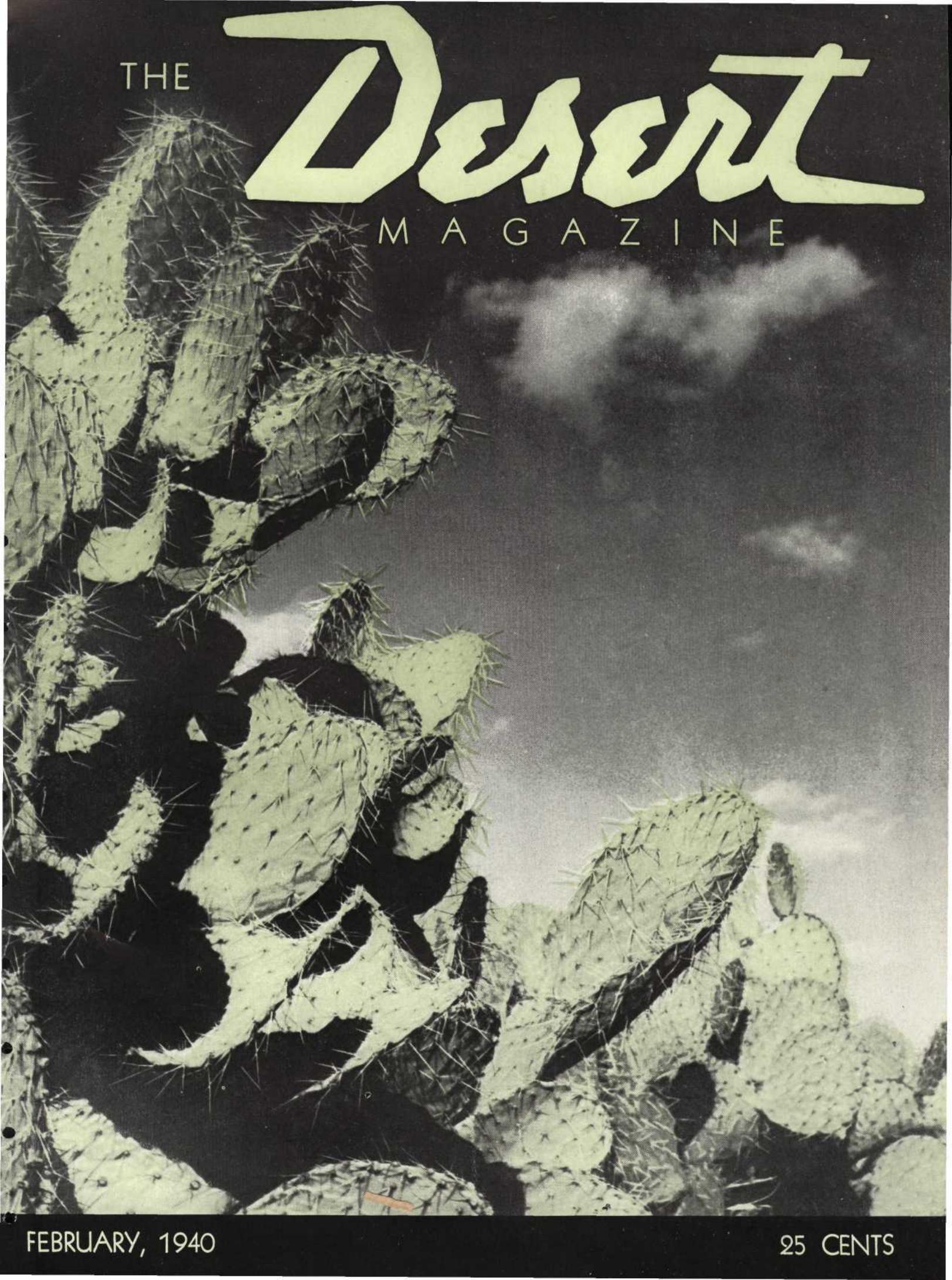


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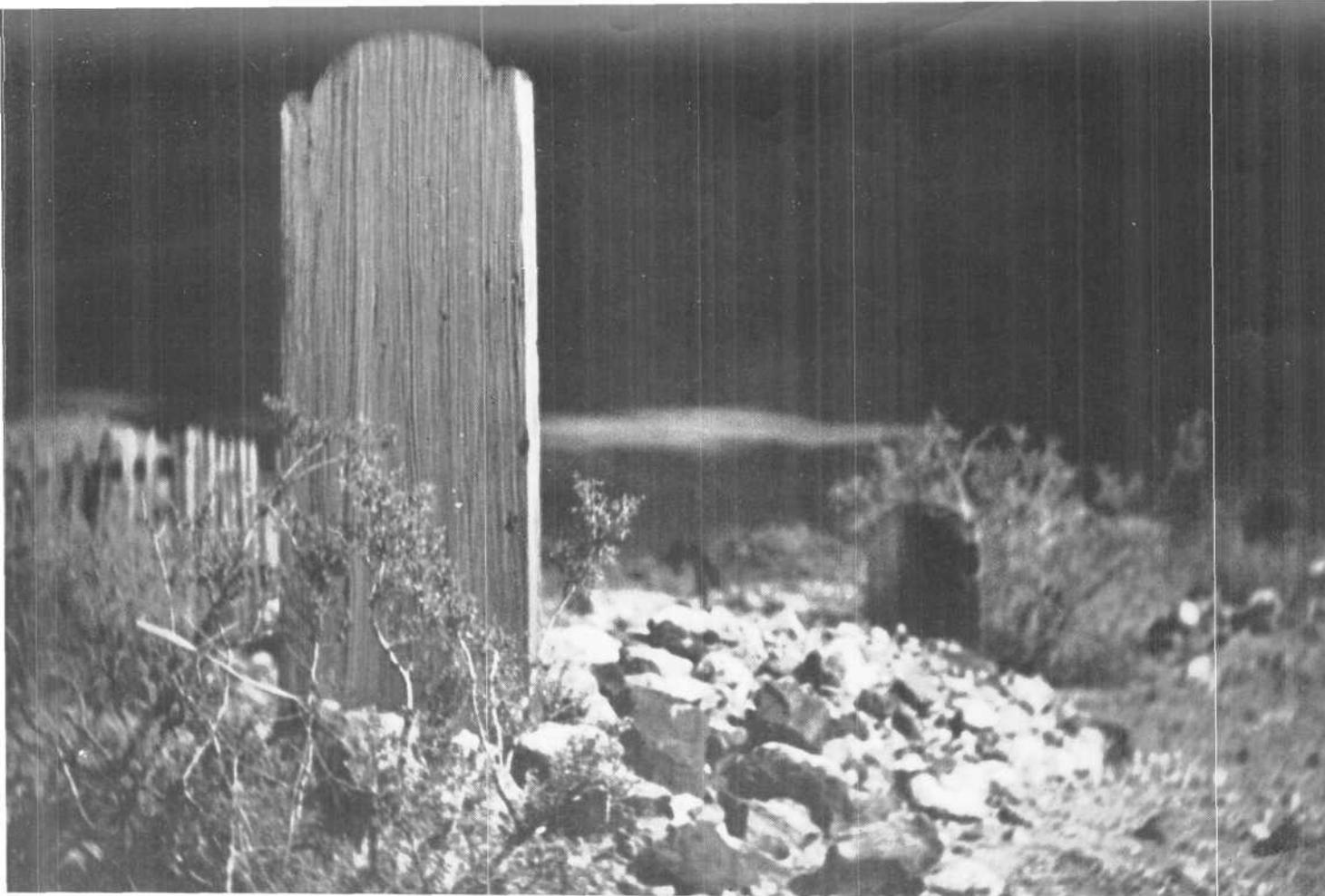
Desert

M A G A Z I N E



FEBRUARY, 1940

25 CENTS



Boot Hill

By HAROLD WEIGHT, Pasadena, California

Photograph awarded first prize in December contest of Desert Magazine. Taken at Calico cemetery in the Mojave desert of California. Foth-Derby camera with Eastman infra-red film, A filter. Taken at $f2.5$, $1/25$ second.



Navajo

By GENE O. PARKS
Las Vegas, Nevada

Second prize winning picture in the December contest of the Desert Magazine. Photograph taken at a Navajo hogan at The Gap, a trading post not far from Navajo bridge, Arizona. Camera was a $2\frac{1}{4} \times 2\frac{1}{4}$ Korella-Reflex. Exposure $f5.6$ at $1/500$ second, on Superpan press film, K2 yellow filter, at 10:00 a. m. in October.

Special Merit

In addition to the prize awards, the judges in the December contest commented favorably on the entries of the following photographers:

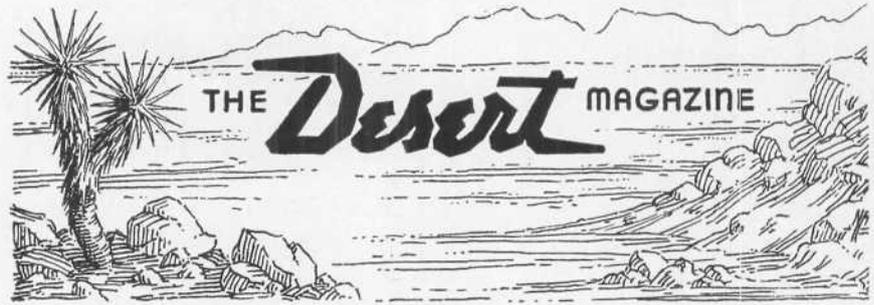
Fred Hankins, Taft, California, "Desert Woodpile."

R. F. Brainard, Los Angeles, California, "Ocotillo."

H. Bauer, Phoenix, Arizona, "St. Francis Xavier Mission."

DESERT Calendar

- FEB. 2 Candlemas Day dance at San Felipe Indian pueblo, New Mexico.
- 2-4 Golf Tournament, Palm Springs, California.
- 2-4 Open Golf Tournament, Phoenix, Arizona.
- 7 Prehistoric Indian fabrics, illustrated lecture by Clara Lee Tanner at Arizona Museum, Phoenix.
- 8 Effect of volcanic action on prehistoric northern Arizonans, illustrated lecture at Phoenix, Arizona Museum by Dr. Harold S. Colton, director, Museum of Northern Arizona, Flagstaff.
- 8-9 New Mexico Wool Growers conference at Albuquerque.
- 11 Arts and crafts of Southwest Indians, discussed by Mr. and Mrs. Burton Frasher, Southwest Museum, Los Angeles.
- 12-18 Annual Lettuce Tournament, Brawley, California. Elmer Sears, chairman.
- 14 Plant life of mountain and desert, Arizona Museum lecture by Dr. W. G. McGinnies.
- 15 Indian Turtle dance at Taos pueblo, New Mexico.
- 15-18 Riverside county Fair and Coachella valley Date Festival, Indio, California. (Horse show, Feb. 15, 16; rodeo, Feb. 17, 18). Stewart Yost, secretary-manager.
- 15-18 World Championship rodeo, Arizona State Fairgrounds. Sponsored by Phoenix junior chamber of commerce.
- 16-17 Annual Western States Child Welfare conference, Area E of American Legion, at Tucson. Oscar Lamp, area chairman.
- 16-19 Buffalo hunt in Houserock valley, south of Grand Canyon, Arizona.
- 18 Arizona Cactus and Native Flora society meets, Phoenix. Speakers. Mrs. Gertrude D. Webster, president, Box 1973.
- 21 Dr. Emil W. Haury, department of anthropology, University of Arizona to speak on Papago Indians at Arizona Museum, Phoenix.
- 21-25 La Fiesta de los Vaqueros, Tucson. (Indian Day, Feb. 22; Pima County Fair and Industrial exhibition, Feb. 22-25; Rodeo and World's Champion Sheriff's Roping Contest, Feb. 23-25; Livestock Show, five days).
- 23 Dr. Kenneth Chapman, Laboratory of Anthropology at Santa Fe. New Mexico, to lecture at Heard Museum, Phoenix.
- 24-26 Winter Sports Carnival, sponsored by Flagstaff Ski Club, in Snow Bowl.
- 25 Horse Show, Palm Springs.
- 25 Southwestern Indians Yesterday and Today, lecture by Gordon C. Baldwin, Southwest Museum, Los Angeles.
- 28 Carlsbad Caverns, subject of Col. Thomas Boles, superintendent of the national park, at Arizona Museum, Phoenix.
- 25-MAR 3 Eighth Annual Citrus Show Mesa, Arizona.



Volume 3

FEBRUARY, 1940

Number 4

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Address subscription letters to Desert Magazine, El Centro, California

Palm Springs, California

Dear Mr. Henderson:

It was my great privilege to make a trip in October that covered a lot of the desert so beautifully described in your Desert Magazine. As mile after mile registered on our speedometer, I felt like the bear that went over the mountain to see what he could see. From Palm Springs to San Bernardino, through Cajon Pass to Victorville, Baker, Las Vegas, Boulder Dam, on to Kingman, Prescott, Phoenix, to Tucson and back through Gila Bend, Yuma, El Centro, to Palm Springs, with ideal weather, through ever changing colors that no artist's brush could reproduce.

Mother Nature had dressed all the flowers in their best colors. Words cannot describe such natural beauty, and laws that protect such "Manifestation of Beauty" are certainly worth observing. In your October issue, you said the Rain Gods had swept the desert clean. I was in the second rain that hit the desert, and I had the feeling that Mother Nature had failed to wash some one's cars. After viewing the results of the last flood, I decided everything was thoroughly washed, but feel compensated for the scrubbing by being able to view the carpet of flowers that for weeks has covered the scrubbed spots.

The Desert Magazine gives a thrill to those who are unable to visit the interesting places described in each issue, and may you be forgiven for causing poor mortals to get a roaming spirit. The poem in December issue, "The Master Artist," by Ivan B. Mardis is the gem of poems. One can almost feel the quiet, restful atmosphere in the photograph.

Desert Magazine has gained its popularity on its simplicity and natural things, so please, Mr. Henderson, don't go highbrow and spoil the effect.

May your New Year be as happy as you will make thousands of Desert Magazine readers.
IDA HUEY.

Yermo, California

Dear Randall:

This is just a plea for the Desert Lily, addressed to all who travel the desert ways. Let me say that this Lily of the Desert takes no back seat for any Lily of the Field.

