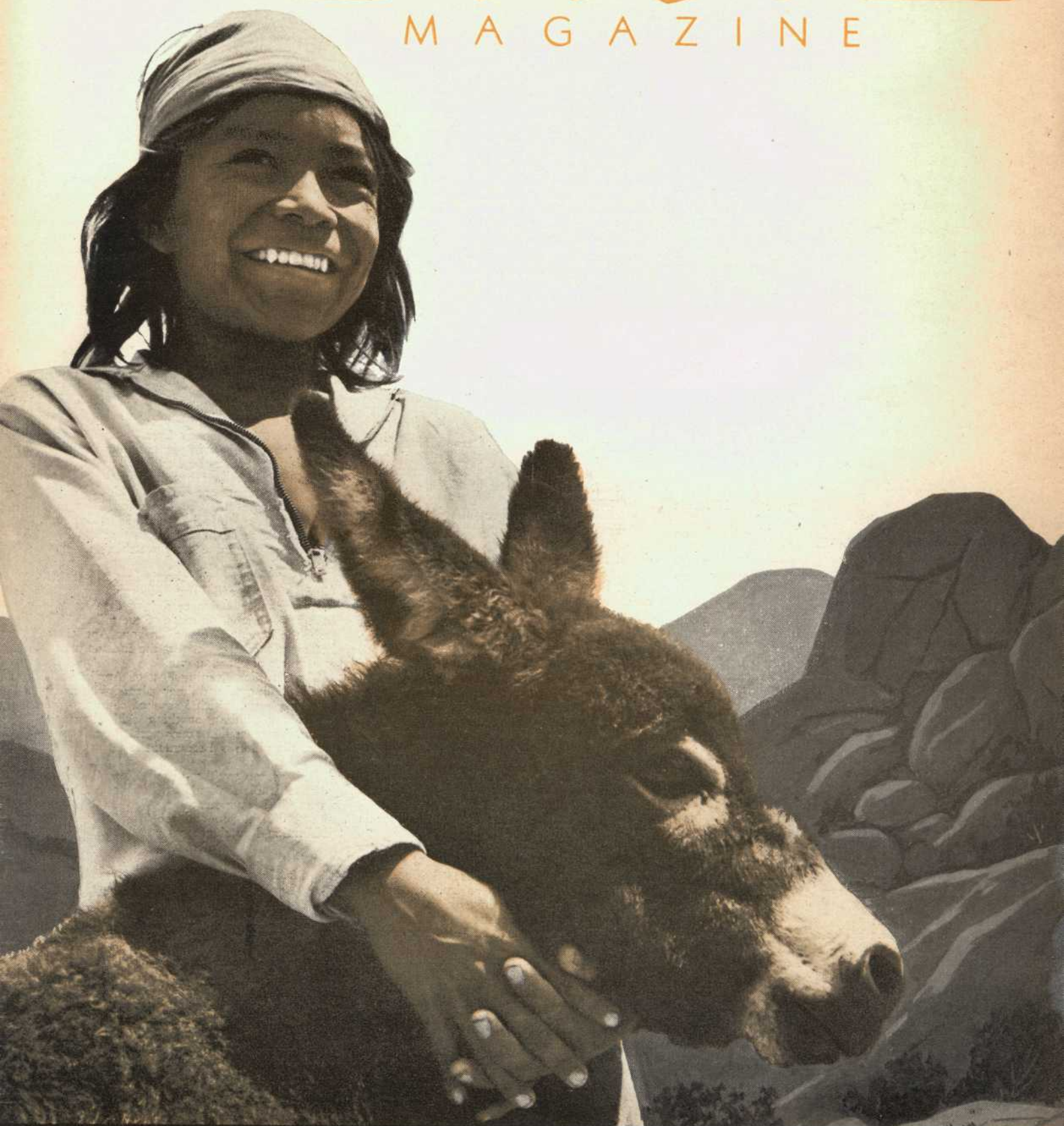


THE

Desert

M A G A Z I N E



AUGUST, 1941

25 CENTS

Apologies to Shorty's Burro . . .

Los Angeles, California

Dear Sirs:

I have just received my first copy of Desert Magazine, and enjoyed it very much.

I was particularly pleased with the article about Ballarat. I was there, as well as several of the ghost towns just a few weeks ago. Missed seeing Ol' Chris because the rains had made the road to his place impassable. However, over at Harrisburg Flat I met old Pete Aguerberry and had a long visit with him.

Later I visited the grave of Pete's old prospecting partner Shorty Harris. I had met Harris at Shoshone in the winter of 1933 and have a picture taken of him at that time.

Which brings me to the reason for writing this letter. On page 33 I find under Desert Place Names an item about Shorty's grave. Evidently whoever wrote this article took the wording on the plaque from the Death Valley guide book, page 40. In any case, the way you have it is wrong, and for the sake of accuracy I am writing the correct wording.

Shorty is famous for his tall yarns, and many of them included burros or jackasses. So the epitaph might just as well have included the latter. I checked the wording very carefully, and as it is made of bronze, there is no mistaking the legend on it. It read:

"Bury me beside Jim Dayton in the Valley we loved; above me write: 'Here lies Shorty Harris, a single-blanket *Jackass* prospector.' Epitaph requested by Shorty (Frank) Harris, beloved gold hunter, 1856-1934.

"Here lies Jim Dayton, pioneer, perished 1898.

"To these trailmakers, whose courage matched the dangers of the land, this bit of earth is dedicated forever."

The words in italics were omitted in the Desert Magazine reference to Shorty's grave.

G. A. GALLAGHER

Champion Quartz Crystal . . .

Long Beach, California

Dear Mr. Henderson:

Finding myself in Phoenix with a Sunday on my hands and recalling John Hilton's article on quartz crystals in the Superstition mountains, I hied me over in that direction all set to come out with some of the best of the crop.

I did not reckon on my far from good memory, and went out without a copy of Hilton's map. Consequently I spent plenty of time hunting the road, and when I finally did find the two correct ruts through the brush it was only to encounter a deep wash that very definitely said "no" to my low-slung 1941 model.

During the search for the right route I had the pleasure of meeting Mrs. Sina F. Lewis on her claim in the Superstitions and spent a most enjoyable two hours listening to her stories of the lost mines, including the Lost Dutchman.

I did not bring out any crystals, but I did have the pleasure of seeing the champion of them all—the finest quartz crystal I have ever seen—in Mrs. Lewis' collection. No, I cannot tell you where it came from.

J. H. CZOCK

Let's Make it Semi-Weekly . . .

Albany, Oregon

To the Editors:

I have been a reader of Desert Magazine for more than a year, and a subscriber for about 6 months, so I feel qualified to make a suggestion. I like the magazine so good. It seems the only thing long about a month is the length of time from one issue to the next, and with that thought in mind I suggest that you change from a monthly to a weekly magazine. And if you comply with that request, then we shall ask for a semi-weekly.

CHARLES ROHRBOUGH

LETTERS

Perfect Desert Car . . .

Fort Ord, California

Dear Mr. Henderson:

Have noticed several comments in recent copies of Desert on the need of a more satisfactory car for desert jaunts. The most recent one suggested shorter wheel-base and wider tires.

I would like to suggest that the new "Jeep" or "Jitterbug" the army has adopted is the most practicable I have yet seen or heard of in either new or antique vehicles. It has a very short wheel-base, balloon tires, four-wheel drive when needed, a very powerful motor for its size and weight, and is very low slung.

Needless to say they are very homely, but what true Desert Rat cares for looks in a man-made article? These "Jeeps" are powerful enough to carry four people and pull a loaded trailer over very rough ground. The four-wheel drive, used only when the ground is slippery, muddy, sandy, etc., gives them plenty of traction to go innumerable places a standard car of any vintage will not go.

This is a suggestion—not a sales talk.

PVT. DAVID E. SMITH

Greetings to Marshal South . . .

Orange, New Jersey

Dear Sir:

It was with a great deal of regret that I read in the Magazine, the first part of the year, of the discontinuance of Marshal South's articles; but I did not write and express my complaint and disappointment for I realized there must be others you felt should contribute to your wonderful magazine.

I am writing at this time to tell you how happy I am to see that Marshal South has again contributed his art of writing for the Magazine, in May and June numbers, and here's hoping it continues for I don't think anyone brings one closer to the desert and its wonders than he does. To an easterner, who has been fortunate enough to have enjoyed a little pleasure and relaxation on the desert, it is so inspiring and restful to read your Magazine.

I have been a subscriber since its first publication and I hope I can always continue to be one.

ELSA E. LIVINGSTON

Information, Please . . .

Inglewood, California

Dear Sirs:

This spring we went to see the wild flowers in the Arvin hills between Bakersfield and Tehachapi. On one of the hills we found two graves, one surrounded by an iron fence. Each had a gravestone but no inscription.

Could you tell me the history of these lonely graves? Why is one enclosed in a fence and the other not?

We decorated the graves with wildflowers, and would be interested to know who they belong to.

MRS. F. KLUSS

If any of the Desert Magazine readers know the answers to Mrs. Kluss' questions, we would like to pass the information along to her.

—R.H.

Error in Geography . . .

Nutley, New Jersey

Dear Mr. Henderson:

To tell you just what Desert Magazine means to me is not an easy thing to do in a few words. To come home from the day's turmoil with its strikes and wars and misgivings, and then to bury oneself in the Desert Magazine and be transported vicariously back to God's country is a rare pleasure.

I especially enjoyed your article On the Trail to Rainbow Bridge. There was one minor error I would like to point out. Consult your map of southern Utah and you will see that when Norman Nevills conducts his boat trips from Mexican Hat to Rainbow Bridge he travels most of the distance on the San Juan river, not the Colorado. After reading that article I turned back through my files and re-read John Stewart MacClary's Shortcut to Rainbow Bridge in the May 1939 issue. Although it is a little late to mention it there is an error in that article also. Consult your map again and you will agree it would take a magician to float down the Colorado from Lee's Ferry to Bridge creek.

The recent May issue with its little surprise package, the splendid Utah booklet, was especially enjoyable. I look forward to the day when Desert Magazine begins to use color shots in the manner of the Arizona Highways Christmas number, and hope that I may have the pleasure of submitting some of my own.

With every good wish for your continued success.

M. S. CARPENTER

Piñons in Massachusetts . . .

Springfield, Mass.

Dear Mr. Henderson:

Several months ago I purchased a sack of piñon nuts advertised in your magazine.

This spring I threw a handful of the same on my garden. A few weeks later I was surprised to see the Southwestern plants peeking shyly at the strange New England and different climate from their places in the soil.

Now the plants are over an inch in height, although some still are appearing. They are somewhat of a curiosity, and I believe my friends take as much interest in them as I do. We are at present eagerly watching developments.

Even though I have subscriptions to both the New Mexico and The Arizona Highways Magazines in addition to that of the Desert, I have seen no mention made of the piñon. "Nomah, the Navajo Weaver" in your April issue had mentioned the fact that the Indians used it as a source of chewing gum.

The Saturday Evening Post of April 26 had an article on cacti and desert plants, with natural color photos, which I scanned enthusiastically without finding anything said about the piñon. However this seems perfectly natural to me as the piñon is a mountain and not a desert pine.

Perhaps you could send me a few hints as to what measures I should take to best help and nurture it. I leave this to your discretion. I wish to compliment you and the staff on the fine publication I receive every month.

MR. HARLAN LEIGHTON

Mr. Leighton: Desert Magazine of November '39 carried a very complete story about the harvesting of piñon nuts by the Indians, written by Richard Van Valkenburgh.

—R.H.

Worth the Price . . .

Payson, Utah

Dear Editor:

Herewith my check for renewal of D. M.

The articles by Marshal South are worth the price, and I have all the rest of the magazine for nothing.

L. D. PFOUTS

DESERT Calendar

- AUG. 1-3** Cowboys' Reunion, Las Vegas, New Mexico. Ranch hands rodeo, one of the largest in the West.
- 2-3** First annual charity horse show, Flagstaff, Arizona. Leo Weaver, secretary.
- 2-16** Utah and Arizona vacation trip for Sierra Club of Southern California. Reservations before July 25, Irene Charnock, 2526 Hyler avenue, Los Angeles. W. E. (Andy) Andrews, leader.
- 2-19** Drawings of Yaqui, Seri and Mayo Indians by Eben F. Comins on exhibit at Museum of Northern Arizona, Flagstaff.
- 3** Smoki Ceremonials in Prescott, Arizona at sundown. Claude Hayes, chairman.
- 4** Great Indian Corn dance, Santo Domingo Pueblo, New Mexico.
- 9-10** Sierra club to hike Mt. San Jacinto and climb Tahquitz Rock. Dr. Marko Petinak, leader.
- 12** Indian ceremonial at Santa Clara Pueblo, New Mexico.
- 13-16** 20th annual Inter-Tribal Indian ceremonial, Gallup, New Mexico.
- 14-16** Annual rodeo, Vernal, Utah.
- 15** Corn dance, Zia Pueblo. 60 miles southwest of Santa Fe.
- 20-22** State convention of 20-30 clubs in Salt Lake City, Utah. Harold Berling, Fort Douglas, chairman.
- 21-24** American Legion state convention, Prescott, Arizona. Wm. P. Aven, chairman.
- 22-23** Bean harvesting festival and rodeo, Mountainair, New Mexico.
- 22-23** Flower show, Santa Fe. Morris Yashvin, chairman.
- 22-24** Cavern City Cavalcade, Carlsbad, New Mexico. Rodeo.
- 23-SEPT. 10** Indian paintings by Hoke Denetsoie, Navajo artist, at Museum of Northern Arizona, Flagstaff.
- 28-30** Box Elder fair and rodeo, Tremonton, Utah.
- 28-30** Kids rodeo in El Paso, Texas, followed on Aug. 31, Sept. 1, by Range Hands rodeo.
- 30-SEPT. 1** Oldtime Labor day celebration at Miami, Arizona.
- 30-SEPT. 1** Nevada rodeo, Winnemucca, Nevada.
- 30-SEPT. 1** Dig-N-Dogie Days, Kingman, Arizona.
- 30-SEPT. 1** Nevada state fair, Fallon, Nevada. C. J. Thornton, Reno, manager.
- 30-SEPT. 1** Santa Fe Fiesta in Santa Fe, New Mexico. A. J. Taylor, chairman.



Volume 4

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Number 10

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Apache Indians, once the most warlike of all the western American tribes, now send their best dancers to Gallup each year to present the famous Devil Dance.

When the Tribesmen Dance at Gallup...

INDIANS from 30 Southwestern tribes will assemble for their annual Inter-Tribal Ceremonials at Gallup, New Mexico, this year August 13-16. This will be the 20th annual presentation of a program that has gained nationwide recognition as the most colorful Indian pageant in America.

Thirty-odd Indian dances in costume are to be presented in the stadium each of the four evenings. The daylight program will be featured by parades and games.

Days before the program begins, Indians will be trekking toward the "Indian capital" on foot, horseback, and in many kinds of vehicles. Thousands of them go there to take part or to witness the dances.



San Ildefonso pueblo Indian in costume worn in the Comanche dance.

No less interesting than the ceremonial program is the great exhibit hall where the finest crafts from all the tribes are entered for \$1500 in prizes. Navajo sand-painters, Hopi katchina makers, potters, weavers and jewelry makers are seen at work in the exhibit building.

Sponsoring the Ceremonial program is a non-profit association of Gallup business men. Last year they erected a new steel stadium with a seating capacity of 4,000. Secretary of the association and the man who deserves much of the credit for its success is M. L. Woodard.

The program for each of the four days is as follows:

WEDNESDAY, AUGUST 13

8:00 p. m.—Indian dances, Lyon Memorial park.

AUGUST 14-15-16

10:30 a. m.—Parade through downtown Gallup.

2:00 p. m.—Games and other events, Lyon Memorial park.

8:00 p. m.—Indian dances, Lyon Memorial park.

The Rainbow Dance of the San Juan pueblo Indians is one of the most spectacular ceremonies in annual inter-tribal program held at Gallup



The men ran down the street to where their horses were tied and headed out of town on a gallop, firing as they went to discourage pursuit.



Bisbee Massacre

By BARRY GOLDWATER

In Boothill cemetery at Tombstone, Arizona, are two weathered boards, one of them marking the burial place of five men hanged by due process of law, and the other recording the demise of a man lynched by a mob. These grave markers are mute testimony to the truism that crime did not pay—even in 1883 when banditry was a popular vocation on the western frontier. The events behind the tragic death of those six men comprise one of the bloodiest episodes in early Arizona history—and here is the story as disclosed by the archives of that period.

TWO men, one of them masked, walked into the general store of A. Castanoda and Joe Goldwater in Bisbee, Arizona, soon after dark Saturday evening, December 8, 1883.

The unmasked invader levelled his gun at Peter Dall, the bookkeeper. "Get your hands up!" he commanded.

Taken by surprise, Dall hesitated for a moment. The second bandit also turned his revolver in the direction of the clerk—and the latter's hands went up without more delay.

Three other masked men had followed the first two into the store and covered the customers and other clerks.

"Get that safe open and hand over the

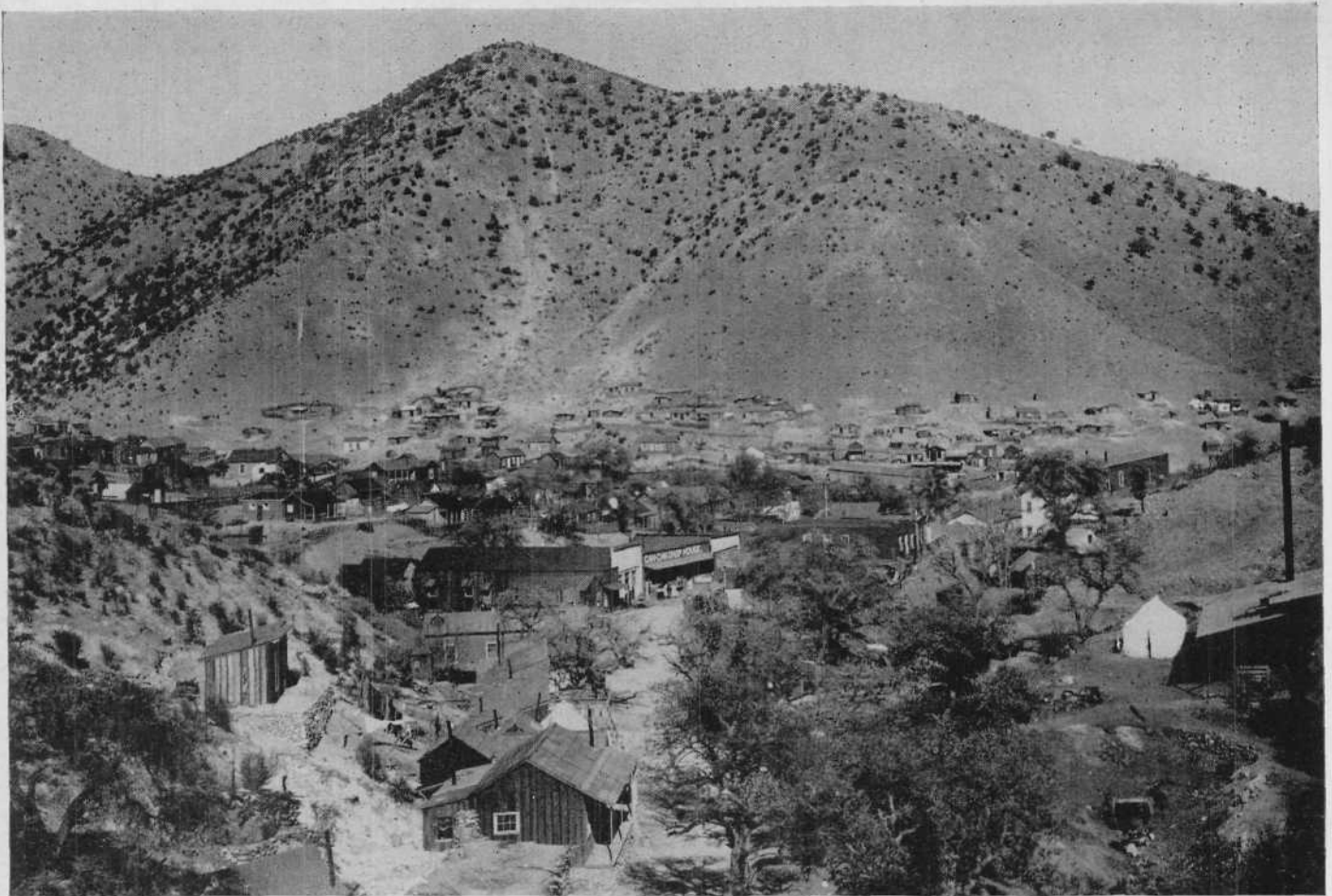
payroll money!" demanded the leader, speaking to Dall. But Peter was only a subordinate in the store, and did not know the combination.

He told the bandit he was unable to comply. The unmasked one was not convinced, and with an oath moved closer to Dall and levelled the gun directly at his head.

At this crisis one of the masked robbers in the background moved forward, saying, "Hold on boys, don't shoot him. I've got the man in charge of the store here."

The man he referred to was Joe Goldwater. As one of the owners of the place, he knew the combination, and with guns pointed at him he lost no time in opening the safe.

Two of the bandits, in the meantime, had returned to the sidewalk in front of the store and were patrolling the street with Winchester rifles. Just as Goldwater was swinging open the door of the safe, those inside the store heard one of the men outside shout an order, "Come on in here!" Evidently a passing citizen saw what was going on and intended to spread



Early day picture of Bisbee mining camp. Photograph courtesy Arizona state library.

the alarm, for he replied, "No you don't —." At this, the other member of the gang shouted out, "Let 'im have it," punctuating his words with two blasts from his gun. The man staggered a few steps, and then fell dead against the Bon Ton saloon.

Thus began one of the bloodiest incidents in all of Arizona's turbulent history—the Bisbee Massacre. The man killed was Johnny Tappener, and before the whole affair was over nine other persons were to follow him to the grave.

The shooting of Tappener changed the whole aspect of the affair. No longer was this just another payroll hold-up, fairly common in those days. It had become the deadly serious matter of murder. The bandits realized that capture now would mean the noose, so they had no reluctance about using their guns.

Earlier in the evening D. T. Smith had been in the store trading with Joe Goldwater, but had left to go to a restaurant. He was sitting at a table with Mr. Boyle, the owner, when the shooting started. Jumping up, he rushed into the street, armed with an English bulldog pistol. He never got to use it, for a bullet through the brain made him victim number two of that ruthless slaughter. From then on, the gunmen shot at anyone who showed his head in the street.

It was this promiscuous shooting that brought death to the third person. Mrs. W. W. Roberts, a young woman of 33

years, had just recently come to Arizona from her native state of New York. She unknowingly stepped into the street, and a bullet brought quick death to her.

The score now stood at two men and one woman, but the shooting was not yet over. A citizen named James A. Nalley, while trying to reach a place of protection, was fatally shot through the left side of the chest. He too staggered to Bob Pierce's saloon before collapsing, and died the next day.

The reign of terror lasted five or six minutes at the most—but it was long enough to bring death to four innocent persons and robbery to the store of Castanoda and Goldwater.

While the killings had been taking place outside, Joe was opening the safe inside the store, emptying its contents into the gang's jackets. Not content with the loot from the safe, one of the bandits went into the back room where Castanoda lay sick, and forced him to hand over a bag of gold that he had put under his pillow for safe-keeping when the shooting started.

With the robbery finished, the five men dashed out of the store and raced down the street, firing an occasional shot

over their shoulders to discourage pursuit. They ran to the end of Tex's lumber yard where their horses were tied. Mounting, they headed out of town in full gallop towards Hereford.

But where, while all of this was going on, was Arizona's much-vaunted law? Deputy Sheriff Bill Daniels, who ran a saloon as a side-line to his law-enforcing, was playing billiards in his establishment when the fireworks began. Rushing to the door to see where the shooting was coming from, he collided with a man coming in breathlessly who told him what was going on. Daniels started toward the street but was swept back into the room by half-a-dozen men scrambling for safety.

The deputy got two guns, gave one to a man who had just come in, and the two of them ran out the back way into the "gulch" behind the buildings. They raced down to the postoffice, where they came into the street. By that time the bandits were running for their horses, and the officer had to hold his fire for fear of hitting the townsmen who were filling the street. As the unmasked leader commanded, "Get on your horses, boys," he cut loose at them. Their returning fire forced Daniels back out of range for a second, and when he came out shooting again, the gang had started down the road. The darkness made for bad aim, and he emptied his gun after the fleeing men without apparently making a hit. He re-



These graves in Boothill cemetery at Tombstone, Arizona, record the passing of six men who made the mistake of killing four innocent bystanders in a hold-up.

turned to the store, where Joe Goldwater told him of the robbery.

Daniels hastened to the Copper Queen mine office where Ben Williams offered to furnish a few horses and all the guns needed for a posse. Returning to town Daniels met a boy who had just seen five men on horseback galloping furiously in the direction of Hereford. Arriving in the heart of town, he found everything in confusion. However, he managed to recruit a posse and they saddled up and headed for Tombstone to tell the sheriff of what had taken place.

Daniels himself then left with another man to go to Forrest's milk ranch to see if they could pick up a trail. On reaching the ranch he was told that a party of five men had passed there a while before. Here was a trail, and Bill was anxious to get started on it. Hurrying back to town, he found a posse ready to start. By this time it was 3:00 a. m. They rode to the milk ranch, and camped until dawn. When the morning sun gave them enough light, they headed out on foot to see if they could pick up tracks. After following the road for half a mile they were convinced that they were on the right track, and returned for the horses. Daniels was leading the party down the narrow road when a man

named John Heath came dashing up from the rear and said that he had found some tracks branching off from the road back a ways.

Daniels was an experienced trailer and he hadn't seen the other tracks, but he listened to Heath's suggestion that the party split up and follow the two trails. Heath took two men with him and headed in the direction of Tombstone. Daniels went westward, but an hour's search failed to show any trace of the gang. Something was in the wind, something that smelled of treachery! John Heath would bear further investigation.

Heath, however, was well along the road toward Tombstone by now, and there was nothing to do but return to the trail they had been on previously. After riding for some distance, a party of men were seen to come up from Sulphur Springs valley. These men, when questioned, said that they had seen a lone rider early that morning, but that he had changed his direction and ridden away when he saw them. This same story was told by another man at Soldiers' Holes when the posse arrived there near sundown. Daniels' men took time to eat and water the horses, and then pushed on. They were certain that one of the fugitives was somewhere ahead

of them, less than 12 hours away. The next stop was White's ranch, where the rancher said he had seen a party of riders answering the description of the wanted men a few days before, at a neighboring ranch. However, he had not seen the lone rider mentioned by the party of men that day, so Daniels decided to call it a day. The trail was cold by now.

