, be-whiskered Desert Rat of Ol' Fort Oliver, has never found any of the lost treasure, but he gives a whole packet of tips to those who want to search for it in the latest edition of his



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Panamint Daisy, Photograph by C. L. Bowman

Daisy of the Panamints . . .

By MARY BEAL

I'll never forget the first time I came upon Death Valley's Panamint Daisy in Wildrose Canyon, 11 years ago. Coming down into a narrowed part of the canyon between steep yellow-brown clay walls, the talus on the right was embellished with groups of unbelievably large yellow flowers like giant daisies, rising a foot or two above hemispherical clumps of tufted silvery leaves, a dozen or two dozen flower heads springing from a single plant. Most of the splendid blossoms measured 5 or 6 inches across. Here and there on the steep cliff all the way to the top, wherever a small ledge offered foothold, these remarkable plants had established themselves. Their tenure of the area seemed to be undisputed. They alone held sway over the arid surroundings, giving it enchantment, and to the botanist unalloyed satisfaction.

The size of the flowers made me gasp with amazement. One especially fine blossom had a spread of $7\frac{1}{4}$ inches, which makes it the grand sweepstakes winner of my experience with the Panamint Daisy. A 6-inch breadth is common and I have never seen a fully opened flower less than 4 inches across. The whole plant is attractive. The large greenish-white leaves are soft and velvety in texture, overlaid with a silvery sheen. Indeed the specific name describes it well, meaning "shining" or "glistening leaves."

Most of its friends call it Panamint Daisy but its special

botanical niche is in the Sunflower Tribe of the immense family Compositae, its full name being

Enceliopsis argophylla variety *grandiflora*
(*Encelia grandiflora*)

You'll also find it labeled *Enceliopsis covillei*, in honor of Dr. Frederick Coville, botanist of the Death Valley Expedition of 1891. He was sent out by the U. S. Department of Agriculture to make a biological survey of the Death Valley region. It is a shrub-like, woody-based perennial with a stout root and several short stout branches crowded with the tufted leaf-bases. The large roundish-ovate leaf blades are 2 to 4 inches long, ribbed on the back with 3 to 5 conspicuous veins, and contract into a flat petiole 1 to 3 inches long.

The numerous showy flower heads are borne on long stout scapes, a single head atop each tall naked stalk. There are 2 or 3 dozen lanceolate lemon-yellow rays 2 inches, more or less, long, disposed in a single row around the broad disk, which is densely crowded with tiny florets, a slightly deeper yellow than the rays. The bracts of the involucre are lanceolate, sharply pointed, and whitened like the leaves, numerous and widely spreading. The flat achenes are dark brown or black, obovate, notched at the apex, surrounded by a callous wing. I have found them blooming in April in normal seasons, as did Dr. Coville.

HERE AND THERE . . . on the Desert

ARIZONA

Navajo-Hopi Bill Signed . . .

WASHINGTON—The \$88,570,000 rehabilitation and aid program for the Navajo and Hopi Indians of Arizona and New Mexico is now law. President Truman has signed the bill. It was the same measure—with one exception—which he vetoed last year. The new bill lacks a provision which would have placed the tribesmen generally under the civil and criminal jurisdiction of Arizona, New Mexico and Utah. One feature of the new law is that the federal government will bear about 90 percent of the social security payments to members of the tribes living on reservations. These payments have been a disputed point for years.

Appropriation requests to carry out the first year of the program had been included in the budget for the fiscal year beginning July 1, even before final approval of the measure. Appropriations amount to approximately \$14,000,000 in cash and \$6,000,000 in contract authorizations. The Department of Interior and Bureau of Indian Affairs view passage of the bill as a big step forward in the plan to help the Indians improve their standard of living and become self supporting. Roads and irrigation projects are two features of the program.

Buffalo Range Controversy . . .

FLAGSTAFF—Seeking an end to a controversy that has continued since 1926, Thomas F. Kimball, state game commissioner, has suggested to Senator Ernest McFarland that a bill be introduced in congress giving the state title to 28,760 acres in Houserock Valley for a buffalo range. The controversy has existed since the Arizona Game and Fish Commission in 1926 bought a herd of about 80 buffalo which had been driven into Houserock Valley. At present cattle share the range. It is being over-grazed. In 1930 a tract of 44,000 acres was with-

drawn by executive order of President Hoover, but wording of this order was not specific enough to avoid later controversy.—*Coconino Sun*.

Prepare New Picture Volume . . .

FLAGSTAFF—Joyce and Josef Muench, southwestern photographers and writers, have finished work on a new book of pictures titled "Grand Canyon." Aside from a short introduction and brief captions, the entire volume is Canyon photographs. George Avery, art editor of Arizona Highways, prepared a map which is folded into the back of the book.—*Coconino Sun*.

Charcoal Collected in Ruins . . .

TUCSON—Charcoal specimens have been collected from a number of ancient campsites in southeastern Arizona to determine how long ago people first lived in Arizona. The study is being made by E. B. Sayles, acting director of the Arizona State Museum, and Byrant Barrister, graduate student in anthropology. Scientists working at the University of Chicago have developed a new method which enables them to determine the age of various organic materials through a study of their radioactivity. Charcoal is said to be especially suited to these studies. It is found in old campsites buried beneath clays and silts in Arizona.

Sayles spent several years in southeastern part of the state exploring for sites of ancient man. Charcoal from these sites, he hopes, will provide a more accurate chronology of prehistoric man in Arizona.—*Tucson Daily Citizen*.

SAFFORD—One of the oldest towns in Arizona has had its name changed—by the postoffice department in Washington. At least, name of the postoffice has been changed from Solomonsville to just plain Solomon. But it is believed that name of the town will remain unchanged in general usage. — *Graham County Guardian*.

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MISCELLANEOUS

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SPORTSMANS SPECIAL: 1947 Ford Pickup with detachable camper body. Lights, bed, but. stove. Columbia axel, good tires, many extras. \$995. Graybill, 1355 S. Gibbs, Pomona, California.

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FOR SALE: In the heart of the gemstone country, five rooms and bath upstairs. Complete lapidary shop, best make new machinery, show rooms, office downstairs. Well on property, house not quite finished, four to ten lots. Harry H. Hertweck, P. O. Box 555, Goldfield, Nevada.

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School Problem Still Critical . . .

WASHINGTON—More than 19,000 Indian children of school age are still without school facilities, and of this number about 15,000 are on the Navajo reservation, according to Oscar L. Chapman, secretary of interior. He released the figures in his annual report on Indian progress. Although progress made in this respect is discouraging, there has been improvement in farming and livestock methods and on the important problem of Indian health.—*Gallup Independent*.

• • •

Petrified Forest Hours Told . . .

HOLBROOK—Opening and closing hours at Petrified Forest National Monument have been changed for the summer season, increasing the hours of operation to 11 hours daily, it is announced by Supt. Thomas E. Whitcraft. Gates now open at 7:30 a. m. and close at 6:30 p. m. Distance between gates is 14 miles, hence visitors will not be permitted to pass through the Monument after 6:00 p. m. Hours of operation will vary with different seasons.

• • •

Reservation Highway Proposed . . .

FLAGSTAFF—A 200-mile highway cutting diagonally across the Navajo Indian Reservation from Cortez in the southwest corner of Colorado to Cameron, Arizona, has been proposed to the Indian Bureau. It would connect at Cameron with Highway 89 leading to Flagstaff. The proposal was made by three Colorado members of the Navajo Tribal association. Estimated cost would run between \$8,000,000 and \$10,000,000. It is argued the new road would cut 160 miles from the distance between Denver and Phoenix; would link two major National Parks—the Grand Canyon and Colorado's Mesa Verde; would lead to development of Monument Valley; would provide access to off-reservation employment for Indians. Opposition to the proposal has already developed.—*Coconino Sun*.

• • •

Trout Season Now Open . . .