The bulb of the Desert Lily, if it is allowed to bloom and mature undisturbed, lives from year to year (perhaps I should say from season to season). But pulling the bloom kills the bulb and forever destroys this thing of exquisite beauty. The bulb makes no divisional increase. It is propagated by seed only.

In 1933, the plot of sand, about four acres, behind Cronese service station on highway 91, was thickly covered with Desert Lilies.

One day a family having a 12-year-old boy stopped for car repairs. When no one was looking, the boy pulled all the lilies he could pack and piled them into the car. He completely cleared the area and many seasons have passed without a lily in this plot.

Our experiments in transplanting the lily bulbs have not been successful. In 1932 we planted some seed in a likely place and the little plants have thrived — but none have blossomed yet.

Our conclusions, briefly, are these: That pulling the flower destroys the bulb, and that at least seven widely spaced seasons are necessary to reproduce from seed to seed. Properly cut and cared for, the flower of the Desert Lily will continue a thing of beauty for a week or more, but when pulled they will wilt almost before taken home. The blossoms, tender and waxy, mar easily when touched by harsh things. A slight constriction of the tender stem, such as is given by the hand in grasping causes premature wilting.

So please do not tamper with the Desert Lilies. They have too much beauty and industry and courage to be wantonly destroyed.

ELMO PROCTOR.

LETTERS

Los Angeles, California:

Dear Mr. Henderson:

The article about our son Everett Ruess in the December Desert Magazine leaves unanswered the possible meaning of the word "Nemo" that Everett carved in the cave and on the doorstep of the Moqui Indian House. In all probability it is an echo from repeated reading of Jules Verne's "Twenty Thousand Leagues Under the Sea." Everett's copy is well worn. Captain Nemo, hero of the novel, long years before the modern submarine was invented, deserted civilization, invented a new language, enlisted a crew, and traveled in a submarine, scientist that he was, joyously exploring the flora and fauna of the seven seas.

Everett's letters, essays and diaries indicate in many hints that he felt modern cities to be "big mistakes." Against the artificial in excess he revolted. Art and artists, he felt, should be subsidized, not commercialized. It would not be impossible that he desired to die to the world, as it were, and be reincarnated in a still freer life, all in one life-time.

Whether Everett is alive or dead, he is at peace now. He left us and the world in 20 years, more to remember and to treasure than could be required of an average hundred years. We have released him in our hearts to steer by the North Star of his own soul. Even were he found alive, we would have no desire to interfere with his fulfilment of his life and destiny.

CHRISTOPHER G. RUESS.

Pasadena, California

Dear Sirs:

"The Desert," a small volume by the artist, John C. Van Dyke, is a treasured volume in my small library. Noting the list of books listed from time to time in "The Desert Magazine," I note this volume is not listed. Possibly it may be out of print. In any event, its interest is more than passing in value, of abiding interest. After numerous visits into the desert and sleeping out beneath the stars always, and waiting with keen interest the dawn, and tarrying with the twilight—Van Dyke's book always is resorted to much as some resort to the Good Book for such nourishment as is not to be had by other means.

We enjoy "The Desert Magazine," and enclose a check for subscriptions to two more friends. Start these with the first issue of 1940.

O. S. MARSHALL.

Mr. Marshall—Van Dyke's THE DESERT was published by Scribner's in 1915 and is now out of print, but copies may be found occasionally in old book stores. I agree with you, it is one of the classics of the desert.
—R.H.

Hamilton, New York

Gentlemen:

Enclosed please find a check for \$5.00 for which I would like the two gift subscriptions as indicated—plus a renewal for myself. Can I get the binder with this order? I certainly appreciate the one I received last year with my renewal.

I still think your magazine is great — a breath of sunshine, warmth, blue skies and plenty of sky for us poor souls who plow through the snowdrifts of upstate New York.

C. J. HYLANDER.

Needles, California

Dear Mr. Henderson:

I noticed an article in the January issue of the Desert Magazine under the heading of Ludlow, regarding the Tonopah & Tidewater railroad, which I think is an error.

As I had been informed in the past, the Tonopah & Tidewater railroad was built by the Pacific Coast borax company during the years of 1905 and 1906, from Ludlow, California where it connected with the Santa Fe coast lines, north to Crucero where it crossed the San Pedro, Los Angeles & Salt Lake railroad (now the Union Pacific r.r.) then north to Gold Center about one mile south of Beatty, Nevada where it connected with the Bullfrog and Rhyolite. When the 1907 panic killed Rhyolite in 1908 all trains stopped operating into Rhyolite, including the Las Vegas & Tonopah railroad, which connected with the San Pedro at Las Vegas then run northwest to Beatty, then through the Bullfrog hills north to Goldfield. As far as I know none of these roads ran into Tonopah, only to Goldfield.

When the Bullfrog & Goldfield railroad stopped operation, the Tonopah & Tidewater operated their trains over the Bullfrog & Goldfield tracks to Goldfield until 1928, the rails were then torn up north of Beatty, and these ties (not north of Tecopa) were sold to Death Valley Scotty. The ties are stored in a canyon (known as Tie canyon) on the west side of the castle to be used for fire wood.

North of Goldfield runs the Tonopah & Goldfield railroad which connects with a branch line of the Southern Pacific railroad at Mina, Nevada.

The towns of Bullfrog and Rhyolite are ghost towns. The old depot of the Las Vegas & Tonopah railroad, a concrete block building, still stands and is converted into a bar and gambling casino operated by Westmoreland. At present the only road in this section is the Tidewater between Crucero and Beatty although the tracks still remain south to Ludlow.

A. P. MILLER.

Pasadena, California

Dear Miss Harris:

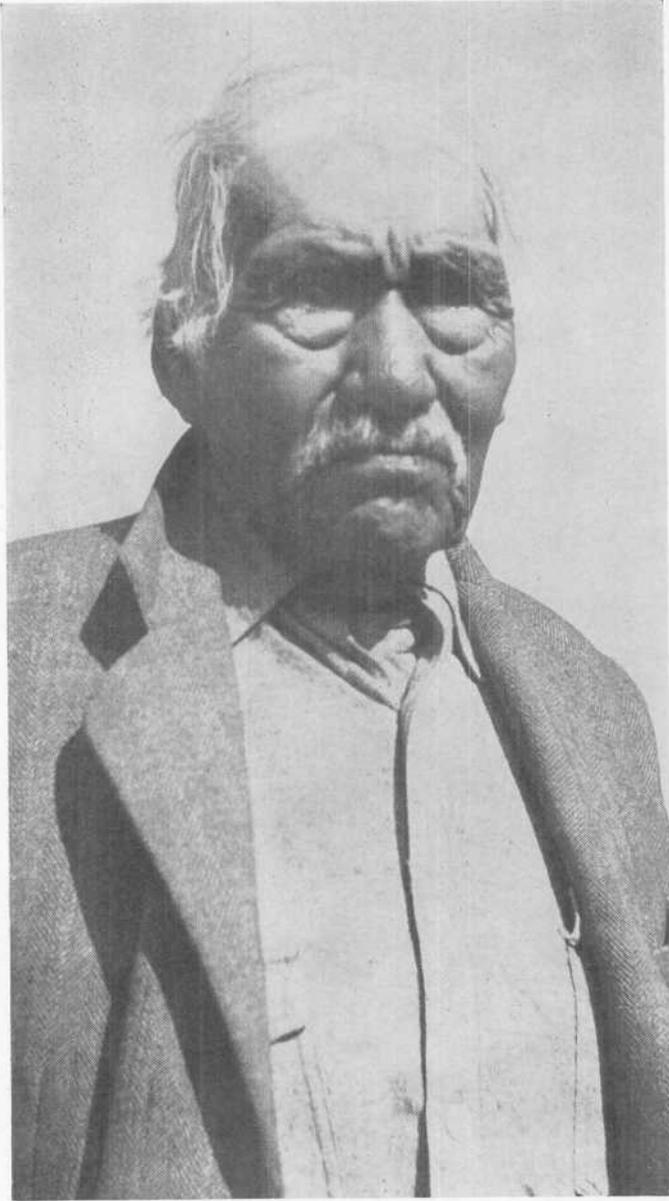
I cannot imagine a nicer Christmas present than the one you gave me—the knowledge that Desert Magazine considered one of my pictures good enough to award it first prize. And I'll tell you why I think that's just about tops in honors for a desert picture. My folks and I spent Christmas Eve going through Mitchell's Caverns up on the Mojave. In the group there were two separate parties from San Diego, one from San Fernando, one from Pasadena, and of course Mr. Mitchell. And every one of those parties was a steady reader of Desert Magazine. In other words, your publication is reaching the real desert lovers—those who know what a desert magazine should be. And later that evening, as we sat around the fire in Mitchell's cabin, with the stars and moon lighting that vast expanse of silent beauty, and the wind howling down from the snow-dappled peaks behind, we talked about Desert Magazine again and the praise was unanimous.

I am very proud to have my work represented in a magazine whose quality has become a by-word with the desert people everywhere. As soon as I get some other pictures that I consider good enough I'm going to try again.

In the meantime I am going to give myself another present. One I've been promising myself for a long time. I will appreciate it if you will take the five dollar check I am returning, and enter me for a three-year subscription to Desert Magazine, starting with the February issue.

HAROLD WEIGHT.

The DESERT MAGAZINE



Bah-vanda-sava-nu-kee. The whites have given him the name Indian George Hansen.

MANY wheels spin through the Panamint range these days, rolling along to Death Valley with well-dressed and well-fed sightseers bound for de luxe winter resorts which draw visitors from all over the world. The sleek automobiles and their big rubber tires attract only a casual glance now from Indian George. But he remembers when he and his people of the Shoshone tribe nearly 90 years ago saw for the first time a wheel in Death Valley. The wheels were creaking, iron-rimmed wagonwheels of the ill-fated ragged Jayhawker party on their tragic way to California. It was around Christmas time in 1849.

Indian George was a small boy then. He was born at Surveyor Well in Death Valley about the year 1841. And the first white man he saw on the desert so long ago in a world he had known as inhabited exclusively by Indians terrified him. He ran from the sight and thus won his tribal name, Bah-vanda-sava-nu-kee (Boy-Who-Runs-Away).

"Boy-Who-Runs-Away" is a venerable patriarch of his people now. Nearing his 100th birthday, he has the dignity of great age. His head is as white as the winter snow on Telescope peak high above his home in Panamint valley. Despite the burden of his years, he retains a delightful sense of humor

When the ill-fated Jayhawker and Bennett-Manly parties trekked across Death Valley in 1849 the white gold-seekers were in mortal fear of the Indians who lurked along the trail. Today, 90 years later, Indian George Hansen, venerable patriarch of the Death Valley Shoshones who as a boy witnessed the tragedy of the Americans, discloses that the Indians also were afraid of the whites. "The hearts of our people were heavy for these strange people," he said, "but we were afraid. They had things that made fire with a loud noise and we had never seen these before." Indian George is nearly 100 years old today, but he has a vivid recollection of the incidents of his long life on the Death Valley desert. The accompanying interview was given to a man who has for many years been an intimate friend and advisor to the aged Indian.

He Witnessed the Death Valley Tragedy of '49

By J. C. BOYLES

that makes him chuckle at recollection of the incident that gave him his name. And his memory goes back clearly to the days before the white man invaded his world.

On a late October day we sat in the shade of the cottonwoods at the old Indian ranch where he has made his home for the past 70 years. There he lives with his daughter Isabel, granddaughter Molly and Old Woman, his sister-in-law. At nearby Darwin he has many great-grandchildren.

Bah-vanda-sava-nu-kee's home place is watered by a stream from the melting snows of the Panamints. The pungent smell of goats permeated the air.

Leaves of the cottonwoods had begun to turn yellow with the first cold of autumn, dust devils swirled over the mud flats, a blue haze lay over the mountains. Lean hungry mongrel dogs sniffed at my feet, Old Woman silently shelled piñon nuts, the silence broken only by the cracking of hulls.

Around us was the region called home by a small band of Shoshones for many generations before the white man's coming. Coville called the tribe the Panamint Indians, most southerly of the Shoshonean family whose homes were on the eastern side of the Sierra Nevada and northward nearly to Canada. In Death Valley and along its border the desert band lived widely separated, in wickiups close to springs or water holes, utilizing in a barren, forbidding territory, every edible shrub and root, every living thing that walked and crawled.

The women gathered mesquite beans, wild grass seed and

piñon nuts which were winnowed and ground into coarse flour. The men snared rabbits and quail and hunted the wily bighorn sheep in the nearby mountains.

Bah-vanda-sava-nu-kee has seen here in his lifetime a development of human history equivalent to man's progress through all that long, long stretch of time since the first wheel astonished travelers afoot. During the past 20 years I have studied the story of his life.

While Old Woman shelled the piñons, I said:

"Grandfather, you have seen many winters and the wisdom of an old man is good. That is why I have come to you to hear of the old times."

After a long silence, Bah-vanda-sava-nu-kee spoke:

"My son, you are Kwe-Yah, 'the Eagle.' I have known your father for many, many years. You have been to the white man's school and have learned his ways, many of which are good, and you understand our people and many of our ways are good.

"I am growing old, my limbs creak, my eyes are dim with age. To you, my son, I can talk plain and you will understand without me saying foolish things like when I talk to white people."

There was another interval of silence, and then he continued, speaking slowly and deliberately. As nearly as I can do so, I use his own words:

* * *

Long ago I was born in a camp of mesquite in To-me-sha, they call that place Death Valley. It was at Surveyor Well. From the earliest time I can remember we would move away in the summer to the high cool country among the juniper and piñon trees. There we would stay until the piñon nut harvest was over, returning to the valley when the snow came.

When there was plenty of meat every one was happy, even E-shev-ipe the coyote and Wo-te-ah the fox smelled the meat cooking over the hot stones and came for their share. When every one had eaten all he could hold, there was story telling and dances. Sometimes we played the hand game and sang the gamblers song all night long. Those were happy days with our people.

Cold winter evenings we sat about the camp fire, in the shelter of the mesquite, the old men told stories of days that were gone. Our women worked at basket-making, some baskets were made for gathering seeds and piñon nuts, others were for beauty. It was a gift of our women to make good baskets.