The rising sun saw the posse again on its way, this time to Buckle's ranch, where Mr. White had seen the wanted men. Arriving at the ranch around 10 o'clock, they found Frank Buckle had a lot to tell them. Four of the five men had left there the Wednesday before, after shoeing their horses. Two of the men had been there before. One was described as being light complexioned, sandy-haired, and wearing a moustache, giving him a very debonair appearance. That, thought Daniels, could be no other than Tex Howard, the unmasked desperado. And the other man fitted John Heath's description to perfection. Now the story began to take shape. John Heath and Tex Howard had been friends before the robbery had taken place. Here then was the reason for Heath's discovery of another set of tracks. He had deliberately thrown



Brewery Gulch at Bisbee in 1905. Photograph courtesy Arizona state library.

the posse off the trail. John Heath became a wanted man.

One of the horses was going lame, so Daniels sent the rider to Tombstone with orders to have Heath arrested if he showed up in that town. He also dispatched a note to Ben Williams in Bisbee to watch for Heath in case he returned there.

From what he learned from Frank Buckle, Daniels deduced that the gang or a part of it had gone to Mexico. He led the posse south, visiting Leslie ranch, the San Bernardino ranch, and the Erie Cattle company's lower ranch to find clues to the movements of the desperadoes he was seeking. After three days, he turned back to Bisbee. By this time, even if he was on the right trail, the murderers would be across the border, so further search in that direction would be a waste of time.

On the way back, he learned that Heath had been arrested and was in jail in Tombstone. He determined to capture the other four of the band. After a few days in Bis-

bee, he was off again. Luck was with him this time. Tracing Dan Dowd, one of the desperadoes, to the border, he decided to ignore the international line, and went down into Chihuahua. He found his man in Corrolitos, captured him, and smuggled him back into the United States where he was jailed in Tombstone.

After Dowd's capture, the rest of the gang followed quickly. Bill Delaney, the second of the masked quartet, was arrested in Ninas Prietas, Sonora, by a Mexican officer. Dan Kelly, a third, was caught when a barber who was shaving him recognized him as a wanted man and turned him over to the law. Tex Howard and Red Sample showed up in Clifton on the morning of December 13, five days after the massacre, and started on a spending spree. A gold watch gave these two men away. A quick-witted bartender, Walter Bush, recognized a double-cased gold watch engraved with the name "William Clancey" as part of the loot that Joe Gold-

water had been forced to turn over to the robbers in Bisbee. He notified the authorities, and the last of the five were soon under lock and key awaiting trial. Justice was promptly meted out. They were tried immediately, and were sentenced to hang on the 28th day of March, 1884.

That, however, was not the end of the list of dead or doomed which began with Johnny Tappenier on that fateful night in December, 1883. There was still the matter of John Heath in jail under suspicion as an accomplice to the robbery and subsequent murders. Heath, like his friend Howard, came from Texas. He had arrived in Bisbee only 10 days before the massacre, and had gone into the saloon business with a Mr. Wait. During the trial, the information came out that he and Tex Howard had run cattle together for three years in Texas. They had drifted apart, and then met again near the town of Clifton, Arizona. During the trip from Clifton to Bisbee the two partners increased to six with the addition of Bill Delaney, Red Sample, Dan Kelly, and Big Ben Dowd. Ben, Red and Yorke had intended to go to Mexico, and Heath was going to Bisbee to open up a legitimate business. It was Tex Howard who planned the hold-up and persuaded the others to join him. Throughout, he seemed to be the ring-leader.

But whether his intentions were good or ill in coming to Bisbee, John Heath became involved in the massacre, and was sentenced to 20 years in the territorial prison at Yuma for being an accessory to murder. Heath himself was probably glad to get off with no worse punishment, but not so the citizens of Bisbee. Four of their townsmen had been shot down in cold blood, and they were not to be appeased with anything short of death for anyone who had anything to do with their murder.

On the morning of February 22, 1884, over 50 armed townsmen rode over the Mule mountains into Tombstone. They obtained a rope from a store, part owner of which was the same Joe Goldwater who had opened the safe and handed over the loot to the bandits on the night of the massacre. By the time the inhabitants of Tombstone were up that morning, John Heath was hanging very limp and lifeless from a telephone pole. The coroner's inquest on the body read, "I find that the deceased died of emphysema of the lungs, which might have been caused by strangulation, self-inflicted or otherwise."

Thus was justice meted out to the last of that ill-fated sextet that planned and carried out the payroll robbery of the store of Castanoda and Goldwater which turned into the bloody chapter in Arizona's history known as the Bisbee Massacre.

At their desert homestead on Southern California's Ghost mountain, Marshal and Tanya South and their three children have no water supply except the rain that falls on the roof of their adobe home and is drained to the cisterns. Before the cisterns were built they had to haul water many miles, and then pack it on their backs up the steep trail to the top of the mountain. Rains are not plentiful in this desert region—and every drop of water is precious. Yet despite this fact the Souths have a little garden. It isn't large, and it has to be well protected against rabbits and other rodents, but—well, let Marshal tell you about it in his own words. Here is another interesting chapter in the story of a family that has found health and happiness in primitive living.

Desert Refuge

By MARSHAL SOUTH

THE days are hot now. Through the chinks of the ramada thatch the noonday sun searches the patch of black shade with thin, burning fingers. It is breathless in the house, even with every window flung wide. Our little thermometer, tacked against a temporary inside wall, hovers around 110 degrees, and often goes higher.

The big open unfinished cistern that we have grown used to calling the "lake" is dry. Where, awhile back, toy boats sailed and water beetles played, hot, thirsty cement now glares to the scampering lizards and the hopeful bees.

It is hard on the bees. Both our own and the wild ones have gotten used to the lake as a water supply. Now, again, they must make long flights across the desert for their drinks. And, in consequence, they are mad. Habit is as strong in insects and all other living creatures as it is in humans. Like the needle of the phonograph, action impulses follow little grooves among the thought cells. Until there is a worn track which it is hard to turn from. "Thus did my father, and my grandfather!" "Behold, this is *right* and this is *wrong*!" Thus and so is "the custom."

It is a good thing that the Great Spirit, in His infinite wisdom, sees fit, every once in a while, to drastically upset the order of things. Else there would be no development of mind or soul or initiative. Just a ghastly lock-step—everything growing more and more crystallized and stereotyped and patterned until the whole universe mummified. After all it is disaster and upheaval that are the stuff from which *real* progress is built.

Our tame chukka partridges have learned to fit themselves to conditions. They come for their drinks at fairly regular times, morning and evening. And at such times we go out and serve them their portion in a tiny pan beneath the shade of the juniper tree. If they come in and find the pan dry they walk up and down prominently on the white gravel in front of the house, eyes cocked expectantly, until noticed. They are not the only ones who have learned, however. The squirrels, chipmunks and birds have learned too. Speedily, as the meal call sounds, guests begin to assemble for the banquet. The chukkas do not like the big grey squirrel, who is a hoarder. They scold angrily as he wolfs the grain. They don't like, either, the large red racer snake who comes periodically, trailing his long handsome length for a drink of water. But the racer is a good sport and fills his appointed place in the scheme of things. He is an adjuster in Nature's balance. Our mouse population, a problem a short time ago, is now back to normal.



Rider South selects a warm sunny rock for his outdoor studio. Sketching and painting are among his favorite pastimes.

Our tiny garden continues to do well, though it is rationed now on water from the drinking water cisterns. Every year the water situation improves a little, as we get more and more toehold. The thing is like a rolling snowball. The bigger it gets the quicker it grows. We get a lot of comfort sometimes in thinking back to beginnings. It's encouraging, and it is also an illustration of inter-dependence. It takes water to mix cement—and it takes cement to catch more water. Sometimes we think we haven't gone very far. Then we remember that we carried the first water to mix the first tiny batches of cement up the mountain on our backs. And remembering this—as we now dip a bucket into a sizable cistern for our supply—we feel better. And sizable cisterns mean the ability to make bigger cisterns. So it grows. So *everything* grows. A fundamental law. Germs and mesal plants and humans—and civilizations and universes. Until, like an over-inflated bubble, they grow too big to stand the strain of their own expansion. Then they blow up—and return to beginnings, to start all over again. Hopeless? By no means. On the contrary, if you will reflect upon this mysterious, unswerving law, you will find there the most definite assurance of Hope and of Immortality. Life is a busy thing. And packed full of joy if it is lived sanely and sincerely.

And the richest joy of life is work. Work and accomplishment. Not treadmill work, but individually constructive work.

I don't think there are many pleasures equal to that of overcoming a seemingly hopeless problem. At any rate we get a thrill out of every cool green salad that comes up to the table these days, a thrill that is maybe childish and out of all proportion to the size of the salad, but a thrill nevertheless. Sometimes our rare visitors smile slyly as we enthuse. They are thinking of the lush fields where water in abundance flows docilely in ditches, and green things wax fat in pampered ease. But we are thinking of our first garden. It was 12 by 18 inches in size. And, for lack of anything better, we fenced it around with cholla cactus—a rampart against the mice and rats.

We planted mustard in that garden. And doled it scanty portions of drinking water that we carried up the mountain on our backs in a hot summer. And the little plants came up. It was a new world to them—new and harsh conditions. Ten thousand generations of mustard seed behind them had never faced conditions such as these. When they were three inches high, dwarfed and spindly and tough, they realized that the end was upon them. And, with the marvelous prompting of the Great Spirit (a circumstance from which one can derive more assurance than from all the books and preachers in the world), they began to seed—to put their last remaining flickers of life into a desperate effort to perpetuate their kind. We had one salad from that garden. It was a salad that might have served as an appetizer for a squirrel. But it was a salad.

The next garden was a trifle bigger. And only a trifle better and more successful. Plants are like people. They acquire certain habits and needs over long periods of reincarnation. A long line of ancestry had accustomed our garden vegetables to certain civilized conditions. They did not like the desert. The harsh soil upon which the mesquites and the junipers and the ramarillo bushes thrived was too crude for them. So, as we had no time to wait upon evolution, we had to compromise—make soil that they *did* like.

Far and wide, on desert excursions, we collected fertilizer, carrying it home and up the mountain in sacks. When the grass and herbage flourished in the spring we collected that too. All of this enriching material we buried and dug in, into the stubborn earth. Then came the yelling winds, and the savage beat of the sun; the appreciative bugs; the mice and the squirrels and the joyful birds. Many times, before these individual or collective blitzkriegs, the garden went under. But, stubbornly, having an inability to know when it was licked, it always somehow got up on its hind legs and shook a defiant fist at the land hosts and the air hosts.

And it won out. Today it flourishes merrily, protected by frames—low enclosures completely covered with cheesecloth. Maybe you can't have a "garden estate" under such conditions. But you *can* have vegetables. In desert locations where water is scarce and high winds and pests are serious problems these garden frames are the answer. Five or six feet wide, and of any length convenient, they give complete protection. If you have had trouble with your desert vegetable garden and have not hit upon this device, try it out. Make the side walls from old lumber, or anything else that is handy, and build them from 12 to 18 inches high. If the materials are available it is an improvement to make the sides of fine mesh wire netting, as this lets in the air and light. There should be curtains of burlap or canvas, to let down when hot or heavy winds blow. The tops of the frames can be covered with cheap unbleached muslin, tacked down along one side and weighted with a long strip of wood on the other. It should be wide enough to lap well over. Lath covers, or covers of fine mesh wire, are perhaps better if they are tight enough to exclude pests. Or glass can be used. The garden frame is a practical thing for dry locations. It is economical as to water, too.

Hot days and desert sunshine. How little any of us know

about life, despite the learned delvings and soul-crushing science of our Age of Progress. What did the Chaldeans think, and discover? And the Atlanteans, and the Egyptians—and all the shadowy company before—who groped and swaggered and toiled through their respective cycles of growth and death. Dust in the wind! Mayhap I have the dust of dead world conquerors in the moist mud of the olla that grows in size and shape under the workings of my fingers. Perhaps in the dumpy little toy dog which Rider fashions from the moistened earth lurks the ashes of a forgotten saint.

"Imperial Caesar, dead and turned to clay
May stop a hole to keep the wind away."

... And the world rolls on among the stars—a throbbing, living atom amidst a glorious universe of unnumbered myriads of other throbbing, living atoms. A universe of eternal, universal life, in which the fleeting shadow that we call Death is no more than a brief, recurring night between the glow of endless days.

The wind this afternoon whirls and roars. Perhaps that is the charm of our desert mountain. There is no sameness; all is constant change. The hot sunshine streams into the house through the open back window and the three ears of golden corn, with their stripped-back husks—corn of our own raising—sway and swing from the twisted fiber cord that suspends them from a ceiling beam. The back shutter of the kitchen window is open and sways and bangs at its confining hook. From the shade of the ramada, outside, come the mingled voices of Rider, Rudyard, Tanya and Victoria, who are out there in the warm wind, trying to keep cool. Sketchily Tanya is wrestling with the job of reading an instructive story aloud. Comes a sudden stop to the narrative—an abrupt termination upon which the small, determined voice of Rudyard throws explanation:

"I am thoroughly se-gusted (disgusted) with that book," he says firmly, as he calmly removes it from Tanya's hand. "But I am not 'gusted with this other one,"—picking up another from the table and holding it out to her. "Read this. There's *fairy stories* in this book."

Beat of the wind. And heat in it. A hummingbird hurtling past and out over the little juniper studded flat with a sharp whirr—a flick of sound passing in the dry, driving air like the swish of a speeding arrow. Or was it really an arrow? A ghostly arrow from the ghostly bow of one of the long dead dusky warriors who roamed Ghost mountain in the dim, fled years? Who shall say? The "old people" were free. Their hearts were fierce and wild and brave and beat with every shade of human love and a quenchless worship of Freedom. They died. But they were not enslaved. And their spirits live on. Their arrows still speed across the ridges; their ghostly chants still eddy in the whimpering wind.

Dawn to noon—and to Dark. But the trail of the bare, resolute brown feet and the thin twang of the desert bowstring lead out across the wastelands. A thin, resolute wilderness trail that has passed aforetime—and shall pass again—through the red rust of crumbled machines and the weathered mounds of forgotten cities.

Dawn to Dark! . . . And on to Dawn. The winds swirl out of emptiness. But the old, old trail goes on and on. On towards the Sunrise.

*What then is Life? an instant's breath,
Of Joy and Strife 'tween Birth and Death.
An instant's glance, of Search, of Hope,
Of instant's chance to stretch our scope.
Always the brink, ever the Way—
Till Death will link another Day.*

—Tanya South

We Camped in the Devil's Kitchen

By BETTY WOODS

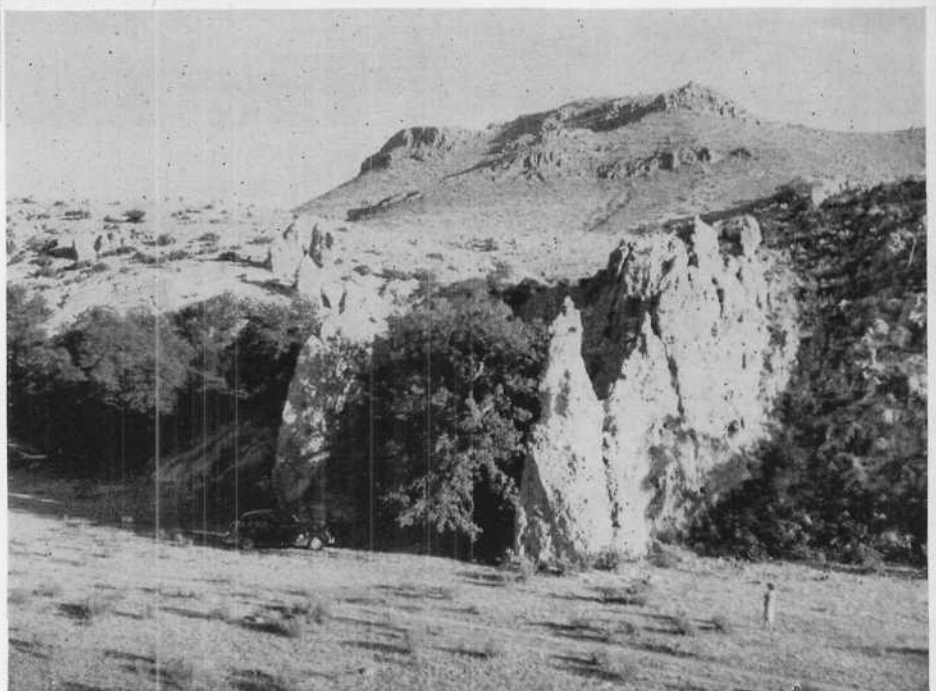


"We camped that night with those two devils leering down at us from the rocks above."

BESIDE the black arrow are the words, SKELETON CANYON 8 MILES. As we read this sign at Apache, Arizona, on U. S. Highway 80, I felt a thrilling elation, for there to the southeast in the Peloncillo mountains lay that exciting pathway of history, where Geronimo and his painted-faced warriors surrendered; where the infamous Curly Bill and his outlaws shot 19 Mexican smugglers; where a prehistoric tribe of red people lived and perished, their story never told; where buried treasure still lies untouched—perhaps. My husband and I have a passion for hunting out-of-the-way and unusual places, and this strange romantic canyon was just our kind of "pleasure hunt."

At the sign we left the pavement and took the good all-weather road that extends southward across the lower edge of the San Simon valley. As Clee drove I watched the late afternoon sun paint the Peloncillos with rose and purple mist. I wondered if Maxfield Parrish had ever seen these mountains that now looked so like those in his fanciful paintings. For several silent miles we watched the symphony of color change the nearly barren desert to a world of dusty pink. Then reluctantly I turned my gaze to a tall man on horseback loping down the road ahead of us. As we passed him he waved and flashed a smile.

"That's a Yaqui cowboy," my husband



Devil's Kitchen—where Nature created the perfect campground in Skeleton canyon.

commented. "Ranchers hire them down here."

We passed two small and rather tired-looking ranch houses. Then came the prosperous-looking home and corrals of a large cattle outfit. From here the road is rougher but still a good ranch road. Scrub mesquite grew thicker, and the sand had formed hummocks around these thorny bushes. The final turn to the south made me feel that we'd surely run right into the Peloncillos. Suddenly we were in a beautiful shallow canyon wooded with black willow and sycamores, live oaks and cottonwoods—the mouth of Skeleton canyon.

Here I noticed four distinct species of

Betty and Clee Woods camped one night in Skeleton canyon, where the ghosts of slain smugglers are said to still lurk among the rocks and pinnacles. This place, now far off the beaten paths, was once a main route for the mule trains that carried contraband between United States and Mexico. Mrs. Woods has written a story that will give Desert Magazine readers some new sidelights on Southwestern history.

mistletoe. Clee stopped the car and we got out to examine the parasitic growth more closely. The leaves of each variety seemed to take on the characteristics of the leaves of the parent tree. This was especially true of the mistletoe on the cottonwoods.

Across the dry creek on the low mesa Clee spied something lying on the ground. A metate. A metate meant only one thing to him, an Indian ruin. Indian ruins are his hobby. He was out in an instant.

"Look!" he exclaimed in wonder. "Metates lying all over the ground and ruins strung along the whole ridge!"

When I reached the mesa I saw that he

was right. There were the rocks outlining the homes of an ancient race. How many things you can wonder about when you stand on the site of a little dead city! What puzzled us most was the fact that nearly all of the metates were broken in two. All appeared to be deliberate breaks and not accidents. Did these prehistoric Indians for some reason destroy their meal grinders before a mass exodus? Or did the

Apaches or the Yaquis break these rock utensils to free them of the evil spirits?

We were inclined to believe the latter for we know that present-day Indians have certain superstitions about where the "old people" lived. Some Navajo will destroy any prehistoric pottery they happen to find.

We watched the ground for potsherds that might suggest the time and the degree of culture of these long-ago people.

But we found so few varieties that we could only hazard a guess that the ruins were of an older type.

When we turned back to the car we noticed two upright stones we had missed in our excitement at seeing the ruins.

"This isn't Indian," said my husband. "It's a white person's grave."

There was no other marker bearing name or date.

Walking a little further east on the mesita I could see below us Ross Sloan's white ranch house and pole corrals in which once had stood the famous "outlaw oak." Here, too, was a large dirt tank around which white-faced cattle chewed their cuds in dreamy contemplation. Near this tank, on a slight rise of ground, I saw a big pile of rocks. It marks one of the high points of interest in Skeleton canyon—where Geronimo surrendered to General Miles.

A strange fact in this dramatic event that has heretofore been unnoticed is that this historic Indian surrender took place on the site of a prehistoric Indian ruin! Standing there, awed by thoughts of fierce, cunning old Geronimo, I also wondered to whom or what these ancient people might have yielded.

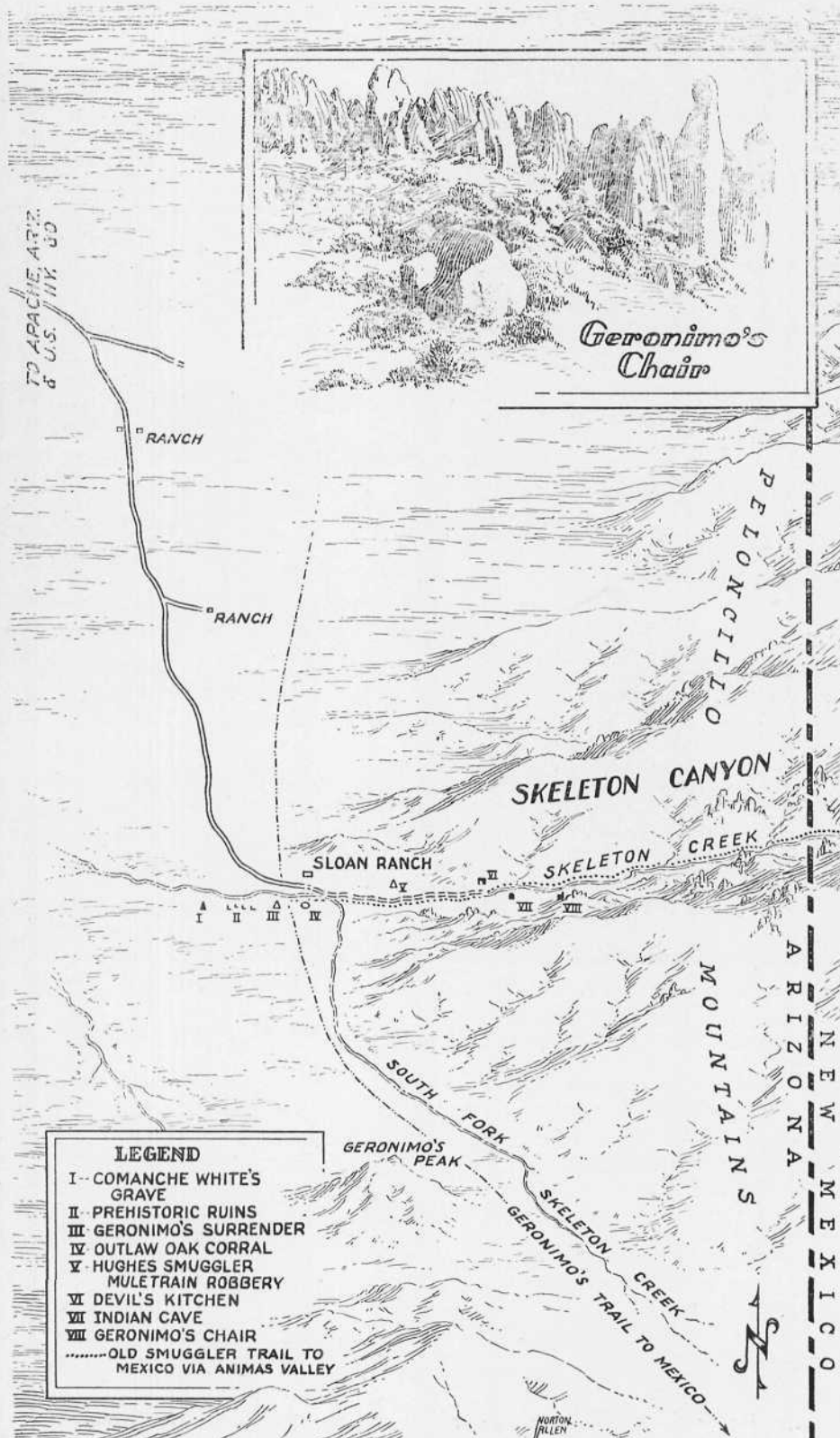
When dusk was stealing in from the east, we had yet to find the Devil's Kitchen, that ill-fated and haunted spot where we planned to spend the night. About an eighth of a mile further on, the road ends abruptly at the Sloan ranch house.

Ross Sloan's ranch is a sort of cross roads to adventure. Near his house Geronimo's north-south trail crosses the old smuggler trail that goes to Mexico. We stopped to get permission to camp in this drama-filled canyon.

But a cowhand told us "the folks" had gone for the mail and for us to drive on up a mile and make ourselves at home in the Devil's Kitchen. Before driving on, we left a note asking the Sloans to share our evening campfire.

From the ranch house the road is really the bed of Skeleton creek and only by slow and careful driving were we able to get over it at all. Through a grove of sycamores and live oaks we crept along on what we knew had once been the trail to Mexico. Now, as we bumped over the rocks, I felt that we were riding with history. Before us had come mule trains loaded with 'dobe dollars and smuggler trains loaded with contraband from Mexico. Our tires left their imprints in the dust where once there had been only the imprints of Yaqui and Apache moccasins. Over this same path Geronimo had made more than one phantom-like get-away from a bewildered United States army.

The canyon was now widening and for the first time we could see its wild beauty. The low hillsides were like vast cactus gardens studded with century plants, sotol, bisnaga, rainbow and torch cactus,





"Mr. and Mrs. Ross Sloan showed us the mound that marks the spot where Geronimo surrendered."

pincushion and prickly pear. Christ's Thorn and Devil's Claw grew without spiritual differences in the same rocky home.

Occasionally, weird sandstone formations would shoot up out of the creek bed, and the farther we went the steeper the canyon walls grew. Rounding a bend we came upon the most picturesque and awesome formations in the canyon—the Devil's Kitchen. There in the dusk it stood pinkish-yellow, a stage setting in a fairy tale. The formation itself is a high-walled square, with only one side open. It has a tower-like pinnacle at each outer edge.

Clee drove the car right up into the "kitchen." What a campsite. Here, growing at one side, was a huge live-oak that spread wide its branches to almost roof the enclosure. So perfect a camping place this was you just knew it had been used by travelers for endless years.