KINGMAN—Trout season opened at noon Saturday, May 27, and a record supply of legal-sized trout is promised by the state hatcheries. Trout water on the Colorado River has been extended downstream to north boundary of the Havasu National Wildlife Refuge. Trout fishing is open all year from this point to Hoover dam, Clear Creek, Thunder River and Bright Angel Creek in the Grand Canyon National Park, and Cataract Creek in the Havasupai Indian reservation. *Mohave County Miner*.

More Rural Areas Electrified . . .

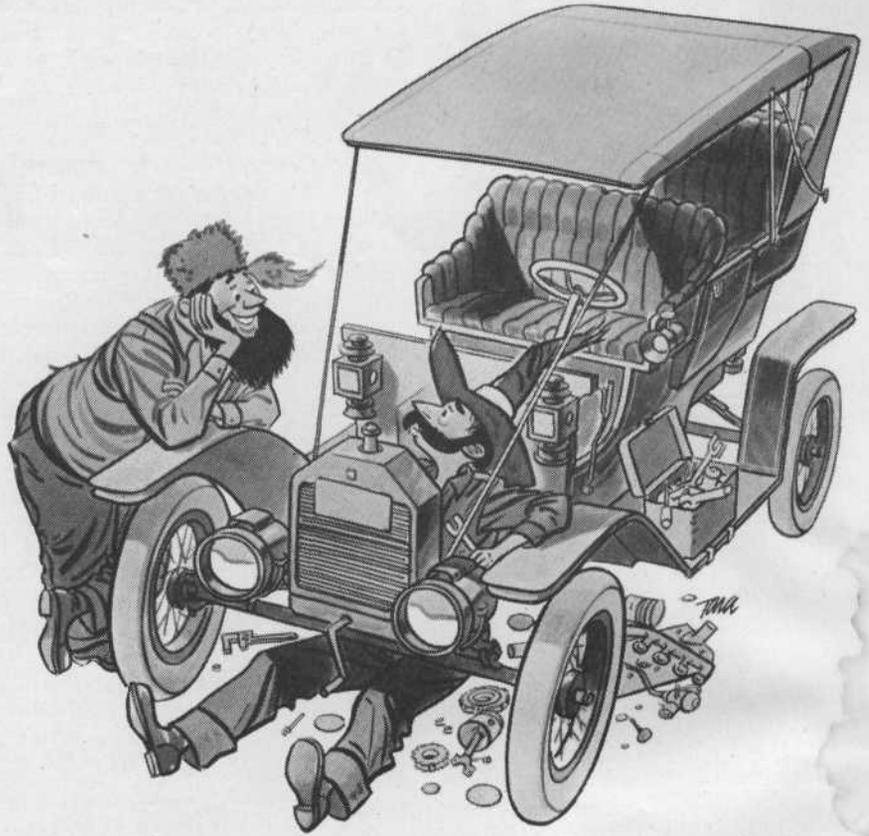
KINGMAN—More than 200 additional rural families in Mohave county now have electricity in their homes for the first time. Distribution lines of the REA serving Peach Springs, Hackberry, Valentine, Hualpai Mountains and their surrounding districts were recently energized. Many Indian homes in Peach Springs are to have electric power for the first time now. —*Mohave County Miner.*

CALIFORNIA

Pioneers Fight for Water . . .

BLYTHE—Pioneer Palo Verde Valley ranchers are fighting now to keep this community's 73-year-old rights for gravity water from the Colorado River. Ironically, construction of Hoover, Davis and Parker dams on the river, which provide flood insurance for 104,500 acres of bottom land in the Palo Verde Irrigation District, also created problems for the gravity diversion of water from the river.

Since construction of the dams, the Colorado does not carry the silt it historically has deposited along its course, the clear water has scoured the stream bed and left the district's original rock intake—in use for 40 years—high and dry. Early in the war the Interior Department authorized construction of a temporary diversion weir 12 miles north of Blythe to raise the river surface so gravity water would flow to farmers' fields. Now the Bureau of Reclamation and the Bureau of Indian Affairs want the weir removed. Raising the water level, the Indian Service says, is having the effect of water-logging lands at the lower end of the Colorado River Indian agency on the Arizona side. The Reclamation Bureau advises



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installation of pumps to hoist water into the Palo Verde system. But the Valleyites want the gravity water.—*Palo Verde Valley Times*.

Gulf Offers No Threat . . .

EL CENTRO—The Imperial and Coachella Valleys of southern California, where water has converted the desert into rich agricultural land, are not in danger of being inundated by the Gulf of California. Colorado River authorities, engineers and International Boundary Commission officials have united in refuting an article by Alfred M. Cooper in the April issue of Harper's Magazine in which he warned that Gulf waters could burst through sand and silt barriers and flood the below-sea-level Imperial and Coachella valleys. Engineers say that maps and surveys prove there has been no noticeable change in the head of the Gulf since 1873—it is not advancing inland. Further, a barrier of sand and silt 60 miles wide plus the Cocopah range of mountains are between the Gulf and the inland valleys.—*Imperial Valley Weekly*.

Desert Valley Still Rich . . .

EL CENTRO—Reclaimed desert lands in Imperial Valley during 1949 produced farm products with a value of \$92,229,464, according to B. A. Harrigan, Imperial County agricultural commissioner. The figure was \$28,652,026 under the 1948 total—but was still an imposing figure. First water from the Colorado River was brought to Imperial Valley lands in a canal through Mexico in 1901, development was retarded when the Colorado broke through levees and flooded the valley in 1905-07, but since then growth has been steady and rapid.—*Imperial Valley Weekly*.

Peanuts in Place of Cotton . . .

INDIO—Under the federal farm price support program Coachella Valley farmers are required to reduce their cotton acreage next season—but have been given price support for 624 acres of peanuts, which never have been grown commercially here before. Experimental plantings last year indicate a yield of from 2500 to 5500 pounds to the acre.—*Indio News*.

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Branch Courthouse Site Set . . .

INDIO—Indio has been selected by the Riverside County board of supervisors as the site of a future branch courthouse. This is first step in the much-discussed decentralization program which the vast desert area of Riverside has long wanted. The spot chosen was a five-acre site which is part of the Indio fairgrounds. Actual construction of a courthouse building may be delayed several years, until the county has funds for the project. Size of the county is indicated by the fact that one member of the board of supervisors has to drive 150 miles each way to attend board meetings. Taxpayers with business in the county seat have to do the same thing.—*Indio News.*

New Town on Palo Verde Mesa . . .

BLYTHE—Nicholls Warm Springs is the name of a new desert townsite located on the Palo Verde Mesa on Highway 60 seven miles west of Blythe. A. E. Nicholls, owner-developer, filed on a desert claim on the mesa in 1909. Later he purchased an adjoining tract where nearly a half century ago an ambitious group of promoters laid out a town to be known as Palowalla. Palowalla never got far beyond the planning stage—but Nicholls Warm Springs, occupying the same site today, already has graded streets, water mains and hundreds of young trees in the parkways. Riverside County Planning Commission has approved the townsite plans, and residence and income lots are to be offered for sale soon.

New Border Stations Planned . . .

BARSTOW—The State of California is planning to build new plant quarantine stations at Daggett and Yermo, according to Assemblyman L. Stewart Hinckley. Present inspection stations are said to be inadequate.—*Barstow Printer-Review.*

Indians Promise Cooperation . . .

PALM SPRINGS—Better cooperation between the Agua Caliente tribe of Indians and the city of Palm Springs is forecast for the future by Frank Segundo, president of the Indian Tribal Council, who believes this will lead to eventual improvement of the Indian reservation in line with city-wide planning. Reservation lands adjoin business district of the city. The tribe hopes to go ahead with development of a street plan on the reservation in keeping with the city's over-all improvement of thoroughfares. So there will be better understanding, city councilmen have been invited to attend tribal meetings.—*The Desert Sun.*



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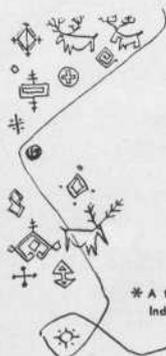
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* A term used by pioneer settlers for these Indian shoes, worn by men and women alike.

NEVADA

Chemical Control of Sagebrush . . .