Old Kaw "the crow" was the best story teller, he told the stories over and over, so that the boys would know and remember, and he went away back the life time



Shoshone Johnnie — cousin of Indian George.

of many old men. He told of the Mojaves and how our young men drove them from the valley. They came in from the south to steal our piñon-nut caches and carry off our women. We did not like these people, we were high above them. Always after a fight they built a big fire and burned their dead ones. Long after this when I was a young man, that is, after the white man came, the Mojaves came back and killed white men and made much trouble. This time we helped the white men who were good to us. White men gave us guns and went with us on the war path. We found the Mojaves near that place Mojave where the railroad is now and killed many and brought back the white man's stock. After that we never saw the Mojaves again. They were not our kind of people.

My father Inyo (Place-of-the-Spirit) was head man at that time, what the white man calls a chief. When our people had trouble they came to him, and he

listened, and what he said to them was right. In my father's time I heard of the animal the white man calls buffalo but we never saw that animal. We traded willow baskets, salt and arrow heads for the buffalo hide from other Indians who came down from the north. Our people used this hide for moccasins and made warm blankets from rabbit skins cut in strips and twisted them sewed together. This way the hair was on both sides and very warm in winter time.

When I was a little boy I wandered over the desert far from home, always looking for something to eat. I learned how to snare rabbits and quail and hunt Cuc-wata the chuckawalla. Cuc-wata was quick, he would run and hide in the crack of big stones and blow himself full of wind, so he could not be pulled out. For this hunting I carried a sharp stick, I catch hold of his tail and punch a hole to leave out the wind, then I could easy pull him out. This meat was very good.

When I found the track of To-koo-vi-chite the wild cat, I would trail him to his den, and later tell my father who would smoke him out and kill. This meat was very sweet.

Sometimes when I would start out to hunt, Woo-nada-gum-bechie (Dust Devil) would cross my path, then I would always return, for that was a bad sign. The old men say that is the ghost of one who died and maybe that is so.

When Oot-sup-poot, the meadow lark, came back that was a good sign that cold wind had gone. Then I could travel far with my bow and arrow and some times bring home big birds that were going north. I was becoming a big hunter and brought much meat to my mother's wickiup. I learned to track and use the bow and arrow when very young. My father made the arrows from a hollow reed that grows in the canyons. You can find that kind of reed over there in the canyon where this water comes from. We placed a sharp stick about as long as a hand in the end, this stick we burned in a fire and scraped with a stone to a hard sharp point. Some arrows we pointed with black stone (obsidian) that came from the Coso hills. That time there was many Wa-soo-pi (big horn sheep) on Sheep mountain and all over the Ky-e-guta (Panamint range). No Indian boy today could hunt them like we did with bow and arrow. Some time I trailed Wa-soo-pi for three, four days. When I see him lay down, I crawl close slow, slow, like a fox, from rock to rock, always with the wind in my face, when he would raise his head to smell the wind, I lay flat without a move. When I get close, I raise up slow, slow, and drive the arrow into meat.

When I was about as high as that wagon wheel, (pointing to an old wheel



Spence air photograph of Death Valley looking south from the Furnace creek ranch.

leaning against the corral fence) may be about ten or 12 summers, a big thing happened in my life.

This I must remember well, and in the telling, tell it straight. Snow was on See-umba mountain (Telescope peak) when this happened.

A strange tribe of other people (the Jayhawker-Manly-Bennett Party 1849) came down Furnace creek, some walking, slow like sick people and some in big wagons, pulled by cows. They stopped there by water and rested. When other Indians see them, they run away and tell all other Indians at other camps.

Our people were afraid of this strange people. They were not our kind and these cows my people had never seen before.

Never had they seen wagons or wheels or any of the things these people had, the cows were spotted and bigger than the biggest mountain sheep, with long tails and big horns.

They moved slow and cried in a long voice like they were sick for grass and water.

Some of these people moved down the valley, some moved up, and they stopped at Salt creek crossing. Them that moved down the valley stopped where Indian

Tom Wilson has ranch at Bennett's well.

When it came night, we crawled close, slow like when trailing sheep. We saw many men around a big fire. They killed cows and burned the wagons and made a big council talk in loud voices like squaws when mad. Some fall down sick when they eat the skinny cows. By and by they went away, up that way where Stove Pipe hotel is now, they walk very slow, strung out like sheep, some men help other men that are sick. One man, he can go no more, he lay down by a big rock, that night he went to his fathers. As they go, they drop things all along the trail, maybe they are worthless things, or too heavy to carry.

After they go we went to that place at Salt creek and found many things that they left there. Because some died, we did not touch those things. When they burned the wagons some parts did not burn, that was iron, and we did not understand this.

Those people who went down the valley to Bennett's Well stayed there a long time. They had women and children. By and by they went away, all go over Panamints and we never see them again.

The hearts of our people were heavy for these strange people, but we were

afraid, they had things that made fire with a loud noise and we had never seen these before.

After this happened we were afraid more of the strange ones would come. We watched Furnace creek for a long time, but no more come.

May be about three or four summers after this, I was on the trail with my father in Emigrant canyon, when we see man tracks that was not made with moccasins, my father, he say: "Look, not made by Shoshone."

We followed these tracks and when we come around by big rock we saw a white man there, very close. When we see him we stop quick, I run away, may be that is why they call me "Boy-Who-Runs-Away."

This white man made peace sign to my father and give him a shirt, when I see that, I come back. That place was near Emigrant spring.

I think that white man was scared as much as we were. He talked in a strange tongue and made signs with his hands. He was not white, he was same color as a saddle and because of this color I thought he looked like a sick Indian, he had long hair on his face, not like our people.

After this meeting from time to time other white men come into our country. They were rock-breakers looking for the yellow-iron. Mostly they come in pairs without their women, this we thought was strange for it is not a custom of our people to go that way. There were strange stories coming to us of many white people, in the valley of the river (Owens valley) by the high mountains west of here that made war on our people and killed many. Hearing this we were afraid there would be trouble.

(The old man shifted his seat to throw a stick at a yelping dog)

By this time I was married and living not far from Wild Rose spring, and again a big thing happened in my life. This time many white men with Mexicans and Chinese came to the Panamints and all go up that way in what the white man calls Surprise canyon. They built many houses and they all stop there.

I did not know there were so many people and so many different kinds, they brought horses, mules, burros and cows. They called that place Panamint City.

They made roads all over the desert to that place where they all lived. You can see the road now in Surprise canyon, that was a long time ago. I think most of those people have gone to their fathers.

These white men all carried guns and some times they fight among themselves.

At the time I worked with Hungry Bill, my brother-in-law, for a Mexican packer, cutting and packing piñon timber for the mines. He had many burros, these were the first we ever saw. (The old man laughed to himself). It was not long before we had burros of our own. Hungry Bill was good at finding things that were lost and I think some of those burros were not "lost."

Learns Mule Skinner's Language

First I learned to speak a little Mexican, it was easier to learn, then I learned a little American, at first only the words the mule skinnners called the mules when they were mad.

Later I learned to prospect and find the metal those white people wanted so badly. I did very good but never received anything but grub and promises from those people. One man he gave me a check, when I showed it to another white man he laughed. May be that was a white man's joke. One white man I packed for, his name was George. We prospect all over the Ky-e-gutas. When we go out I tell him, "You stay back of me, this is my country," when we come back to Panamint City where they all live, I tell him, "Now, you go first, this is your country."

Lots of white men have fun, they say, "Hello George, he your son?" After that every one called me George, that's how I got that name.

Another man who was a "government man" gave me that name "Hansen," he said I must have a name for the books, at Washington so Uncle Sam would know me. (The old man laughed). I don't know this Uncle Sam, but I guess he is all right, for when my son Mike or daughter Isabel is sick he sends a medicine man from the agency.

Too Many Beans for Bill

"Hungry Bill" he got his name from the white people at Panamint City. He was always hungry like a coyote, and a pretty bad Indian. I guess the government man did not give him another name because he was not much good, may be Uncle Sam didn't want him on the books. One white man at Stone Corral put some medicine in beans. When Hungry Bill eat all he could hold, he got sick. After that he never liked beans any more.

About that time they made another place at Kow-wah and called that place Ballarat. When they come in from outside they stop there on way to Panamint City. Pretty soon some horse soldiers come and stopped at that place, the chief of those soldiers had a Ka-naka (Negro) who worked for him. When I first saw that black man I thought he was a white man burned black.

Hungry Bill, he was smart Indian. One time he made camp by the road, two white men come along, they have guns, when they see Hungry Bill they shoot at ground, they say "Dance, Injun, dance." Hungry Bill he did that, he dance close by sage brush by his gun, when white men make a big laugh, quick, Hungry Bill he pick up his gun, point at white men, he say "Now you dance same me." This time Hungry Bill had a big joke on white men.

After all those people go away from Panamint City they leave many things, that is where I got many things you see about this ranch. One man he brought those stage wagons and he say: "George, I leave them here with you, some day I come back and get them." He never came back, that was a long time ago.

Long time after they all go away, more white men come, this time to Sheep mountain. They call that place Skidoo. Me and my cousin Shoshone Johnnie we packed wood and timber to that place. After they have a big fight, Joe Simpson he shoot Jim Arnold, other white men hang Joe Simpson by his neck, after that we stayed away. One white man he give to my daughter Isabel a picture of Simpson hanging by his neck. That was not good, maybe Simpson was drunk when he shot Arnold. It's bad way to die, man's spirit cannot get out when he dies with rope around the neck.

In this telling I must not forget my friend John Searles.

Across the mountains to the south of here there is a dry white lake, where in the old days our people went for salt. There is a town there now and a big mill. They call that place Trona. I go there often, and have many friends at that place. When I go there for grub, every one say "Hello George, how are you?" With my father and Hungry Bill we went there for salt long ago, that is where I met this man. He had a camp and horse corral by the lake. When we saw this, we stayed away. That night Searles he came to our camp and made signs for work.

My father and I worked there a long time, we liked the Chinamen, they were little bit like our people. Some white man told to me "Chinaman and Injun all same." May be so, but I do not believe that.

When we went away, Searles he said: "George, you are always welcome and any time you stop here, China boy will feed you, but not Hungry Bill, you tell him to stay away."

"Take Mule Home, Eat 'em"

Then he say: "Come here," and he showed me old mule in the corral, he said: "You taken home, make jerky, plenty good meat. You no keep him, you eat, sabe?" We did this, for in the old days any kind of meat was good. John Searles was a good man and known to our people as "Bear Fighter." When he was a young man he had a big fight with a bear in Tehachapi mountains, that is how he got that name. He had big scar on neck from that fight, when he talk to me he hold his head this way (the old man bent his head slightly to the left shoulder).

Many times after that I thought of John Searles and the good meat we eat at his camp. Some people say he killed Indians, but that is not true.

That time Hungry Bill would go away for a long time south of Mojave, when he come back, he always bring horses and mules, then all the Indians would have plenty meat. This was not good and caused lots of trouble with the white men. I think that is why Searles told him to stay away.

* * *

The lean dogs sniffed the air and ran off barking. It was Molly, granddaughter of Bah-vanda-sava-nu-kee bringing in the goat herd to the shelter of the corral for the night.

Old Woman threw a stick on the dying fire, the flames lit up the old Indian's face, "My son, the few thing I have told you are but the flutter of a crow's wing in my life. Soon I will go to the land of my fathers along with all these other people I have told you about."



Avicularia californica, one of the so-called tarantulas of the Southwest. Among the uninformed it has a bad name—but it really is quite harmless.

My Friend --the Tarantula

By RAYMOND W. THORP

Photographs by the author

DURING the past seven years I have handled—and I mean literally handled with my bare hands—more than 20,000 of those black furry creatures known in the desert region as tarantulas. Instead of finding them ferocious and deadly, as most people believe, I have learned that they are tame and harmless.

Actually they are not tarantulas at all—not even remotely related to the tarantula species. They belong to the bird-spiders.

We have them for pets in my home. My children know them as playthings. True, I have been bitten by them—voluntarily on my part in order to observe the reaction—and while

One of the popular fallacies of the Southwest is that the black hairy spider-like creatures frequently seen crossing the highways are tarantulas—and that they are very poisonous. Neither conclusion is correct. Here are the facts about one of the most interesting denizens of the desert—told by a man who has known them intimately for many years.

the sensation is not pleasant, it is not as serious a thing as an ordinary bee sting.

The dread which most people hold for these inoffensive creatures may be traced to several possible sources. According to legend the *Lycosa tarentula* was once the scourge of Europe, destroying tens of thousands of lives by its "deadly" bite. This legendary spider epidemic began in the village of Taranto—also called Tarentum. No one knows whether the town was named for the spider or the spider for the town, but we do know that a species of deadly spider was once rampant in Europe.

My method of catching tarantulas is simple. From April to November the tarantula is "in season." That is, during

these months they may be captured easily with a jar of water. Simply pour the water in a den of the spiders during the dry season—and the tarantula, scandalized by the idea of rain at this period of the year in the arid Southwest, will come forth. It is a simple matter then to place the spider in the jar, taking care to see that air holes are punched in the lid.

During the rainy season the spiders hibernate, sealing their 15-inch perpendicular tubes and tunneling uphill. Tarantula dens usually are on the south side of a hill or elevation, so the water cannot drown them. The tarantula is the longest lived of all arachnids, sometimes reaching the age of 30 years.

It is a fact that Mexicans who have lived practically side by side with the tarantula for centuries, stand in deadly fear of the creature. This no doubt is due to Spanish superstition handed down for more than 300 years. More peculiar still is the attitude of some very highly educated people. Conversing with a professor of natural science I casually asked the gentleman if he had ever been bitten by a tarantula. He smiled grimly and shook his head, saying: "I am still alive am I not?" Pursuing the subject further, I asked him if he could give, offhand, the physical characteristics of the male tarantula—any species.

"Oh yes," he replied. "I have handled literally hundreds of them." Fearing that I had not heard his answer correctly, I repeated the question and received the same reply. The gentleman must have been spoofing me for had he lived to be a thousand years of age, and pursued the amiable spider 365 days each year, he would be unable to say truthfully that he had "handled hundreds" of male tarantulas. They are that scarce.

An Indian agent in New Mexico once told me he knew of at least 20 men who had been killed by the bites of tarantulas. Further, he said that a tarantula once jumped at him from a cottonwood tree—from a distance of six feet—and "almost got me." The truth is that the tarantula cannot "jump" six inches. Another man, a garage mechanic in west Texas, was very emphatic in his recital of a narrow escape he had from a tarantula. "Only by putting spurs to my horse did I escape an awful, lingering death by spider-bite!" he said. And a toddling tot could outdistance the fleetest tarantula that ever lived! When I took him to task about this story he said, "Oh, well, Texas tarantulas are not like those of California." The genus is identical, and the species the same.