"Look at those towers," Clee pointed.

Each tower top took on the shape of the Devil's head!

"Nice things to have leering down at us all night," I commented.

"On this spot Curly Bill killed the 19 Mexican smugglers," my husband reminded me. "Maybe the devils will keep their ghosts away."

We gathered firewood and in no time coffee was simmering in the pot. In the west the quarter moon was a little silver boat plowing down through the dead sunset. From somewhere above us a cricket started his lonely lament and soon the whole canyon was filled with sounds of the night. But another noise was coming from down the canyon—the hum of Ross Sloan's car.

We'd never met a more hospitable western couple than the Sloans. Mrs. Sloan is a quiet, gentle lady, whose pioneer parents settled in the Tularosa country of New Mexico long before Billy the Kid started on his rise to bloody fame. Mr. Sloan is a large, silver-haired Texan, a vigorous man who has spent 60 odd years riding the border ranges and living the lives of a dozen men.

Hardly before our guests were settled

at the campfire I started asking questions. "Whose grave is that near the Indian ruins?"

"Comanche White's," replied Mr. Sloan. "He was just a harmless kid from Comanche county, Texas, when the Apaches killed him. It made my friend, Ben Clark, so all-fired mad Ben decided to go after Geronimo an' kill him on sight. Ben learned that the Apache was to surrender to the soldiers, so he set out with seven men to beat the army there. For two days Clark and his men waited for that red devil to show his hide, but the Indians were late. When the Apache outfit did show up, the soldiers were there, too. Ben and his men had been disarmed by General Miles' men."

"There's an odd thing about Geronimo's surrender," said Ross Sloan. "Some of the Apaches then and there piled up a rock marker nine feet high to mark the place where they were giving up. They kinda had a hunch they were makin' history."

But we listened to many startling tales around the fire that night, tales that were



Nineteen smugglers were killed near this spot.

to make us appreciate more fully Skeleton canyon's lurid history.

The story of Curly Bill's slaughtering the Mexican smugglers on the very ground where we now sat. I could almost hear the bells on Don Miguel's mule train as it passed the "kitchen." I could picture the unshaven face of a black curly headed man peering down from the rim above us that day in July, 1881.

"Curly Bill and his gang waited till the Mexicans had passed," Mr. Sloan went on. "Then his rifle gave the signal and all hell broke loose!"

Death cries from the Mexicans filled the canyon. But not for long. The outlaws saw to it that not a smuggler was left breathing. Afterwards, they rounded up the mules, drove them to Al George's place and divided the silver.

"Every now and then we find the bones of some poor fellow."

Clee added fresh wood to the fire, and the flames made strange, dancing figures on the rock walls.

"You've heard about the Outlaw Oak?" Mrs. Sloan inquired. "It used to stand in the corral, but when it died Ross had it cut down."

Only a month after Curly Bill waylaid the smugglers, another outlaw gang led by Jim Hughes attacked and robbed a second smuggler train. Zwing Hunt, a cowboy outlaw, was seriously wounded in the fight. He lay under the oak tree, writhing and groaning, while Bill Grounds dressed his wound—giving the tree its name. To their loot of silver the outlaws added a box of diamonds and golden statues from a church in Mexico. Legend says that they

buried most of the plunder in Davis mountain. No one today knows what mountain then bore that name. The fabulous treasure is supposed never to have been recovered. Treasure hunters still dig deep holes over this southeast corner of Arizona.

"Not long ago," Mr. Sloan went on, "a cowpuncher found 72 'dobe dollars in an old aparejo lying among scattered mule bones."

"Also," added Mrs. Sloan, "there actually was treasure dug up only a quarter of a mile from here. Tomorrow, we'll go see the spot."

"It happened about 20 years ago," her husband amplified. "One day an old pale-looking fellow with a long white beard drove up with a sorry-looking team—a gray mule and a poor white horse. A little boy was in the wagon with him. The man wanted to know if this was Skeleton canyon, and I said it was. The old man said, 'That's all I wanted to know,' and drove up the canyon."

"The next day one of our sons went up to see where the outfit was camped. But they were gone. You could see where a large box had been taken out from under a big rock. Years later, Sam Olney told me about an old man's coming to his smelter with some silver bars for treatment. The fellow told him he got them from Skeleton canyon."

The early-morning smell of earth and grass and trees filled our nostrils as we set out with Mrs. Sloan the next day.

"First," she said, "let's cross to the other side of the canyon. About 300 yards

back from the creek there is something I want you to see."

Up on a low hill a small, egg-shaped cave yawned at us from a great granite boulder. Of course, we had to climb up into it. The ceiling was blackened by the smoke from generations of Indian fires. In front, in the rock floor, was a hole about 10 inches deep and six inches across, in which the early cave owners had ground their food.

Coming down the hillside a few minutes later, we had a good view of the Devil's Kitchen and other rock formations from this opposite side of the canyon. Every new bend in the trail brought us enticing vistas of beauty. Cacti grew wantonly among brilliant-hued rocks. Bear grass, buck-brush, rabbit bush, tea bush and numerous other shrubs persisted wherever they could find root room. And on the creek banks were the live-oaks, sycamores and black willows. We watched for a glimpse of javelina, deer or mountain lion, but we weren't that lucky.

The walk now was taking us among more grotesque sandstone formations. The pinkish-tan spirals and domes and towers speckled with green lichen, looked like things Walt Disney might have conceived. All through this fairyland of rocks the ground was strewn with bits of chalcedony, related to opal. Occasionally we'd see shining flakes of obsidian on the hillsides.

About a quarter of a mile from the "kitchen," beside a sandstone wall, Mrs. Sloan stopped and pointed to a large rock. "This is where the old man dug up the silver bars." Even after 20 years the weed-choked hole was quite plain. Perhaps this was due to the rock that overhung the hole partway. (Secretly, I wished we had brought along a shovel.)

"Every so often," Mrs. Sloan said, seeming to guess my mind, "a treasure hunter comes to dig."

While I still wondered if we were walking over any more such caches a great red-earthed hill came into view. Spilled out on its side were the tailings of a small gold mine—the only one now operating in the canyon. Everywhere I saw holes dug by gold seekers and treasure hunters.

Across on the southern mountainside stood a cluster of sharp, red pinnacles. Close to them squatted a huge rock shaped like a chair.

"When my son was just a little fellow," explained Mrs. Sloan, "he named the rock 'Geronimo's Chair.' We've called it that ever since."

For 13 more spectacular miles this east fork of the canyon goes on and ends in New Mexico. The Sloans insist that the scenery becomes more beautiful up above. Some day we want to return and see for ourselves. Some day, too, we want to come back and follow Geronimo's trail to Mexico, for it is paved with human drama and adventure.

Some time in August this year—the exact dates will not be known until a few days before the events—the Hopi tribesmen at Walpi and Mishongovi in northern Arizona will hold their annual rain ceremonials, the Snake dances. The Snake priests who perform these strange rituals have been widely publicized for their apparent immunity to rattlesnake venom. But there are other participants in the ceremonial who fill equally important though less heroic roles. They are the women of the Snake clan. Here is the story of a Snake Priestess—told by a writer who knows the Hopi intimately.

Daughter of the Snake Clan

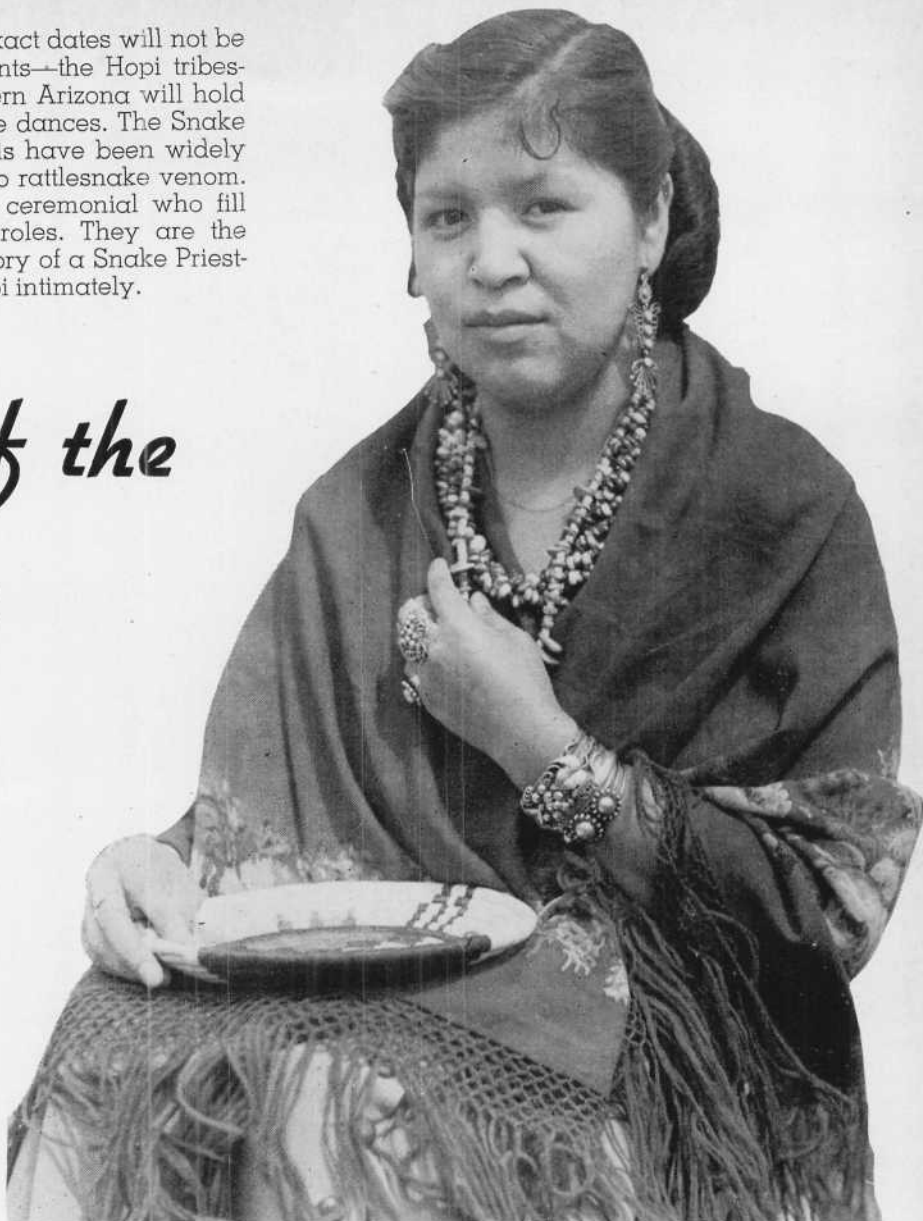
By MRS. WHITE MOUNTAIN SMITH

SMALL White Eagle, Hopi girl, watched her grandmother grind the yellow corn into meal to sprinkle over the pumpkin patch. She watched her grind red corn to fertilize the peach trees, and white corn for the fields of corn in the valley below. And then, after the village priest had blessed the meal she trotted along with her grandmother, who is Snake Priestess, to scatter the meal on the crops.

From earliest childhood this little Hopi maiden knew that water, either too little or too much, spelled doom to the corn crop so essential to the life of her people. She knew the grains of corn must be planted deep under the sandy dry soil, down in the substratum of clay which holds for a long time any moisture which reaches it; and she knew that the Water Gods must always be placated by friendly Snake Brothers if the Hopi were to raise corn upon which to live. What she did not yet know was that she, herself, was an important member of the Snake Clan and one day destined to become Snake Priestess in her grandmother's stead.

Small White Eagle's first baby cry mingled with the dying sigh of her mother. The small Snake clan in the village of Walpi had lost one of its members and gained another at the same time. For one must be born into that exclusive clan, or else, by the hazardous trial of rattlesnake bite, win the right to be adopted.

This was not known to the little Indian girl during her first happy years. She played with the other naked children on the edge of the cliffs rising like battlements from the desert below and on which her home was built of rocks and clay. As she grew older she watched her grand-



White Eagle is not her true name—but she is a Snake Priestess in the Hopi Snake clan.

AUGUST CEREMONIAL DATES

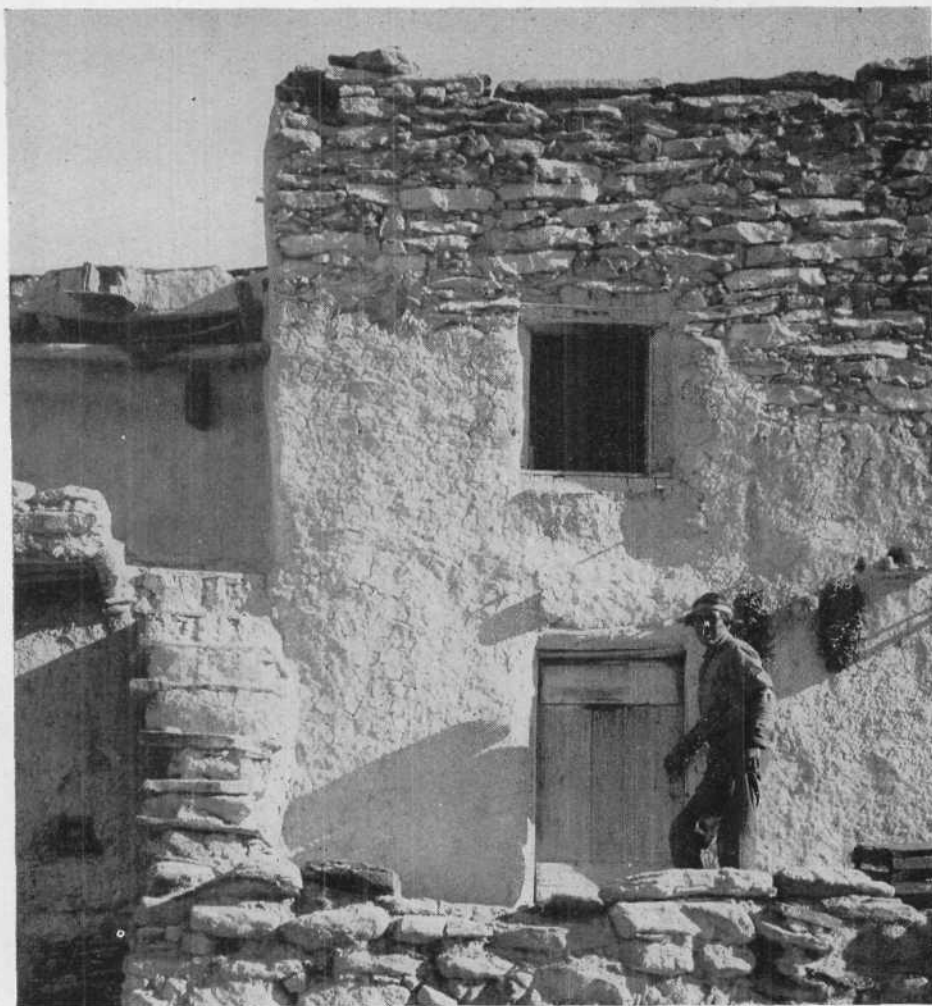
AUGUST 3—Twenty-first annual presentation of Smoki dances at Prescott, Arizona. This beautifully costumed pageant is presented in the evening.

AUGUST 13-14-15-16—Inter-Tribal Ceremonials at Gallup, New Mexico. Parade, games and Indian exhibits during the day, dances in the stadium at night.

HOPI SNAKE DANCES—To be held this year at Walpi and Mishongovi. Dates for the annual Snake dances are determined by the Hopi Snake priests according to certain signs of the sun and moon. The time is not given out until ten days before the dances, but they always occur during the last half of August.

The dance is performed in five Hopi pueblos, each village holding one dance near sundown on the day fixed by the priests. Walpi and Mishongovi hold the dance on odd years, and on the even years it is at Hotevilla, Shimopovi and Shipaulavi. The dance is never held in more than one village on the same day.

When the dates are determined they are announced at sunset by village criers on the housetops.



Typical Hopi architecture. The mud and stones in this ancient dwelling in the village of Shungopovi were laid in the 16th century. Photo by Milton Snow.

mother make everything ready for the dance with the snakes, but, childlike, she absorbed it along with the excitement of rabbit hunts, butterfly dances and the sticky sweetness of peach drying days.

But the time came, in her eighth year, when she was told that she was the only girl in the Snake clan on that mesa, and she must prepare herself to carry on the work when her grandmother was too old to gather potent herbs, grind sacred meal and take part in all the trying tasks incident to her high office in the clan.

Small White Eagle is a grown woman now and no longer carries the baby name given her 21 days after birth when she was carried to the edge of the mesa as the sun rose and sprinkled with meal by the Snake Priest.

When I asked her to give me a detailed account of her duties as a daughter of the Snake clan, she hesitated.

"My people would be very angry if they knew I even told you," she said.

But I promised not to use the name she carries now if she would tell me the story.

"I was about eight years old when my grandmother, Snake Priestess of Walpi told me I must now begin to learn my duties so I could take her place when she

is gone away. Although I hate and fear snakes I was born into the clan and will always be a member no matter what I say or do.

"My first initiation was down in the Snake kiva. I carried a little plaque piled high with meal I had ground on the metate. My grandmother went down there with me. When I descended the steep ladder and looked around I saw a big white screen stretched tight a few feet from the wall, and a few inches above the floor. It had seven bright suns painted on it and on the floor in front of it was a miniature field of growing corn and pumpkins. Seven rattlesnakes came wriggling out from under the screen and moved around among the hills of corn. I was told by my grandmother to sprinkle sacred meal from my basket on each one of these snakes. So dim was the light down there and I was so terrified I did not know that the snakes were stuffed buckskin painted and moved around by my uncle the Snake Priest hidden behind the screen. Anyway I passed that test.

"The work connected with the dance the first two times it was held in our village after that did not frighten me. I had only to go with my grandmother to get

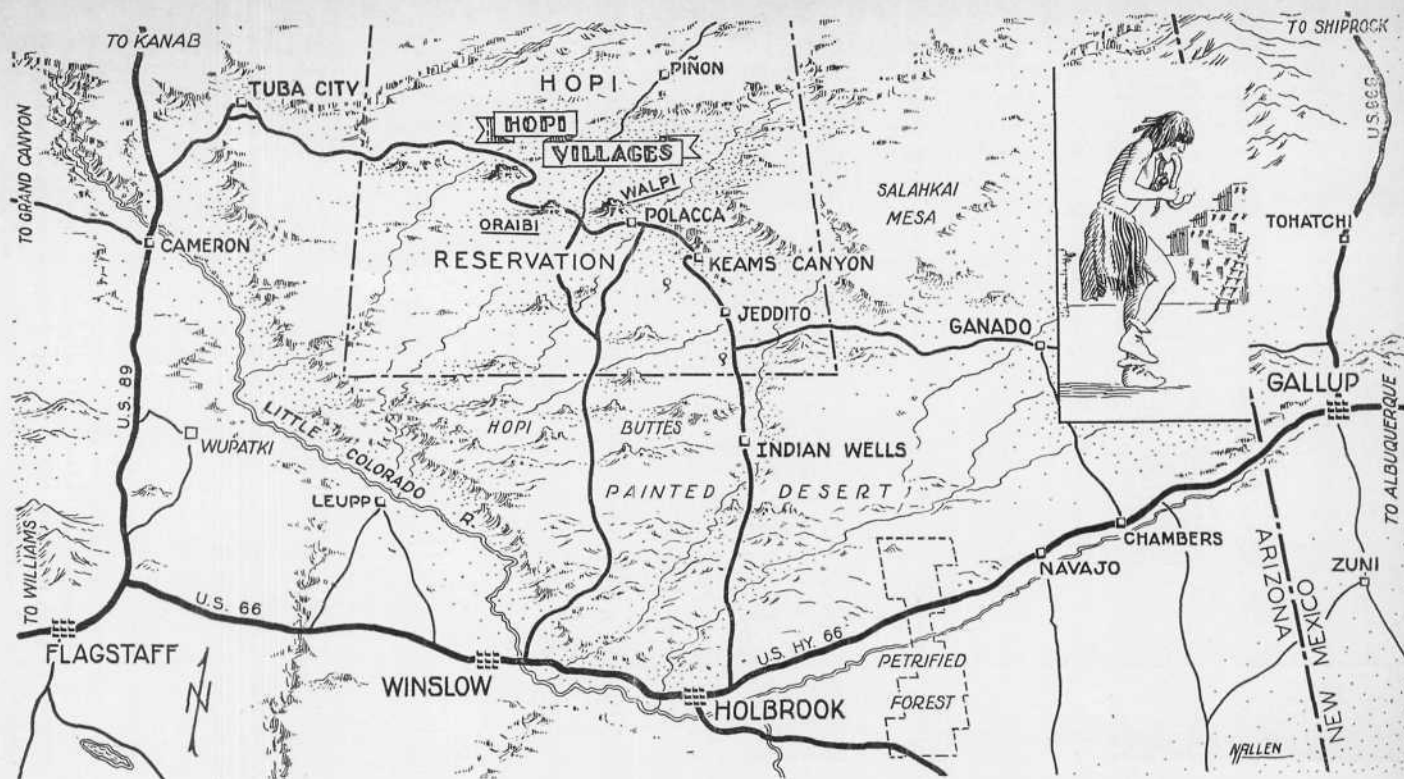
white clay for plastering the outside of the house and red clay for the floor. Every house in which a member of the Snake clan lives has to be thoroughly cleaned and replastered before the Snake Brothers come to dance with us. Water is carried from springs at the foot of the mesa. They are blessed by the Snake Priest and sprinkled with meal, and the clay allowed to soak into thin mud before it is put on the house and rubbed smooth with our hands.

"The floor is swept and then the red clay spread smoothly on it. After about an hour we take stones and polish the surface into gleaming hardness. We work from the wall toward the door thus polishing all evil thoughts and evil spirits right out into the yard and the floor is too slick for them to get back into the house. Spirits can't travel except under special conditions, you know. That's the reason all our stories and legends about our gods are told down in the kivas in the winter time while ice and snow keep the Kachinas and other gods trapped on the San Francisco peaks. We do not have books with stories in our language and the only way to learn is for the wise old men to teach us.

"When the houses are all clean and the rocky spaces around them swept until they are bare and sweet smelling, it is time to begin making the baho prayer sticks of eagle feathers and piñon twigs to place in the snake shrines and to hang from the ceiling of our houses. These are made by members of the Snake clan. Then baskets are to be woven from which to sprinkle sacred meal on the snakes after the dance. Long before now, grandmother and I had gathered the yucca leaves, some of them while they were tender green and others after they had turned yellow, and these were brought out now and torn into strips and put in wet sand to soften. Bunches of squaw grass, gathered the fall before, were also put to soak in damp sand so the materials would be flexible and easy to work with.

"All the women of the Snake clan gather in one place to work on these baskets. And the work goes fast while they visit and gossip just like white women do. In between weaving baskets we grind meal to make the sweet pudding to be eaten by the dancers after the snakes have been taken back into the desert. This pudding is called *pigime* and is made of meal and small brown seeds that grow near the mesa. They are about like grains of brown rice and give the pudding a sweet taste and a flavor. The meal and seeds are mixed with boiling water and then poured into a big *piki* bowl lined with green corn leaves and put in an outside oven to bake all night. The next day it will still be warm when the dance is over.

"Many rolls of *piki*, the thin wafer like bread baked on a hot stone and folded and



This map by Norton Allen shows the roads leading from U. S. Highways 89 and 66 to the Hopi villages where the snake dances are held in August each year. These are all graded dirt and gravel roads and become hazardous in places immediately following heavy rains. Damaging rains seldom come, however, before the snake dances are held.

rolled into cylinders, have to be stacked ready for the feast which will follow the dance. All food to be consumed by the dancers must be prepared by women belonging to the Snake clan. There is the mutton stew thickened with hominy that is put to simmer the day before the dance and kept slowly bubbling during the entire night and the morning of the dance.

"All this food must be ready for the Snake Priests as soon as they have washed after the dance. It is carried to the kiva where they feast together the first night. After that they return to their homes for the next four days and eat with their families but must return to the kivas to sleep because they are still in communion with the gods."

Small White Eagle and I both smiled at this idea, but she continued with the story: "While the baskets are being woven the Snake Priestess always recounts the legend of the Snake dance.

"One of our Hopi men went down into Grand Canyon and married a daughter of the Water God. He brought her back here and the women who would have liked to marry him themselves were very jealous and not nice to her. She gave birth to snakes instead of children and then she was driven out of our village. Her husband went with her, and when they left the Water God became angry at the treatment given his daughter by the Hopi and he would not allow any rain to fall on their fields.

"The springs dried up and there was a

great famine. After awhile the Hopi went down into the desert and collected their Snake Brothers, children of the Water God's daughter, and brought them back to the village and gave a great feast and dance for them. Since then there has always been rain on the fields of the Hopi and water in the springs at the foot of the mesa.

"I shall not have to be Snake Priestess for awhile because a few years ago an old Hopi lady was gathering grass for baskets down below the village and a rattlesnake bit her. She was cured by the Snake Priest and Priestess and dedicated her life to the clan. She is learning the work from my grandmother and will take up where she leaves off."

"Do the Hopi people ever die of rattlesnake bites?" I asked.

"No. Not if they get the Snake Priest to doctor them. Last year I was standing on the edge of the mesa looking across the valley when the village priest called from a housetop for all the people to go into their houses and stay there until he gave them permission to come out. They were to close their doors and not to look out of the windows. It was some time before I learned why we had to go inside. One of the men, a member of the Spider clan was hunting rabbits and chased one into a hole under a sage brush. He put his hand in for it and a rattlesnake coiled there in the shade sank its fangs into his wrist near the big blood vein.

"Members of the Snake clan working in their fields brought him quickly to the

Snake kiva and gave him the treatment to cure the bite. First he had to agree to join the Snake clan and work with them in the dances as long as he lived. They kept him there in the kiva four days and I had to help my grandmother prepare the food they allowed him to have. No salt was put in it. I went with her to gather herbs for the drink and for the poultices to put on the bite. The only herb I know that she gathered is what we call Golondrina, Swallow weed (*Euphorbia prostrata*). It grows always where rattlesnakes live.

"They kept the man in the Snake kiva four days and then allowed him to go home and finish getting well. Had any of the Hopi people disobeyed the village priest and looked out as he was brought to the kiva he would surely have died."