AUSTIN—The program of clearing sagebrush from Nevada National Forest areas and reseeding the land to range grasses may be given new impetus if developments in the use of chemicals for sagebrush eradication prove effective and practical from the cost standpoint. Several kinds of chemicals have shown promise. There are thousands of acres of reseedable lands on the National Forests of Nevada, and there are also millions of acres in private and public range lands which are adaptable to restoration.—*Reese River Reveille.*

Widely-Known Prospector Dies . . .

GOLDFIELD—Death came at the age of 62 to Rosco (Death Valley Curly) Wright, one of the few remaining old-time prospectors, who was laid to rest April 1 in Goldfield. He died at his home. It has been said that no man alive knew more about Death Valley and its surrounding desert hills and adjacent desert than Rosco Wright. He loved to wander over the desert wastes and felt a close kinship with the little wild creatures of the desert hills—would under no circumstances kill any of them. In addition to being a successful prospector, Death Valley Curly was a true rockhound, had a valuable collection of native gemstones at his Goldfield home.—*Tonopah Times-Bonanza.*

Famed Railroad to Shut Down . . .

RENO—The historic Virginia & Truckee railroad, identified with early development of this region and rich in history and tradition, will at last be abandoned. The Interstate Commerce Commission has joined the Nevada Public Service Commission in authorizing the road to end its operation. The line runs for 47 miles between Reno and Minden, Nevada. It has operated at a loss for the past 20 years, but when previous permission to abandon was filed there was widespread opposition. It is admitted the abandonment will cause some inconvenience to shippers.

The Virginia & Truckee was built to serve Virginia City and the Comstock Lode in the colorful bonanza days, construction was started 82 years ago. It was once the richest railroad in the world measured in terms of return from investment and tangible assets it transported. Its traffic was in fabulous ores, its passengers were financial kings.—*Humboldt Star.*

Attempt Halogeton Control . . .

WINNEMUCCA—First concrete step in the battle to control halogeton, poisonous range weed which closely resembles Russian thistle, has been taken by the White Pine County farm bureau which has assumed the lead in eradication of the dangerous weed. Halogeton was first found in Wells in 1935, is now spread over much of the northern part of the state. If eaten in sufficient quantities, it is fatal to cattle and sheep.—*Humboldt Star.*

Rain-Making Peril Voiced . . .

BOULDER CITY—A warning has been voiced by Dr. Irving Langmuir, General Electric scientist, regarding artificial rain-making. Careless seeding of clouds with silver iodide may produce disastrous floods in distant areas and wreck the nation, Dr. Langmuir declared. He is a Nobel Prize winner, pioneered the new science of producing rain artificially with both dry ice and silver iodide. He issued his warning when he spoke at the annual Western Snow conference in Boulder City, used the term "promiscuous over-seeding of clouds" in describing the dire results that could follow the careless use of unperfected techniques.—*Los Angeles Times.*

NEW MEXICO

New Ghost Town to Be Born . . .

DAWSON—At one time the largest town in northern New Mexico, Dawson has slipped out of existence, overnight became a ghost town when coal mining operations were halted by the Phelps Dodge corporation at the end

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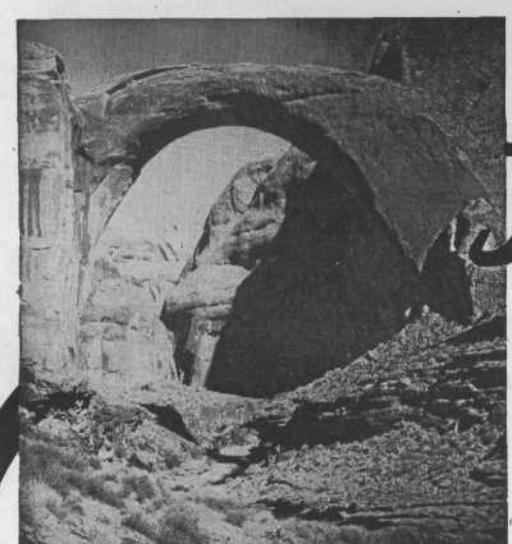
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of April. Mining equipment is being dismantled, some houses are being sold for moving, some will be torn down and the material sold, others will be leveled to the ground. Dawson's 1250 citizens were given advance notice of termination of employment and were told to evacuate their houses.

The corporation says there is no longer a market for Dawson's coal. Locomotives formerly consumed most of it, but diesel engines are replacing coal-burners on the railroads. Mines at Dawson have produced since 1902. Plenty of coal still remains, 35,000,000 tons of it in the mine just closed. But the market is gone.—*Gallup Independent*.

New Fur-Bearing Animal . . .

LORDBURG—A new fur-bearing animal, the nutria, may someday rival the muskrat as a source of fur revenue in the Southwest. Nutrias are now increasing rapidly in the Pecos River and the U.S. fish and wildlife service believes they may spread to other southwestern streams. New Mexico's population came about by accident. A few years ago a farmer near Roswell lost a number of them from pens when a flash flood destroyed fences. They have multiplied, apparently are thriving. The nutria is said to weigh about 25 pounds—10 times more than a muskrat—but looks quite like a muskrat and has many habits similar to that well-known fur-bearer. *Lordsburg Liberal*.

Indian Dances at Taos . . .

TAOS—Free entertainment for visitors is to be presented in the plaza here from June 12 through September 15, with both Indian and Spanish programs planned. Monday and Friday nights of each week have been designated for Indian dances, with Wednesday nights reserved for traditional Spanish programs and entertainment.—*El Crepusculo*.

May Make Cemetery A Park . . .

TAOS—If present plans materialize, Kit Carson cemetery may be made into a National Monument. Five thousand dollars has already been made available by the state legislature, and federal funds are expected to be allocated to beautify the historical spot.—*El Crepusculo*.

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Effect of Forest Fire . . .

ALBUQUERQUE—Farmers of the Tucumcari irrigation district may suffer for the next 100 years because of the disastrous March forest fire in north-central New Mexico, in the opinion of Don Beck, fire control chief for the Southwest region. It will take at least that long to replace vegetation destroyed by the blaze which burned over 24,000 acres of forest land. The burned area is at the headwaters of the Canadian River, which supplies the Tucumcari irrigation project. Winter snowfall previously held by vegetation will now be dissipated into the ground and atmosphere before it reaches the river, farmers on the project will suffer from lack of water. Beck warns that dry conditions in New Mexico's forests will grow steadily worse until after July 1 unless unusually heavy rains occur.—*Gallup Independent*.

Navajo Lands Leased . . .

AZTEC—More than 16,000 acres of allotted and Navajo tribal land have been leased for oil and gas drilling, returning a total of \$110,000. The allotted land is all located in San Juan and Sandoval Counties.—*Aztec Independent Review*.

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UTAH

Utes Agree on Money Division . . .

SALT LAKE CITY—Division on a per capita basis of a multi-million-dollar judgment they expect to be awarded to the tribes by a federal court has been agreed upon by three bands of the Ute Indians. The U.S. court of claims in Washington has already held that the tribes are entitled to payment for lands ceded to the government. Suit was filed by the tribes in 1938 for an amount in excess of \$40,000,000 for lands in Colorado and Utah. Amount of the judgment has not been determined by the court. The agreement provides that 60 percent of the award is to go to the Utah Utes of the Uintah and Ouray reservation at Fort Duchesne. The remaining 40 percent would be divided between the Southern Utes, Ignacio, Colorado, and the Ute Mountain Utes, Towaoc.—*Salt Lake Tribune*.

It's a Grim Business . . .

SALT LAKE CITY—One of the grimmest phases of predatory control, the searching out of coyote dens and killing of the spring pups, was scheduled to be completed about June 1 by the U.S. Fish and Wildlife service in Utah. R. Scott Zimmerman, district

agent, reports that 33 government hunters have been working on this phase of predator control. The predatory division of the service killed 3296 coyotes in 1949. Reason given is that this astute desert denizen is a real menace to the livestock and sheep business.—*Salt Lake Tribune*.

Proposes Bureau Abolition . . .