While engaged in making a professional motion picture of the life of the tarantula in the field, I had marvelous luck in obtaining a record of every phase of its actions—and none of it was synthetic. The cameraman was interested in observing the many "cute" traits of the Old Lady of the Desert, one of which consists of making her toilet.

The tarantula sheds her old skin from two to four times each year, and the one under observation at the time was very ragged in appearance. The upper part of her posterior abdomen was entirely void of hair, and the cameraman wondered aloud as to the cause of this. In reply I touched the spider upon the bald part, and immediately she raised one of her rear feet and carefully brushed the place. Setting this foot down, she repeated the operation from the other side.

"The female tarantula is very fastidious," I explained. "She is actually the most cleanly of all spiders, and wears the fur away continually brushing herself down."

I have had many odd requests from persons in various parts of the world. A man in West Virginia ordered several spiders for use in voodoo work in the swamps of the deep south. He said: "I want very large and ferocious tarantulas—the negroes of the swamps are very superstitious, and believe them to be emissaries of Satan." As I came originally from that section, I know that the fellow made a truthful statement. A man in Worcester, Massachusetts ordered a black



Carroll Thorp admires at close range the black "fish book" fangs of the tarantula. The fangs are curved and more than a half inch in length—but their poison is less potent than that of an ordinary honey bee.

widow spider from me, and used the creature in an effort to commit suicide. The Toronto national exhibition in Canada obtains tarantulas, centipedes, scorpions and trapdoor spiders from me for its natural science department, as do many other museums, colleges and schools.

The three most commonly found tarantulas of the western United States are *Eurypelma californicum*, *Eurypelma hentzi*, and *Avicularia californica*. The most vicious of all large spiders is that imported from South America in bunches of bananas—*Heteropoda venatoria*. This spider delivers a far more painful bite than the tarantula, but it is not deadly. In fact the only deadly spider in the world is the black widow, represented in all lands and by many species.

In my years of field research I have endeavored to fix the blame for the many false superstitions that are continually circulated concerning the so-called "dangerous" qualities of the tarantula, and there is little doubt in my mind that the mantle fits squarely upon the shoulders of pulp magazine writers. Literally thousands of stories have been written in which the tarantula has been held up to public condemnation. The majority of such stories were written by persons who had no information on the tarantula beyond hearsay—persons whose only incentive has been to make a living by playing heavily upon a popular fallacy.

When the layman runs across a tarantula—and they are frequently seen during the fall season crossing the desert highways—his usual reaction is to destroy the inoffensive creature. There really is no justification for this. They are interesting little creatures when you know them—and even if you don't admire their looks, you might remember that a lot of us humans never won any prizes in a beauty show.



Kathryn and Jake McClure.

"I know why Jake McClure ties those calves so fast," Will Rogers once drawled as he sat under a torrid Tucson sun watching New Mexico's claimant to world champion calf roping honors wrap up a kicking, bawling calf. "It's so's he can hurry up and sit down again."

Easy-going, good-natured McClure grinned sheepishly when the words of his friend were later repeated to him. He studied the toe of his boot thoughtfully and then calculated, "Reckon that's right. It *is* good to sit down again."

McClure, who has been acclaimed time and again the world's champion calf roper, is soft-spoken, unassuming, and so deliberate when he moves that one hardly knows he's around—until he starts roping. Then the New Mexico cowboy goes into action with amazing speed and precision.

Thirty-seven years old, McClure is considered an "old-timer" in the rodeo game. For 13 years, he has been a "tops" performer on the big-time circuit, a record which far surpasses that of any other rodeo star the world has ever seen. Eight months out of each year he is "making the shows." Through Arizona he goes his roping way, to California, up to Canada, back through Wyoming to Texas, and then to the Madison Square Garden show in New York in the fall for the climax of the year's work.

McClure has been roping in the big shows since he was 24. He has "burned" the famous McClure loop before cheering crowds in Europe, has set the world's official record of 12 seconds flat in calf roping, has hobnobbed with celebrities from coast to coast. He has been honored at extravagant social functions in cities from San Francisco to New York, but still

In the rodeo circuit Jake McClure is a champion. At his home town in New Mexico he is regarded as a successful rancher. Mrs. McClure declares that as a husband "he is a dear." Altogether, that is a pretty high score for a man who started as a dollar-a-day cowhand. You can read this story and decide for yourself whether or not Jake is worthy of all the success that has come his way.

Jake McClure

---Champion with a Rope

By KATHRYN BOMAR

remains just plain Jake McClure—a bashful, retiring fellow, who doesn't claim to be the country's best roper, but will match anyone who does make the boast.

McClure has won countless medals, saddles, bridles, watches, and dollars in the rodeo arenas, but he prefers to be considered a rancher, rather than a champion roper.

Into their modest, comfortable ranch home near Lovington, New Mexico, the McClures have poured the small fortune Jake has won. The roper and his attractive wife, Kathryn, are owners of 15,000 acres of land on which they graze thousands of head of cattle each year. When Jake began his roping career, he was a dollar-a-day ranch hand. He had nothing more than a fairly good horse, a lariat, and a world of ambition. Today he is considered a well-to-do-rancher.

Lovington is immensely proud of its world champion. Boys of all ages of that region may be seen any day nonchalantly strolling about the town's square, slinging loops at tin cans and scurrying cats—a definite outgrowth of the McClure influence.

Several months ago McClure almost died following an operation for a ruptured appendix. For five weeks he hovered between life and death. All Lovington was tense with worry and fear that Jake wouldn't make it.

It was after the roper had undergone two operations that a delegation of Lovington ranchers and businessmen arrived at the hospital where Jake was ill, and asked to see his doctor. Puzzled, the physician agreed to talk with the men.

When the doctor confronted the group, one sunburned individual, the spokesman for the lot, rasped out, "Look here, doc. We just want you to know Jake has got to get well. This outfit couldn't do without him."

McClure says he considers this the highest tribute he has ever received.

Jake captured the calf roping honors at the Madison Square Garden several months ago, winning more than \$4,000. When reporters asked how he did it, the roper answered in typical McClure fashion: "The calves were light and I was just lucky."

Mrs. McClure complains that her husband takes his ranching duties too seriously. "He's up early every morning and I don't see him until night. And if he doesn't have work of his own to do, he always can think of some neighbor who needs help doctoring a sick calf, or in branding."

That the roper is a hard worker is indicated by his appearance. The McClure who returns to his ranch home in the evening, dusty and grimy, is a far cry from the nattily attired performer who puts on the show for the eager rodeo fans during the roping season.

McClure's popularity among the ranchers of his communi-

ty is to be expected, for he is a favorite of the cowboys with whom he works.

"He's any roper's worst competition," a fellow performer once said of McClure, "but he's the best guy in the world."

So many good things are heard about the rancher-cowboy, in fact, that one wonders if he doesn't have at least one fault. Mrs. McClure was able to expand on this point.

"Jake is the world's biggest dear, and all his faults are minor ones. He abhors red nail polish and too much lipstick. Also, he's cranky when I forget to turn off the water in the yard and use too much of it. But that's about all there is to be charged against him."

The McClure home is as modern as any city residence. A special power plant furnishes the electricity, and a huge windmill takes care of the water question. The only item lacking in the home is a telephone.

"We'd rather folks come see us than call up," McClure explains as he chews on his ever-present pipe and makes his guests feel completely at home, despite his aversion to talking.

The McClures spend their spare time working on their lawn. Mrs. McClure was the former Kathryn Matthews, prominent in Dallas social life, but she is now "all ranch woman." Her main interest is in having a pretty lawn to set off the new home they completed last year. The task of painting the picket fence which surrounds the white stucco home fell to her.

McClure, who probably has won more rodeo money than any other performer, doesn't get excited over the prospect of losing large and tempting purses. "I've lost them before," he grins.

It is safe to state that Jake is the best-liked rodeo performer in the United States. His fans are loyal, refusing to believe that some day he will be replaced at the top by a younger roper. One explanation for his popularity may be found in the gentle way he treats his mounts.

"Legs" was McClure's favorite horse. When the faithful "Legs" became too old to use, Jake retired him to the green pastures of his ranch to rest. The roper turned down a fancy offer for the horse, saying he had earned a vacation.

Mrs. McClure can recall only once that she saw her husband upset. That was one summer morning when "Legs" came running to the ranch house at dawn to pound on the porch with his front feet, setting up a terrific clamor. The McClures rolled out of bed to see what was wrong. The panic-stricken "Legs" had been snake-bitten.

"Jake was so frantic over the horse that I thought I'd have to doctor him, too," his wife said.

"Legs" recovered from the bite, but died a few months

Lost Mines of the Desert

Most folks have heard about the "Lost Pegleg" gold mine, the "Lost Dutchman," and the "Breyfogle." But there are many other "lost mines" and treasure caches in the desert Southwest not so well known.

The stories may be true—or they may be fiction—no living person can say for sure. But they are fascinating tales nevertheless, and in order that Desert Magazine readers may become better acquainted with them, the March number will carry the first of a series of these lost treasure records. They will continue to appear in these pages each month through 1940.

The series has been written by John D. Mitchell, author of the book "Lost Mines and Buried Treasures of the Great Southwest." For many years Mr. Mitchell has been delving into old records and tramping over the desert in quest of information regarding these real or legendary treasures, and some of the material appearing in the Desert Magazine series will appear in print for the first time.

later from natural causes. "Silver," the horse which was presented with the Prince of Wales trophy for being the world's best calf roping mount, was killed about a week after "Legs" died. "Silver" jumped the fence and was struck by a truck.

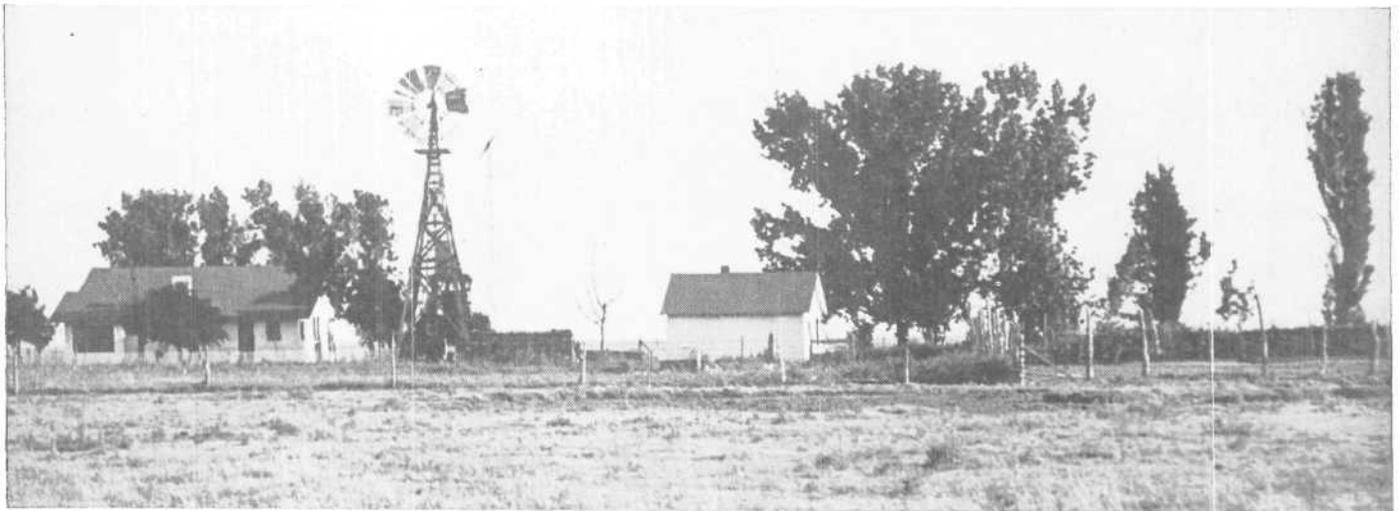
McClure has roped for and won purses amounting to as much as \$5,000, but it was the winning of a \$300 purse in a little Oklahoma show that gave him his biggest thrill.

"There were 13 of us roping," he remembers, "and there wasn't a second's difference in our time. I won the pot by a fraction of a fraction of a second. That was real competition."

Jake has a sense of humor. He has been injured only once in his career and that was several years ago in the New York Garden. He roped and tied a steer in 53 seconds, but the steer was obstinate and broke three of McClure's ribs, split his forehead, and broke four of his fingers. Later, when the doctor named over his injuries, McClure grinned, "All that in 53 seconds? That calf sure worked fast."

As for how long McClure will rope: "I think I'll retire in about three years, just to loaf on my ranch," he drawled. But his friends say Jake McClure will quit roping along about the time he quits breathing.

Which probably is right.



The McClure ranch near Lovington, New Mexico.

The desert wears a grim and forbidding mask—but to those who get a glimpse of the beauty and strength behind the mask it becomes a place of never-ending fascination. Mora McManis Brown was afraid—until she conquered her fear, and then—



I, too, Have Learned

By MORA McMANIS BROWN

HERE was a time when I found our great southwestern desert ugly and fearful; a time when I could not get across it fast enough, when I dreaded to go back to it again. I recall vividly that gaunt confusion of mesa, sage, and hills sprawling endlessly across Nevada, across California. I recall two everlasting days of glare and dust and countless gravel miles; two twilights stalking grimly up behind us; two November nights crowded against the road in two black unbroken walls; and now and then, caught in the edges of our beams of light, twisted ghost trees careening on the edge of Hades.

Rarely we saw a light. Rarely we passed a car. There seemed to be no other people in the world—just our weary family pressed closer to this loneliness by an overloaded sky. Las Vegas late the first night, and Barstow late the second, were relievers from ruin.

But that was 13 years ago. That was before Amon, my husband, felt the lure of cactus, before he discovered the secret beauty concealed in desert stones, and before I learned that from the start the desert beckoned him.

And so inevitably there came an autumn when he dragged me to the desert for a weekend—it doesn't matter where. I remember a surfaced highway, a graveled turn-off, and a desert road which wandered vaguely off to meet a mine. I remember a maze of giant piled-up rocks, a little ranch tucked in, somehow, among them, and by the road a rock-bound cove which looked far out across a sloping wilderness.

It was sunset when we reached the cove. Amon shaded his eyes and gazed into the west. "It's sure beautiful," he said.