On each Hopi mesa are Snake clans. The ceremony is performed every other year at the base of Snake rock in the plaza at Walpi. At the head of the clan is the Snake Priest, chief actor and director of the dance. He holds this office by right of birth and while he lives and is strong enough to perform his duties no other man shares the secrets of the priesthood with him. As a companion with whom to work and share the important secrets, he has the Snake Priestess. She is never his wife as they are both members of the Snake clan and therefore cannot marry. Small White Eagle's uncle is the Snake Priest in their village and he wove for her a white cotton robe and decorated it with the colorful yarn embroidery. When she

sprinkles sacred meal on the snakes after the dance is over she wears the native blue dress, with one smooth brown shoulder and arm bare. Around her waist is the white and red handwoven sash also made by her uncle and on her feet are white leggings with the built-in moccasins, each one of which requires a full deer skin. The effect is very beautiful.

"I was scared when I was taken down into the Snake kiva before the dance and made a regular member. My uncle took both arms and pressed them back against my breast and blew his breath on my hands and in my mouth. Then he said: 'May the light of our medicines and gods be shed upon you, and meet you, my child!'

"When the Spider clan man, bitten by the snake and healed by my uncle, was taken on the hunt for rattlers for the dance he was given these instructions: 'When you see a rattlesnake you are to

pray to our father, the Sun, saying, 'Make him be tame; make him bring no evil to me,' and then the sacred meal is to be sprinkled, and the snake stroked with the wing of an eagle before it is picked up close behind the head and placed in the bag made of thick skin.

"One really must live a clean and useful life to be a good member of the Snake clan."

"Do the Hopi have different names for the varieties of snakes they use in the dance?" I wanted to know. They seem to treat them all alike.

"Oh, yes. The rattlesnake is called *Chu-a*; *Le-lu-can-ga* is a bull snake; *Ta-bo* is the swift racer that gives our priests so much trouble trying to hide in the crowd around the dance plaza, and *Pa-chu-a* is the water snake. But to me they are all snakes, and I don't like any of them!" said this daughter of the Snake clan.

253,000 Acres Allotted to Anza Desert State Park

YEARS of controversy over the selection of lands for the Anza Desert State park in Southern California reached a successful climax—successful for proponents of the project—on June 28 when a little group of men in the U. S. land office in Los Angeles paid over the final filing fees necessary to acquire 253,000 acres for park purposes.

When the final selection of lands was made, \$1,200 was needed from private sources to supplement state funds in payment of required federal filing fees—at the rate of \$1.00 for each 80 acres. Thanks to the interest and loyalty of many private citizens in the Southwest, the money was on hand. The Sierra Club of California, through the efforts of Arthur B. Johnson and a special committee, contributed \$704.50. The Anza Memorial Conservation association headed by John R. Adams raised \$300, and Mrs. Scripps of San Diego, who has been a liberal donor to California parks for many years, added the final \$200.

The 253,000 acres made available through this transaction is contiguous to 209,000 acres already set aside as the Borrego Desert State park—providing a total area of 462,000 acres of desert, mountain and valley lands in Southern California to be reserved permanently for recreational and scientific purposes.

Under the Burnham bill, passed by congress five years ago, California had until June 29, 1941, to select lands from the public domain for state park purposes. Since June 29 was Sunday, the actual deadline was 12 o'clock noon on June 28.

It was just 10 minutes before the final hour when a little group of men, including Guy L. Fleming of the state park department, Robert Hays of El Centro chamber of commerce, Arthur B. Johnson of the Sierra club and Register Paul B. Witmer of the U. S. land office completed the certification of the records, and announced that the deal was completed, and the park definitely assured.

A detailed map of the new park will be published in Desert Magazine as soon as it is available, but in the meantime friends of the project will be interested to know that the new area includes most of Fish Creek mountain, Split mountain canyon, Vallecitos mountains, Carrizo badlands and a considerable area around Dos Cabezos spring and Dos Cabezos palm canyon.

TRUE OR FALSE

Here's the monthly I. Q. test for the desert fraternity. But you do not have to live among the dunes and cacti to make a passable score.

The questions cover a wide range of subjects—history, geography, Indians, mineralogy, botany, and the general lore of the desert country. These monthly lists of questions are designed both as a test of knowledge for desert students, and a course of instruction for those who would like to become more familiar with the Southwest. The average person will not give 10 correct answers. If you score 15 you know more than many of the desert rats, and only the super-humans do better than that. The answers are on page 37.

- 1—You can tell the age of a rattlesnake by counting its rattles.
True..... False.....
- 2—The Hualpi Indian reservation is in Arizona. True..... False.....
- 3—The paved road between Needles, California, and Kingman, Arizona is U. S. Highway 66. True..... False.....
- 4—Mangus Colorado was a famous Navajo chieftain. True..... False.....
- 5—Father Garces was killed at Yuma, Arizona. True..... False.....
- 6—The largest city visible from the summit of Charleston peak in Nevada is Las Vegas. True..... False.....
- 7—Albuquerque is the capital of New Mexico. True..... False.....
- 8—Desert Indians used a *babo* for killing wild game. True..... False.....
- 9—The predominating color of an adult Gila monster generally is black.
True..... False.....
- 10—Organ Pipe national monument in Southern Arizona derives its name from fluted rocks found in that area. True..... False.....
- 11—For automobiles to cross the Colorado river at Parker, Arizona, it is necessary to use a ferry. True..... False.....
- 12—Deglet Noor is the name of a species of date grown in the Coachella valley of California. True..... False.....
- 13—The Smoki people hold their annual snake dance at one of the towns on the Hopi mesa. True..... False.....
- 14—Winnemucca, Nevada, was named in honor of a Paiute Indian chief.
True..... False.....
- 15—The Mormon leader Joseph Smith never saw the Great Salt Lake.
True..... False.....
- 16—Catsclaw sheds its leaves when frost comes. True..... False.....
- 17—Calcite is a harder mineral than feldspar. True..... False.....
- 18—Dr. Herbert Bolton's book "Rim of Christendom" is devoted mainly to the expeditions of Juan Bautista de Anza. True..... False.....
- 19—Headwaters of the Salt river are in New Mexico. True..... False.....
- 20—St. Johns, Arizona, is in Apache county. True..... False.....

Every traveler in the Southwest has seen and admired the beautiful two-tone black pottery which invariably occupies a conspicuous place on the shelves of stores and trading posts where Indian craftwork is sold. Much of this ebony pottery comes from the Pueblo of San Ildefonso in New Mexico where clay-working has become a fine art. In the accompanying story, Helen Calkins takes you into the home of one of San Ildefonso's master-craftsmen—and you will enjoy meeting the clever Indian woman who can paint a winged serpent on the side of a round bowl with neither a pattern nor an arm-rest to aid her.

Pottery Maker of San Ildefonso

By HELEN CALKINS

ROSE balanced a bowl on the outspread fingers of her left hand and gazed at it thoughtfully. She dipped a fine-tipped brush into a cup of heavy white liquid and drew a smooth even line on the rounded surface.

I stared. Her arm was unsupported; the elbow swinging free, yet the design went on evenly and quickly. Soon I could see the outlines of a serpent, a feathered ser-

pent, that coiled around the bowl with cloud symbols above the undulating body. She neither hesitated nor hurried. Each mark, each stroke was permanent.

"How do you do it?" I exclaimed. She shrugged but there was a pleased expression on her quiet Indian face.

It seemed unbelievable, this painting on curved surfaces. Unbelievable although it had been developed by generations of



Rose Gonzales, master craftsman of San Ildefonso, in her fiesta costume.



Typical specimens of San Ildefonso pottery. Photograph by Frashers.

pottery makers, each more skilled than the last. Each had added a little to the knowledge, a little to the patience, until now the ebony-black pottery of San Ildefonso, New Mexico, with its dull designs on polished surfaces was a part of every exhibit of fine native American craftsmanship.

Late afternoon shadows of vegas had slanted across the wall of Rose Gonzales' home the day before when I knocked at the blue-trimmed door.

The brisk February wind bit through my heavy coat and I was glad when the door slowly opened a crack and a big-eyed child stared up at me. I smiled, "Hello, little Marie." She giggled and spoke to someone in the room and backed away clinging to the door.

I stepped over the high doorsill and paused, blinking after the brilliant sunlight of the plaza. Rose was sitting at a kitchen table with unfinished pieces of the pottery that had made her famous before her. She greeted me with a friendly handclasp and a half-shy smile, then went on with her work while I warmed my hands over the big black cook stove that filled one corner of the room. Rose was moulding a large curved plaque. Her black well-kept hair fell forward as she shaped the clay, and she brushed the bangs away from her face with the back of a clay smeared hand.

I knew the clay she used had been gathered from the side of a dry arroyo a few miles from the pueblo. Back at the village the pebbles and small lumps had been removed. There were two kinds of clay; the regular reddish pottery clay, and a greyish earth called temper which acted as a binder to hold the pottery clay in shape during the moulding and firing processes. Experience and sensitive finger tips told Rose when she had the proper mixture of the red clay and the grey temper. This was important for vessels of an improper mixture would collapse while being moulded or fired.

I watched Rose scoop a handful of the prepared clay from a pile and work it in her strong fingered hands. Then she pressed one end against a clay pat that lay in a shallow mould. Turning the pat she pinched the clay rope into the edge of it until a complete circle had been made. Then she broke it off and started a second coil of clay working it into place against the first. Her hands moved swiftly and she kept her head bowed over her work. I sat quietly in a straight backed kitchen chair near the friendly heat of the big range. I knew it would be some time before Rose became accustomed to my presence. Then she would talk; tell me of her two children, the boy away at the school in California, and little Marie who had met me at the door. She would tell me news of the people in the village I knew, and I would politely ask about all her relatives. There would be talk of the

dances of the week before, beautiful dances of eagles, and buffalo, and antelope. Rose was a graceful dancer, and had taken part in these, moving with small steps between the prancing buffalo figures. And after a time she did become accustomed to me and we talked and laughed, for Rose loves to laugh, while her hands went swiftly about their work.

By the time twilight filled the room seven or eight bowls of various sizes stood on the table ready to dry overnight, and Rose pushed back her chair to stretch. I stretched too, and we both laughed. "My," I exclaimed, "It made my back ache just to watch you."

"It doesn't bother me much now," she replied, "but when I first started to make pottery, when I was learning, my back ached all the time."

She crossed to the dark range, and opening the front of the fire box pushed sticks of red cedar in on the ruddy coals. They caught quickly and the flames snapped and cracked noisily up the chimney.

She lit a coal oil lamp and said, "Now we eat. The pottery must dry until morning."

She went to the door and called, "Marie!" The little girl came running out of the dusk of the plaza. Her mother spoke to her in their language and gave her a coin. The child dashed off around the corner of the house.

Rose returned to the preparation of supper. She wore the traditional dress of Pueblo women, long sleeved, knee-length, with the red pueblo belt smoothly about the waist. It seemed right on her strong straight body, as did the white deer-skin, high-cuffed moccasins. She wore her black hair in a long bob with bangs over the forehead and as she bent over the noisy stove the two sides of her hair swung forward like dark wings on either side of her face. Rose Gonzales was a master of her craft, and had a pride and reserve in her manner. Her house is clean and orderly.

Little Marie dashed in with a paper bag and I watched expectantly while Rose lifted a can of corned beef out of the bag. And my hope of a meal of Indian stew and Indian bread vanished. But so did the corned beef and succotash and store bread Rose placed on the table when we sat down to eat. There were just the three of us, but before the meal was over visitors began to drop in. They all stepped over the high doorsill with a scuff of moccasin feet, some with a quick greeting, some silently. The men were in overalls, blue shirts and wide-brimmed hats. The women were dressed much like Rose. Some of them I knew, and we shook hands and talked about dances we had gone to, or missed, and people we both knew. Occasionally one would announce with a backward jerk of the head, "This is my

brother, John." And a dark face would show in the yellow lamplight over his shoulder. I would shake hands and try to remember the face just in case I should see it at a dance in one of the neighboring pueblos. Pueblo Indians love to visit one another's dances. They all sat in chairs around the walls of the room under the santos, and the photographs of Rose made by a famous photographer.

The visitors sat silently smoking. Sometimes one would make a remark and it would be answered with a conscious laugh. I tried to carry on a conversation, but it was too forced, and too many were listening, for it to be a success. And after a time they drifted out one by one, until Rose and I were left alone, for Marie had gone to sleep long before. The village was filled with shadows as the lights in the windows went out, one by one, and a hushed silence settled over the dark houses. Neither of us had much to say so Rose took the lamp and guided me through a whitewashed door to my room.

The excited barking of dogs and the neighing of horses in a near-by corral awakened me the next morning. Through one of the windows in my room I could see thin blue smoke rise in wavering columns from bottomless chimney pots. The air was crisply cold and I welcomed the rich aroma of freshly made coffee that greeted me when I stepped into the kitchen. At the sound of my door Rose turned from the range to greet me, the morning sunlight glossing her black hair and glistening on the heavy Hopi necklace at her throat.

"Good morning."

"Good morning, Rose."

"You sleep good?" anxiously as a good hostess should.

"Like a top."

She threw back her head and laughed. "You say such funny things. You sleep like a top . . . a top goes round and round."

It was my turn to laugh. "But I didn't. I stayed in one place. Your bed is so soft."

She was pleased, but said nothing and carried the granite coffee pot from the range to the table, and we sat down to a meal of hot and unsalted Indian bread (what I had hoped for the night before) which we broke with our hands from the round crusty loaf. Little Marie was already off to the government day school on the edge of the pueblo. After the cups and saucers had been washed in a pan of warm soapy water that was on the range, and the crumbs brushed from the table, Rose turned again to her pottery. Only on fiesta days, and Saturdays when she went shopping in Santa Fe did she leave her work.

Now she placed an odd dozen pieces of moulded pottery on the table for scraping. Not here the lock-step operations of mass



Heaping manure against the framework of the oven made of tricycle wheels and tin cans surrounding the pottery to be fired.

production but the sure, careful work of the skilled craftsman. This was the last step in the shaping, the last opportunity to smooth and thin the walls. She dipped a pad of cloth in water and slightly moistened a bowl, then taking a battered kitchen knife deftly removed a bit of clay here and there. Soon all the pottery had been touched up. She leaned back and sighed, "now I slip and polish." And I watched carefully for I had never seen this done.

She went to a cupboard and took out several cracked cups containing milky looking liquids. One, an orangish red, she said, was for the red pottery that was to be decorated. San Ildefonso makes lovely red as well as black pottery. A dark red liquid was for plain red and black pieces. She dipped a square of folded cloth into the lighter liquid and rubbed it carefully across the bowl. She covered the entire outer surface with the solution once and then again. It seeped quickly into the thirsty clay leaving a soapy foam on the surface. This solution was called slip, and the operation slipping.

Then with a small, smooth stone she rubbed the surface of the stone with quick, short strokes, and I began to realize that the glossy flawless polish of San Ildefonso pottery was not a glaze but was obtained by the use of slip and stone. The work went on and the soapy texture disappeared beneath the even rhythmic click, click of the busy stone. The polish grew; each stroke blending into the last until the polished bowl glistened and gleamed on the oilcloth table. Then Rose carefully inserted her hand into the bowl and turned it over, and taking a small pebble

wrote her name across the bottom. An autograph written with stone. Hour by hour the work went on until all the pieces were polished. Then they were carried outside and placed on the ground against the wall to dry in the warmth of the New Mexico sun.

That evening we were again at the kitchen table with the unfinished bowls gleaming warmly before us in the yellow lamplight. The cracked cups were there too, and brushes made by chewing the ends of long yucca until they were soft

fibrous tips. Then the drawing of designs began. The marvelous free-hand work of rounded surfaces. The slips served for paints. Rose drew with sure strokes the feathered serpent, and the symbols for clouds and rain and lightning, for growing corn and terraced villages and the sun. But most frequently I saw the plumed and undulant body of the feathered serpent of San Ildefonso, brushed on the sides of the beautiful bowls.

The next morning an acrid column of greyish smoke ascended above the flat housetops. Rose was firing pottery. Her breath clouded in the chill air and I drew my coat about me as I stood watching. A turkey gobbler strutted by and fled squawking before the clumsy attacks of a small nondescript puppy. Rose had no potter's wheel; neither had she a kiln. A dry spot of ground was selected for the oven; wet earth would smudge the pottery she said.

A group of tin cans were placed around a fire of red cedar to act as a grate. The clay ware, ten pieces were placed mouths down on this framework of cans, and over these she carefully built a skeleton framework of battered tricycle wheels and flattened tin cans. A crude arrangement but evidently sufficient for her purpose. Over and against this framework flat slabs of manure were laid until a solid dome was formed over all. Air circulated through the cracks in the manure walls. She knelt and lit the cedar, feeding it carefully with small twigs. Smoke thin and grey began to seep out of the mound. Soon the cedar fire was snapping and cracking, and an intense heat began to well out from the oven.

Rose watched carefully, and knelt occasionally with an arm shielding her face



The firing finished, the improvised oven is dismantled and the pottery removed.



to adjust a slab of dung, or remove a smoldering fragment that had fallen inward. Thirty-five minutes passed before she began to pull the smoking dung away with a poker, and gingerly lift aside the tricycle-wheel-tin-can framework. She worked rapidly. A bowl appeared glowing a deep cherry red, then a plaque, then an oval jar and lid. When all the pieces were exposed she caught up a broken-handled pitchfork, and with it and the poker she lifted the shining ware from its bed of ashes and quickly placed it to one side on a square of old dented tin. Heat radiated from it in visible waves. While it cooled Rose built another oven and repeated the process.

This second oven, however, contained black pottery and required an additional step to produce the black gloss which was a deposit of carbon. After it had been fired exactly as had been the first oven of pottery, a dishpan of powdered manure was poured over the entire kiln, completely covering it and filling all the cracks and crannies. The mass was entirely smothered, and for a time no smoke came from it. Then tiny spurts of jet black smoke began to break through the powdery covering and the whole pile seemed to seethe and boil out tiny clouds of black smoke. Then Rose removed the smoldering slabs of dung, the simple framework, and the pottery stood a dull red in the ruined kiln.

Art of the Ancient Indians

Who Can Identify These Glyphs?

As it cooled it became the ebony black of the most famous of San Ildefonso pottery. She lifted it onto the battered sheet of tin and we stood and looked at the finished work. Bowls, and jars, plaques and two-mouthed marriage vases; bright reds, dark reds and blacks. All finished and graceful, and beautiful.

"What will you do with them, Rose?"

"Oh, some I sell," her face brightened, and she stooped to pick up the perfectly formed, two-mouthed marriage vase, wiping flakes of ash from its glossy surface with the corner of her apron. She turned it cautiously in her hands for it was still hot. "This is for a contest at a museum in Chicago. Maybe I win a hundred dollars, maybe more." She set the beautiful and potentially valuable piece back on the battered tin. She picked up a lovely, low bowl, not the showpiece the other was, but as fine a piece of craftsmanship, and held it out to me with a smile. "This is for you for coming to see me, and maybe you'll come back again real quick."

This photograph of ancient Indian art was taken in a little known canyon in southern Nevada. It is one of the finest and best preserved exhibits of petroglyphs to be found anywhere in the Southwest.

No one knows for certain what all these glyphs mean, nor who placed them here. Undoubtedly they are the work of many tribesmen over a long period of years.

The mystery attached to these prehistoric writings makes them all the more interesting, and since there are many among the 60,000 *Desert Magazine* readers who would like to visit this spot, a prize of \$5.00 is offered for the best story of not over 500 words giving the directions for reaching this place, condition of the roads, and other pertinent information.

Contestants must submit their manuscripts not later than August 20, 1941, and the winning story will be published in the October issue of this magazine. All *Desert Magazine* readers are eligible to enter the contest.

Clouds on Parade

By EDW. J. FISHER
Golden Queen Mine
Mojave, California

This picture won first award in the monthly photographic contest of the Desert Magazine in June. Taken with a Bantam Special camera in March, 1941, at 3:00 p. m. Pan Eastman film, "A" filter, exposure 1/100 at f.8.



Portrait of a Lizard

By VIRGIL FORD
Trona, California

Second prize winning picture, taken with a Graflex 3 1/4 x 4 1/4. Tri-X film, 1/65 second at f.22. Enlargement from a small section of negative.



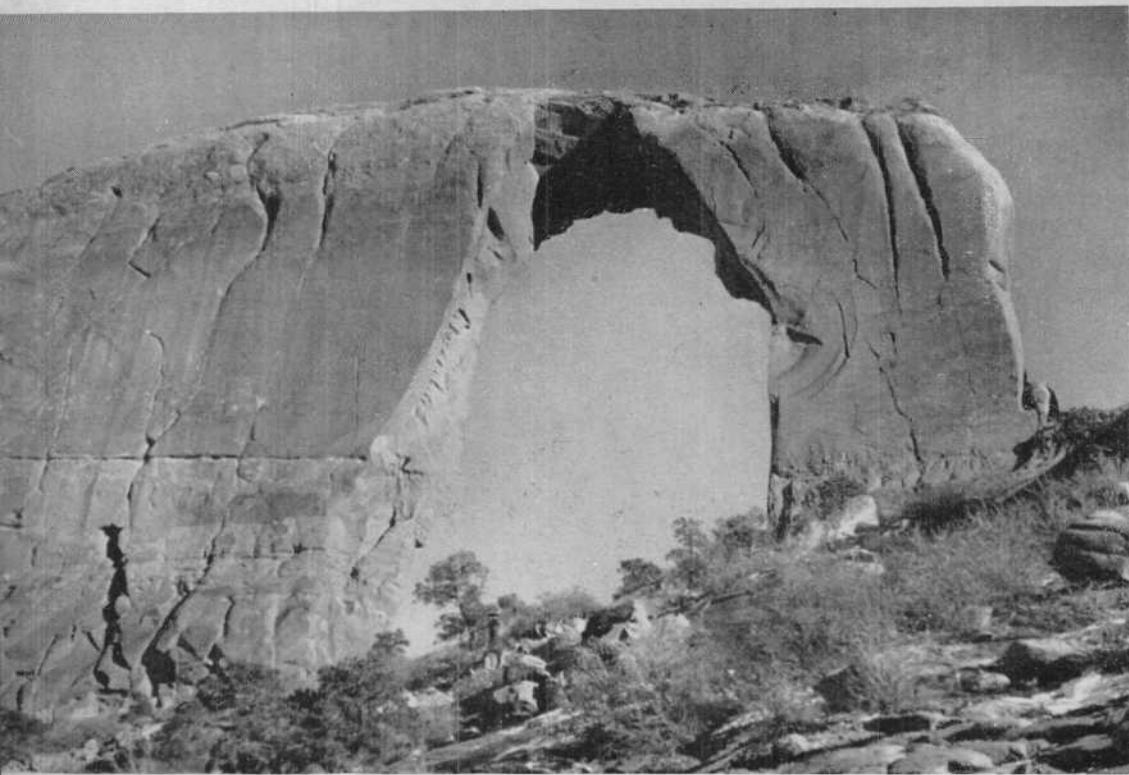
Special Merit

Selected by the judges as having unusual merit are the following:

"Desert Cathedral," by Ollie B. Neher, Pomona, California.

"Borrego Clouds," by T. E. B. Henry, Keen Camp, California.

"Prickly Pear Cactus," by Harry W. Dacquet, Gardena, California.



"Don't come back,

This red stone arch, nearly as high as Rainbow bridge, is located deep in the Navajo country in northeastern Arizona.

Arizona has a natural stone arch that lacks only seven feet of being as high as the famous Rainbow bridge in Utah and yet few white people have ever seen the sandstone span in Arizona. There are several reasons why white travelers have never beaten a path to this giant arch. The main reason is Hadalth chadih bikiis—an irreconcilable old Navajo whose disposition is as impossible as his name. Fortunately, Richard Van Valkenburgh saw the arch before the Indian saw him—otherwise this story might not have been written.

Arch in the Redrocks

By RICHARD VAN VALKENBURGH

MY first knowledge of a magnificent rock arch in the "Redrock country" between the Lukachukai and Carrizo mountains in northeastern Arizona, came in 1935 from my old Navajo friend, Hastin Ts'osih of Chinlé.

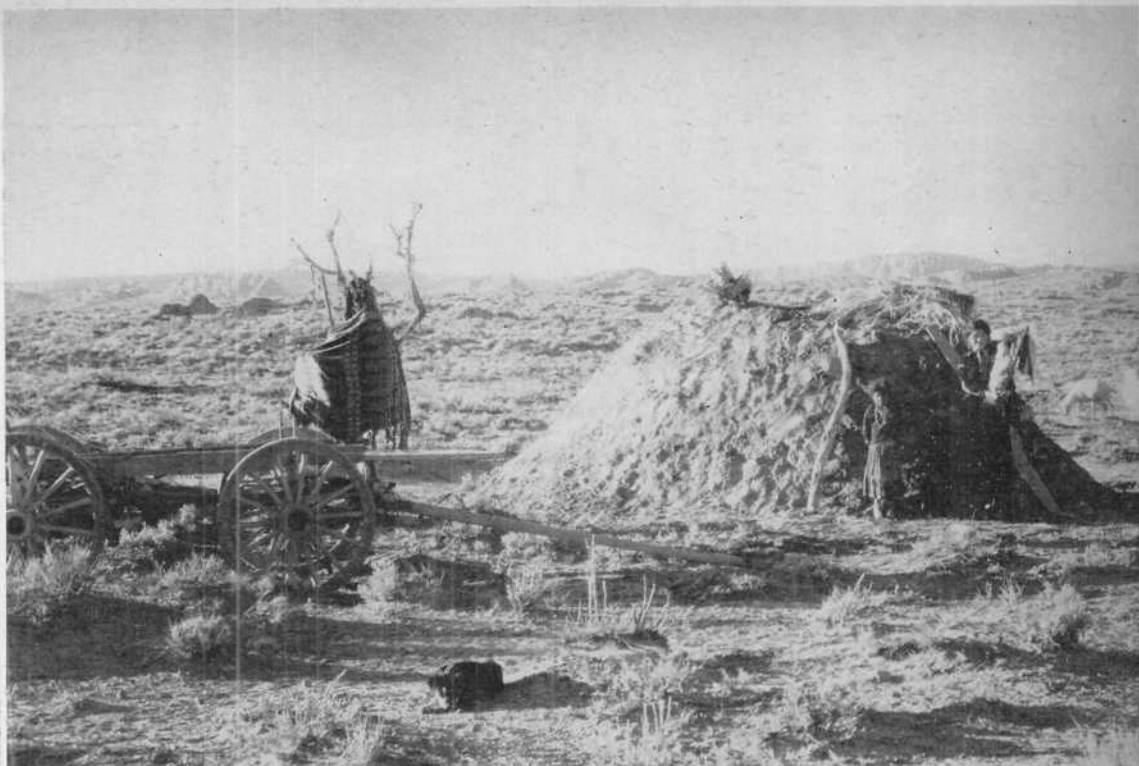
The old medicine man had guided us up Canyon de Chelly to visit the Spider Woman's rock. On the return trip down the canyon, we detoured from the main trail to inspect a rock arch near the Beehive ruin. It was evening when we reached Hastin Ts'osih's hogan. While we ate supper we reviewed the features of our day's jaunt.