WASHINGTON—A resolution "designed to start the wheels turning to take the American Indian off government wardship and give him full citizenship rights" and which also proposes abolition of the Indian Bureau, has been introduced in congress by Rep. Reva Beck Bosone, Utah Democrat. The resolution also directs Interior Secretary Oscar Chapman to make a study of all Indian tribes and decide which ones are ready now to be taken from under government supervision.—*Salt Lake Tribune*.

SALT LAKE CITY—Five founding coyote pups, picked up by officers of the U.S. Fish and Wildlife service, are being bottle-raised at Hogle Zoological gardens in Salt Lake City to be shipped to Japan on an animal-exchange arrangement with the Japanese Zoological association.—*Salt Lake Tribune*.

Monument to Bert Loper . . .

GREENRIVER—A monument to the memory of Bert Loper, famed river runner who died last summer—apparently of a heart attack—as he made one last run through the Grand Canyon, will be dedicated some time this summer in his home town of Greenriver. A six-foot granite stone has already been ordered from a monument maker. Small donations, and a steady stream of nickles and dimes from Boy Scouts who ran the river with Loper, have built a fund of nearly \$700, enough to finance the stone marker. The famed runner of rapids was within a month of his 80th birthday when he died.—*Salt Lake Tribune*.

Utah Artists Plan Festival . . .

CEDAR CITY—Federated Artists of Utah, state-wide organization, will hold its first annual art festival at Springdale, Zion Canyon, in conjunction with formal opening of the Springdale Mormon craft village June 16, 17 and 18, it has been announced by Prof. Floyd Cornaby, federation president and head of the Utah State Agricultural college art department. Both member and non-member artists are invited to exhibit.—*Iron County Record*.



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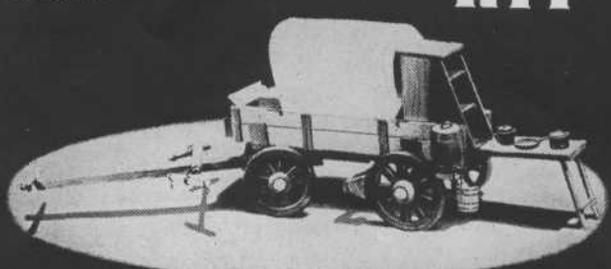
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LETTERS . . .

Problems of a Frontier Town . . .

Bullhead, Arizona

Desert:

Your article in April issue of the Desert Magazine, reference was made to Bullhead City and caused a great deal of resentment in our group of civic minded people.

The thought that you were trying to convey or put over was in the minds of most of us the extremity of government expenditures versus private enterprise and capital. In that I agree that your reference to Bullhead is, in text, correct but in text also misleading.

To most city people there is no beauty in the desert and to a stranger, Main Street in Bullhead would no doubt give him the impression of disorder, scattered business houses, sagebrush and sand. Along the Colorado River there are quite a number of moderate homes with well kept lawns, shrubbery and flowers, these, the stranger doesn't see so naturally his first impression is lasting.

It has been just about four years since we started building this little town and we have met with obstacle after obstacle in trying to obtain our needs. When we first started building there were priority restrictions on the building material. Then finally we were ordered to stop most all types of construction. Quite a number of the people that had come here with the idea of building a home or business for the duration of the construction on Davis Dam became discouraged over the building situation and a lot of them left, leaving their buildings just partially built.

Big business had promised us electricity and after months of waiting with nothing but discouragement, we finally decided to have a mass meeting of the people of Bullhead and every one loaned as much money as they could spare toward the building of our own power line. Upon its completion and approval by R.E.A. engineers, we formed what is now known as the Mohave Electric Cooperative, Inc., and immediately furnished power and refunded our loans.

The school board did not have sufficient funds to build a school large enough to take care of approximately 200 children who had come here and the people donated money and labor to meet our needs. In the same manner we paved Main Street, also most of the highway leading to Davis Dam townsite. These are just a few of the

obstacles that we have had to overcome.

Yes, Bullhead City is far from an Uncle-Sam-Built town in appearance and as you say, we haven't the money to spend that Uncle Sam has, but if we are given time enough and can reserve some of our money that taxes do not take, we are hoping to have a nice town here some day.

We have a winter climate equal to that of Palm Springs, in fact most of us feel that it is a better climate. Last year when there was snow most every place, we didn't have any and this past winter has been an exceptionally mild one. Another wonderful asset that we have is the Colorado River with year around fishing—no closed season. The Colorado River is the natural flyway for migratory water fowl and when the season opens in the fall, the duck and goose hunting is very good.

You, Mr. Henderson, I don't believe, intended to offend the good people of Bullhead in your article but if you did see nothing but disorder and uncleanness, you were unjustly impressed.

I would like to extend an invitation to you to attend our 4th Annual Barbeque program May 28th, and show you the things you have missed, especially the "Spirit" of the people of Bullhead.

O. C. BUCK

Thanks to you, Mr. Buck, and the good people of Bullhead for the invitation, and may Bullhead with its lovely setting on the bank of the Colorado river become the cleanest and happiest town in the great Southwest.—R. H.

• • •

More Wide Open Spaces . . .

Compton, California

Desert:

We moved out here from Chicago intending to raise our three boys in the wide open spaces—but did you ever see a city with any wide open spaces around Los Angeles? We would like to get out of this wonderful but crowded city.

Can you give me any information about homestead lands which may be available?

MRS. EARL PRENTICE

Unfortunately, the good farming land which can be homesteaded is all gone. But why don't you move to a small rural town? It is just as easy to make a living in a small town as in the big city—and it is more fun, and there's more space.

—R.H.

Hard Rock Shorty

of Death Valley



The two meteorologists from the university had been in Death Valley a week, lugging around mysterious instruments designed to register temperatures, humidity, currents, pressures, etc.

It was all greek to Hard Rock Shorty and the clerk in the Inferno store where the visitors had established their base of operations. Most of the time neither the clerk nor Hard Rock could even understand the jargon used by "them scientific fellers."

One morning Shorty came into the store as one of the visitors was trying to explain to the clerk the sudden fluctuations in temperature at certain seasons of the year.

"Hot air is lighter than cold air," he was saying. "And as it heats up it tends to rise . . ."

"Huh, maybe that explains what happened to Pisgah Bill the summer he wuz runnin' the service station," broke in Shorty. "Bill an' me never did figger it out. Happened this way:

"'Bout noon one sizzlin' day in August a motorist drove up to the station to git some gas, an he wanted more air in his tires too.

"Pisgah' fergot to start the engine and git up pressure in the air tank that morning like he usually done.

"He filled up the man's gas tank and then discovered he had no air pressure. So he started the pump engine and filled 'er up with that 140-degree air we wuz havin' that day.

"He got three tires inflated and was nearly finished with the fourth when that car started risin' off the ground. Bill made a grab at the wheel as she went by him, but he was too late. Last we saw of that old car it was just clearin' the top of the Funeral range. An' Bill had to mortgage his mine to pay the dude fer his car.

"You-all don't have to tell me about hot air bein' lighter."

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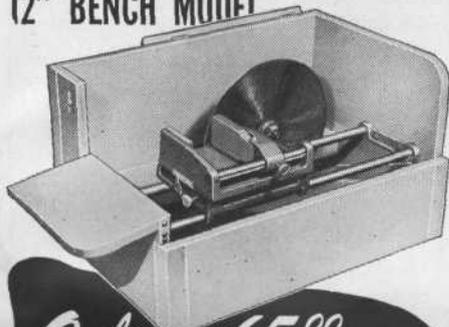
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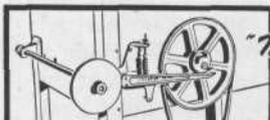
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AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

From time to time readers see accounts of the activities of N.O.T.S. Rockhounds. Many have no doubt wondered what these initials stand for. This group is an organization of rock-minded folks working at the Naval Ordnance Testing Station at China Lake, California, in the heart of what is often termed the Great American Desert. These folks have a fully equipped lapidary shop for community cutting and they are a group of rockhounds of the first order.