I deigned one glance and saw clouds in streaks across the sun, saw rose tints on the hilltops, saw blue mountains and dark shadows. But I was not to be fooled. A sunset meant only that a hateful night was tagging at its heels. I noticed the silence, though. Such utter silence! Not the twitter of a bird, not the hum of an insect, not even a small breeze in the single tree. Our sounds—the snapping of our campfire, the rattle of tins, our voices, splintered like glass against it and fell clattering to earth.

There was little to do. We made our bed upon the sand. We ate our stew and fruit. We washed our few tins with a dole of water. And that soon, there was Night held from me only by the firelight, and Fear leashed only by the wakeful presence of my husband.

But already he was yawning, already he was saying, "Well, we want to be up early in the morning." And almost before I could think up delays, he was snuggled in the covers sound asleep. Miserably I lay in my sleeping bag and watched the fire fade to embers, watched the embers die, watched Night take possession. Didn't coyotes, I wondered, sneak up silently to kill? Hadn't I heard of desert fugitives? And of rattlesnakes crawling into people's beds? I pulled the covers tight about me and covered my head.

I longed for my Idaho mountains where timbered hills

curved like protecting arms, where night winds joined the streams in night-long lullabies. And then unwillingly I recalled my first nights in the mountains, when it seemed that all that saved me from destruction was the white wall of a tent. It had not been until later that I could lie, calm, upon a mountain's grassy breast and recognize as song the strange night sounds. It was when I no longer feared the mountains that I loved them.

Was it then, not the desert, but fear, which shook me now? After hours, it seemed, I dared to expose an eye. I saw first a slice of moon, then stars sprinkled like salt across the sky, then Orion lying on his side atop the cove. I released my nose and caught the smell of desert sage. I freed an ear and hear nothing but Amon's steady breathing. Certainly he was not afraid. Nor was he, I realized, afraid for me. Finally I pulled the covers from my entire face and felt the night rest cool upon it. Cautiously I extended my hand and found the sand beneath it faintly warm. I listened again, but there was nothing to hear.

Nothing — to — hear!

Nothing except my fearful thoughts; no danger but that which my fear created. Was not this the same kind night and these the same bright stars, which hung above my northern mountains and above my southern home?

Almost with the thought I fell asleep.

The sun awakened me—a housewife sun, dusting the hills with sunbeams, sweeping the desert floor with long grey shadows, dressing the chubby clouds about her in red and pink and gold. My thoughts rushed back to last evening when with unhappy eyes I had seen that same warm sun retire behind a Venetian blind of orange-red clouds, when the desert mounds and desert hills had gleamed like amethyst crystals on a rumpled scarf of grey, when I had seen the far-off peaks dissolve into the sky.

I shook Amon's shoulder. "Wake up," I urged, "it's sunrise!"

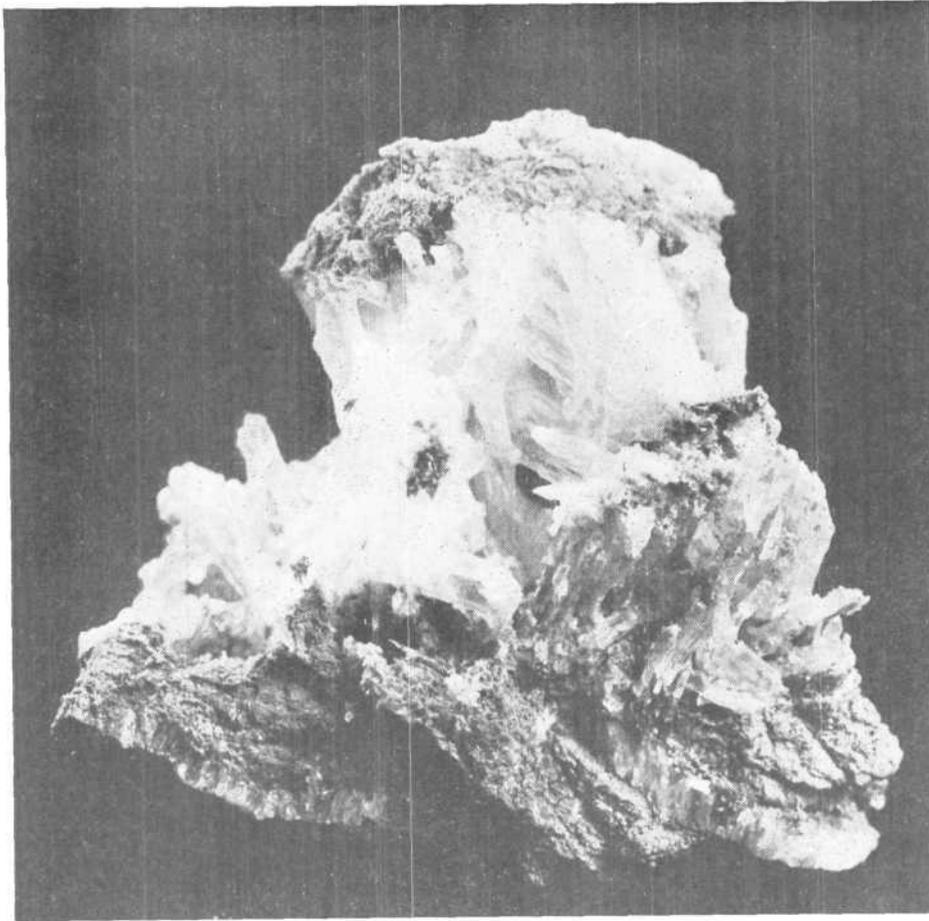
He yawned, stretched out his arms, and then sat up to look. "My," he marveled, "it's sure beautiful, isn't it?"

For one grudging moment I held back. Then "Yes," I admitted, "it is beautiful."

It was!

That was the beginning — the beginning! There can never be an end, for in every visit to the desert I find new lessons waiting. From the twisted Joshuas I am learning more of fortitude. From the yucca — expectancy. From the saguaro — dignity. From the rugged hills — steadfastness. From the small green strugglers on the desert floor — courage and persistence. And in the desert's vastness and in its silence, as in the mountain's song, I am learning how to discard the clutter of my man-made world, and to sense more clearly the ever presence of the Source of Peace.

You see, I too, have learned.



Group of gypsum crystals found in seams in the sedimentary rock near Lake Mead

Field Day with the Boulder City 'Prospectors'

Most folks go to Boulder City to see the world's largest dam and perhaps take a boat trip into the scenic gorge of lower Grand Canyon. John Hilton discovered last month that the Nevada region bordering Lake Mead is also an interesting region for mineral collectors. Here is the story of John's field trip with the Boulder City Prospectors' club—and the finding of specimens of a rather rare member of the quartz family known as plasma.

By JOHN W. HILTON

I had been hearing about the activities of a little group of rock hunters at Boulder City, Nevada, and so when Anita and Don Scott invited me to join their organization on a weekend trip to one of the nearby mineral fields I was glad to accept. Mrs. Scott is secretary of the rock club there.

Of course a visit to Boulder City is not complete without a trip through the dam, and when Don suggested that I accompany him on an excursion into the heart of the great concrete wall which reclamation bureau engineers have erected in Black canyon I was glad to ac-

cept his invitation. As a federal employe he is intimately acquainted with the project.

It took a fine knowledge of geology to build Boulder dam, and the geologists are still active in its upkeep and protection. Diamond core drills are constantly taking samples of the adjacent rock abutments, testing for evidence of pressure strain or water action. Delicate instruments keep careful check of the slightest earth movements, or changes in the internal temperature in the rock of the dam itself.

In the construction of the dam there were a number of problems which are of more than passing interest to gem and mineral collectors. Of course it was necessary to select gravel of a fine and uniform standard of hardness for the concrete mix. The gravels and cobbles of the riverbed nearby did not meet the required specifications. For a time it was thought that the rock would have to be freighted in from some distant part of the country.

Finally, however, a large gravel bar was found upstream where by some strange quirk the river currents had sorted out the harder materials and deposited them in a convenient pile. There was enough rock and gravel at this point to build several dams.

Since only the hardest stone has accumulated in this bar there was a preponderance of quartz minerals. Many of these were of the agate and jasper family and some of them were of gem quality. Workmen often found samples of moss agate, banded agate, carnelian and other varieties of semi-precious stones in the gravel that went into the cement. One of the men in the control room told me that a conservative estimate of the value of gem quality stones poured into Boulder dam would be \$50,000.

Until my excursion into the heart of the big dam with Don Scott I had regarded this structure as just a big concrete plug in the canyon, put there to check the flow of the stream and form a great reservoir. But my guide soon showed me it was much more than that. Boulder dam is a throbbing, living thing—the workhouse of a small army of technicians—a factory where spinning generators turn out millions of kilowatts of electrical energy. As we followed what seemed to be miles of passageways we were always conscious of the vibration caused by thousands of tons of water pouring through giant penstocks. I soon forgot all about that \$50,000 worth of gem stones sealed forever in the concrete walls.

I spent hours in the dam—and saw only a small part of the workings of the project.

Early Sunday morning I met the mem-

bers of the Prospectors' club of Boulder City. This group of collectors completed their organization less than a year ago, but they have a lively and enthusiastic club. At first they considered adopting one of the conventional titles, "Mineralogical Society of Boulder City." But some of them thought the name too dignified for their "gang." And so they simply call themselves "Prospectors."

They have brought together an interesting and likeable group of hobbyists. Among them are engineers, geologists, paleontologists and business executives. But as rock collectors they are all just amateurs in the sense that they seek no commercial profit from their activities in the club. Some of them have home lapidary outfits and all are inveterate rock hounds and traders.

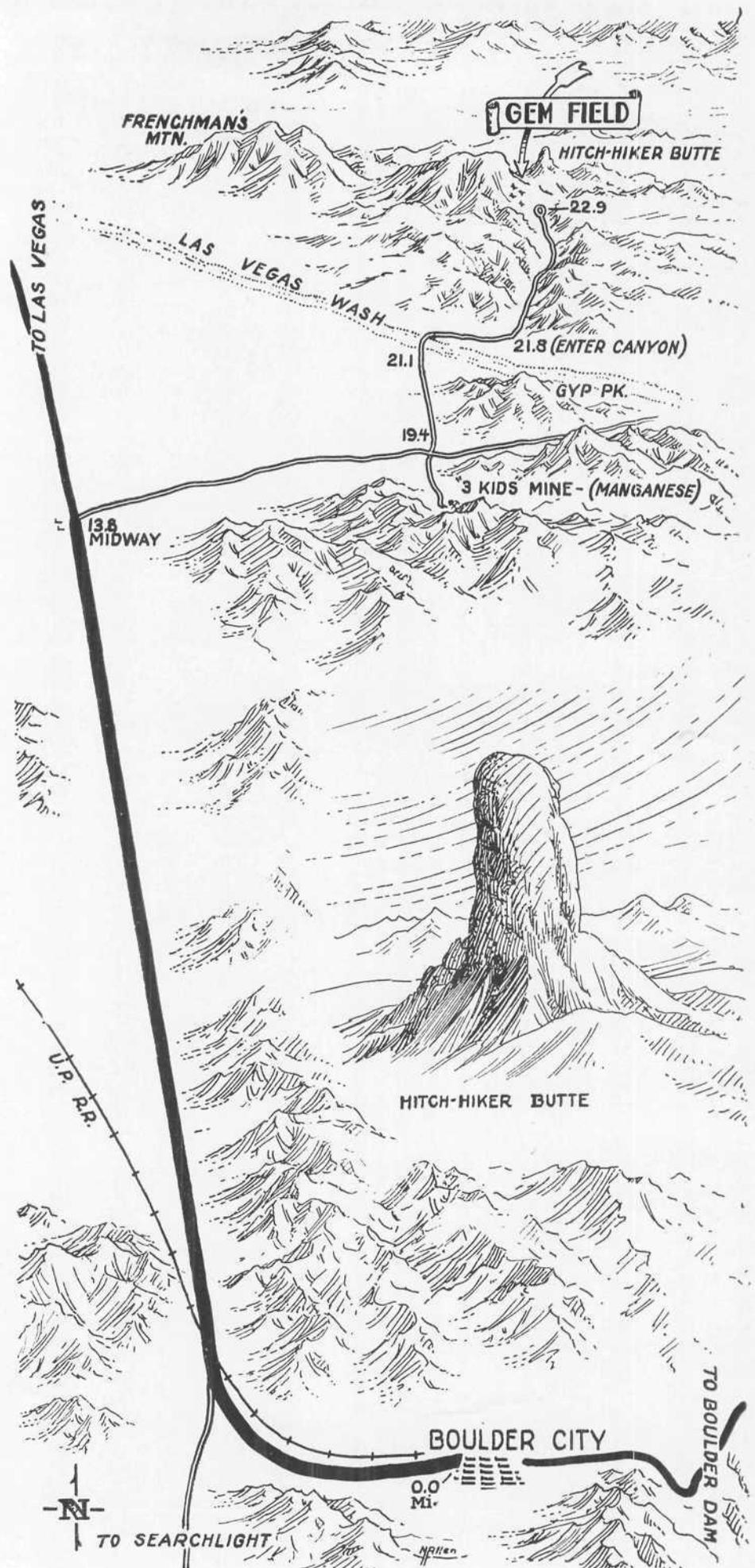
Under the leadership of Bob Sedgwick, president, and Anita Scott, secretary, their group is growing in size and interest. Harry Fuller, a graduate of the Colorado school of mines, is starting night classes under a Nevada state plan of adult education, and most of the members plan to attend the classes. Nevada is a mineral state, and is encouraging its citizens to learn more about its most valuable resource—rocks.

Thirty of the "Prospectors" gathered at the postoffice, ready and eager to be off for a day of collecting in the desert. We took the road toward Las Vegas. At Midway, we left the paved road, taking a sideroad on the right. A few hundred yards along this road we made our first stop to gather a few chalcedony roses. The desert floor is scattered with them for some distance, and although most of them are of the common white or cream-colored variety, a few showed a trace of orange or red coloring.

Presently we left the graded road, turning left on a desert trail that was rough but passable. One of the party mentioned some ancient Indian campsites on the left of the arroyo we were following and we stopped to relocate these. In an outcropping of buff sandstone just a few feet from where our cars were parked were several fine Indian grinding mortars.

The float around this campsite contained several types of agate and jasper but none of these materials seemed to be in place.