Hastin Ts'osih seemed to doze when we had talked ourselves out. Then he blinked his rheumy eyes and spoke up, "That is a little one!" Pursing his thin lips northeast, he continued: "Beyond the mountains, and at the head of Kabizih valley, there stands the largest rock arch



Photograph by

, white man!"



Typical summer hogan of the Navajo who dwell in the Redrock country.

in Navajoland! We Navajo call it, *tsé gabwoots'onih*, the perforated rock.

Kabizih valley was not unknown to me. I had been there the summer before. Hastin Ts'osih's tip was kept in mind. When I started writing for *DESERT* in 1938, one of my first planned projects was to locate the arch, and write the story. Circumstances made it impossible for me to make the trip until late in the fall of 1940.

In planning the trip with Elliott Sawyer, a member of the northern division of the Sierra Club of California, we first searched for references pertaining to the arch. Nothing was located. Old-timers along the San Juan river were questioned. A few had heard of the arch, but none had seen it.

It was a brisk, steel-blue morning when we crossed the San Juan river at Shiprock, New Mexico. Cakes of dirty ice jostled each other and swirled in the muddy whirlpools that forever twist and gurgle under the bridge. Heading south, we traveled seven miles over the newly-paved surface of Highway 666. Buff-colored Table mesa was a giant block against the horizon, and somewhere in the lighting sky, lay Gallup, New Mexico.

In the west, Shiprock pinnacle seemed to sail across the mauve colored plains like a giant clipper. With her main massif silhouetted against the deep-blue sky, her sails were laced with the gleaming brightness of the early morning sun.

Beyond, lay the "redrock country,"

a deep crescent in the sky between the snow-capped heights of the Lukachukai and Carrizo mountains. Our course lay that way—over a rutted, but graded road. Keep off this in wet weather!

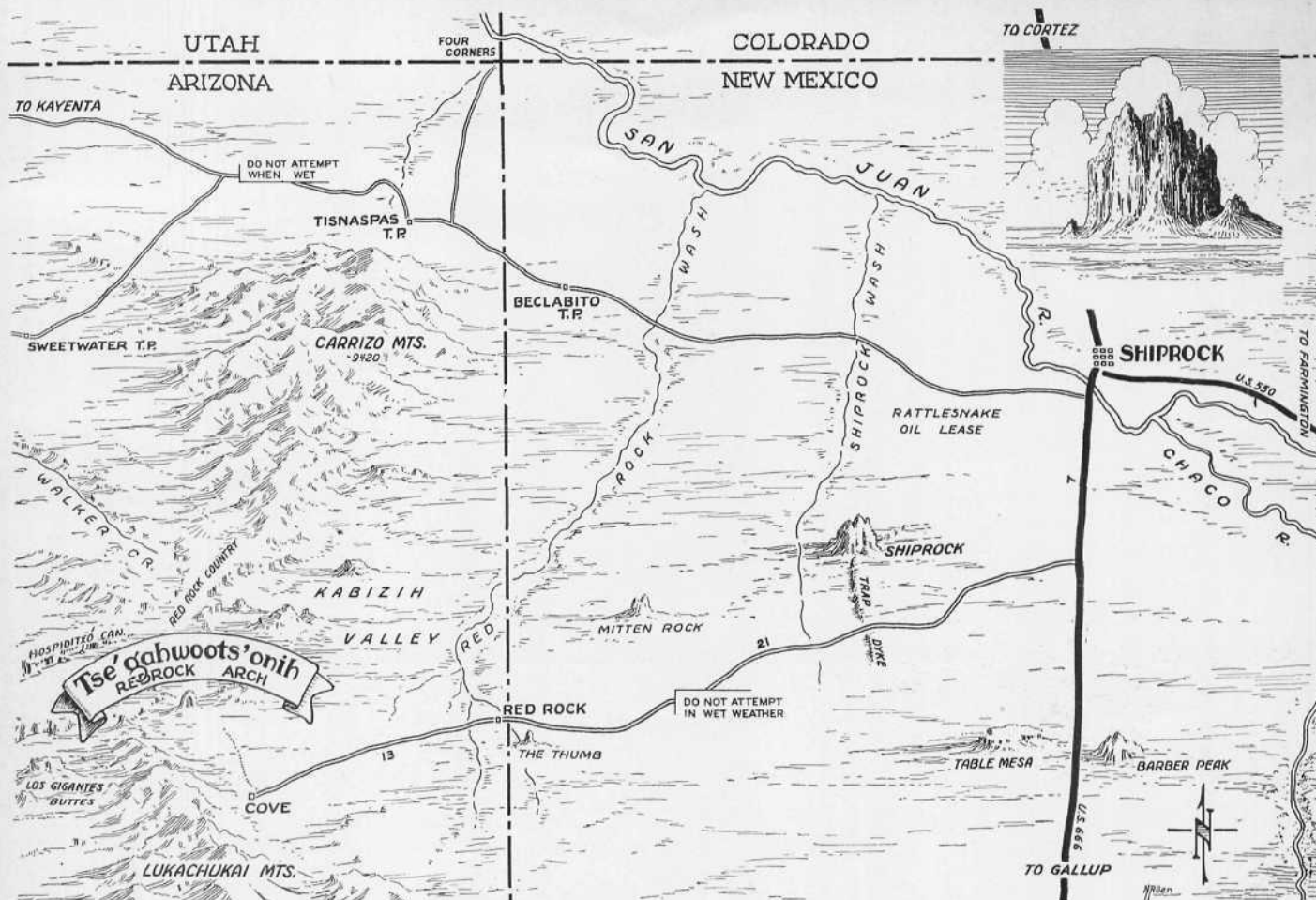
After 12 miles was traveled, we passed through a natural gap in the great malpais trapdike that extends south from Shiprock pinnacle. With its square blocks and straight sides, the dike looks man-made. But upon closer inspection, it becomes one of the more spectacular works of Mother Nature.

Immediately after crossing the New Mexico-Arizona state line, 21 miles west of the highway, we made a sharp dip to cross the running Redrock wash. Pulling up from the wash bottom to the flat on the other side, we came to Carlos Stalworthy's rock and mud trading post at Redrock, Arizona.

After passing the time of day with Carlos, we made a deal with a young Navajo lounging around the store. Being a native of the region, Ben could guide us to *tsé gabwoots'onih*. Carrying a lunch of tinned meat and a loaf of bread, we started west again.

The twisting road wound through a rough and broken country. In front of us we could see a large cove cutting deeply into an irregular barrier of deep-red rock. The white men call this the Cove, but the Navajo call it, Kabizih, barrel cactus (*Bisnaga sp.*). They took the name from a low knoll in the valley where this species once flourished.

Just before we reached the Cove



proper, Ben pointed to a small rincon and said: "That is where the old chief Black Horse used to have his hogans."

The hectic history of Black Horse was familiar to me. He was a tough old Indian who defied and escaped Kit Carson in the Navajo roundup of 1864. Ever irreconcilable to the white man and his ways, he drove miners and travelers from his domain. His outstanding act of defiance was the attack upon Navajo Agent David Shipley at Roundrock, Arizona in 1892. Old Navajo have told me that Black Horse could have told the details of the disappearance of many of the prospectors who vanished in the Carrizo mountains between 1870-1890.

Leaving Black Horse's camp we went deeper into the Cove. Thirteen miles west of Redrock, we came to the Cove day school. Ben told us that we now approached the last leg of our trip. Anyone who lacks experience in rough country driving, has a low center and respects his car, should park right here. It is seven miles to the arch on foot. We continued in our car, but it was hard going.

Ben guided us down a wagon trail that ran to the north. Soon we stopped at the hogans of *Hadalh chadib bikiis*, "friend of the one who is always talking." While Ben went in to gain information as to the condition of the trail, Elliott and I looked over the country before us.

Two great canyons broke from the west. When Ben returned we learned that the one on the south was called "Where the Mexicans Cried." According to local Navajo tradition, a Mexican slave raiding party was trapped and massacred in the canyon.

Ben added that the canyon on the north was called *tsé gabwoots'onih bikoo*, "canyon of the perforated rock." Our arch lay some miles up this deep and rough canyon.

We had to make a run to cross the brook that flows out of the canyon of the perforated rock. Some call this Black Horse creek. There was a steep and rocky ridge to climb to gain the top of a juniper covered bench that rose above us.

It was slow going. Deep ruts traversed the trail. Patches of snow added to the slickness of the burnt-sienna colored 'dobe. After considerable jockeying we reached the summit. The top of the bench was covered with a network of small gulches. After traveling a short distance, our travel by car was checked by a deep arroyo.

The terrain to the west was forbidding. We cut down our pack to camera equipment. Ben picked up a faint sheep trail and started out at the fast Navajo "high lope" that burns miles. The route lay upward—towards a long weather-stained crag. Between breaths, Ben told me that

the Navajos called this rock *tsédakbadih*, "flat rock."

My wind was gone when we reached the shade of *tsédakbadih*. Slumping on a flat boulder, I wiped the perspiration from my eyes and looked over the vast expanse of country that spread below me.

In a few moments I turned to Elliott and said: "To me—this is equal to Monument valley!"

Soon our rest was over. Starting out again we rounded the serrated southern end of *tsédakbadih*. Suddenly the panorama of the west opened. Far across the canyon stood the majestic object of our search, *Tsé gabwoots'onih*!

Elliott and I stood spellbound. We marveled at the startling beauty and immensity of the great arch as it stood outlined against the afternoon sky. Breaking the silence, I spoke to Elliott: "Bless old man Ts'osih. It is greater than he promised."

Tsé gabwoots'onih is perched on the butt end of a large rock spur that projects from the south rim of the canyon. Elliott and Ben started down to cross the canyon and climbed the south wall for a direct approach. I took a route which would lead me to the back of the arch.

After some stiff up and down climbing through a series of talus slides and slick rocks, I reached the canyon bottom. Keeping my eye on the arch, I finally

reached a vantage point that was excellent for photographs.

The floor of the canyon was gloomy and cold when I finished with my cameras. Finding a log I sat down and watched the deep rays of the dying sun cast flaming highlights on *tsé gabwoots'onih*. Further up the canyon night was falling, and the spruce trees that perch along the rim made blue-black triangles against the whiteness of the snow.

Far above me I heard Elliott and Ben crashing down through the rocks and brush. When they were near, I yelled. Soon we were together hurrying out of the canyon. There is little time between sunset and night under the low skies of Navajoland.

Night had set in when we reached the car. The winter moon was a lemon-yellow ball over Shiprock pinnacle when we started off the mesa. While we jounced down the trail Elliott and I compared notes.

The geologic formation of the redrock country was Navajo sandstone. *Tsé gabwoots'onih* was of the same formation. Once the arch had been a part of the main body, but after eons of wind, water, and freezing, it had been gouged, rasped, and cracked, eventually to become isolated from the canyon wall. Standing 301 feet high, we believe that it is the highest rock arch yet known in Arizona. This is only seven feet lower than the famous Rainbow bridge of Utah.

Elliott and Ben had carefully searched for inscriptions. They found none. Without doubt, we were one of the few white parties to visit the arch. Recognizing its accessibility, we wondered how it could have been so long missed as one of Arizona's great natural wonders. The answer soon came.

When we approached the camp of *Hadalth chadih bikiis*, a figure stepped out of the gloom into the rays of our headlights. We stopped. When the figure came close, we recognized the seamed face of the aged Navajo leader.

The old Indian looked angry. Cigarettes were tendered as a peace offering. Then he asked Ben where we had been. Ben answered, "To the great rock of *tsé gabwoots'onih*, grandfather."

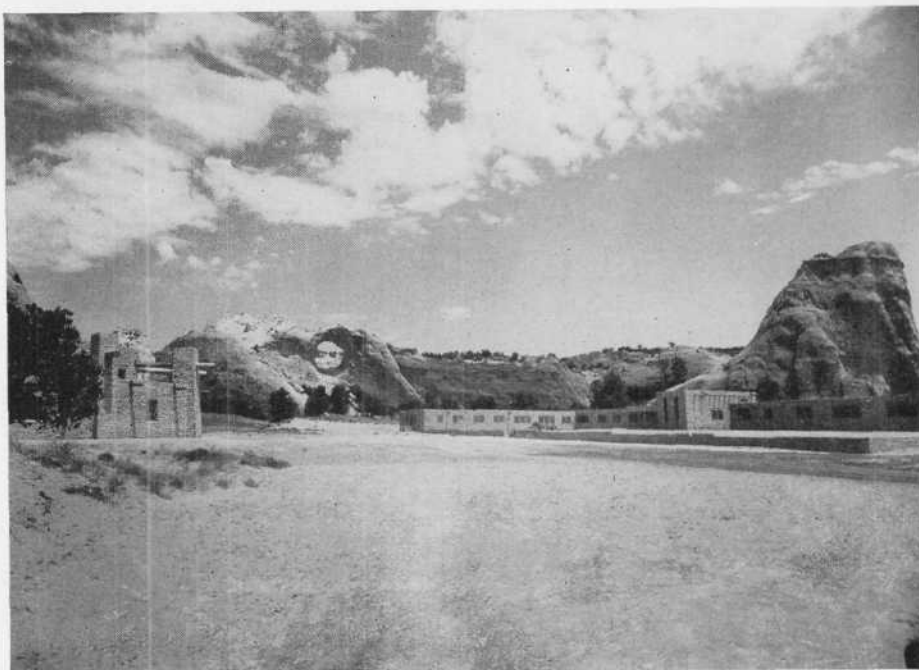
"You know that we don't allow white men in the canyon of the perforated rock!" snapped the old man back at Ben. "They have always hunted some precious rock in there. Black Horse drove them away. Some never came out!"

Ben's laugh was weak as he answered the old man, "These white men did no digging, grandfather. They only looked at *tsé gabwoots'onih*." Then turning to Elliott, he whispered out of the corner of his mouth, "Drive on! We want no trouble with him. He is one of the last of Black Horse's band. He still could be mean!"

Elliott started the car. As we moved

WINDOW ROCK

Winner of the Desert Magazine's Landmark contest for June was Miss Jimmie Ellison of Window Rock, Arizona. Since her home is not far from the hole-in-the-rock shown in this picture, she has been able to give a very accurate and informative story of this odd formation, and also of the locale where it is situated. Miss Ellison's manuscript is reprinted on this page.



By JIMMIE ELLISON

THE "Hole-in-the-Rock" pictured in the June, 1941, edition of the Desert Magazine is Window Rock, Arizona, known to the Navajo Indians as *Tsé gabwoots'onih*, Perforated Rock, and is the location of the Navajo central agency. The most desirable approach by automobile is north from Gallup, New Mexico, eight miles on U. S. Highway 666, and then 19 miles west on State Highway 68, graded dirt road. Other less favorable approaches are made from Lupton, Arizona, and Ganado, Arizona, over fairly good dirt roads. Gallup is the nearest railroad station.

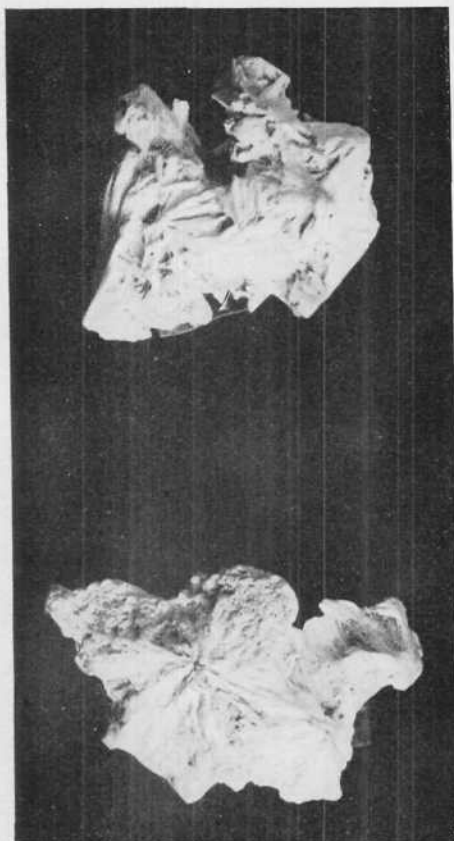
The rock itself is in the reddish Wingate sandstone formation of the Defiance monocline which runs along the Arizona-New Mexico state line. It is a Navajo site for the Water Chant. From base to peak the rock is approximately 150 feet high, and the hole is 65 feet in diameter. Geologists assert that the erosive action of wind and water on the more loosely

away from the old man and gathered speed down the road, we heard him yell, "Don't come back, white men!"

Now we know why so few whites have seen *tsé gabwoots'onih*, the greatest rock arch in Arizona.

formed particles of sandstone in the center of the rock resulted in this natural "window." It is located on the eastern slope of Black Creek valley, and overlooks the rolling juniper and piñon covered hills of the Navajo country. First historical notice of this rock was made by Captain John Bourke, renowned writer, when he passed this way in 1882.

Due to its scenic location, as well as being located in the center of the Navajo reservation, the site was chosen for the central agency of the Navajo Indians. It was first called *Nee-Al-neeng*, meaning "earth's center." Administrative center for the entire Navajo tribe of 50,000 living on 16,000,000 acres of mesa and desert, the present plant was completed in 1935. The long building to the right in the picture is the administration building where approximately 150 people, including Indians from 28 tribes, are employed. The hogan-type building on the left is the Navajo tribal council house where leading Navajo delegates meet with interior department officials once a year. The spire of rock to the right of the Window Rock is called Needle Rock. This rock acts as one terminal of the antennae of Navajo Radio Station KTGM which serves some 40 smaller stations at various points on the Navajo reservation.



These two pectolites, slightly enlarged, show the fibrous crystalline formation of some of the specimens.

"**F**OLLOW every lead that may take me into a new mineral field," said Anita Scott as I stood admiring her gem collection at Boulder City, Nevada. "That is my motto, and while it does not produce new specimens on every trip, the law of averages makes it a good rule."

After spending some time examining her many and varied specimens, I was willing to agree with her. She and her hus-

band, Don, are out on the desert nearly every available day, following clues given them by prospectors and friends. They have a wide acquaintance among desert men, and from these sources they receive many tips.

"Sometimes the specimens we find are very different from what we were led to expect," she went on. "Take these pectolites, for instance. We were hunting what an old prospector called fossil teeth of prehistoric animals. These little rocks do look somewhat like small ivory tusks."

The pectolites she held in her hand were very pretty, and well worth the trip, even if they were not what she and Don expected to find. Some were well crystallized and soft. Others were very hard, and Don had even polished one and the fibrous grain caught the light with an effect like white cat's eye.

My wife, Eunice, was with me on this trip and when we learned that the deposit

is only a short distance from Boulder City, on the shore of a very accessible dry lake, we decided to add some pectolites to our own collection. The Scotts assured us the supply was abundant, and covered a wide enough area to justify mapping this field for Desert Magazine collectors.

I had another reason for wishing to visit this old dry lake. Mrs. Scott and others in Boulder City had told me that following rains, when there were pools of water in the lakebed, it was sometimes possible to find crustaceans which answered the general description of a cross between a trilobite and a sea-going cockroach in fiesta costume.

It seems that the Scotts and other respectable citizens of Boulder City returned from a field trip one day and began telling their friends about these fresh water nightmares with red, blue and yellow markings. Each member of the party had some new descriptive note to add to

Odd Rocks from a Desert Dry Lake

By JOHN W. HILTON



Looking from Boulder City across the Nevada desert toward the dry lake where the pectolites are found. The lake is the white spot in the right center of the picture.

the story—and the thing sounded so fantastic no one would believe them.

So they went to the school library. Surely science would recognize their find. The science teacher listened with some skepticism, but the rock-collectors were all respectable citizens, and it is against the law to sell intoxicating spirits in Boulder City, so she finally agreed to accompany them to the lakebed to view these biological wonders of the Nevada desert.

When they returned to Boulder City the Scotts were vindicated. They proudly displayed to doubting neighbors a glass jar with several of the aquatic monstrosities gayly swimming in the water. The things did not take well to captivity, however, and died before anyone had been able to identify them.

Books at the school described a similar sort of animal life as a crustacean that lived deep in the mud of a desert playa where it hibernated until water collected on the surface, and then came up to disport itself.

It had rained a few days before my trip to Boulder City and I had great hopes of finding some of these interesting creatures to take back to California for examination in one of the university laboratories.

The dry lake is only a few miles southwest of Boulder City, along the highway that connects Las Vegas with Searchlight and Needles. We drove out there that afternoon, and my first search was for those little urchins I had been hearing about.

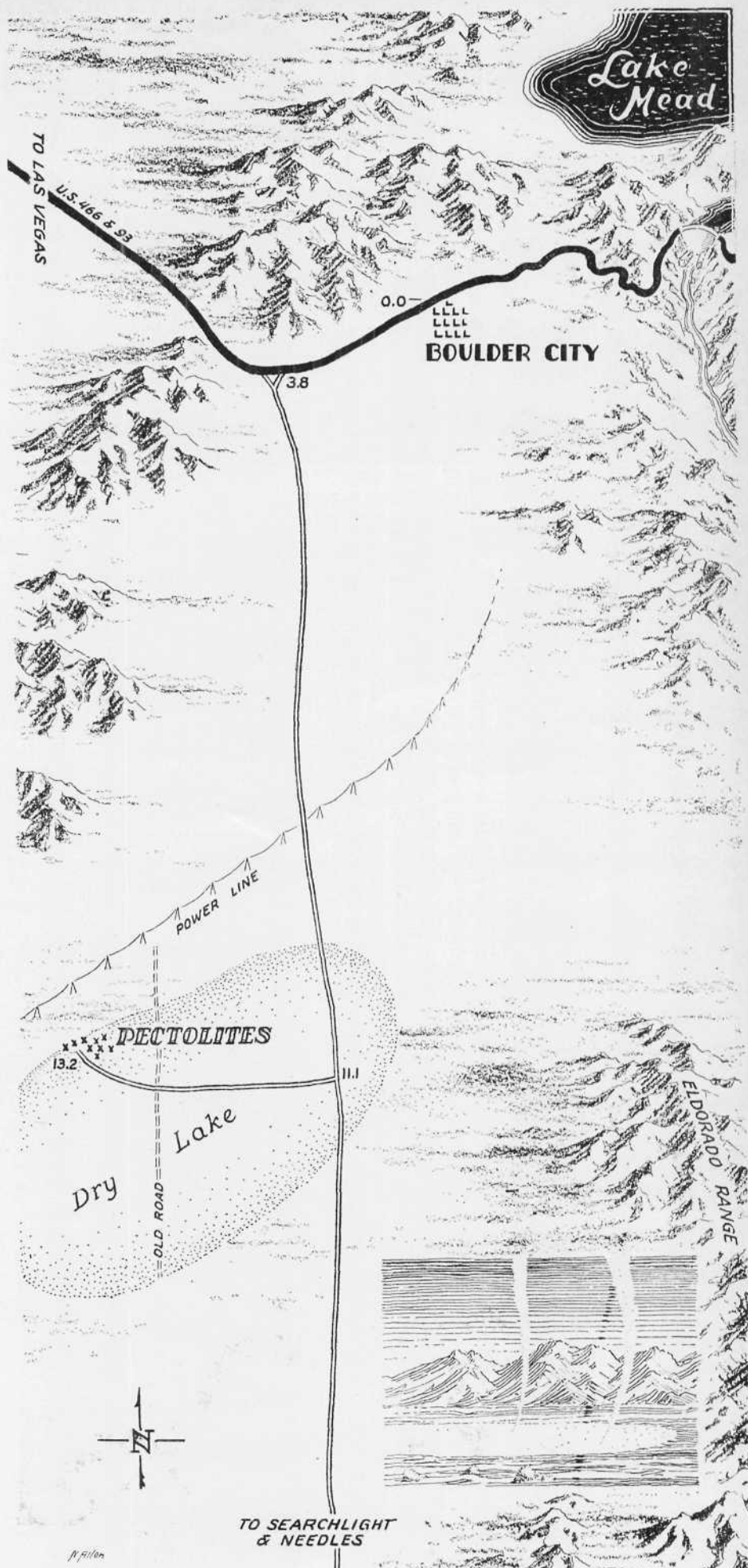
None could be found. We looked in pool after pool and not a ripple broke the surface. We dug, stirred and waded, but all without success. Either we arrived too soon after the rain or it was too cold, or the darned things had become extinct, as they should have a million years ago.

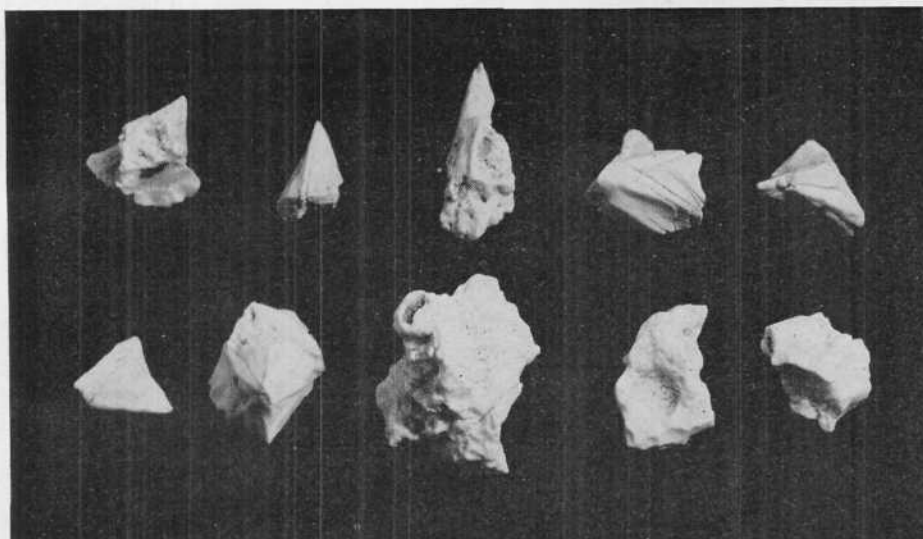
If I did not know the Scotts rather well, I would be one of the skeptics. True, they did show me a bedraggled something or other pickled in a bottle. But the color was gone and it looked suspiciously like a sand crab someone had stepped on at the beach. I'll feel surer about it if some one, after the next rain storm, will bottle up a few of these sport-model fossils that go gallivanting around in a dry lake and ship them to me.