This year they are co-hosts with the Searles Lake Gem & Mineral Society and the Mojave Mineralogical Society in entertaining the annual convention of the California Federation of Mineralogical Societies. The meeting will take place at Valley Wells, near Trona, June 17 and 18. Every lover of rocks is welcome to attend even if he is not a member of any earth science organization anywhere. There are no accommodations for the convention visitors but there will be camping facilities for a million and barbecued food every day from noon, but you are urged to bring your own food.

There is no doubt about it—this will be a real rockhound gathering. No one who attends could be anything other than a sincere lover of the desert and its rocks for the unshaven male and naked-lipped female will prevail among the rocks. And for those who demand the thrill of finding the rocks they convert into deathless gems there will be field trips within a 50-mile radius of the camp that will secure for them at last 90 per cent of all materials the amateur lapidary cuts. Visitors will be taken to deposits of agate, jasper, petrified wood, petrified palm, bloodstone, banded travertine, clear, smoky and rose quartz, obsidian, precious opal, geodes, nodules, etc.

But let Don McLachlan of the N.O.T.S. Rockhounds tell you something of the locations. He writes "within 15 miles (less distance than many city dwellers drive to get beyond the city limits) are the El Paso mountains. Besides the beautiful scenery of Red Rock Canyon, the volcanic rocks of the area offer beautiful banded, moss and picture agate and jasper. The jasper is in pieces large enough for book ends if you are hardy enough to work its hardness of seven.

"Some of the finest black petrified wood available is in Last Chance Canyon. Some of it is beautifully marked palm and fig wood. This material is also found in large pieces. Then there is the Last Chance Canyon deposit of precious opal. Most of the pieces found are small but many a hunter has been rewarded with a fiery piece as large as a thumb joint. It takes a lot of hammering on the basalt dike to get good opal but its wonderful fire and color are ample reward.

"Precious opal is always a favorite and rockhounds willing to drive 40 miles of des-

ert road can work the large seam near Blue Chalcedony Spring where the opal is lighter in color, mostly milky, translucent blue with flecks of red, green and blue fire. A fist-sized piece is not uncommon.

"Within a mile of the opal field is a field of really large geodes composed of reddish rhyolite with hollow centers lined with blue and white chalcedony and milk opal. A hillside of blue chalcedony, a good seam of brown moss agate and countless small blue chalcedony geodes and nodules are but three miles from this site.

"Many Sunday picnics are spent on the lava beds less than 20 miles from our Station. Sharp eyes can always find a good crop of 'desert diamonds' of crystal clear quartz. These weather from vugs in the porous basalt and they facet beautifully.

"Another easy trip reaches the deposit of Death Valley onyx, which is not onyx and which is not in Death Valley but in Panamint Valley. It is a beautiful brown to cream colored banded travertine and it is particularly popular for statuette bases, ash trays, book ends and other decorative pieces.

"The southern end of the Inyo Mountains, 75 miles away over good roads, gives up good blue-green amazonite that cuts into wonderful cabs. At the same locality a milky variety of aquamarine is less common but some nice pieces have been found. About five miles north of this spot is a hill that gives extra fine smoky quartz crystals of gem quality and many of them cut stones of 50 carats and more.

"This is a real chace for everyone interested in gem cutting to share our treasure store; to get some really fine material; to cut a stone that you can be doubly proud to show because you not only cut it yourself but you found it yourself, in one of nature's greatest storehouses of rough gems."

If you have been reading this column and mentally saying "I must go and look for some of this stuff someday" why don't you plan now to go to this rockfest? Sure there will be thousands of people there but the desert has never been crowded yet. Many grand and unusual things have been planned for all visitors. Fill the car with food, water and bedrolls and take it in. Eat the food, use the water and bring back a nice variety of specimens. It isn't true, as they think in the East, that most of the desert has long ago been transported to Los Angeles backyards. There are plenty of rocks for all America for a long time to come.

• • •

This is a good occasion to offer a description of the community lapidary shop of the N.O.T.S. Rockhounds. It is operated by the Joint Navy-Civilian Recreation Council as one of the many activities of a community of more than 10,000 people. The shop contains three 16 inch and one 12 inch slabbing saws and a 6 inch trim saw. There is a complete line of arbors for coarse and fine grinding, sanding and polishing. There are two optical laps for flat work and a 24 inch steel lap for those who must have book ends. By convention time three small laps with faceting heads will be in operation. Fifteen people can use the shop at one time and there is never a lack of activity or customers on any of the five nights a week that the shop is open.

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Gems and Minerals

HIGHLIGHTS OF CALIFORNIA FEDERATION CONVENTION

With dates for the convention of the California Federation of Mineralogical Societies drawing near, important features of the June 17 and 18 affair are briefed as follows:

The gathering will be at Valley Wells, about six miles north of Trona, California, on the Death Valley Jayhawkers Highway. It will be an outdoor meeting. Valley Wells offers ample facilities for camping, picnicking, swimming and other outdoor recreations. Motel and other accommodations in the Trona area are limited so most of those attending will bring their gear and camp out. Sanitary facilities are being arranged. There will also be facilities for parking trailers.

In addition to the usual Federation activities—including installation of officers at a campfire Saturday night—field trips will be made into every good collecting locality within a radius of 100 miles. And Trona is located in the heart of some of the best collecting areas in the state. Aim of the steering committee is to make this a "real Rockhound convention in the heart of a Rockhound's paradise."

Host societies for the convention are the Searles Lake Gem and Mineral society, Mojave Mineralogical society and N.O.T.S. Rockhounds. Dealers who wish to take space for displays are asked to get in touch with Ralph W. Dietz, 108-B Byrnes, China Lake, California.

Junior members of the Mineralogical Society of Arizona put on the program at the April meeting, which was arranged by Fred McDonald. Maryanna Weber described minerals of primitive people. George Lambert outlined primary ore zones. Gordon Levine discussed gold. Joyce Krause talked about gasteroliths. John Peck demonstrated three kinds of field tests—chemical, blow pipe and bead. Bill Sullivan and Boyd Sayers made flame tests. Regular meetings of the society are the first and third Friday evenings of each month at 1738 W. Van Buren, Phoenix, Arizona.

The Willapa Harbor Gem club, Raymond, Washington, had an outstanding rock show April 29 and 30. There was no admission charge.

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JUNE 7-8-9 ARE DATES FOR ROCKY MOUNTAIN SHOW

Gem clubs and mineral societies which are members of the Rocky Mountain Federation are asked to get in touch with the secretary of the Rocky Mountain Federation Gem show which is to be held in El Paso, Texas, June 7, 8 and 9, so that proper arrangements for the big event can be made, according to Mrs. Kathleen C. Miller, secretary-treasurer. Her address is 500 W. Franklin Street, El Paso. Mrs. Miller stresses the fact that the June event is not a "convention," but is open to the public and thousands of visitors are expected. She says records of the Federation are incomplete as to the number of member societies, so she would appreciate hearing from society secretaries prior to the June show.

Rockhounds are urged to bring their specimens, gems, slabs or any other material of interest, and if it is not for sale display space and tables will be provided free. Several hundred grab bags are being prepared for the event. The annual show is to be held in the Coliseum in El Paso, a huge building with ample display and parking space.

The new Whittier Gem and Mineral society anticipates an active year under leadership of recently installed officers. They are: Bill McIninch, president; Ed Kantor, vice president; Mrs. P. C. Hutcheson, secretary; Alfred J. Styerwalt, treasurer. The society has voted to join the California Federation. John A. Tubbs, field trip chairman, has arranged a fine schedule of regular field trips under the leadership of Darold J. Henry. Some members took advantage of Easter vacation for a four-day trip to Colorado.

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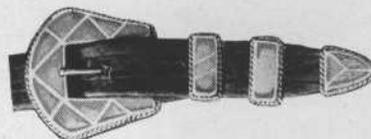
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AMONG THE ROCK HUNTERS

May field trip of the Mineralogical Society of Southern California, Pasadena, was to Horse Canyon on May 27 and 28. It took picks and shovels, but high grade agate was found by those who wanted to dig. Members on the trip made dry camp Saturday night. For June an annual picnic is planned.