Soon we were on our way again, turning right into Vegas wash. Here the road became narrow and bordered on both sides with a dense growth of screwbean mesquite. Another left turn brought us into the mouth of the canyon which was our objective. Ahead was a striking landmark which one of the party laughingly dubbed "Hitch-hiker butte." The profile of this odd formation looked for all the



world like a giant thumb in the customary salute of the highway itinerant.

We stopped our cars in a canyon walled on both sides by upturned sedimentaries. One of the occupants of the car in which I was riding was Paul Brown, electrical engineer in the control room at Boulder dam. No sooner had we parked than Paul was out with his prospector's hammer picking at the bank. Soon he returned displaying a block of sandstone on which were perched twin butterflies of crystallized gypsum or selenite. This was the cue for the rest of us and we all spent a little time securing specimens from the parallel seams in the sediments where it probably had been deposited on some prehistoric dry lake bed.

Leaving the canyon we hiked to a low mesa on the left where the formation was capped with a recent sedimentary conglomerate of pebbles of all sorts cemented by a soft limestone into the type of rock commonly called "pudding stone." According to E. T. Schenk, paleontologist in the national park service, who was a member of our party, some of the pebbles weathering out of this sedimentary are of great geologic age. They contain crinoids and corals of the paleozoic period. I recognized some of these pebbles as probably coming from the same source as the fossil cherts and agates found farther down the river near Blythe. These were described in the *Desert Magazine* of November, 1938, under the heading "Beach Combing on the Desert."

As we approached the base of the hills to the left of the cars we began finding pieces of agate and jasper float. One of the Prospectors picked up a crystal-lined geode and later several others were found. Farther up the hill we found geodes weathering out of the mother rock. What first appeared to be green jasper turned out to be a slightly translucent variety of green quartz known as plasma. Here and there we found small pieces of the type known as bloodstone. They contained small blood red markings. The most common type found in

this area, however, is a green plasma in which the markings are purple or wine-red. Some of these markings were in the form of wavy bands, and in others the colored spots are the orbicular or birdseye type. Here and there the birdseyes were grey or white, and in some places they were spheres of translucent agate. All of these types make very nice cutting material and are by no means common among collectors' items.

About two-thirds the way up the hill the plasma began appearing in large pieces, some of them as much as a foot across, and higher up the slope we found it in place, occurring in bands and seams of varying widths.

While all of the plasma is not good cutting material, there is an abundance of this gem rock in the field—certainly enough to supply all the amateur collectors and cutters who may come this way for many years. The surrounding area appears to have good geode possibilities and there is an old manganese deposit called Three Kids mine in the vicinity.

Gypsum appears to be a widespread mineral in this locality and some of the collectors in Boulder City have crystals several feet in length. The finest of these are found on the shore of Lake Mead and can be reached only by boat. This is not a handicap to the local collectors, however, as some of them have boats of their own and use them as much for prospecting as for fishing.

Although there are not many mineral deposits in the immediate vicinity of the dam which may be classed as valuable from a commercial viewpoint, there is a great variety of small mineral outcrops that will bring joy to the heart of a collector.

Following the field trip I had the good fortune to accompany E. T. Schenk of the park service on the trip up the lake in one of the fine motor launches operated by Grand Canyon-Boulder Dam Tours, Inc. It is 115 miles from the dam to the head of the lake, and never in my life have I viewed so much rugged beauty in so short a time. Such a trip is a double

pleasure with Mr. Schenk as a companion. To the average visitor on Lake Mead the rugged canyon walls are fine scenery—but to my guide on this trip they are the open pages of a geology book. His explanation of their origin and composition is a fascinating story.

No foliage hides the beauty of line or color on the slopes and precipitous cliffs bordering Lake Mead. At one point my companion called attention to a large mass of sedimentary hills on both sides of our course. These, he explained, are intermountain sediments of the Pliocene age and were formed originally much the same as the small valleys which now appear between low mountain ranges in the Mojave desert. The only difference is that erosion has crosscut them and exposed their entire structure for study.

As we progressed through this area we could see these sediments change from the fine silts, clays and saline deposits typical of the low point on dry lake, to the coarser marginal gravels of the slopes. Then as we neared the pre-Cambrian rocks that once formed the mountain range, now almost buried in sediment, we could see large angular boulders imbedded in the cliffs, much as we would find if we were to take a cross-section of a desert alluvial fan today.

Finally we reached a point which Mr. Schenk informed me is the probable source of the fossil pebbles we had found on our field trip the previous day. Here a giant uplift of Paleozoic limestone and chert is weathering away, exposing fossils of crinoids and many other ancient life forms.

Presently the cliffs of Grand wash came into view, and I was informed that these mark the western end of the great Colorado plateau.

We stopped for lunch at beautiful Emory falls. Here I encountered a striking example of the erosive power of Nature. In the December number, 1939, the *Desert Magazine* carried a picture of these falls, showing the water pouring over the top of the cliff and dropping vertically to the surface of the lake. Since

Continued on page 27



Boulder City "Prospectors" tramp the desert hills in quest of rare specimens of rock and mineral.



This huge Indian mortar in sandstone was found at one of the ancient campsites near Lake Mead.

Hopi

By

JOHN STEWART MacCLARY

Photograph By

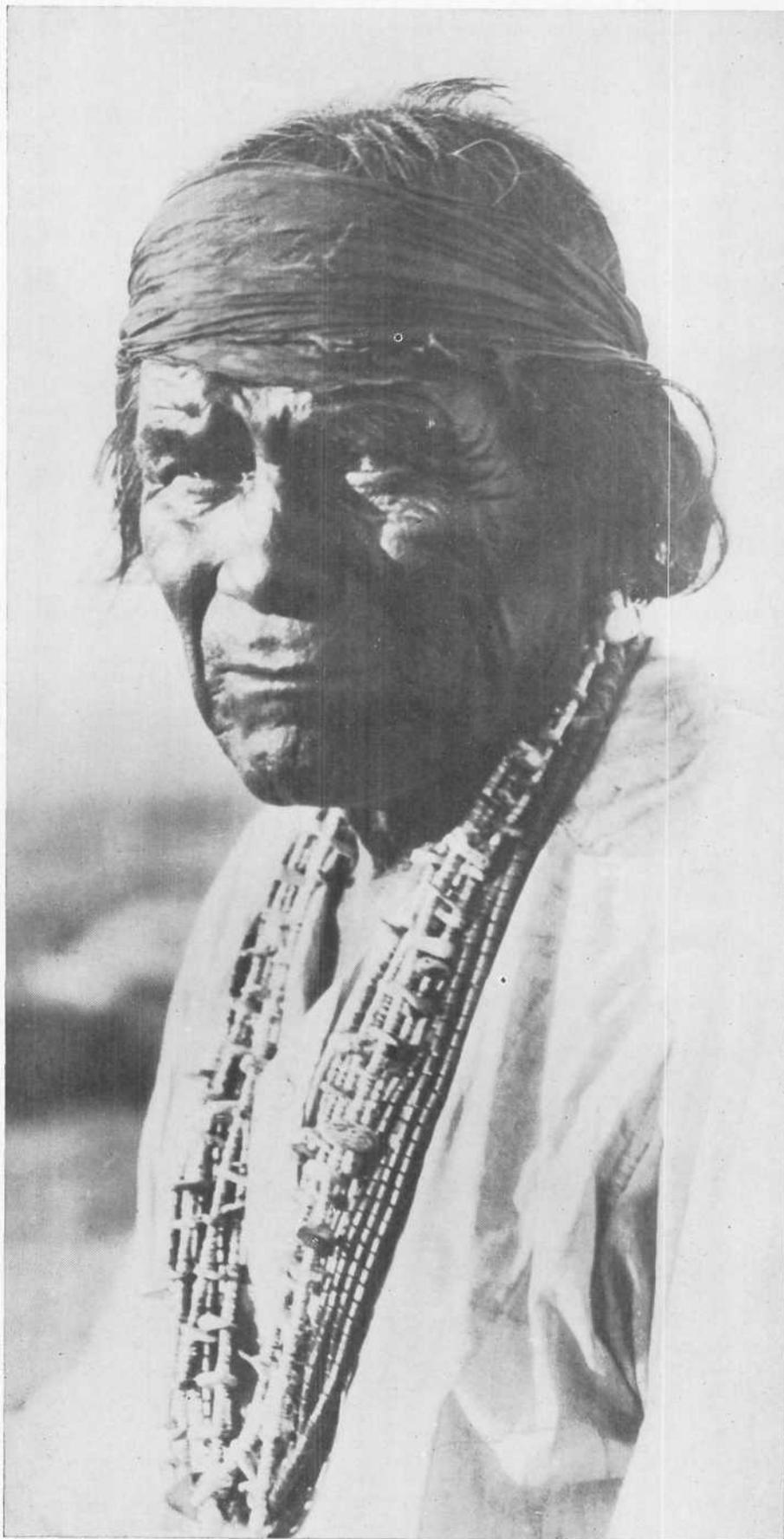
WM. M. PENNINGTON

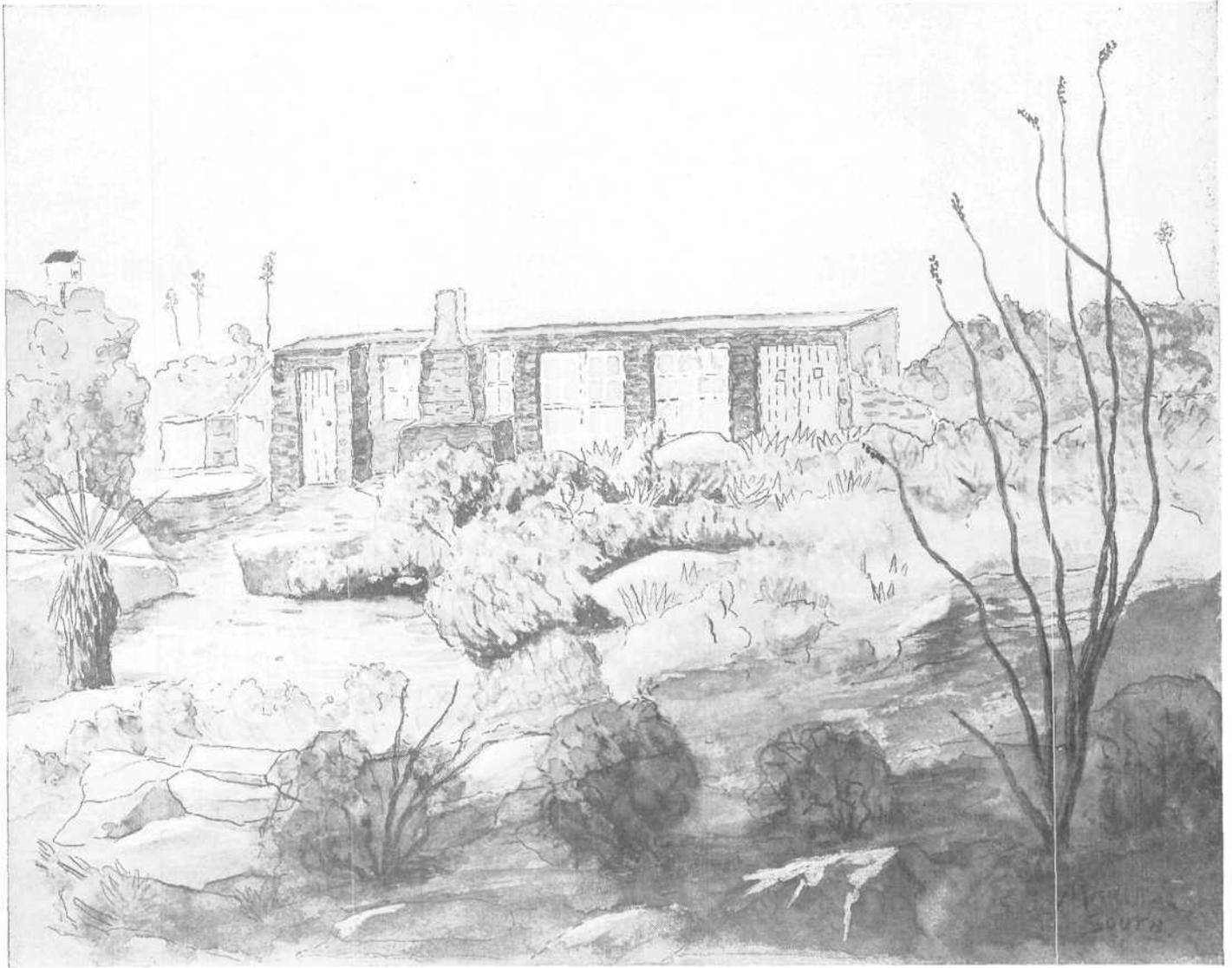
TENDERFOOT visitors call his race Hop-eye, Ho-pie, or 'most any other variation possible to these four letters. This man and his clansmen refer to themselves as Hopitu, pronouncing the word as **hoping** with the last two letters omitted.

Early Spaniards and later white Americans referred to the race as Moqui — "the dead ones." That name arose from the similarity existing between the pueblos they inhabit and the ruins which dot the region where these people live. Until near the beginning of the present century the name Moqui was used on maps and in books which referred to the region and people. These people are considered the world's greatest dryland farmers.

The tribal name literally means "the Peaceful Ones." Surrounded by raiding Navajo, this name was at least a distinction. But the greatest distinction enjoyed by this tribe comes from the custom of dancing annually with snakes in their mouths.

No swing music and jitterbugs are included in this pagan dance. And, although observers frequently have seen the striking fangs of the rattlesnake pierce the bare skin of the dancer, no lethal effects are experienced. The secret of this fact is jealously guarded.





Announcing **DESERT DIARY**

Yaquitepec on Ghost mountain. This is a reproduction from a water color painting by Marshal South, and shows his mountain-top home as it will appear when finally completed.

When the early years of the depression brought financial disaster to Marshal South, he and his wife Tanya loaded their few belongings in an old car and turned their backs on the coast city where they lived.

They followed a trail that led out into the Southern California desert, and when the road ended at the base of a mountain along the western rim of the great Cahuilla basin they climbed to the summit — and that was their new home. Yaquitepec they called it.

There was neither shelter nor water on the top of Ghost mountain—but they built a crude camp of the materials at hand and carried their water from a spring at the base of the hill. During the first few months they virtually lived off the country—as did the Indians before them.

Today they are still living on Ghost mountain

—but gradually through the years a substantial adobe cabin has been taking form. And now there are two little brown-skinned lads, Rider and Rudyard, who have never known aught but the clear air and freedom of a secluded desert mountain retreat.