But we were not disappointed in our hunt for pectolites. The recent rains had washed out a fine lot of them, and their snowy white color against the damp earth made them easy to find. It was easy to understand why the prospector had mistaken them for fossil teeth.

Most of these interesting minerals were in radiating groups of tiny fibrous crystals. Some of them were very hard, but we found fancy groups with fan designs and sunbursts of fiber that were much softer.

Pectolite is actually one of the minerals





These pectolites are reproduced actual size. Looking at those in the upper row you will understand why the old prospector thought they were the fossilized teeth of a prehistoric animal.

found in association with the Zeolite minerals, but differs from this group in that it has no aluminum in its formula, being a calcium sodium silicate. The normal hardness is five, but some of the samples we found had been so replaced with chalcedony that they test $6\frac{1}{2}$. Some of the more compact samples from this field make interesting gems when cut, with a silky chatoyancy quite pleasing to the eye.

Pectolite is supposed to occur most commonly in volcanic trap rocks, and this locality is no exception. Evidence is plentiful, even on the shore of this dry lake far from their source, that they occurred in cavities in igneous rocks along with and sometimes inside of chalcedony geodes.

Small bits of chalcedony abound in this field and some of them have pectolites still attached. These and the small quartz crystals found in the float are indication of a wonderful field back in the hills, waiting to be explored by an energetic rockhound.

It is evident these pectolites and chalcedony fragments have weathered out of the rocky slopes of the hills back of the dry lake. The country up that way looks rough and I know of no one who has actually tried to find these interesting minerals in place. I regretted that I did not have the time to follow up the alluvial fan and see what there is at the source.

In the meantime there are plenty of specimens for those interested in a short

sidetrip while they are visiting Boulder dam and Lake Mead.

This is one more interesting mineral to add to your collection when you are in that part of the desert.

And if any Desert Magazine readers who go there will extend their exploration out into the center of the dry lake, and should come across some red, yellow and blue trilobites dashing merrily around in the muddy water I believe they will be serving the cause of science if they will bottle up a few and try to bring them back alive. If that is not possible, then preserve them in grain alcohol as that will not spoil their color as badly as the denatured kind.

NEW DEPOSIT OF STRATEGIC MINERAL IS DISCOVERED

Discovery of a huge deposit of celestite in a canyon 20 miles north of Plaster City in Imperial county was announced late in June. It is reported the mineral will be important in the national defense program. Mining has been started by the Penn Chemical company of Pomona, California. Shipments, it is said, will be made to a DuPont chemical plant on the Atlantic coast. Trucks will haul the rock across the desert to Westmorland, where it will be loaded into railroad cars.

Unofficial reports say this material, described as strontium sulphate (SrSO_4) may be used by warships and airplanes in laying down smoke screens. Celestite is very heavy, occurs in orthorhombic crystals, in massive compact form.

Weather

FROM PHOENIX BUREAU

Temperatures—		Degrees
Mean for month	.....	82.8
Normal for June	.....	84.5
High on June 23	.....	108.
Low on June 9	.....	60.
Rain—		Inches
Total for month	.....	Trace
Normal for June	.....	.07
Weather—		
Days clear	.....	23
Days partly cloudy	.....	6
Days cloudy	.....	1

G. K. GREENING, Meteorologist

FROM YUMA BUREAU

Temperatures—		Degrees
Mean for month	.....	82.6
Normal for June	.....	84.7
High on June 18	.....	108.
Low on June 8	.....	59.
Rain—		Inches
Total for month	.....	0.00
72-year-average for June	.....	0.02
Weather—		
Days clear	.....	29
Days partly cloudy	.....	1
Days cloudy	.....	0
Sunshine 99 percent (424 hours out of possible 428).		

Colorado river—Discharge for June at Grand Canyon 4,260,000 acre feet. Release from Boulder dam 1,910,000 acre feet. Estimated storage June 30 behind Boulder dam 30,160,000 acre feet, a gain of 2,183,000 acre feet since May 31. Release of extra water from Boulder dam continued through June.

JAMES H. GORDON, Meteorologist



Anita Scott and Eunice Hilton gathering pectolites.



Desert Rosette is frequently seen along the roadsides.

You'll Recognize Velvet Rosette

By MARY BEAL

YOU really do not have to be told that the thick-foliaged, well-rounded little bush with the grey-green velvety leaves, which you have seen frequently on your hikes across the desert plains, is Velvet Rosette.

The name fits it perfectly—you couldn't properly call it anything else. Of course the botanists have another way of identifying it. To them it is *Psathyrotes ramosissima*—but do not let these formidable words stand in the way of an intimate acquaintance with this lovely desert shrub. Just call it by its common name—and if you come across one of the plants with bright yellow flower-heads crowning its woolly dome, you will have had a special treat.

To insure survival of species, Nature has endowed most desert plants with some means of defense against the hazards of scanty rainfall, heat, drying winds, and foraging animals. Those not fashioned with some form of prickly armament (spines, barbs, thorns or stiff bristles) are apt to be protected by such devices for moisture conservation as varnish or other resinous, scurfy or woolly covering, or by disagreeable odors and flavors. The Velvet Rosette belongs to the ill-scented clan. Its rank turpentine odor is repellent to even the hungriest little beast. Its woolen cloak is also a shield, well designed to keep its life-juices from evaporating. To ensure support for its brittle stems it hugs

the ground closely. Can you think of a better example of adaptability?

Usually 2 to 8 inches high, its very leafy stems branch and rebranch to spread out mat-fashion into a rosette 4 inches to over a foot across, the herbage densely clothed with thick white wool. The small thick leaves are usually broader than long, slightly and unevenly scalloped, roundish, kidney-shaped or very broadly ovate, $\frac{1}{4}$ to $\frac{3}{4}$ inch broad.

They are strongly veined on the under side, wrinkly above and as soft as the finest silken velvet. The tiny bright-yellow tubular flowers are crowded into compact rayless heads, borne on short peduncles in the axils. Reaching maturity the blossoms change into fuzzy tufts of silvery-white bristles and if you pull out some of these little pappus tufts you'll find attached to them the diminutive seeds, also silky with a dense covering of white hairs.

This interesting species has a fancy for roadsides as well as the rockiest hills and can be found in shallow washes, on plains and hills, from valley to mountains of the Colorado and Mojave deserts, Nevada and Arizona. The finest ones I've ever seen were in Death Valley, just above the mouth of Furnace creek wash. One splendid silvery cushion measured over two feet across, basking among yellow Sun-cups purple and violet Phacelias, deep-pink starred Gilias and lemon-yellow Mohaveas, a goodly company, colorful and beauti-

Nature has endowed all desert plants with a protective armor of some kind—to preserve their life against heat and wind and foraging animals. Here is a shrub that the rodents never bother—because they don't like its odor. But it is a lovely flower nevertheless—and you'll recognize it by its common name without difficulty.

CACTUS SHOW AWARDS ARE ANNOUNCED . . .

A record crowd attended the Los Angeles Cactus show held in the gymnasium at Manchester playground June 14 and 15. Following are the awards:

Hubert Monmonier won the Sweepstakes Cup, a cup for the Best General Collection of Cacti, and numerous first, second and third place ribbons.

General collection of succulents, John Akers.

Collection of Euphorbias, Roy Miller.

Flowering Cacti, Mrs. Francis Runyon.

Club exhibit, Epiphyllum Society of America.

Rarest Cactus (*Neogomesia agavioides* Castenada), Cactus and Succulent Society of America.

Rarest Succulent (*Haworthia parksiana* V. P.), John Akers.

Best Succulent (*Ceropegia dichotoma* Haw.), Mrs. Maybelle Place, who also won first on her Sempervivums.

Flowering Succulent (*Sedum hispanicum* L.), Mrs. Ethel Rush.

Collection of Echeverias, Homer Rush.

Genus (*Haworthia*), Mayme Abercrombie.

Collection of Malocarpus, Waldie Abercrombie Jr.

Novice Exhibit, George Glade.

Commercial Entry, Mrs. Gertrude Beahm.

Decorative Arrangement, Mrs. Barbara Poin-dexter.

Pot Grown Specimen (*Hoya carnosa* R. Br.), Mr. Purdy.

Others who entered outstanding specimens or exhibits are Mrs. Hazel Miller, Edward Taylor, Charles Herman, Elmer Herman, Mrs. Gertrude Genrich, Mrs. Florence Cariss, W. O. Bright, Dr. E. D. Busby, Thor Methven Bock, George Olin, Billy Olin, Southwest Mineralogists, Long Beach Cactus club, Southern California Cactus club and Southwest Cactus Growers.

ful enough to inspire any hale and hearty Rosette to unusual exuberance.

Psathyrotes annua

Similar to the above but more openly branched and the herbage less densely woolly, with more of a greenish color. The fan-shaped leaves are thinner and somewhat scurfy, but still velvety, shallowly and irregularly toothed. The flowers are a trifle smaller, with slight structural differences noticeable only to botanists. This species is found infrequently in the Inyo county and southern Mojave deserts of California, Arizona, Nevada and Utah.



Copyright photograph by D. Clifford Bond.

WITH SEEING EYES

By MURRAY SKINNER
Los Angeles, California

My desert is not sand alone—
Its brown immensity
Boasts jeweled weed and purple sage
And one brave willow tree.

The cactus with its brilliant spine
And flower of silken grace
Has stamped its own especial brand
Upon the desert's face.

The glittering skin of creeping snake,
The lizard's spotted side,
The chaparral cock with pointed crest,
Find cover here to hide.

The colored rocks which gem the land—
A giant's precious stones—
And green mesquite and grey smoke-tree
Make Persian-carpet tones.

My desert is not sand alone—
Its broken symmetry
Displays an artist's rarest dream
In lyric pageantry.

MIRAGE

By GRACE PARSONS HARMON
Los Angeles, California

The purple glow on mountains at the desert's
edge,
The tangle of mesquite when the rainbow
bends,
The white of yucca, red of ocotillo,
The trickle of cool water where the rough
trail ends;
The whiteness of the desert 'neath the autumn
moon,
Coyote laughter riding down the wind,
And then the brooding silence of the night,
That leaves the day's mad tumult far behind;
The lure of mountain peak against the stars,
So fraught with nameless mystery and charm:
I know them all! I see them rise again
Above the city's rush and wild alarm!

CREED OF THE DESERT

By JUNE LE MERT PAXTON
Yucca Valley, California

Said grandma tortoise to an ailing lizard,
"Please go to my doctor, for he is a
wizard.
He'll keep you out in the sun all day,
And give you a treatment of violet-
ray."

Indian Weaver

By GOLDIE CAPERS SMITH
Manhasset, L. I., N. Y.

Shear the sheep, and card the wool,
Twist it into greyish strands,
Dye it with berry and root and leaf
And tincture of stone, with practiced hands.

Weave it into a sacred rug;
Within its center the honored place
Give to your dusky god, the Sun,
Staring afar with brown-burnt face.

Circle the Sun with cactus thorn,
Eagle, and serpent with darting tongue,
Forked lightning, and desert bloom,
—Symbols old when the world was young.

Fashion the stripes and cut the woof,
Knot the thread to a fringing edge,
Bend your forehead to touch the dust,
Chanting your praise from the mesa ledge.

But famine stalks the sun-hot sand,
A shriveled belly groans for bread;
Your treasure goes to a stranger's hand,
A white-skinned pagan with covered head.

A pagan who prates of myths and lore,
A barren creature, leather-shod,
Who flings the rug on a polished floor,
And plants his foot on the face of the god.

DESERT WANTING

By MRS. G. L. BECKSTEAD
Eloy, Arizona

I want to watch a cactus wren move in
His bristled cholla nest
And wonder why he doesn't feel the
stickers on his feet.

I want to find a prickly pear
And peel the ripened skin away
And wonder if that sour red pulp is really
good to eat.

I want to crush the leaves of creosote
And hold them to my nose
And wonder why I like that spicy bitter
smell.

I want to find a grey-green clump
Of mallow blooming near a rock
And wonder at the wind-blown freedom
of each fragile bell.

I want to hear a canyon wren
Trill down his minor scale
And wonder why he sings on down instead
of singing up.

I want to feel the deepened whiteness
Of Saguaro blooms
And wonder why there is no stem for such
a waxy cup.

I want to see the light glint on a buzzard's
Tilting wings and wonder how a bird
So skillful in the air could be so awkward
on the ground.

I want to fill my pockets full
Of oddments from an Indian mound—
An arrowhead, a bead, a piece of pottery
I've found.

WEATHERWISE

By LEE HELM
Twenty-nine Palms, California

Knowledge, it is often said,
Will keep a man from harm
Now I know the reason why
I never feel alarm,
Not a casual doubt or fear—
It gets as hot as hell right here.

Sez

Hard Rock Shorty of Death Valley . . .



By LON GARRISON

"An' speakin' o' mirrors," Hard Rock Shorty opened the conversation, "I told yuh about that cold climate mirror that got me all out o' kilter the other day, an' that remind-ed me o' the time Baldy Banks an' me usta make mirrors over here on Hot Water crick."

He shifted his pipe, gazed with warm affection on the hills shimmering out beyond the store yard, and then relaxed in his favorite creaky chair with his feet on the porch rail.

"Mirrors was easy to make, too. Baldy an' me'd work nights shovelin' sand in frames, set 'em out in the open, an' next night they'd be glass melted down in the sun. Then we'd shovel a little mercury ore on 'em an' leave 'em out in the sun another day. Next night we'd dig 'em up an' they'd be just as fine mirrors as yuh see in Sears an' Saw-buck's catalog.

"We even sold one, but that didn't work so good we found out. Folks w'd take one o' them mirrors out o' Death Valley an' it wouldn't work—just got dark. Couldn't stand the cold climate.

"We had some fun out of it though. Feller from down in Hollywood bought this one an' took 'er home—hung it up in one o' the movie studio offices. Then it wouldn't work. So he brung 'er back a week or so later. Wanted his money back. Baldy an' me stalled 'im a bit an' hung this mirror out in the sun.

"Say—the mirror warmed up an' ever'thin' that'd happened in that office that week begun developin' an' running off just like a movie. Conferences—argaments—lunches—she was all there, thawin' out an' unfoldin' like a news reel. The movie feller didn't see it at first—too busy hollerin' about gettin' his money back. But all of a sudden he looks over an' reckernizes what's goin' on. He sets back to watch too, but about that time a big hefty blonde gal shows up in the mirror, walks up to the desk, an' this guy don't waste no time.

"Afore we can see what happens next he grabs a rock, an' he busts the mirror. There ain't no more said about money back though. He even tries to buy another one."

Prizes to Amateur Photographers

Many readers of Desert Magazine ask: "Where do you get the beautiful photographs you use every month?"

The answer is that a majority of them are made by amateur photographers. Each month the Magazine offers cash awards of \$5.00 and \$3.00 for first and second place winners in an amateur photographic contest. The staff also reserves the right to buy any non-winning pictures.

Pictures submitted in the contest are limited to desert subjects, but there is no restriction as to the residence of the photographer. Subjects may include Indian pictures, plant and animal life of the desert, rock formations—in fact everything that belongs essentially to the desert country.

Following are the rules governing the photographic contest:

1—Pictures submitted in the August contest must be received at the Desert Magazine office by August 20.

2—Not more than four prints may be submitted by one person in one month.

3—Winners will be required to furnish either good glossy enlargements or the original negatives if requested.

4—Prints must be in black and white, 3 1/4 x 5 1/2 or larger, and must be on glossy paper.

Pictures will be returned only when stamped envelopes or photo-mailers are enclosed.

For non-prize-winning pictures accepted for publication \$1.00 will be paid for each print.

Winners of the August contest will be announced and the pictures published in the October number of the magazine. Address all entries to:

Contest Editor, Desert Magazine, El Centro, California.

The Desert TRADING POST

Classified advertising in this section costs five cents a word, \$1.00 minimum per issue—actually about 1 1/2 cents per thousand readers.

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HAVE 10 YEARS' COLLECTION unusual lovely purple desert glass for sale as lot. 200 pieces. See at 6721 Imperial Ave., San Diego. Address Helen McCabe, Rt. 3, 746-B, San Diego, California.

KODACHROME 2X2 SLIDES, "Springtime in the Desert." 40 slides with descriptive manual \$20. C.O.D. on approval. Write for folder. C. Edward Graves, Arcata, California.

COLLECTOR'S ITEM—We have 20 original copies of the printed "dummy" of Desert Magazine as it was designed before the first issue appeared in print. Contains headings and initial editorial, but no other text or illustrations. While they last, \$1.00 each, postpaid. Desert Magazine, El Centro, California.

LIVESTOCK

KARAKULS producers of Persian Lamb fur are easy to raise and adapted to the desert which is their native home. For further information write Addis Kelley, 4637 E. 52 Place, Maywood, California.

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Desert Magazine

El Centro — — — California

Desert Place Names

For the historical data contained in this department the Desert Magazine is indebted to the research work done by the late Will C. Barnes, author of "Arizona Place Names;" to Betty Toulouse of New Mexico, Hugh F. O'Neil of Utah, Marie Lomas of Nevada, and Charles Battye of California.

ARIZONA

LA PAZ

Yuma county
Mining town established 1862 on Colorado river about 10 miles above Ehrenburg. It seems fairly clear, Will C. Barnes decided, that first comers made their way up the river to this point after stopping at La Paz, Mexico, which at the time was an important town in Lower California. Hence, according to Barnes it was natural to use the name here, "otherwise no reason for this name can be learned." J. Ross Browne says Pauline Weaver, early day giant among the "mountain men" went to La Paz in '62, attracted by the rich gold placers. In 1864 the first territorial legislature tried, but failed to move the Arizona capital from Prescott to La Paz. Fish says 5,000 men were working La Paz placers in '63. In eight or nine years miners took out more than eight million dollars worth of gold there. Until 1870 La Paz was Yuma county seat. Early in January of that year, writes Capt. Isaac Polhamus, "records were shipped down the river on steamer Nina Tilden, which I commanded. County seat was moved to Arizona City (later Yuma) by an act of the legislature, 1869." First court convened at La Paz June 24, 1864. Sylvester Mowry said it then had 155 houses. In 1870 the river, during a rise cut away from the town and left La Paz without a landing. This was the beginning of the end for the settlement. McClintock is authority for statement first gold was found in Arroyo de la Tenaja about seven miles from the river. Reporting an election held on October 18, 1863, at La Paz, when the county was under martial law, the Tucson Citizen said, "Pedro Badillo, known as 'Six-toed Pete' was elected sheriff; F. G. Fitts, alcalde." In 1865 La Paz had a postoffice. Christopher Murr was postmaster. (D.M. Dec. '37, p. 8.)

CALIFORNIA

GREATER VIEW SPRING Inyo county

Near western boundary of Death Valley national monument, the home of Carl Mengel, once partner of Shorty Harris, the famous "single-blanket Jackass" prospector. View for which spring is named is one of the breath-taking panoramas for which this region is noted. Big cottonwood trees, nearly 50 years old, are near Mengel's neat whitewashed stone house, which has 18-inch walls. In 1912 Carl Mengel bought the Oro Fino claim in Goler Wash, west of here. Ore from the mine then had to be carried out on mules. While

Mengel was trying to locate a better trail down to Panamint valley he picked up a piece of float, panned it by the light of his campfire. The ore was so rich in gold Mengel gave up his search for an easier trail from his old claim, and went to work on the new one the very next morning. The ore was rich, says the Death Valley Guide, some of it running \$35,000 a ton, but the deposit was small.

NEW MEXICO

LOS LUNAS (lohs loo'-nahs)

Valencia county
Sp. "the moon." Founded as a village in 1706 by Domingo de Luna, descendant of Don Alvaro de Luna, one of the greatest characters in Spanish history, who lost his head because of a misunderstanding with the King circa 1695. After his death the family came to the province of New Mexico, Domingo de Luna establishing the town as a focal point for his retainers. The family was Moorish and retained the crescent in their coat of arms, which is probably the reason the family name of Luna was used.

NEVADA

McDERMITT

Humboldt county
Town on U. S. 95, north 77 miles from Winnemucca; pop. 200. Named for Col. Charles McDermitt who was returning to Quinn river station when he was shot from ambush. The station was re-named for the colonel.

REBEL CREEK

Humboldt county
Town on west slope of Santa Rosa range in Quinn river valley, located on Rebel creek. Mining district located thereby. According to legend, after the war between the states a southerner and a Yankee met there and fought to see who should name the creek. When the Reb won, it became known as Rebel creek.

UTAH

PLYMOUTH

Box Elder county
Alt. 4500; pop. 315; settled 1869. Named for Plymouth, Mass. Formerly called Squartown because the first four families of settlers built their log houses on the adjoining corners of four sections of land.

FAYETTE

Sanpete county
Alt. 5,000; pop 260; settled 1861. Vacated 1866, due to Indian troubles, resettled soon after. Named for Fayette, Seneca county, New York, where the Mormon church was organized by Joseph Smith. First called Warm creek.

Writers of the Desert . . .

NEARLY everyone in Arizona knows BARRY GOLDWATER.

But for the information of Desert Magazine readers who are not so fortunate as to reside in the Sunset state, it should be explained that he is a versatile young man who helps manage one of Phoenix' largest department stores, takes some of Arizona's most beautiful photographs, gives illustrated lectures on travel and history and donates the admission fees to charity, collects Arizoniana, travels and writes. In fact about the only vocation or avocation in Arizona in which he has never engaged is Arizona politics—and this all goes to prove Barry is a smart young man, for politics in Arizona is a goshawful thing.

Anyway, Barry Goldwater makes his premier appearance as a contributor in Desert Magazine this month with the story of the Bisbee Massacre, a rather bloody episode in which a pioneer member of the Goldwater family was innocently involved.

Barry is 32, and of the third generation of a family that began trading in Arizona 81 years ago.

One day he was told that the largest known collection of Arizoniana was owned by a Kansas doctor. "That's a helluvanote," remarked the young store manager. And so he started collecting Arizona books and maps and records with the idea of restoring to his own state the distinction of having the best library of state literature. And when Barry Goldwater starts a project he eventually reaches his goal.

He has published a small book "An Odyssey of the Green and Colorado Rivers," telling the story of his trip down the Colorado with the Norman Nevills party last summer. "Arizona Portraits," a collection of Barry's best desert pictures is another of his publications. At present he is working on a history of the Goldwater family in Arizona.

. . .

If you were to go to the Indian corn dance held at Santo Domingo pueblo in New Mexico August 4 each year, you might not recognize HELEN CALKINS, but she would surely be among the spectators. She has been going to this ceremonial every year since 1933, and some of her friends have declared that she knows the ritual well enough to take part in it.

Mrs. Calkins is the author of this month's Desert Magazine story about Rose Gonzales, the fine pottery craftsman of San Ildefonso. Mrs. Calkins is well qualified to write this story because she knows the Pueblo Indians intimately. She likes them, and they respond to the friendship of white people when it is genuine.

Mrs. Calkins came to New Mexico

from New York when she was 15 years old. That was 11 years ago. Her father was a writer, and she married a salesman husband who is also interested in writing. She has two children—which means that writing merely is a hobby to which she devotes the odd hours when housekeeping duties are done.

. . .

JOHN W. HILTON, who writes about minerals and artists for Desert Magazine readers, reports that he has

found the ideal retreat for an artist or writer.

While on a scientific trip into Sonora, Mexico, this spring, he learned that he could rent a 12-room house at Alamos for \$5.00 a month—with other living costs in proportion.

"That is a vacation trip which will cost less than staying home," figured John. "Imagine two whole months in a peaceful Mexican village with nothing to do but paint and write."

And so, early in June he packed his desert car and with Mrs. Hilton and their two children headed for the port of entry at Nogales, Arizona. Hilton plans to add to his mineral collection while in Mexico.

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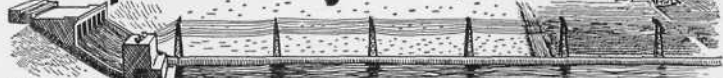
Imperial Valley, California, with an abundant water supply and a 12-month growing season has always been a high producer of food, both for man and animal.

More recently, as a result of the completion of the All-American canal, hydro-electrical energy is being produced in steadily increasing volume. Today the power drops along the canals are carrying three-fifths of the Imperial Irrigation district's power load. With the installation of additional generators, the district will have power available not only to supply the entire needs of this desert region, but to provide a surplus of energy for domestic and industrial purposes elsewhere.

Imperial Irrigation district is a cooperatively owned and operated organization—a guarantee that the selling price of its electrical energy will always be held to the minimum.

As a distributor of water and power, the Imperial Irrigation district today is playing no less important role in national defense than the factory producing munitions, or the yards building ships.

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BOOKS OF YESTERDAY AND TODAY

—a monthly review of the best literature of the desert Southwest, past and present.

ALL KINDS OF PEOPLE DWELL ON THE DESERT

In *DESERT COUNTRY* Edwin Corle tells the story of the living desert through its own medium—the legends, stories, customs, traditions and sketches from life that are a part of its changing moods. It is a superb study, properly cast as the lead in the projected series of "American Folkway" books, under the editorship of Erskine Caldwell.

Mr. Corle begins with the Mojave and its people. It is the "grand opening" at Mac's Cactus Club, the gathering place for miners, ranchers, truck-drivers off shift, bus passengers, desert people, Westerners — Americans — "you yourself." It is one of many of the desert's wayside towns, new towns that have come as outgrowths of the present gasoline age, a bit raucous, perhaps, in their life on the highway.

But beyond the neon signs there is still the spell, the isolation and the timeless mystery of the desert. It has been tamed, but only as a lion is tamed, subdued but not to be accepted too casually. Out there, in stubborn contrast to the modern juke-box civilization, ghost towns still cling to the honey-combed hills where men once burrowed far under ground, spurred on by their unquenchable desire for gold.

These, Mr. Corle pictures as they are—old Rhyolite that boomed to fame only to be deserted, left to the ownership of one man, the genial Mr. Westmoreland; and Tombstone with its still lively little newspaper, the "Tombstone Epitaph." There is "Shorty" Harris and his illusive gold mines; "Death Valley Scotty" unpress-agented and unembellished by the tarnished trimmings of fabulous mines and hidden gold caches. There is recounted the strange tale of George Bright, the Los Angeles negro, who retired as fireman and went out to found a Utopia on the desert.

It is all here—the many tribes of desert Indians standing on their own merits without artificial glorification; the events in the Moun-

tain Meadows Massacre summarized straightforwardly and without prejudice; the story of "The Thing They Found in the Cave;" and there are ancient Oraibi and Walpi, so old they have outlived whole civilizations.

All these and more are woven together to make the desert country that Mr. Corle describes as being "all of a piece." His desert is real and there is no attempt to sweep the reader into a poetic mirage. Through personal observation and keen understanding, he presents it with all its friendliness, its harshness and its humor blended into a credible whole.