Fifth annual Gem and Mineral show of the Imperial Valley, California, Gem and Mineral society—April 15 and 16 in El Centro—was reported a big success. All exhibitors except one were members of the club. There were no commercial exhibits.

Colored slides taken by members on recent trips were shown at April meeting of the Texas Mineral society, Dallas. The society meets in the Baker Hotel.

A paleontologist's impression of nine European countries was presented to the Georgia Mineral society at its April 20 meeting by Dr. Horace G. Richards, Philadelphia Academy of Natural Science. He visited the nine countries in his hunt for artifacts of paleolithic man. April field trip of the society yielded quartz crystals, rose quartz, star quartz, amethyst and aquamarine from a Troup County collecting site near LaGrange.

First annual Rock, Mineral and Gem show sponsored by the Yermo, California, chamber of commerce was May 6 and 7 in the American Legion hall at Yermo. Exhibits from Riverside, Los Angeles, Kern, Orange, San Bernardino and other counties were on display. Some attending the show camped out in Mule Canyon.

Mrs. Harvey Hardman is new president of the Long Beach Mineral and Gem Society, and taking her place as vice president is Mrs. Lowell Gordon. They were elected at April board meeting following resignation of President William Mayhew, who resigned because he and Mrs. Mayhew are moving to Paradise. Forty-one members attended a surprise farewell party for the Mayhews.

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WANTED rockhounds, gem cutters and mineral collectors to try our diamond sawed Arizona agate at \$1.00 per slab. Comes in many colors and combinations of colors and designs. Approval orders now filled. All agate guaranteed to have fine silica base. Mines are about 40 miles north of Cave Creek. Arizona Agate Mines, Cave Creek, Arizona.

MILWAUKEE HOST CITY FOR NATIONAL CONVENTION

With the Midwest Federation acting as host, the American Federation of Mineralogical Societies will hold its annual convention and exhibition at Milwaukee, Wisconsin, June 28, 29 and 30 and a record attendance is expected from all parts of the nation. Many rockhounds and mineral enthusiasts are expected to attend either the California convention June 17 and 18, or the El Paso convention June 7, 8 and 9—then go on to Milwaukee for the national get-together. General chairman of the Milwaukee affair is James O. Montague, 1026 E. Pleasant Street, Milwaukee 2. Publicity chairman is Herbert F. Grand-Girard.

Four field trips were enjoyed during April and May by the Delvers Gem and Mineral society, Downey, California. April 15 and 16 the group went to Lead Pipe Springs and on April 22 to Crestmore quarry in Riverside County. May 6 and 7 there was a trip to Death Valley with a jaunt to Last Chance Canyon scheduled May 20 and 21. At the April meeting of the society in the Downey high school cafeteria there was a talk on mineral transparencies.

Annual dinner and show of the East Bay Mineral society, Oakland, California, is scheduled for June 3 at the Lake Merritt boathouse. Dinner is set for 6:00 p. m. and displays will be open for inspection from 7:30 to 11:30 p. m. Jasper and other cutting material was collected by members of the society on their April field trip to Pere Creek. At the regular April meeting J. Lewis Renton, Portland, Oregon, displayed jewelry and polished stones.

Officers who now head the Rogue Gem and Geology club, Grants Pass, Oregon, are: Frank Blattner, president; Frank Panfilio, vice president; Mrs. Arline Sims, secretary-treasurer; Ben R. Bones, program chairman; Harold Wolfe, and A. F. Simms, field trip captains; Perry E. Fritz, publicity. Regular monthly meetings are held the first Friday of each month in the library auditorium. Visitors are always welcome.

New officers were elected at last meeting of the Kern County Mineral Society. They are: Mable O'Neill, president; Cecil Roberts, vice president; H. D. Bushey, secretary-treasurer; John Kennedy, field scout; Emrie Harman and John Kennedy, delegates to convention; Gae Chenard, federation delegate; Babs Bushey, hostess.

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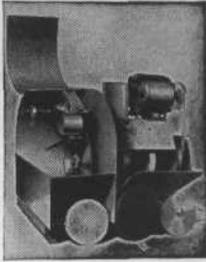
RANDBURG DESERT MUSEUM ATTRACTS MANY VISITORS

More than 4000 persons visited the Randburg, California, Desert Museum during the past 12 months, although the museum is open on weekends and holidays only, a recent report reveals. Visitors are allowed to handle gold, silver and tungsten ores and hundreds of other minerals found in the Rand District. The museum gives out free maps, mineral and mining information, mining pamphlets, and conducts field trips for rockhounds, mineralogists and prospectors.

A sound film showing in detail various methods of constructing and operating devices for obtaining gold from placer deposits was exhibited by Miss Leah Hammond at April meeting of the Pomona Valley, California, Mineral club. At the meeting new officers were elected for the 1950-51 year. They are: Burton W. Cohoon, president; Robert Busch, vice president; Marion Hillen, secretary; Alice Cohoon, treasurer; Heber Clewett, director.

Regular meeting April 15 and a public exhibit on Sunday, April 16, were highlights of April for the Minnesota Mineral club, Minneapolis. Field trips for the summer were discussed at the meeting.

Dr. Richard H. Jahns, youngest professor of geology at California Institute of Technology and senior geologist with the U. S. G. S., talked on prospecting locations at April meeting of the San Fernando Valley Mineral and Gem society. He gave some down-to-earth advice about "lowering our sights in this rock collecting hobby." Large museum-size specimens are not necessary, he said. Micro-mounts are fully as interesting, show more perfect crystal formation and are more practical for most collectors. Close at home are many field trips as interesting as those to distant places, he said. At the same meeting E. L. Newkirk displayed some of his beautiful crystallized mineral specimens.



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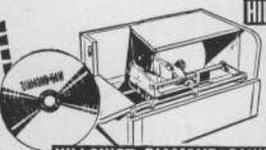
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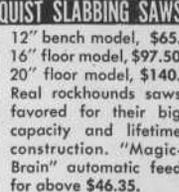
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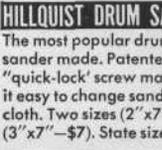
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George R. MacClanahan talked on the theory of light in gem stone identification at May meeting of the San Jose, California, Lapidary society. He explained modern methods and demonstrated instruments used in this science. Displays at the May meeting were arranged by A. B. Strong, Burton Stuart and Dr. Wesley Taylor. June exhibitors will be Alex Tihonravov, John E. Warren, R. D. Williams and Bert E. Wright.

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The recently-formed Earth Science Club of Northern Illinois meets the second Friday of each month at 8.00 p.m. in auditorium of the Avery-Coonley school, Downers Grove, Illinois. At the May 12 meeting the speaker was Dr. Gilbert O. Raasch of the Illinois Geological Survey, who talked on the geology of the Chicago region. Visitors are always welcome at meetings. Many field trips are planned for this summer. The club's new monthly bulletin, The Earth Science News, contains information pertaining to the club's six-fold field of interest: minerals, land forms, early man, pre-historic animals, ancient plants and the lapidary arts. Membership is drawn from the area west of Chicago to Aurora and north from Joliet to the Illinois-Wisconsin line.

Dates for the annual show of the Long Beach, California, Mineralogical society are June 10 and 11, it is announced. The show will be held in Sciots hall, Sixth and Alamitos. Display cases are available to those who want them. For information get in touch with Frank Britsch, treasurer.

The Santa Monica Gemological society has elected and installed new officers and has announced the list as follows: C. E. Hamilton, reelected president; Vern Cadieux, first vice president; Prof. W. R. B. Osterholt, second vice president; E. L. Oatman, treasurer; Mrs. J. C. Baur, recording secretary. Corresponding secretary is Mrs. Harry James, 1921 Via de la Paz, Pacific Palisades, California. Officers were installed at the annual dinner meeting in May. A field trip to the Chuckawalla Mountains was also planned for May.

"The Hidden Mines of Arizona and Their Legends" was a talk that held the interest of members of the Mineral and Gem Society of Castro Valley, California, at their April meeting in Hayward Union high school. The talk was given by Col. C. B. Branson, president of the group. Election of officers was to be held at the May meeting.