Both Marshal and Tanya are writers. The story of their experience at Yaquitepec appeared in the Saturday Evening Post more than a year ago under the title of "Desert Refuge" and attracted widespread interest. Later it is to be published in book form.

During 1940 Marshal South will write for the Desert Magazine. His **DESERT DIARY**, starting in this issue, is to be a month by month story of an American family virtually living a Robinson Crusoe life on a desert mountain top within 200 miles of Hollywood.

January at Yaquitepec

By MARSHAL SOUTH

HERE is always something tremendously exciting about beginning a New Year. Especially in the desert. Here at Yaquitepec we don't make "resolutions"—out in the brooding silences of the wastelands one doesn't need to bolster confidence with such trivial props. But every time January first rolls around we greet it with joy. It is the beginning of a new page; a page of some fascinating, illumined parchment. An ancient page, but to us, still unread. What will it hold? The desert is full of mystery and surprise. No two years are ever the same.

And New Year's Day is always an event. Perhaps it is because it draws added lustre from the recent memories of Christmas trees and the mysterious visit of Santa Claus. Yes, Santa comes to Yaquitepec. Silently, in the dead of night, his gold-belled reindeer speed between the swaying wands of the ocotillos and the tall, dry stalks of the mescals and whisk his gift-laden sleigh to the summit of Ghost mountain. And always, when the old saint comes to stuff the stockings of the two little tousledheads who dream on expectantly, he finds a decked Christmas tree awaiting him. The Christmas trees of Yaquitepec are carefully cut branches of berry-laden mountain juniper. They are never large—for we are jealously careful of our desert junipers. But what they lack in size they make up in beauty. The white clusters of berries glisten against the dark, bunched green of the tiny branches. And the silver star that does duty every year at the tree tip sparkles in rivalry with the shimmering, hung streamers of tinsel.

The little desert mice, which scamper trustfully and unmolested in the darkness of our enclosed porch, explore timidly the rustling crepe paper and greenery piled about the base of this strange, glittering spectacle. And I am sure that the old Saint, as he busies himself at his task of filling the two big stockings hung before the old adobe stove, must pause often to glance at the gay tree and to smile and chuckle. Yes, Christmas is a glad time at Yaquitepec.

And New Year is somehow a joyous finale of the glad season. A wind-up and a beginning. And it doesn't matter much whether the wind is yelling down from the glittering, white-capped summits of the Laguna range and chasing snowflakes like clouds of ghostly moths across the bleak granite rocks of our mountain crest

or whether the desert sun spreads a summer-like sparkle over all the stretching leagues of wilderness. New Year's day is a happy day just the same. The youngsters, eager in the joy of a lot of new tools and possessions, are full of plans. Rider, desert-minded and ever concerned with the water question, is usually full of ideas concerning the digging of cisterns. Or perhaps with the manufacture of a whole lot of new adobe bricks. Rudyard, with all the imitative enthusiasm of two whole years, follows eagerly in big brother's lead. He is fond of tools, too.

One of his cherished possessions is an old wooden mallet . . . "wooda hammah," which he wields lustily upon anything conveniently at hand. And prying into Rider's toolbox and helping himself to punches and hammers and saws and nails, is his favorite indoor sport.

"Don't you get lonely, away up here on the mountain?" visitors ask sympathetically at times. And they stare when we laugh at them. Lonely! How is it possible to be lonely in the desert? There are no two days the same. Always, on the mighty canvas of the sky and the



Tanya gives Rider and Rudyard a lesson in the art of weaving baskets from the shredded fiber of mescal which grows plentifully on Ghost mountain.

stretching leagues of the wasteland, the Great Spirit is painting new pictures. And constantly, through the tiny thoroughfares and trails of our world of mescals and rocks our wild creatures hurry. The flowers have gone now and the chill of winter is in the air. But life goes on just the same.

Coyotes range their beats with nightly regularity. We have been officially placed upon the coyote highway system and almost every night they come to sniff about our cisterns and to nose over the ash dump in search of possible eats. And sometimes grey foxes wander in on friendly calls. The snakes have holed up and the lizards are mostly all hid out. But owls come and sit on the corner of our *ramada* at night and regale us with woeful discourse. And the white-footed mice are always with us. There is something amiable and companionable about a white-footed mouse. Long experience with us has given them confidence. They slip in and out in the evenings like cheery little grey gnomes; squatting on the edge of the great adobe stove and nibbling tidbits, held daintily in their forepaws, while their big, beady, black eyes watch us attentively.

We have our birds too, though not the population of spring and summer. But quail whistle at times from the distance of the rocks and shrikes chatter advice from the summits of dead mescal stalks. The world moves on slowly but surely towards spring. The new grass is green in sheltered nooks and, already, some of the early fishhook cacti are putting out their flowers. The fishhooks are temperamental. If they feel like it they will flower, in defiance of seasons or regulations.

The house is bigger this year than it was last. Yaquitepec grows slowly. Almost everything in the desert grows slowly; and, like all the rest, our housegrowth is controlled chiefly by water. When there is water in plenty there is adobe mud for walls. And when the cisterns are low, building necessarily has to stop. But the heavy walls are slowly replacing all the temporary ones. And we have a new window on the desert this year through which the winter stars can shine by night and through which, each dawn, we can watch the winter sun come up, red and swollen like the gilded dome of some great mosque, across a dim horizon that is studded by the phantom shapes of the Arizona mountains.

We like to sit in our window seats at dawn and sunset. It is then that the desert is most beautiful. The old sea bed, where once rolled the headwaters of the

Vermilion sea, is still a ghostly memory of its former state. And a memory not too dim, either. At dawn all the hollows of the badlands swim with misty haze that startlingly suggests water. And when sunset flings the long blue shadow of Coyote peak far out across the dry reaches the effect is breath taking. There they are again, all those ancient bays and winding gulfs and lagoons. And beyond them the purple grey of the great sea. It is not an illusion that is part of our own make-up.

Recently we had a visitor, a young scientist from the east whose pet study is desert insects. He sat with us one evening and gazed out over the lowland desert, and marvelled. "It's a real sea," he said in puzzled bewilderment. "Why, I can see the play of the wind on the water, and the streaks of tide-rips!" Truly mystery broods in the desert. It is not hard,

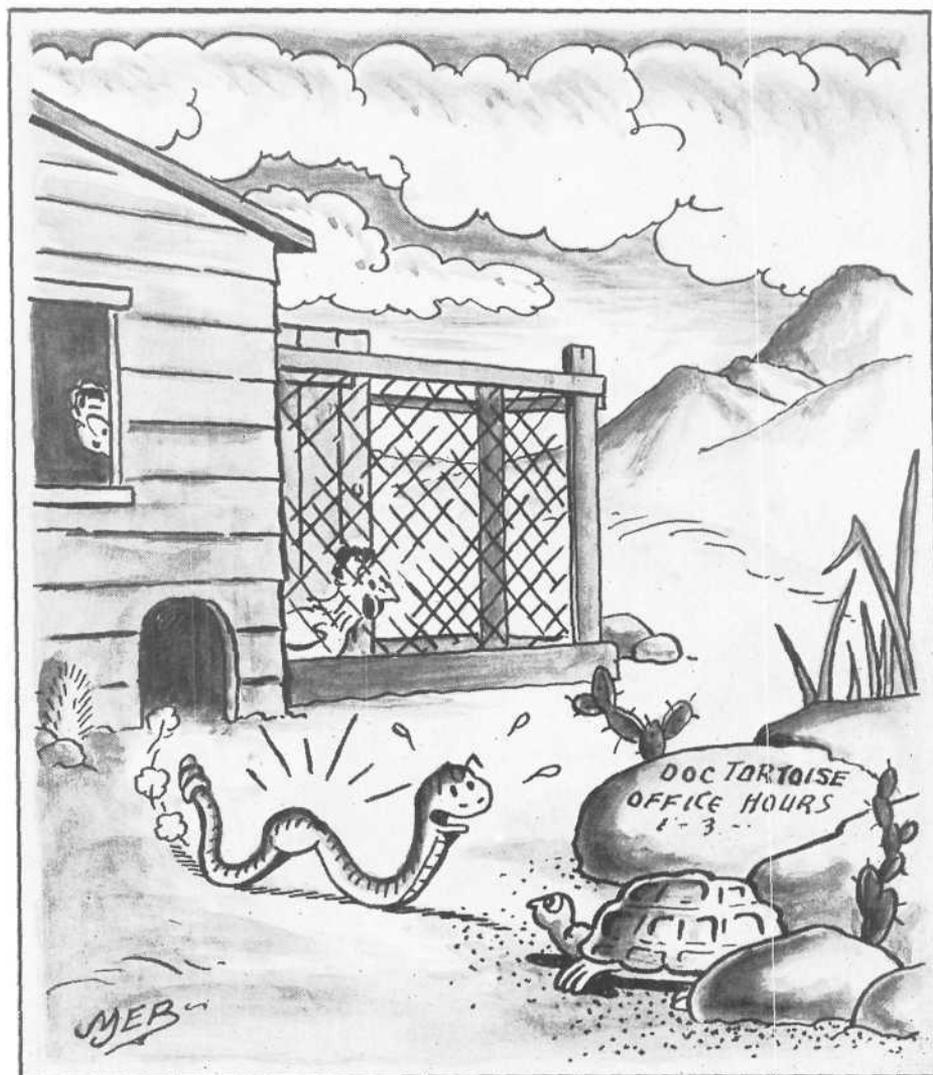
gazing out across the phantom bottoms, to give credence to the story of the ancient Spanish galleon that legend has it lies rotting parched timbers somewhere amidst the sand dunes.

Desert mystery—and a new year in the dawning. "It will be a good year," Tanya says confidently, as she proudly takes a huge tray of golden-brown whole-wheat biscuits out of the great oven. "Rudyard is two years old now, and Rider is six. The garden is ready for spring and the cisterns are full. It will be a good, happy year for work and for writing." And she sets aside her pan of biscuits to cool while she snatches up a pencil to scribble the first verse of a new poem. Fleeting inspirations must be promptly captured—and she is a conscientious poet as well as a desert housewife.

But she is a good prophet also. Yes, it will be a good year.

SIDEWINDER SAM

By M. E. Brady



"Quick Doc, the bicarbonate! I just swallowed a China egg by mistake."

Once each year the gods of the Hopi Indians come down from the high San Francisco peaks in northern Arizona to visit the mesa pueblos and impart knowledge to certain chosen leaders of the tribesmen. The gods are invisible, but their spirits are symbolized by weirdly costumed dancers who take part in certain tribal ceremonies. They are the Katchinas and are known to the white people mainly through the grotesque little wooden images sold at all Indian curio stores. No one, not even the Hopi themselves, knows how many Katchinas there are—new ones are being created and old ones discarded in each generation—but they have a deep significance in the life of this Indian tribe. Here is a story of the Katchinas as told to Mrs. White Mountain Smith by one of the craftsmen who makes Katchina "dolls."



Ka-Wah-Yu, Katchina craftsman, and his wife, Lena Blue Corn, who is a skilled pottery maker. Photograph by Frasher.

Hopi Gods in Masquerade

By MRS. WHITE MOUNTAIN SMITH

IN the ancient village of Hano, perched on the Mesa of Walpi, where the Hopi Indians built their homes so many centuries ago no one can say just when it was, Ka-Wah-Yu patiently rubbed a small wooden image with a rough stone. As he worked he tried to tell me just what a Katchina means to the Hopi people.

We were sitting on the low doorstep of his modest dwelling in the ancient pueblo overlooking the northern Arizona desert.

Ka-Wah-Yu is Hopi for watermelon, and in school he was called Victor

Watermelon. He is famous as a maker of the little wooden "dolls" which play such an important role in the daily life of the Hopi. Small and quiet, with a serious face and steady eyes and hands, there is little to attract attention to this modest artist until he speaks. His voice carries the strength, the determination and the tragedy of the Indian race.

"When I was a little boy my father and mother died with smallpox brought to our country by white people, and I had only my old grandfather to care for me. He made the Katchina dolls deep in the kiva, and no white person ever saw them

being made. Very few children saw them, either, because the little painted dolls were given to good children by Katchina dancers and were supposed to be mysterious gifts from our gods. But I sat always with my grandfather in the kiva, and when he went out into the desert places in search of cottonwood roots, the only wood used to make these images, I went with him. He dug deep into the sand to find dead roots and loaded them on the back of a burro and brought them back to the mesa with us. All about our mesas the cottonwoods are hard to find. Why, for these Katchinas I'm making

now I drove all way down to the Little Colorado river and then I found only a few roots that are fit for the gods!"

Then he went on to tell me how droughts killed the young trees before the roots were large enough to be useful.

"Tell me," I asked him, "just what are Katchinas. The white people who buy these little figures are told they are 'lucky dolls' and they tie them in their cars like southern people do rabbit feet. I want to know what your people think a Katchina is!"

"They are 'pictures' of those who have listened to the gods," he answered.

"Yes, but tell me more about them. Who are those who have listened to Hopi gods, and what part do they play in your daily life?"

"To begin with, Katchinas are Hopi gods who live on top of the San Francisco peaks, and they watch over the Hopi people every hour of the day and night. Their spirits talk to certain chosen men of each clan and give advice about everything. Part of the year these gods come to the Hopi country and personally inspect things. Since they are invisible to ordinary humans, their earthly spokesmen dress up like them and dance and feast and receive the homage belonging to the real gods. They listen to the older people tell whether the children have been good or not, and in July before they depart to the peaks to stay until the following January, they bestow these painted replicas of themselves upon the children. Each household has one or

more Katchinas tucked away among the age-old rafters as a sort of guardian of the peace and happiness of those under its care. When a Hopi child is taken away to school it is given a Katchina as a good luck companion. Katchinas are to us what white people call Santa Claus."

Victor seemed to have exhausted his fund of information, so I watched silently while he went on manufacturing one of these pseudo gods. He had made it plain to me that there is nothing of a religious nature attached to the dolls.

With a sharp jackknife he roughly outlined the shape of a human figure in the soft light wood. Then carefully he whittled out the arms, usually folded across the breast. Only a knife and a rough rubbing stone are used in shaping the Katchina.