Duell, Sloan and Pearce, New York. 357 pp. Indexed.\$3.00
—Marie Lomas

FRONTIER LOVE IN A BACKGROUND OF CONFLICT

Out of the desert country, Frances Gillmor brings us a poignant love story superimposed upon the dramatic economic conflict between men earning their livings in two different ways—the battle between the small fruit farmers and the goat men along the southern border of Arizona.

Under the symbolic title, *FRUIT OUT OF ROCK*, recently off the press of Duell, Sloan and Pearce, Miss Gillmor introduces us to Amanda, a farmer's daughter very much in love with Stephen, the goat-herder. On the mesas are the goat men and their herds, imperilling the livelihood of the small fruit growers below them, for once the range was cropped too close, erosion set in, floods came and farms were destroyed.

Drought and flood lead to the powerful climax of the story when the quarrel between Amanda's family and the man she loves resolves itself into further tragedy. Stephen, realizing the scope of the destruction he has brought about, tries to prevent more damage only to lose his life.

Amanda, then, with the calm acceptance of fate that comes of living close to the desert and its changeable moods, turns to the future and once more takes up farming, quietly and serenely. There is no affected emotion when she is faced with the inevitable, the necessity of carrying on without Stephen for the sake of their unborn child.

Like an artist drawing a picture with a few swift lines, Miss Gillmor presents a story that is effective in its very simplicity. The atmosphere as well as the feeling of the desert is there as the life story of strong characters unfolds against the last remaining bit of southwestern frontier. 369 pages.\$2.50

POEMS OF NEW MEXICO

From the Seton Village Press at Santa Fe, New Mexico, comes another volume of Roy A. Keech's poems, imbued with the spirit of a country rich in the influence of Indian, Spaniard and Mexican.

POEMS OF NEW MEXICO includes impressionistic lines of scenes and colors and sounds; other verses contain a subtle questioning of white man's superiority over Indian; and the longer poems go to the traditional unwritten Indian chants for their inspiration. Notable among these latter is "Pueblo Potter," depending for its power upon the same insistent rhythm used by the tribesmen to give power to their prayers.

Printed from handset Lydian. .50 and \$1.00

NEW GUIDE FOR THOSE WHO WOULD KNOW BIRDS

A method of field identification which should be welcomed by the layman has been used by Roger Tory Peterson in *FIELD GUIDE TO WESTERN BIRDS*, recently published by Houghton Mifflin company, Boston. This is the western counterpart of his standard guide to eastern birds, *FIELD GUIDE TO THE BIRDS*, and includes all the area west of the prairies.

The idea of identifying birds by the markings in their plumage was first suggested by the veteran naturalist, Ernest Thompson Seton, who used color patterns rather than differences in measurement and anatomy as a means of identification. The latter method is the most useful for the collector, but for one who is interested in identifying or recognizing a bird in flight, or from a distance, the method as developed by Mr. Peterson has proved a practical and popular one.

His drawings are not intended as portraits but as diagrams, emphasizing the most characteristic marks of each species and eliminating confusing details. Birds of general similarity are grouped together to make comparisons and contrasts easy. The accompanying text gives field-marks, size, manner of flight, voice and range of species and points out distinctions from other birds with which it might be confused.

All birds are pictured. There are 40 pages of half-tone illustrations, 48 line cuts and six pages in full color. There is a special section on the problem of sub-species. Index, 240 pp.\$2.75

THERE'S DRAMA, EVEN ON A DESERT CATTLE RANGE

Seeking refuge from the mad pace of existence in a large city, Lawrence Cardwell and his wife, Susie, did what most metropolitans long to do at one time or another—they simply "got away from it all." Not having the necessary money to escape to a life of ease in the South Seas or West Indies, they settled on a secluded ranch in the mountains of Arizona.

Having been a cow-puncher at one time in Texas, Cardwell decided to raise cattle as a means of livelihood. However, in his desire to find a hideaway far from cities and people, he had overlooked one factor. Any such hideaways as may exist today are there because no one can make money on them. If they yielded profit they wouldn't be hideaways. The surrounding terrain was rugged and mountainous, and the hills were covered with brush and rocks. Certainly it was no place to run cattle.

But Cardwell had what it takes, else he would never have had the courage to leave a life in the city where all the questionable luxuries of modern civilization are to be had for the buying. Today he is still being told that he can't possibly eke out a livelihood on his little ranch, but somehow he has gotten along, and what is more, he is really enjoying life.

He has on various occasions written about his experiences, both grim and humorous, for the Sunday magazine supplement of the Los Angeles Times. To these he has added new material, and numerous photographs, and created a highly entertaining and interesting book, *MOUNTAIN MEDICINE*.

Published by Caxton Printers, Idaho, in 1941. 232 pages.\$3.00
—Rand Henderson

TALES OF TAOS

Not until the January moon does the time of story-telling begin in Taos pueblo, for "if we tell stories in the summer time, they say that it will snow." And so, on winter nights around their firelight, generation after generation of Taosños have told their tales, with many variations and additions.

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numerous variants, are included in **TAOS TALES**, a collection made by Elsie Clews Parsons, and published as a volume of the American Folk-Lore society by J. J. Augustin, New York, 1940. Appendix with translations from the Taos, and references. Cloth, 185 pages, \$3.50.

NEW MEXICO PRESENTED IN FACT AND FICTION

New Mexico through the centuries of Indian, Spanish and American domination is the setting for Paul Horgan's latest book, **FIGURES IN A LANDSCAPE**, published this spring by Harper and Brothers, New York.

The use of a new and unusually effective form has added depth and perspective to the subject. Believing there is always more to a story than the mere events it records, and that often whole lives may be read from a single scrap of evidence, the author has evolved an alternating pattern of essay and fiction.

As each new occupation of the land is unfolded in historical sequence, the reader is given long-shot and close-up views of the eras. The chapters introducing the various periods give a broad view in which the historical and geographical elements are surveyed. They are followed by close-ups of typical individuals of each migration. There are some whose characters are as changeless as the landscape, others are affected only by momentary foibles, and still others who are perfectly adaptable to their environment.

One of the most moving stories is "To the Mountains," a tale of two young brothers, descendants of Spanish conquerors, who proved their characters when they were set against ruthless and terrifying natural elements.

"The Candy Colonel," beautifully told in retrospect, is a study in Mexican character, especially as it showed itself in opposition to American soldiers in the 1880s.

Other stories follow as the scenes shift to the coming of the pioneer settlers, the professional men and women, Europeans, the products of a jazz age, the modern business man.

Mr. Horgan evidently has felt the spirit of the Southwest so deeply that he believed no single literary form could give expression to his understanding of it. The combining of several types into a single design is an interesting experiment, and his unfolding of it is an artistic achievement.

Author of the Harper prize novel, "The Fault of Angels," he has also written "A Lamp on the Plains" and "Far From Cibola." Mr. Horgan is librarian at New Mexico Military Institute in Roswell. Cloth bound, 284 pages. \$2.50.—Lucile Harris

TRUE OR FALSE ANSWERS

Questions on page 18.

- 1—False. A rattler adds a button each time it sheds its skin, which may be two or three times a year.
- 2—True. 3—True.
- 4—False. Mangus Colorado was an Apache.
- 5—True. 6—True.
- 7—False. The capital is Santa Fe.
- 8—False. The *babo* is a prayer stick.
- 9—True.
- 10—False. Organ Pipe is a species of cactus.
- 11—False. A vehicle bridge crosses the Colorado at Parker.
- 12—True.
- 13—False. The Smoki dance is at Prescott, Arizona.
- 14—True. 15—True. 16—True.
- 17—False. Feldspar is harder than calcite.
- 18—False. Father Kino is the hero of Dr. Bolton's book.
- 19—True. 20—True.



New Mexico

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HILTON

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THE BISHOP'S LODGE—New Mexico's finest Ranch Resort in the foothills near Santa Fe. Splendid accommodations, excellent cuisine; with riding; all outdoor sports. American Plan. Booklet.

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THE SANTA FE INN—A hotel of distinction. 35 rooms, each with bath; \$8.00 upwards, American Plan. Cocktail lounge. Tennis courts. Riding stables. Season opens May 15th.

HOTEL DE VARGAS—Your Santa Fe home while you see the Indian country. A friendly welcome awaits the Santa Fe visitor who chooses this completely modern hotel. Right in the center of everything there is to see and do, you will enjoy your stay in Santa Fe when you stay at the De Vargas. Rates, \$1.50 up.

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HACIENDA AUTO COURT — Stop Once, and you'll Come Again. In city limits, 1/2 mile beyond Indian school. Modern in every way—Operated by the Scotts.

CARLSBAD

THE CRAWFORD HOTEL

Largest and finest hotel in the Pecos valley. Modern, Fireproof, Unexcelled in service. Guest rooms and public spaces. Mechanically air conditioned. Rates \$1.50 to \$2.50 single.—Free Parking. Come as you are. Follow the signs!

BEAUTY REST COURTS—Accommodations for 100 guests. Air-cooled. Tiled showers and baths. Beautyrest mattresses. Kitchenettes. Single and multiple room apts. On U. S. Highway 62-285. Close in.

ROSWELL

NICKSON HOTEL—Roswell's finest hotel, logical stop-over to and from the Carlsbad Caverns. 125 comfortable outside rooms; neatly furnished; air-cooled. Rates \$1.50 up. Coffee shop in hotel recommended by Duncan Hines in "Adventures in Good Eating." Free parking.

DEMING

You can't go wrong if you select the **PARK HOTEL**—for your overnight stop. Highway travelers enjoy every minute of their stay at this hospitable hotel and so will you.

in other words

by JOHN CLINTON



We were talking over the back fence yesterday morning — my neighbor's beautiful wife and I — and she

was all of a dither because she and her husband were leaving for Detroit next morning to pick up a new car.

* * *

"Oh, it's lots of fun," she said, "and we're so busy packing our two suitcases . . . my, I don't see how we're going to carry along 10 cans of Triton on the train without taking the trunk . . ."

* * *

"Hey, how's that, again?" I asked my N's beautiful W. "What do you do, drink the stuff?" Well, anyway, it seems that her husband is so sold on Triton that he's taking not only enough to start the car out from Detroit, but enough for a crank-case drain on the way home!

* * *

I mention it here because it illustrates the growing interest people are showing in taking care of their cars. For all I know, new cars may be pretty scarce as time goes on, and it pays to play safe.

* * *

In case you want to use the finest type of lubricant money can buy, then I suggest you, too, switch to Triton. For Triton is refined by Union's patented Propane-Solvent Process and is 100% pure paraffin-base. It not only gives you top protection, but top performance, too.



* * *

So, take a tip from your old uncle John, and try this Triton Motor Oil in your car. I promise you — you'll like it!

Mines and Mining . .

Silver mining is more profitable and the outlook for the white metal is more promising than at any time in the past two or three decades. Handy and Harmon, prominent and conservative authorities, make this statement in their regular annual review of the statistical position of silver in world markets for 1940. India consumed 48,000,000 ounces of silver during the year, as compared with 26,000,000 in 1939, an increase of about 85 percent. In addition, the silver reserve of the Reserve bank of India was reduced in the year from 755,000,000 rupees to 292,000,000 rupees, because Indians were hoarding silver coins. Silver today is the only "hard money" in circulation in the United States.

Yuma, Arizona . . .

To treat ores from half a dozen mines in the "old Silver district" of the Trigo mountains, 48 miles by road north of Yuma, the flotation mill of Penn Metals company has been started. Lead and silver are chief values of ore now being handled. Preliminary output is estimated at two cars of concentrates a week, with shipments to AS&R smelter at El Paso, Texas. The mill is located at the Red Cloud mine. Power comes from two 150-horsepower diesel generator sets, capacity six to eight tons of ore an hour.

Battle Mountain, Nevada . . .

There was a time when the Austin silver mine was America's largest producer. But not a single bid was received in June when 81 patented claims of the company, virtually all of the land from which a vast silver treasure was taken, went on the auction block. The sale was for unpaid taxes amounting to \$2,317.13, and the property was bid in by Lander county.

Tonopah, Nevada . . .

Fifteen hundred-ton treatment plant of the Bradshaw syndicate is scheduled to start September 1, to handle tailings of the slime pond of the old Tonopah mining company's mill at Millers. Plans involved moving the plant from Goldfield, where it has operated since 1928 on an accumulation of more than 2,000,000 tons of tailings from the Goldfield consolidated at the base of Columbia mountain. Available material at Millers is expected to keep the plant going seven years, according to Mark Bradshaw.

Indio, California . . .

Vast iron deposits in the Eagle mountains, a few miles east of Coachella valley, may transform the desert end of Riverside county into one of the greatest steel and iron manufacturing districts of the world. National defense program has brought reports of plans for development of this, the largest body of iron ore west of the Rocky mountains. It is said here that a railroad will be built into the region, branching at Mecca from the Southern Pacific.

Reno, Nevada . . .

Eight students of the Mackay school of mines are prospecting in the rugged areas of eastern Nevada on a two-months trip, all expenses paid. It is the sixth annual S. Frank Hunt foundation field course for selected juniors or seniors, chosen mainly on scholarship and interest in geology. Foundation funds foot the expedition's bills.

Phoenix, Arizona . . .

If the price were 14 cents a pound, 19 mines in Arizona could increase the state's production of copper by 6,437,600 pounds every month. Raise the price to 16 cents a pound and production in Arizona would climb an additional 1,664,500 pounds, to a total step up of 8,102,100 pounds monthly. These are figures from the Arizona department of mineral resources, currently analyzing American copper demands and supplies. To bring in production from higher-cost properties would cost less than \$4,000,000, require a year's work and the capital outlay would be amortized in five years, the department reports. Maximum output of the western hemisphere under present conditions and prices is estimated at not more than 150,000 tons monthly. This includes the great open-pit mine at Morenci, starting in November, but does not include Canadian production, which goes to Britain.

Twentynine Palms, California . . .

More than 800,000 acres of mineralized land are locked up in Joshua Tree national monument, according to Leslie Spell, local miner. Spell is one of the leaders seeking a law to permit prospecting and mining in the monument for a period of 10 years. Says Spell, "We believe gigantic deposits of mineral and metal are being held out of the channels of the national defense program while this country imports tungsten and other wartime necessities from foreign countries. Miners of our district believe that if they were permitted to work Joshua Tree monument systematically, with prospect of being able to file on what they discover, they would make untold quantities of strategic materials available to the country."

Goldfield, Nevada . . .

Thirty-six years ago the Mohawk mine started the Goldfield boom. Recently, operators of the Mohawk reported rich ore continues to come from the property, 50 tons returning a gross gold content exceeding \$6,000, an average approximating \$125 a ton. The ore came from a vein between the third and fourth levels in the Mohawk at a depth of about 500 feet.

Florence, Arizona . . .

Latest man claiming to know the location of Superstition mountain's legendary "Lost Dutchman" mine is serving a life term in the state penitentiary here. Sixty-five years old, the prisoner was a prospector before he was sentenced to life behind prison bars for killing a fellow gold seeker. Because he wants "forever to shut the mouth of every man who claims to know the location of the Lost Dutchman," the convict said he would reveal the secret to "some man of reputable character."

Winnemucca, Nevada . . .

More than 800 flasks of quicksilver, worth approximately \$145,000, were produced during first year's operation of Pershing county's Mount Tobin cinnabar mine in Golconda canyon, 54 miles south of here. So reports William O. Jenkins, superintendent. June 13 marked completion of a full year's work by the Mount Tobin quicksilver company at the Miner's Dream claims. Jenkins says ore to keep the furnace in steady operation next five months is blocked out.

Gems and Minerals

This department of the Desert Magazine is reserved as a clearing house for gem and mineral collectors and their societies. Members of the "rock-hound" fraternity are invited to send in news of their field trips, exhibits, rare finds, or other information which will be of interest to collectors.

—ARTHUR L. EATON, Editor—

NEWLY IDENTIFIED METAL HAS WEARING QUALITIES

Recently, a painstaking investigation of certain types of hornblende-like deposits has brought to light a new metal, or rather a natural blend of as many as 37 elements, known under many names, such as "X-Metal," "Natro-Steel," etc. Several individuals and corporations have brought out its chief quality as a hardener of steel.

A spectrographic examination by Theodore G. Kennard, of Claremont, California, shows large amounts of silicon and aluminum; medium amounts of calcium, magnesium and iron; a small amount of sodium, chromium and titanium; a very small amount of potassium and nickel; and traces only of lithium, strontium, barium, copper, gallium, manganese, lead, vanadium, and many others.

Other investigations show a melting point of 1975°F., a density of 7.483, a tensile strength of 28,000 pounds per square inch, a compressive strength of 248,000 pounds per square inch, and a coefficient of expansion of only 0.00000342. This natural blend is reported to exceed the wearing ability of all conventional hard metals.

Phoenix, Arizona . . .

Arizona bureau of mines has issued a circular on quartz rock crystals, which are included in the national defense program's list of strategic materials. These crystals suitable for fusing purposes command a price of \$100 to \$150 a ton and higher prices are paid for prisms for electrical and optical use. Price of imported crystals is around \$6.60 to \$6.70 a pound.

STRATEGIC MINERALS

TIN

Cassiterite: tin oxide, SnO₂:

Often occurs as small, mammillary or botryoidal masses or shapeless pieces.

Color, brownish black to yellow.

Hardness, a little less than quartz.

Small masses often fibrous and radiating.

Found in pegmatites with scheelite, tourmaline, topaz or quartz.

Largest occurrences are in Mexico, England, Peru, and Malay peninsula.

Very little has ever been found in the United States.

Stannite, tin pyrite:

Sulphide of tin, copper and iron.

Sometimes sphenoidal, usually massive or granular.

Color, steel gray when pure, often black from too much iron, or mixed with brassy chalcopryite.

Hardness, 3.5—very brittle.

Scratch—black with metallic luster.

Found in Bolivia, Czechoslovakia, South Dakota, Tasmania. Seldom found in U.S.A.

Misnamed Minerals

"Apache Tears"

J. B. Smith, prospector, of the Bisbee region in Arizona, sent in several small nodules of translucent obsidian.

"Are they really topaz?" he asks. "In several places in Arizona they are cutting and selling these as 'Arizona topaz.' What are they?"

These little nodules are obsidian. They parade, however, under many names. In Arizona, many call them "Apache tears" or "smoky topaz," while in Nevada they are cut and sold as "Nevada diamonds."

. . .

Do You Know That Garnets—

- Have 6, 12, 24 or 36 sides.
- Occur in many shades of red, green, yellow, brown, black, purple, but are never black.
- Are found as crystals, pebbles, or as incrustations.
- Were named for seeds of pomegranate; Latin word *granatus*, a grain or seed.
- Contain almost as many different metals as there are types of garnet.
- Were known in mediaeval times as carbuncles.
- Are often sold as rubies or emeralds when red or green in color.
- Vary in hardness from 6.5 to 7.5.
- Are quite brittle.
- Always contain silica.
- Have long chemical formulae which differ only in the metals contained.
- Almost always have some sides which are diamond shaped.

Cogitations . . .

Of a Rockhound

By LOUISE EATON

● Too bad rockhounds has single track minds. If they could be astronomers too, they'd have a grand chance to study the stars. All the constellations is almost within reach on a clear desert night. Sometimes it's sorta hazy-like, but moonlight; an' then the moon seems to be deep in a opal well. Didja know we've a "Northern Cross" much perfecter than the famed Southern Cross? It's nestled in the edge of the Milky Way. An' what city dweller, sleepin in 4 walls an' under a roof ever saw the Big Dipper make its nighty circle? But even rockhounds, is thankful that an ever watchful Power keeps stars an' such in their places, an' dont let 'em fall. They is so close.

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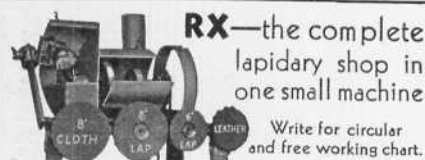
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RAMBLING ROCKNUTS

Bertha Greeley Brown and her husband are like most other rock collectors. They have to earn a living. And so the accompanying article is the eighth and last of the series written by Mrs. Brown while she and her husband were on a tour through the Southwest, collecting and swapping specimens as they went. The Browns live in Seattle, Washington, do their own cutting and polishing, and have one of the finest private collections in the state.

MY husband and I left Phoenix, Arizona, at sunrise and drove toward Yuma, reluctantly. We were starting the homeward lap of our vacation trip, with many miles to cover and few days left.

We traveled leisurely so we might greet each separate turn in the road and fix in our minds scenes to be remembered until we passed that way again. With almost a pang, but with absolute certainty, we knew we were sharing a love which, until recently, had been given in undivided, unreserved, lavish devotion to our home locality, western Washington. The change was not of heart but of hope. We had been won by the desert. For us it was a lure and a promise, and we dreamed of a future that would give us a home in both the North and the South.

In El Centro, California, we stopped to pay our respects to Desert Magazine and invited members of the staff to call at our rooms to see our mineral specimens. Charles Holzer and Newport Sproule, members of the Imperial Valley Gem and Mineral society, also called the same evening. We sat about dipping rock after rock into a bowl of water and discussing the odd and beautiful patterns.

Holzer and Sproule have a joint lapidary shop in Imperial, their home town, and they brought some polished specimens with them. As I held in my hand brightly tinged thunder-eggs from the Chocolate mountains, and sagenitic quartz with hair-like patterns from the Chuckawallas, I rolled in my mind the nucleus of a plan which, someday, may round into a quest for these minerals.

We hurried northward past Salton sea and halted in front of John Hilton's Art and Gem shop just as Mr. Hilton dashed out of the back door and jumped into his car. He was like a person racing to keep up with the events of his own life. When we measured the extent of his versatile activities, known to DESERT readers, we knew his manner was true to the temperament of the man.

Last year, E. K. bought a piece of dumortierite (boro-silicate of aluminum) from Mr. Hilton but this year he took a good look at our overloaded car and resisted temptation. However, there are many fine specimens displayed in this shop and Mrs. Hilton entertained us with graciousness in her husband's absence.

In the afternoon, in Pasadena, we again met disappointment. John Grieger was ill and not in his shop. Instead of trying to see everything in Mr. Grieger's commercial place, I spent the time in front of a show case of tourmaline crystals.

Tourmaline is a complex silicate containing boron, aluminum, water and often other minerals. These crystals occur in many colors and if free from impurities and fractures they are popular for jewelry setting.

I stood looking at some exquisite *rubellites* until they seemed to glow with a flame of enchantment and my interest swerved from rocks of utility value to those of fragile loveliness.

We need service minerals the same as we need wheat and wool and wood. They are the warp in the fabric of living. Too, we need dainty, colorful vanity-gems the same as we need poetry, music and art for these are the esthetic threads that lend a pattern of beauty to the cloth.

For more than a year E. K. and I planned to prospect Stony creek in northern California and now the opportunity had arrived. M. F. Reed, fellow gem collector, had inspired us with this desire by exhibiting a "boasting rock" and reciting just how he happened to find it, all the time waving the possibilities of the field, like a red garment, in front of our imaginations.

"Right where the highway crosses the creek," he said. "I was in an awful hurry but the rocks looked colorful—so, see for yourself. In just one minute I found this." Again the sample went from hand to hand, whetting to razor edge our eagerness to get into this flaunted mineral area.

At Willows, we turned to the west and traveled 21 miles to Stony creek, a swiftly flowing stream, at this time low, and running over a center bed of lava rock. There was evidence it often had gone on wild rampages. Along the banks many acres of gravel. These were inviting and the very first rock I picked up was fine quality jasper. For hours we hunted up and down the creek covering many miles but not another thing of value did we find. Color abounded—stain of copper, iron and manganese—but the rock texture was coarse and grainy. Mr. Reed's specimen and my jasper prove there is good material scattered among the gravels but it is too scarce to make the field worth while. I can not recommend it as worthy of much attention.

At Garberville, California, in the shadow of the "oldest living things," the Redwoods, I jumped out of the car and ran into the McCloud Variety shop. Here Dewey McCloud makes and sells all sorts of vases, bowls, etc., from redwood. Last year I traded cabochons to Mr. McCloud for jasper, gold colored, brecciated and cemented with agate of orchid hue. At that time he promised, when I came that way again, he would have more jasper for me. My expectations were dashed when I was told Mr. McCloud was not in and I turned to leave when someone spoke.

"I am Mrs. McCloud. Maybe I can help you." Often rocks are stepping-stones to mutual interests and immediate understandings. So it was with Mrs. McCloud. She insisted I see the things they had in the factory—the rock loot they had collected in Nevada. She loved the desert. Did I?—and so it went on until I heard E. K. calling from the front part of the building.

"Have you forgotten we must get to Crescent City tonight?" I hurried, together we rushed for the car, calling back a "good-bye" to Mrs. McCloud as we ran. Under my left arm, I hugged a large chunk of gold-colored, brecciated jasper and in my right I grasped a cute little redwood bowl, topped perfectly with the purple desert-glass cover Will Kartmark had found north of Phoenix, just a few days before.

For hundreds of miles we looked longingly at gravelly ocean beaches but the skies were ominous, the wind cold, the waves aggressive and the tides ill-timed. Every little while heavy clouds precipitated into drenching rains so we gently urged the car along the edge of oblique cliffs, through dense forests and past roaring breakers.

We spent one day in Newport, Oregon. Here one has the feeling the interests of the whole

population center about little, agate nodules. We walked down the main street to the beach and noticed many lapidary shops where these tiny stones, cut and polished and set in rings and brooches, perched on plush cushions and waited for prospective buyers. Actually, tons of Oregon beach agates have been gathered for both commercial purposes and amateur collections. The field seems inexhaustible for each year new agate deposits are opened by violent coastal storms.

Sisyphus, doomed everlastingly to roll rocks over the hills of Hades, was never more weary than we the night we opened a door and felt the warmth, peace and comfort of our own home. Since then we have had time to settle down and reckon the benefits of our trip. A pile of rocks clutter the basement floor, material evidence of success—yet we know acquisition is not the essence of a hobby. True values are in the innumerable intangibles that elude word description.

We are planning another mineral trip.

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AMONG THE ROCK HUNTERS

Among recent consignments of minerals sent to Arthur Eaton for identification, from a far southeastern state, were four little, clear crystals. What were they? The first test showed them to be hardness 10, which could be but one thing—diamonds. Other tests proved this. Under a strong pocket lens, perfect little blue-white octahedrons became easily visible, with triangular markings on one or two of the faces. Although many supposed diamonds have been sent to Eaton by hopeful prospectors for identification, these are the first to pass all tests for genuineness.