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"Topographic Maps and How to Use Them" was topic of a talk given by Dr. S. C. Creasey at April meeting of the Yavapai Gem and Mineral society, Prescott, Arizona. President Ernest E. Michael presided. Dr. Creasey has been mapping the Prescott area for the U. S. Geological Survey, and the society voted to acquire a series of his contour maps to help in planning field trips. On April 23 H. G. Porter headed a field trip to the Perkinsville area about 35 miles from Prescott in a hunt for jasper.

The Coachella Valley, California, Mineral society had two April field trips which took members on overnight trips to the desert. They went to Hidden Springs on April 21 and on April 30 to Windy Hill. In May there was a bus trip to the opal fields, while for June the society has a trip planned to the tourmaline and beryl mines in the Pala district.

A talk on the pioneer days of Imperial Valley was given at April meeting of the Brawley Gem and Mineral society. The society is a new one, Roy Rand is president. Plans are being considered for a lapidary class for adults at Brawley high school starting this fall. Persons interested are asked to get in touch with President Roy.

LATEST BOOK ON ART OF CUTTING GEM STONES

Francis J. Sperisen of San Francisco has been a lapidary, an inventor and a manufacturer of lapidary equipment for 35 years, and all the lessons learned in this rich background of experience have gone into *The Art of the Lapidary*, one of the most informative and helpful books yet published on this subject.

Author Sperisen has written for both the novice and the advanced artisan in lapidary work, and every detail is illustrated with both photographic reproductions and pen drawings.

The book is dedicated: "To the Amateur, May His Tribe Increase!" Chapters include: Classification of Gems, Physical Characteristics of Gems. Tools and Equipment, Sawing and Polishing, Cabochon Cutting, Faceting, Engraving, Carving and Sculpturing and other subjects within the broad field he has covered.

One chapter of special interest to the uninitiated as well as to the experienced lapidary is devoted to the identification of imitation gems. Sperisen's discussion and illustrations enable anyone to classify a real gem through physical and optical characteristics.

The Art of the Lapidary is the fifth book on this subject to be published during the 20 years that gem collecting and cutting have developed into one of the leading hobbies in the United States. Each of these books has its merit, but probably this volume is the most exhaustive yet offered.

Published by Bruce Publishing Co., Milwaukee, 382 pp., 400 illustrations. Index. \$6.50.

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EARLY ANNOUNCEMENT OF NORTHWEST CONVENTION

Early announcement is made of the Northwest Federation of Mineralogical Societies convention which will be held September 2 and 3—Saturday and Sunday—in the state armory at Spokane, Washington. Chairman of the committee in charge of club displays and individual display space is George E. Riddle, E. 518 Dalton Avenue, Spokane 13. Chairman of commercial dealers is Joseph M. Seubert, 1820 W. 26th Avenue, Spokane 9. The Columbian Geological Society, Inc., Spokane, is the host club.

Forty-six members were present and there was a fine display of specimens at the March 31 meeting of the Wasatch Gem Society of Salt Lake City. Jim Downward gave a report also on the annual gem cutters convention in Chicago. William Langton showed pictures taken on a trip through the Northwest.

Two postponed field trips were enjoyed by members of the Mineralogical Society of Southern California in April. April 22 and 23 a group went to Mule Canyon on a collection outing, then on April 28 members drove to Fontana for a tour of the Kaiser steel mill. They had dinner in the plant cafeteria.

Lelande Quick, editor of the Lapidary Journal and writer of a monthly column in Desert Magazine, was speaker at April meeting of the San Diego Mineral and Gem society which holds its society general meetings in the Natural History Museum. On April 15 and 16 members enjoyed a field trip to a collecting area 25 miles north of Yuma, Arizona, and on April 23 a mineralogy-resources field trip to Mesa Grande.

The Junior Rockhounds of Coachella Valley, California, had an overnight field trip in April to Hidden Springs, in the Orocopia Mountains. A jeep and a four-wheel-drive truck carried equipment, the young rockhounds brought food, water, bed rolls, camp equipment, rock sacks and prospector picks.

The Rand District, California, Mineral and Gem association has scheduled a field trip on Sunday, June 4, to Black Canyon, back of Fremont peak.

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BAXTER ISSUES NEW AND LARGER EDITION

Long acknowledged as one of the foremost teachers in the jewelry and lapidary field, William I. Baxter has just published the third revised edition of his *Jewelry, Gem Cutting and Metalcraft*.

The author is instructor of jewelry and gem cutting at Woodrow Wilson high school in Washington, D. C. His book was published first in 1938. Widely used as a textbook on the subjects covered, a second edition was published in 1942—and now the third edition has been both revised and enlarged to include latest advances in the gem and metalcraft arts.

The book includes specific directions for setting up a home shop, describes the necessary tools and how to use them, and out of the author's experience gives practical advice to those who aspire to create polished gems from rough material—and then make their own mountings.

There are 175 diagrams and photographs in the book illustrating the processes described, including the making of a wide range of jewelry and agate-handled tableware.

Published by McGraw-Hill Book Co., 334 pp. Ills. Index. \$4.00.

This book may be ordered from
Desert Crafts Shop
Palm Desert, California

An interesting talk on the history of spheres was given by Frank Dodson at April meeting of the Sequoia Mineral society. The meeting was at Parlier, California. Dodson displayed his fine collection of spheres and demonstrated how he makes them. Guest speaker was Dr. Charles N. Beard, associate professor of geography and geology at Fresno State college. He talked on the geology of central California and the development of the Sierras, the San Joaquin Valley and the Coast range. Richard Stevens sketched a map showing how to reach Gem Mountain and told of materials that can be collected there, and Carl Noren displayed a collection of minerals found in the San Benito district of the Coast range.

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Mrs. Jane Hagar, Manhattan Beach, California, has been elected president of the South Bay Lapidary society, to serve for a year along with: S. P. Hughes, Torrance, vice president; Gordon T. Bailey, Inglewood, secretary; Perry Williams, El Segundo, treasurer.

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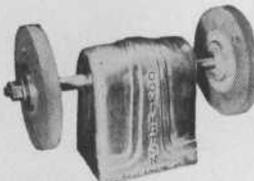
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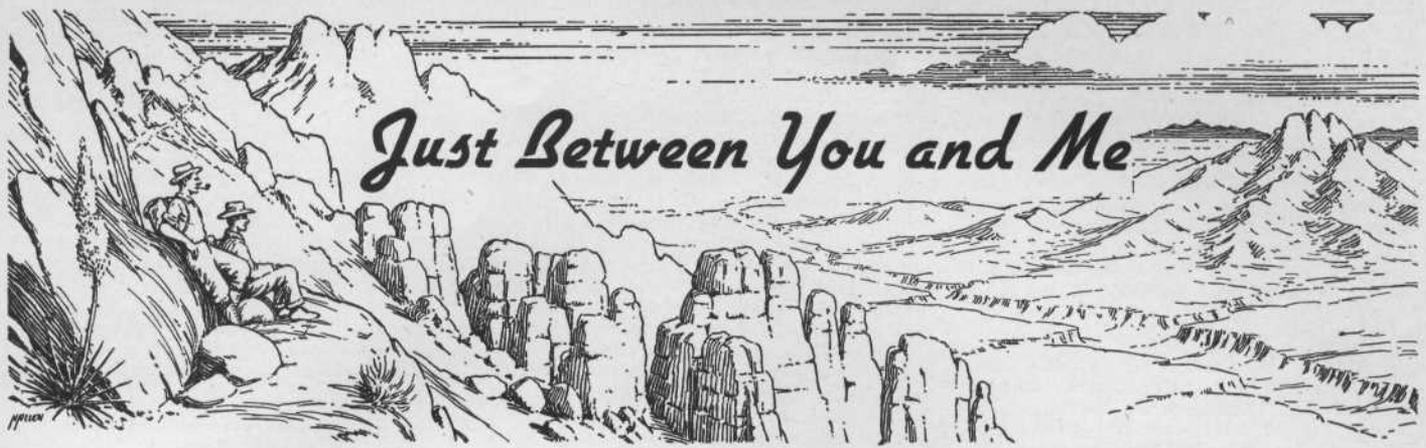
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Just Between You and Me

By RANDALL HENDERSON

I suspect that the reddest editorial face in USA during the past month has been at the desk of Harper's Magazine. During its long record as a monthly periodical for thoughtful people, Harper's has gained respect for the accuracy of its material.

It was with amazement then that many of us read in the April issue of Harper's an article by Alfred M. Cooper in which the author presented a fantastic word-picture of the catastrophe which threatens the 100,000 people residing below sea level in the Imperial and Coachella Valleys.

According to Cooper, the tidal waves of the Gulf of California are lapping their way inland at the mouth of the Colorado River and threatening to break through the great silt dike which separates the Gulf from the inland valleys.

Actually the silt barrier is 40 feet high and 65 miles wide. The Colorado river built it with billions of tons of silt over a period of tens of thousands of years, according to the estimates of geologists.

But these figures meant nothing to Cooper. He so distorted the known facts and the geography of the region about which he wrote that one wonders if the man ever has been near the delta of the Colorado.

Cooper was not the originator of this wild notion. Randolph Leigh in 1940 spent several weeks cruising the waters of the Gulf of California and then wrote the book *Forgotten Waters* in which he reported that the silt-free water coming down the Colorado after the completion of Hoover dam was threatening disaster to Imperial and Coachella Valleys. Following the publication of Leigh's book, engineers and scientists who have been studying the delta and the gulf for many years, were able to dispel any fears which may have been aroused.

Apparently the editor of Harper's did not take the trouble to verify the information contained in Cooper's manuscript. But I am sure he knows better now. For eastern bankers and insurance companies have huge investments in these reclaimed valleys of the Southern California desert and this story in Harper's Magazine created a near-panic among them.

Harper's cannot repair all that damage that has been done by the publication of a story so untrue and fantastic. It is hoped that the editors will have the courage and integrity to make what amends they can.

Cyria is making a clay model of Pegleg Smith whose mysterious nuggets of black gold have become a legend of the Southwest. A bronzed copy of this small model is to be given the winner of the Liar's Contest at the annual Pegleg Trek next New Year's day.

Smith was born in 1801 and died in 1886. He is said to have lost his leg through amputation following a battle with Indians in which he was wounded by an arrow. No pictures of him are available—and such meager information as can be gleaned from old records is very hazy as to which leg was lost. That is unimportant to you and me, and to those countless prospectors who have searched the desert for the three hills where Smith is said to have found the nuggets.

But to a sculptress making a lasting statue of Pegleg it is very important to know which leg was missing. So we searched the office library for hours—and found the records quite confusing. Finally we went to the one authority in California best qualified to give us the answer—Arthur Woodward, curator of history in the Los Angeles Museum. Arthur has access to rare old newspaper files—and in these he found evidence that Smith wore his wooden peg on the stump of his left leg. Later we will have a replica of the Pegleg miniature on exhibit in Desert Magazine's art gallery.

Some of us have been wondering what we could do about the growing accumulation of beer cans that line the gutters along most of the main highways. In the old days when beer was sold in bottles, the containers tossed out of passing cars soon were broken and lost. But tin cans are not so perishable. And as motor traffic increases the roadsides become more cluttered.

Harry Oliver, editor-philosopher whose *Desert Rat Scrap* book is well known to all desert people, decided to do something about those tin cans. Harry was one of the sponsors of a Tin Can Barbecue, held recently to celebrate the opening of a new surfaced highway across Coachella Valley between Harry's editorial office in Ol' Fort Oliver and the Desert Magazine Pueblo.

In the advance publicity, Harry announced there would be free admission for all those who brought with them a batch of old tin cans picked up along the Coachella Valley highways.

From my scrapbook I copied this quotation from Robert Louis Stevenson:

"To be honest, to be kind, to earn a little and spend a little less, to make upon the whole a family happier for his presence, to renounce when that shall be necessary, and not to be embittered, to keep a few friends, but these without capitulation—above all, on the same grim conditions to keep friends with himself—here is the task for all that a man has of fortitude and delicacy."

BOOKS OF THE SOUTHWEST . . .

BOLTON FOLLOWS HISTORIC TRAIL OF CORONADO

Four ragged castaways—among them Cabeza de Vaca and Stephen, the negro—were the first to bring to Mexico City the tale of fabulous wealth to be found in the Seven Cities of Cibola.

This was in 1537. Men were stirred by visions of gold to be had for the taking in 1537 no less than they were more than 300 years later when the rumor reached the eastern part of the United States that rich placer fields had been discovered in California.

Antonio de Mendoza, newly appointed viceroy for New Spain, immediately began preparations for an expedition to the unexplored land to the north where the Indians were said to have great riches in gold and jewels.

Francisco Vasquez de Coronado was the soldier selected to lead the expedition, with Fray Marcos de Niza as his missionary co-leader. Coronado was to add new lands to the domain of the Spanish crown and secure any loot worth the taking. De Niza's mission was to make Christians of the natives.

Coronado and his 300 soldiers and many hundreds of Indian camp-followers were the first to explore the territory which is now New Mexico. Much has been written about this expedition and the men who led it. But the story never has been told as fully and as carefully as it is presented by Herbert E. Bolton in his new volume *CORONADO, Knight of Pueblos and Plains*.

With the same painstaking attention to detail he gave to the Anza expedition, and to the missionary work of Father Kino, Professor Bolton spent years of research among original documents in Mexico and Spain, and then traced out the route on foot and horseback. His book contains much material not previously used.

The Coronado expedition yielded no plunder to the invaders. They found only Indians living in mud and rock houses, and tepees made of buffalo skins. To the invaders and those who had financed the expedition it was a failure. But it added much territory to the New World empire claimed by Spain. Coronado returned to Mexico exhausted and discouraged, only to face trial for the failure of the expedition.

Professor Bolton found many conflicting statements in the ancient documents bearing on the Coronado episode. He has reconciled them where

it was possible, and where this could not be done he presents the various stories as they were recorded in the chronicles of the expedition. He describes in detail the resistance of the Hopi Indians, and the two battles along the Rio Grande river when the Indians sought to turn back the invaders.

Published by Whittlesey House of the McGraw-Hill Book Co., and the University of New Mexico Press. 491 pp. Maps, references and bibliography. Index. \$6.00.

*This book may be ordered from
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. . .

AMONG TRIBESMEN WHO HAVE ALWAYS FOUND PEACE

The mind of a scientist with a rare gift for observant and sympathetic writing plus the heart of a philosopher and humanitarian have given us a remarkably interesting and informative book about the Hopi Indians. Walter Collins O'Kane has told in *Sun in the Sky* the story of a people about whom too little is known by the majority of their fellow Americans. The background of Hopi civilization, their daily life, the arts which they have perfected to such a high degree, some of their mythology, and above all the spiritual values to which they still faithfully adhere in an age that finds so many spiritual foundations tottering, are portrayed with compact writing and the simplicity of true art.

O'Kane portrays with unusual clarity the fascinating details of the Hopi religion, agriculture, cooking, weaving and pottery making. The Hopis are in-

dustrious, otherwise they would not have survived in the barren mesa selected for their home at some prehistoric time.

The chapters on "The Hopi Way" and "The Hopi Contribution" are interesting and revealing to those who, in the light of two world wars within a half century, have some misgivings as to the security of the white man's present civilization.

The Hopi culture was old when the white men first came to North America. Hopi means "the peaceful people."

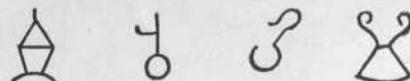
Walter Collins O'Kane writes as their friend—and what he has written is worthwhile for those who would have a better understanding of these strange and interesting people.

Published by the University of Oklahoma Press, Norman, Oklahoma, 1950. 248 pp. plus 90 illus. Appendices of pronunciation and decorations, and index. \$4.00.

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