California Desert mineral society, of Mojave, California, takes its place as the youngest member of the California federation. Twenty-one persons met June 5 at the home of Joe Bradley in Mojave to form its organization. Charter membership will be held open until August first. The members expect to become very active in the collection and study of minerals, and to publish a bulletin.

Sequoia mineral society has held two field trips so far this summer, one, on June 22, to Chowchilla river for chialtolite, the other, July 4-6, at Lake Tahoe and Virginia City, Nevada, for gold and silver specimens.

The department of natural resources, California division of mines, has just released the January, 1941, issue of "California Journal of Mines and Geology," 200 pages, with photos, cuts and maps. It contains articles on Trinity county, strategic minerals procurement, chromite deposits of California, etc. The bulletin may be secured by those interested from the division of mines, at its San Francisco, Los Angeles, and Sacramento offices.

Sequoia mineral society voted at its June meeting to carry on its regular meetings through the summer months. The high school will not be available, so the meetings will be held as follows:

July—Lake Tahoe, at Elmer and Pearl's place, on the field trip.

August—Frank Dodson's home in Selma, Calif.

September—Open to invitation.

Newly elected officers of the Stockton gem and mineral club are: W. G. Hurrel, Lodi, California, president; W. G. Clark, Stockton, California, vice-president; P. T. Nesbit, Lodi, California, secretary-treasurer. The club holds its meetings on the third Thursday of each month in Room 11, of the Stockton high school. There will be no meetings between July and September.

According to the United States bureau of mines, limestone is found in every state in the Union, except Delaware and New Hampshire. It is so common in most states that it attracts little attention, nevertheless it is indispensable to our industrial life. In 1939, about 139,000,000 tons of limestone were mined, of which more than 25,000,000 tons are used in processing iron, steel, glass, paper, sugar, alkali, calcium carbide, refractory brick and mineral wool. It is of utmost importance to many manufacturing and chemical industries, which are vital to our national defense program.

Trona mineral and gem society invited Long Beach mineralogical society as guests on a two day field trip through the Trona district June 28 and 29.

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PLATT PRESTON—CLEMENTE URRUTIA

"Topographical maps and how to read them" was the topic chosen by R. B. Randall of Randall engineering company for an address at the June 5 meeting of East Bay mineral society. John H. Esselink lectured to the group June 19 on the history of borax and borax mining in California, Nevada and various western states. The June field trip was made to the Gilbean estate on highway 12, 39 miles east of Stockton. Several types of petrified wood were obtained by digging.

State division of mines, Ferry building, San Francisco, announces a series of papers by George L. Gary, mineral technologist on the commercial minerals of California. These articles give properties, occurrences, tests, markets, etc. The first releases were on magnesite, chromite, manganese, tungsten, quicksilver, antimony, mica and aluminum. Copies may be obtained for the amount of three cents postage per copy.

One of the old time prospectors in the Jambula district has found a deposit of vermiculite lately, and left some very good specimens with K. B. McMahan, at the Indian Trading Post. Vermiculite is one of the minerals very much in demand at this time, being used in much of the modern refrigeration work.

W. Scott Lewis says that his June bulletin is the final one of the season. Lewis makes his little paper interesting and instructive, describing in witty vein the minerals listed for sale and giving superstitions or unusual facts connected with them.

Long Beach mineralogical society learned about the application of ultra-violet light and fluorescence to the search for minerals at its June 13 meeting. Members of the Ultra-Violet Ray products gave the demonstration.

W. Scott Lewis of Hollywood addressed Santa Monica gemological society on geology of Mojave desert. His talk was timely as it preceded the June field trip to Red Rock and Last Chance canyons in the desert.

Dr. and Mrs. R. E. Anderson, enthusiastic rockhounds interested in fluorescence, have recently moved from Lovington to Deming, New Mexico. Dr. Anderson lectured and gave a demonstration of fluorescence at the 21st annual convention of the American association for the advancement of science at Texas technological college of Lubbock, Texas. He explained the use of fluorescence in the detection of scheelite and mercury. Deming is noted as a rockhunter's paradise and the doctor invites all roving rockhounds to ring his doorbell.

Specimens which sometimes catch the eye, but have no intrinsic value, are "bottleite," "glassite" and "fordtailite."

A. L. Dickey of Sequoia mineral society made and donated for raffling two rock hunting jackets.

Sequoia bulletin warns of summer fire hazards. All rock hunters should be extremely careful to extinguish camp fires and put out cigarette stubs.

East Bay mineral society has elected the following officers: B. E. Sledge, president; Mrs. F. W. Buhn, vice-president; H. C. Mahoney, secretary; R. Whalley, treasurer; R. E. Lambertson, W. Mehnert, J. Smith, directors. The society meets first and third Thursdays except during July and August.

Los Angeles mineralogical society held its annual auction June 19. A 30 minute "mineral forum" was held, at which expert information was given about perplexing questions concerning minerals.

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MAPS

BLACKBURN MAPS of Southern California desert region. San Bernardino county 28x42 inches \$1.00; San Diego county 24x28 inches 50c; Riverside county 50c; Imperial county 19x24 inches 50c; Yuma and Gila river valley 17x27 inches 50c. Postpaid. Add 3% sales tax in Calif. **DESERT CRAFTS SHOP**, 636 State St., El Centro, California.

HERE AND THERE ... on the Desert

ARIZONA

Phoenix . . .

On both sides of the international boundary near Nogales, Mexico and the United States are working out plans for a permanent memorial to Spanish conquistador, Francisco Vasquez de Coronado. A tract of 2880 acres has been mapped on the United States side of the line, Mexico will create a similar recreational area across the border. At a meeting here, Newton B. Drury, director of the U. S. park service; M. R. Tillotson, regional park director; Morelos Gonzalez, Mexican consul; Juan Manuel Corona, chief of the Mexican department of parks, and Carlos Villas Perez, director of the Mexico Coronado memorial association, were among the guests. Mrs. Foster Rockwell of the Arizona Coronado memorial commission was hostess at a breakfast conference. Senate passage of the bill authorizing the memorial was reported from Washington on May 26.

Phoenix . . .

Tribal chieftains of the Hotevilla Hopi Indians journeyed from their wind swept mesa homes to interpret for the white man's court a prophecy written on a sacred stone tablet guarded religiously from generation to generation among their people. Seeking clemency for five Hopi youths convicted on a charge of failing to register for army service, Chiefs James Pongonyuma and Dan Katchgonva, said the writing on the ancient stone foretold that nations of the world would fight a great battle and warned the Hopi to stay out. "The stone says the fight will put all the people of the world in the same position," the chiefs testified before Federal Judge Dave W. Ling. "One day a white brother will come who will be able to read the things on the sacred stone. He will help the Hopi and all the people of the world to share equally in the wealth given us who are living. We are sure the time has not come when the white brother will help us, because we have shown the stone to the government and it has not been able to find any man who can read it." After listening to this testimony, Judge Ling asked the accused young Hopi if they would change their minds and register for army service. When each said no, the judge sentenced them to one year in federal prison.

Yuma . . .

Thirty families of beekeepers in the Yuma district shipped 600,000 pounds of honey during June to the federal surplus marketing administration to be used in school cafeterias for underprivileged children. Price was 4½ cents a pound. Nearly two million pounds of honey will be produced from Yuma beehives in the current season.

Phoenix . . .

Reclamation bureau engineer M. E. Bunker has been instructed to begin reconnaissance of the Bridge canyon project, to find out the feasibility of delivering Colorado river water to Central Arizona from the proposed damsite in the Grand Canyon above Boulder. Ten engineers were ordered to field parties last week in June. It is reported here that diamond drilling at Bridge canyon damsite will probably be started in the fall.

Fort Huachuca . . .

Soldier's medal for heroism has been awarded to Sergeant Samuel H. Baker by the war department. During a fire at the fort in January a drum of oil exploded and injured several persons. Baker advanced to within 15 feet of remaining drums, played a stream of water on them and thus prevented other explosions.

Prescott . . .

Giles Goswick, federal predatory animal hunter, made two notable kills during June. He bagged his 267th mountain lion near the Granite basin recreational area. It was a big male, nearly eight feet long, weighed 190 pounds, put up a fight and ripped one of the hunter's dogs before Goswick killed it. A few days earlier in the Walnut creek district, Goswick shot a 500-pound bear.

Vicksburg . . .

On the mountainside above U. S. Highway 60 at the Gateway ranch near here stands the statue of an Indian sculptured by the son of a woman homesteader to prove his talent to his mother. Mrs. Willie Morris tells the story: "I am a widow and homesteaded alone and now live alone. My son Cecil was born in New York City in 1900. He died in 1937 in Blythe, California, because of an accident. He was with me only 11 months. He left home when he was a boy and I never heard from him. We each thought the other was dead. Then he found me on the desert. He told me he was a sculptor. He made the Indian to prove it to me."

Casa Grande . . .

Along the Gila river crops are bountiful this season on the farms of the Pima Indians because plentiful rains filled the reservoirs and irrigation ditches carried ample water. Never was Indian wheat so high in the memory of the oldest tribesman, in a region where archaeologists have excavated ancient canals dating back more than 1,000 years. By proclamation the governor of the Pima council called on every member of the tribe to attend church in special thanksgiving. On horseback, in wagons and automobiles or afoot, Indian men, women and children went to the reservation's missions to show their appreciation for the blessings brought by rains.

Tucson . . .

Half a century of service to the Catholic church was celebrated in June by two Tucson priests, the Rt. Rev. Monsignor Peter Timmermans, rector of the Cathedral of San Agustin, vicar general of the diocese of Tucson and the Rev. Thomas Connolly, pastor of the All Saints church. It was in 1891, just after his ordination in Belgium, where he was born in 1867, that Monsignor Timmermans came to Tucson, then a community of unpretentious adobe houses scattered over the desert. In 1891, also, Father Connolly, born in Illinois in 1868, was ordained. He went to Flagstaff for his health in 1894, after two years accepted a parish at Winslow and in 1912 established a parish for English-speaking persons in Tucson.

Payson . . .

Bar-T-Bar ranch has been sold to Jack Roach of Houston, Texas, for \$80,000. Formerly owned by the Tremaine cattle company, the property includes guest cottages, swimming pool and airport.



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TOMBSTONE — ARIZONA

Flagstaff . . .

Arizona will continue to have the largest standing pine forest in the world as long as the present program of cutting and re-foresting is followed. This assurance was given by speakers at the annual convention of Arizona retail lumber and builders association here. Lumber prices are lower than in 1926 and cost of building in Arizona compares favorably with the national average, is less than in most states, convention delegates were told. L. M. Hamman of Phoenix was elected president.

CALIFORNIA

Palmdale . . .

Roads through the Mojave anti-aircraft range and danger zones adjacent to the 1400-square mile area have been closed to the public. Penalties are provided for violation of a San Bernardino county ordinance barring travel on the county road from Barstow to Death Valley via Bicycle lake, Cave springs and Denning springs. Other roads near the restricted area are being posted with warning signs by the Automobile club of southern California. Military guards will be established at vital points during firing practice, according to Brigadier General E. B. Colladay.

El Centro . . .

Sale of the 2000-acre Tamarack ranch, seven miles northwest of Imperial, was announced here late in June. Henry Loud, real estate agent, said Leslie Estle of Los Angeles bought the property—1600 acres of which is tillable—for approximately \$175,000. The ranch was owned by the estate of the late Col. Seeley Mudd.

Needles . . .

To establish cover growth for partridge and other wildlife, the state fish and game division has planted wild Mexican olive and wooly seanna seedlings near waterholes in the desert of San Bernardino county's eastern area and along the Colorado river. Captain H. C. Jackson of the division delivered plants at Needles to W. W. Sampsel who was in charge of the planting. Territory covered extends from New York mountains to Chemehuevi valley.

Palm Springs . . .

"Keep your hands off!" This is the warning issued to the city of Palm Springs by Indians of the Agua Caliente reservation. Tribal committee served notice on city officials they must make no inspections, must interfere in no way with building or other property matters on the reservation, must not require tribesmen or tenants on the reservation to take out building permits, city licenses. Moreover, it was added unofficially, the Indians will arrest "for trespassing" any city official who steps on reservation land to engage in any of these forbidden activities.

Holtville . . .

Preliminary to opening for settlement by homesteaders 230,000 acres of virgin soil on the eastside mesa of Imperial valley, soil surveys will begin in September, it is announced here. Prof. Earl Story of the University of California will direct studies in cooperation with the bureau of reclamation, to determine suitable crops, solve problems of drainage and irrigation. Results will guide canal and drain building, determine requirements for homesteaders. Veterans of the war of 1917 will have 90-day preference in settling the project, under act of Congress. Reclamation bureau has proposed development in a series of 40,000-acre units, to be subdivided into farm homes for settlement after water distribution from the All-American canal and drainage systems have been completed. No information is available as to date for opening any of the area to settlers.

Blythe . . .

First long staple cotton crop in Palo Verde valley since World War No. 1 will be harvested from 564 acres this year. Long rainy season delayed planting, but in June crop condition was fair, with good stands on several ranches. More than 5500 acres are planted to Acala short staple cotton in the valley.

Brawley . . .

One thousand pheasants will be turned out this year from rearing pens in the state game preserve between here and Calipatria, if plans of the Imperial Valley fish and game conservation association are successful. More than 500 pheasants and chukker partridges on the reserve were growing fast early in the summer.

NEW MEXICO

Roswell . . .

Home of the now-famous bow-legged cowboy contest, Roswell adds to its laurels with headquarters here for "the Six-Four Club." This is an exclusive organization, membership limited to peace officers not less than 6 feet, 4 inches tall. Charter list of stratosphere upholders of law and order: Police chief Arthur Grady, Pueblo, Colo.; Sheriff Bert Telford, Colfax county; Sheriff E. E. Monzingo, Arapahoe county, Colo.; Walter W. Hill, federal inspector, Roswell. New members: Police chief Gerald Mayberry, Portales; Undersheriff Val Baumgart, Curry county; Harry Thornem, sheep inspector, former Chaves county sheriff.

Roy . . .

Says the Roy Record: Fifteen years ago George Ray lost a \$1200 diamond ring while riding on his ranch. Ray and all his ranch workers put in many hours hunting for the lost gem, but without any luck. A few days ago Ray sat in his automobile waiting for a ranch holder looking over the property. From the ground a sparkle of unusual brilliance caught his eye. Ray got out of the car to investigate. He picked up the ring he had lost 15 years ago.

Deming . . .

Deep water supply to supplement present irrigation resources in the Mimbres basin is indicated in 465-gallon per minute delivery from a test well 1,000 feet down on the farm of Gordon Jonas near Deming. New water source is entirely from levels below 300 feet. Shallow waters now supplying farmers in the area were cemented off before tests were made.

Santa Fe . . .

Navajos and Apaches are on the warpath against "Moustache Smeller" and "Gourd Chin." That's what the Indians call Adolf Hitler and Benito Mussolini. Among volunteers was Duga-Chee-Bekils, 80-year-old Navajo. He announced his preference for a job in the air corps. When Uncle Sam calls the numbers assigned to Navajo youths for the draft, "big wind that speaks," the Navajo agency's shortwave radio, puts out the word. From the transmitter at Window Rock the news is picked up by some 400 receiving stations on the vast reservation where the largest Indian tribe in the nation lives. By word of mouth then, the summons passes until it reaches the draftee. No Apache Indian has yet been rejected because of physical handicaps.

Albuquerque . . .

Two carloads of assorted African animals were shipped to the Indian mesa pueblo of Acoma, "the sky city," to transform that ancient community of northern New Mexico into the setting for Walter Wanger's picture "Sundown," a story of the dark continent. Elephants, 11 adult camels, two ostriches, six zebras were among the lot. At Laguna, 40 tents were erected to house the movie players, who commuted daily to Acoma when "Sundown" was filmed.

Bernalillo . . .

Indians of the Santa Ana pueblo were given credit for saving this town from inundation during spring floods along the Rio Grande, in a report by Dr. Sophia D. Aberle, united pueblo agency superintendent. She praised the Indians for heroism and untiring labor in building the Santa Ana dike which tamed the river at a point where its junction with the Jemez menaced great lowland areas. Governor of Santo Domingo was asked to send 25 men. He sent 50. To San Felipe a call was sent asking for 10 men. Forty responded. Many of the men worked during a four or five day period with only two or three hours sleep. None of them asked for pay.

Gallup . . .

It's dipping season on the 16,000,000 acre Navajo reservation. Since mid-June Indians have been herding one of the country's biggest wholesale movements of livestock—the annual drive of 650,000 sheep and goats from their home ranges to 72 dipping vat stations. Women handle the drive, women do the work at the dipping vats. Braves and medicine men are busy arranging dances during the annual trek. The dip prevents scabies, eradicates foot lice and ticks and the Navajo, who once opposed with violence the white man's sheep medicine, now make a holiday of the event. They even dip their dogs for good measure. Indian service officials expect 7,000 bands of sheep will be treated by late August.

Albuquerque . . .

Apparently New Jersey has one resident who doesn't know the Indian wars have ended. Planning a New Mexico vacation, this prospective tourist wrote to George Fitzpatrick, editor of New Mexico Magazine: "Is it safe to visit the Indian pueblos?"

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NEVADA

Caliente . . .

When the Nevada Journal tried to find the oldest living mother in the state it learned that Mrs. Melissa K. Rollins Lee of Caliente was born in a wagon box under a tree at Cajon Pass, California, on July 13, 1851, the daughter of Mr. and Mrs. James Henry Rollins. When she was 17 years old she was married to John Nelson Lee of Panaca, son of Utah pioneers. Mrs. Lee is the mother of 11 children, has 63 grandchildren, 127 great grandchildren, and ten great great grandchildren. She makes her home here with her daughter, Mrs. Ida D. Lee Hollingshead.

Boulder City . . .

Largest boat ever transported overland to Lake Mead is now in service. Sixty-five feet long, the craft is diesel powered and carries 65 persons. It was on the road two weeks from Terminal Island, California. A tree surgeon went along to amputate tree limbs obstructing passage enroute. The boat is operated by the Grand Canyon Tours line.

Fallon . . .

Rainbow trout in Boca lake go for canned corn in a big way, reports Fallon's mayor, L. T. Kendrick. Pour the contents of a tin of golden niblets on the surface of the lake and trout swarm after it by the thousands, the mayor says. When more than 200 limits were taken from the lake one cloudy day—anglers using a fancy brand of canned corn—according to the mayor's story, the California fish and game commission dumped a half-carload of corn into the water. But trout, the mayor adds, are not like catfish. Trout are not bottom feeders. "So when Boca dam gates are opened, the corn will run down the river into irrigation ditches and farms all the way from Sparks to Stillwater will look like Iowa."

Battle Mountain . . .

Sheriff Ray Root has deputized an aerial posse for Washoe county. Members of the group own and fly nine airplanes.

Carson City . . .

Using only wood from dead trees, Indian boys at the Stewart school here sculpture figures and souvenirs which have been sold all over the world. Frederick Forbush, instructor, collects mesquite from the desert, mahogany from the mountain slopes, azur-malachite at Searchlight, agate nodules along the Colorado river, rose agates near Las Vegas as materials for his classes.

UTAH

Salt Lake City . . .

Police radio cars went in hot pursuit when a mule deer came down from the mountains to show the downtown section of this city a touch of wildlife. The deer dashed down a busy street, broke up traffic, knocked down a pedestrian, plunged through a plate glass window. Then a jump ahead of the law the deer high-tailed it for his home hillside.

Monument Valley . . .

Mrs. Johnnie Chief wove a Navajo rug and carried it to Washington when she went with a delegation to ask postponement of the government order reducing size of Indian sheep herds. At the White House Mrs. Johnnie Chief placed the rug on Mrs. Roosevelt's shoulders and embraced the president's wife in traditional Indian fashion. John Collier, Indian commissioner, explained the reduction, to be effected by January 1 next, will leave 675,000 sheep on the Navajo reservation. The order affects only those Indians owning more than 350 sheep.

Salt Lake City . . .

After hearings at which Navajo and government representatives had their chance to talk, Tillman D. Johnson, 83-year-old federal judge of the U. S. district court, issued his decree that the Indians must reduce their holdings of horses this summer and other livestock by October, as the grazing division has ruled. The court hearing was described by the judge: "We didn't put an Indian on the stand. We didn't even swear them. We just told them it was their turn to start talking. When they got through talking they sat down. That's the way they do at an Indian pow-wow. About the only thing we didn't do was smoke the peace pipe." The rule applies on the vast area of the Navajo reservation peopled by 50,000 redmen.

Castle Dale . . .

Buffalo placed in the San Rafael grazing district are doing well and seem to be contented in their new home, reports Charley Peterson, deputy game warden. Since they were hauled by truck to the area and released, the buffalo have scattered all over the range, Peterson says. Three head are at Temple springs; two run with cattle at Garvin's ranch; five are in Rock canyon country and five are near the Blue John springs in the neighborhood of Robber's Roost, where a herd of 100 antelope is ranging.

Reno . . .

Total of \$300,000 has been earmarked to build a road on the Pyramid lake Indian reservation between Nixon and Gerlach.

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Pueblo Buffalo Dance.

INTER-TRIBAL INDIAN CEREMONIAL

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You've read about the famous Inter-Tribal Indian Ceremonial held annually at Gallup in The Readers Digest, Life, Esquire, National Geographic and Vogue . . .

you've probably seen it in a Fitzpatrick Travel Talk or in a Burton Holmes Travelogue . . . or you may have heard it featured by the National Broadcasting Company or the Columbia Broadcasting company.

Now see "America's Greatest Indian Presentation." See sixty-three different dances, hear weird chants, see traditional Indian races and games. And see a score of craftsmen at work among ten thousand square feet of the finest Indian handicrafts. You'll never forget this thrilling pagan pageantry.



FREE LITERATURE
ON REQUEST



Just Between You and Me

By RANDALL HENDERSON

THIS month I am glad to report that the long debate over Southern California's Anza desert park project finally ended in a victory for the sponsors of the park. This means that there will be established along the western rim of the Colorado desert a public playground of nearly a half million acres—belonging to you and me.

During the various hearings much was said about the fertile farm lands and rich mines in this area. But I wouldn't advise you to waste time looking for them. The prospectors and home-seekers have been combing that region for a hundred years and with the exception of a few small tracts, never found enough water or mineral to file on.

But there is wealth there—the kind of values prized by men and women who find spiritual wealth in close contact with Nature, and whose lives are enriched by hours spent in tramping the remote desert canyons in quest of rare plant and animal life—or just getting acquainted with themselves.

* * *

Thanks to Barry Goldwater of Phoenix for a desert photograph which would win first place in any exhibit in which I was a judge.

The picture is a close-up of two Saguaro blossoms on the same trunk, with a third in the bud. It is a beautiful print of one of the most exquisite subjects on the desert. Such artistic photography does not come without effort. Barry wrote: "Have just returned from a long vigil on the desert getting a portrait of Saguaro blossoms. I sat up all night for three successive nights to photograph the opening of the blossoms in motion pictures, taking one frame every 12 seconds. I learned a lot about the way these flowers bloom."

* * *

If the headlines of war abroad and disorder at home cause you to wonder sometimes if the whole human race is going to the bow-wows, here is a paragraph from Marshal South that may help bolster up your faith. Marshal writes:

"It is a good thing that the Great Spirit in His infinite wisdom sees fit every once in a while to drastically upset the order of things. Else there would be no development of mind or soul or initiative. Just a ghastly lock-step—everything growing more and more crystallized and stereotyped and patterned until the whole universe mummified. After all, it is disaster and upheaval that are the stuff from which real progress is built."

* * *

During August the desert people will present three programs worth traveling many miles to see—the Hopi snake dances, the Gallup inter-tribal ceremonials, and the Smoki dances at Prescott.

If you ask me which is the most interesting, I will answer that it depends on your taste for entertainment.

The Hopi rain prayer is not a show. It is an impressive ritual, given by people who are following the ancient religious customs of their tribe. There are few seats, you may get caught in rain, and there will be snakes crawling on the ground not far

from your feet—unless you pay a dollar for standing room on a housetop. But for all that, you'll be glad you saw these dances. There is nothing like them in America.

The Smoki people at Prescott present a beautiful and impressive pageant in a stage setting that will make you thrill with enjoyment. They are not real Indians, but they present a show that in my opinion surpasses anything ever produced in Hollywood.

At Gallup you will rub shoulders with Indians from all over the Southwest—thousands of them. They dance for the fun of it—but the Indian is a good actor, the tom-toms will give you a thrill, and the ceremonials are presented in a stage setting much more colorful than on the reservation.

My suggestion is that sooner or later you should see all three of these annual programs.

* * *

Harlow Jones of Twentynine Palms told me recently of a new palm oasis—a small group of native Washingtonias in the Little San Bernardino mountains that has never appeared on any map. His information came from an old prospector, and appeared to be authentic.

Harlow and I have a date to go looking for the palms as soon as the weather cools. If we find them, Desert Magazine readers will have the story with pictures. If the palms are not there—then we will have had the fun of exploring the canyons in an area that is new to both of us.

* * *

Recently the Metropolitan water district of Southern California opened the valves at the end of the new 242-mile aqueduct, and coastal residents for the first time began drinking Colorado river water.

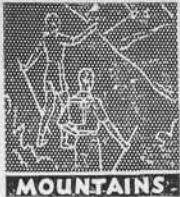
Some of them said it was okay. Others turned up their noses. According to a L. A. Times reporter the various opinions summed up as follows: "It tastes like bicarbonate of soda, rain water, spring water, dish water, sulphur water, fine water, impossible."

Now I am not trying to pick a quarrel with anyone, but I want to protest against that "dish water" classification. I've been drinking Colorado river water several times a day for 30 years, and I will offer expert testimony that there ain't no better water nowhere.

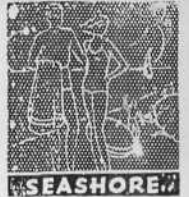
During my first winter on the desert I drank it straight from the river, without all the processing of a municipal filtration plant. In those days it was described by the old-timers as "too thick to drink and too thin to plow." But we drank it, silt and all, and if there were any ill effects they haven't become apparent yet.

Colorado river water is distilled from the snows of the Rocky mountains, aerated and cleansed in its plunge through the great gorge of the Colorado, filtered by the sands of the desert and purified by the violet-rays of a desert sun.

Any person who couldn't be satisfied with that kind of water is in no condition to be drinking water. He should go down to the corner drugstore and get a bromo-seltzer.



MOUNTAINS



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These warm summer days—and every day—you'll find our excellent food and friendly service a satisfaction.

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Idyllwild Inn, long famous for hospitality, offers every type of accommodations; hotel service, cabins and, now, also a modern trailer park with all facilities.

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