Victor said the first Katchinas he saw his grandfather make were painted outlines on a smooth surface. Many years later he obtained a knife and then he cut out the outline and painted it, but still the doll was flat. Before his death, however, his grandfather learned how to make a rounded figure and shape the features. The little images could not be bought in those days. They were made only for the gods to bestow on worthy children.

After the doll was shaped Ka-Wah-Yu took an oblong piece of sandstone and rubbed the figure until it was compara-

tively smooth. It was ready then for painting. He told me that he had no paints mixed, and that each figure must have six colors on it.

"In the days of my grandfather he made his own paints. The black was corn-smut, and the white kaolin (clay). The reds were pulverized iron ores, the green from malachite or copper and the yellow a pigment found on the desert.

"The white coat which covers the entire image is put on first. My grandfather would fill his mouth with the mixture of water and white clay and spray the coating on by blowing it through his lips.

"But now I get dry paints and mix them with oil from watermelon seeds. They do not peel or rub off like they would if mixed with water."

"What do the symbols on each Katchina mean?"

"Sometimes the symbols show what clan the Katchina belongs to. These are usually butterflies or clouds or rainbows or rivers or snakes, or maybe mountains. Squash blossoms and corn stalks are frequently used. I belong to the Coyote Clan and my wife Lena to the Katchina Clan so I use lots of our symbols. And you see I always put a little green watermelon on the bottom of each Katchina I make. That is as if I signed my name. Everybody knows then that Victor Watermelon shaped and painted the Katchina. You

Hopi Katchina dance as reproduced for the Milwaukee Public Museum. Photograph courtesy of the Museum.



see, too, on nearly every Katchina, a painted kilt. Katchina dancers always wear these kirtles of cotton, woven and embroidered by the priests in the kivas. The Katchinas are given to the children to illustrate the legends of our people so when the time comes for them to take part in the dances they will know the whole story. They join the dances when they are seven or eight years old."

Victor did not tell me this, but from other sources I learned about a very special Katchina presented in rare cases to Hopi women. A childless wife can appeal to the gods for children and when the "going away" dance is ending she is handed a little wooden figure, carved to represent either a boy or girl as she may desire. She is to keep this always with her until her child is born and then the Katchina is considered to be the very heart of the baby and is carefully preserved in order that it will not be lost or destroyed and thus bring misfortune on the infant. Should the child die, the wooden doll is wrapped in the shawl with the little corpse and buried among the crags of the mesa.

Another type of Katchina is the very fine little figure made to decorate the graves of eaglets killed to procure down feathers with which all Katchinas and prayer sticks are ornamented. The young eagles are caught in the spring before they leave their nests and brought to the village. At a certain time they are killed by pressure on the breastbone to prevent bloodshed, and every feather is stripped from the body. Then the carcasses are buried in a private cemetery kept for that purpose, and each grave has its own Katchina.

Eagle down feathers and Katchinas are closely connected with the ceremonial life of the Hopi. Never a prayerstick is placed on a shrine without its bit of down floating in the breeze. Upon these bits of down are borne the souls of the departed as they wend their way to the underground home of souls in Grand Canyon, so it behooves the Hopi people to treat the dead birds with proper respect.

Victor told me he helped his grandfather find wild honey to feed the eagles when he was a small boy.

"Honey? Where in this desert would you find honey? I never see a bee around the mesas except at peach drying time!"

"Ah, and that is just the time we find the honey. We watch the bees until we think they are about ready to leave the drying peaches and then we toss a handful of very fine meal or flour on them. They make haste to get away and they look like tiny snowballs as they wing their way homeward. We boys used to run like scared rabbits to keep them in sight and locate their hive in some dis-

tant ledge of rocks. Then we stayed there until the slower old men arrived. They lighted twisted hanks of wild cotton and let it smoulder in the entrance to the crevice until the bees were stupid, then we dug the soft clay aside and carefully lifted out a slab or two of comb filled with dark sweet liquid. The rest we left to keep the bees from starving during the winter. When we returned to the kiva with the honey it was mixed with sacred pollen and meal and rolled into little balls which we fed the eaglets just

before they were killed. It makes their down feathers much more effective!"

"How can one tell the 'good luck or safe journey' Katchinas from the others? I want to send some to my friends."

"They are all good luck Katchinas. We do not have a Katchina that represents an evil thing or thought. Our gods are kind and benevolent!" he said.

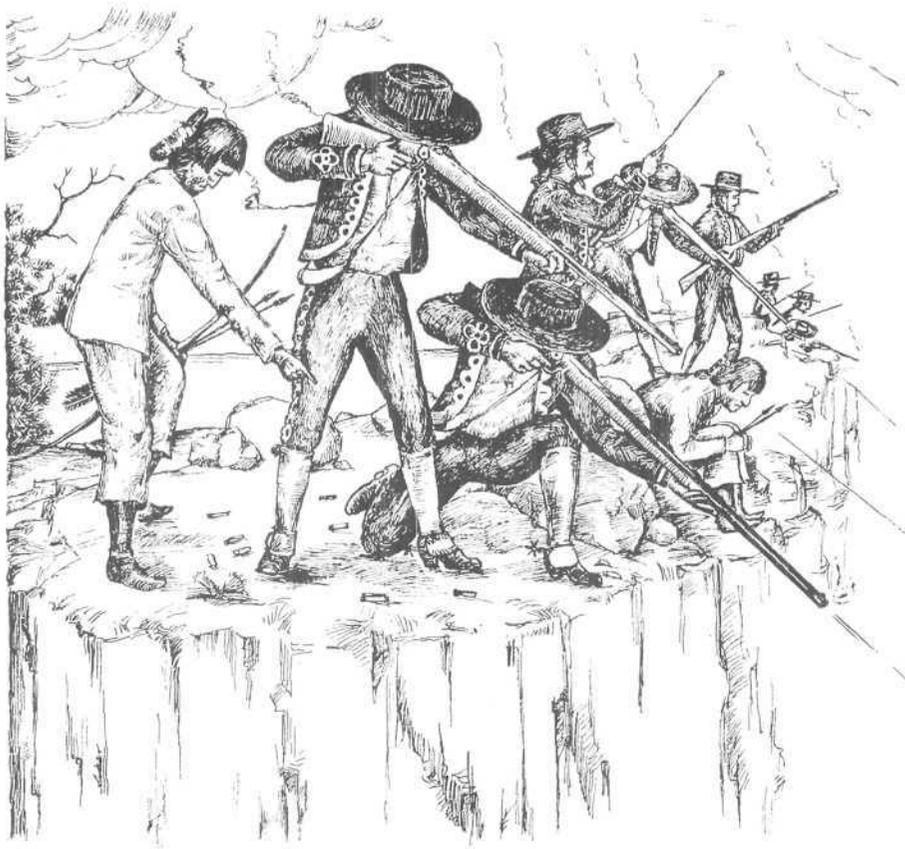
And I left him there, painting with inspired fingers the tiny dolls, emissaries of benevolent gods watching over the Hopi people.

TRUE OR FALSE

One of the New Year resolutions adopted by the Puzzle Editor of the Desert Magazine was to make his

questions easier during 1940. So here is the first installment of "easy ones." The test includes the same wide range of subjects, however—botany, zoology, geography, history, mineralogy and Indian lore. If you can answer 10 of these correctly you are a well-informed student of the desert. A score of 15 automatically initiates you into the fraternity of dyed-in-the-wool Desert Rats. There should be a few extra well-informed persons who will make a score of 15 or better, and thereby acquire the degree of S. D. S. (Sand Dune Sage). Answers are on page 29.

- 1—Horned toads are not toads at all, but belong to the lizard family.
True..... False.....
- 2—The north rim of the Grand Canyon is higher than the south rim.
True..... False.....
- 3—The burro is a native of the Southwest desert. True..... False.....
- 4—Native Joshua trees of the Southwestern desert are found only in California.
True..... False.....
- 5—Elephant Butte dam is located in the Colorado river. True..... False.....
- 6—Historians generally agree that the first white man to set foot in Arizona was Marcos de Niza. True..... False.....
- 7—First soldiers to be stationed at the Yuma crossing on the Colorado river were from the U. S. army. True..... False.....
- 8—The gem mineral known as Kunzite generally is lilac in color.
True..... False.....
- 9—Squaw cabbage is the name of a vegetable cultivated by the desert Indians.
True..... False.....
- 10—Tally rock was used by the Apache Indians as a calendar stone.
True..... False.....
- 11—Roosevelt dam was named in honor of President Theodore Roosevelt.
- 12—A majority of the cliff dwellings found in the Southwest are made entirely of adobe mud. True..... False.....
- 13—The Navajo Indians started their sheep herds by domesticating the wild mountain sheep native of the Southwestern mountains.
True..... False.....
- 14—The author of the book Mesa, Canyon and Pueblo was Chas. F. Lummis.
True..... False.....
- 15—The Arches national monument is in Utah. True..... False.....
- 16—John Wetherill, now living at Kayenta, Arizona, led the first party of white men to visit Rainbow Natural bridge. True..... False.....
- 17—The four states which meet at the famous Four Corners are Utah, Colorado, Arizona and Texas. True..... False.....
- 18—Mexican Hat, Utah, derives its name from an odd-shaped rock formation in that region. True..... False.....
- 19—The Mexican name for Ocotillo is Hediondilla. True..... False.....
- 20—The present Salton sea was filled by flood waters from the Colorado river in 1911. True..... False.....



Tsosi Tells the Story of Massacre Cave

By RICHARD VAN VALKENBURGH

Illustration by Charles Keetsie Shirley
Navajo Artist

"**H**OLA! Ay dóya ch'onda!" Old Hosteen Tsosi, the Very Slim One, muttered as he peered through the firelight into the black hole that yawned in the face of the Canyon of Death. Red glow of the fire made his age-furrowed face shine like a dried apple cast in bronze. There was fear in his quavering voice.

"He says that he don't want nothin' to do with that cave up there. He don't know nothin' about it . . . only that it's a bad place for Navajo to be foolin' around," said Chee Anderson, my Navajo interpreter.

Chee and I had left Fort Defiance, Arizona, the evening before. After a 45-mile trip through the Ponderosa pine forest of the Defiance plateau, we had

camped under the cottonwoods at Chin Lee. Early in the morning we had picked up Ranger Doug Harrett and Hosteen Tsosi, the Shooting Chant Singer.

We had followed the shifting channels and deep sands of the main Canyon de Chelly for six miles. Here, at the junction of the canyons, we swung left and entered the towering red portals of Canyon del Muerto. Fifteen continuous miles of hairpin turns brought us to Mummy cave. Then, parking our car we walked three hard miles through a canyon bottom slashed by deep arroyos. It was dusk when we made camp under a large cottonwood tree at the foot of Massacre cave cliff.

The deep silence of the vast canyon

The Mexican version of the Massacre cave episode in 1805 has long been a matter of record. Unfortunately, the Navajo side of the story has been preserved only as a tale repeated from generation to generation in the hogans of the Indian tribesmen. Before his death last May at the age of 88, Tsosi told the details of the massacre as they were repeated to him by his grandmother many years ago. The story is presented here with the author's own conclusion as to its authenticity.

was shattered by the chant that broke from Hosteen Tsosi's thin lips:

*Tcindis, Evil Spirits of the Dead
Go Away!
For with me
I carry the Holy Power
Given the Navajos
By the Enemy Killers
To Drive away Evil Spirits.*

"He sings for protection against the devils in that cave up there. I'm glad he chants 'Evil Way.' I'm a little jittery myself," said Chee.

Our trip up the canyon had been tiresome. It had been hot in the boxed walls. Doug and I soon rolled into our blankets, but Hosteen Tsosi and Chee sat like graven images, except when their eyes would shift and stare up to the dark slit of Massacre cave. Drowsiness came from the monotony of the weird rhythm of Hosteen Tsosi's song, and I fell asleep, to the sound of Chee's deeper voice joining the falsetto of the old medicine man.

The reflected rose-glow of sunrise awakened us. After a quick cup of coffee we were ready to start up the forbidding talus and slick rock ascent to the cave. We hurried, for we wished to get above the still air of the canyon bottom before the sun started to beat directly down upon us.

"Ask Hosteen Tsosi if he is going up with us," I said to Chee.

"Dó taa ya!," grunted the old man.

"He says, NO! Why should he pay other medicine men for a Devil Driving ceremony to drive out the evil spirits of those dead Navajo up there? But I'm going up . . . even if I am a little bit scared."

The climb was stiff. There was no trail over the tricky talus and smooth sandstone. Sharp weeds snagged us. When my lungs were about to burst and black diamonds began to dance before my eyes, I rested under the shade of a stunted juniper tree. Hosteen Tsosi, watching us from the top of a large rock, was singing

a Blessing Way song that drifted faintly to our ears:

*On all four sides of us
Lies Danger
Above and Below us
Evil Spirits await.*

*Holy People
Give your blessing
To guide our feet
In the blessed Path of Beauty.*

Doug was in front breaking trail when he turned and called back, "Van, here's a grave under this pile of stones."

I moved up. Sure enough, it was a Navajo grave. A broken saddle pommel and a few faded fragments of red and black blanket were mixed with chalky bones under the rocks.

Chee had climbed by a detour and sat on a rock far above us. He wanted no part of the grave. Eight years at Albuquerque Indian school had not completely erased his inbred Navajo superstition of the dead.

Before long we sat at the base of the sheer and overhanging wall that forms the north rim of Canyon del Muerto. Hosteen Tsosi was a tiny black speck far below us. The south rim was a line between the black-streaked red canyon wall and the crystal infinity of the turquoise blue sky. Back of us was a shallow long cave or rock shelter. The view to the west was blocked by a sharp promontory jutting out into the canyon.

We moved into the shadow of the 100-foot long cave and threaded our way through large boulders. Powdery dust crackled at every footstep. My foot caught on something. I looked down. It was a human thigh bone. We had been literally walking on human bones. The whole cave floor was lined with broken skeletons. But 135 years of

weather and pack rats had done their work of destruction.

I glanced above me. Where the cave wall sloped inward, I saw rough concavities strongly contrasting with the natural red of the sandstone. I said to Doug, "Those look like musket ball marks to me."

Doug had been scratching in the floor dust. From his crouched position, he answered, "Van! Look, I have one, here in my hand that I just dug out. Boy! They used large bored muskets. Those balls ricocheted down into those poor devils. The angle of the marks indicates that they were shot from that projecting point in the west. They must have slaughtered them like cattle."

Fragments of tiny moccasins, cradle boards and squaw dresses brought to us the stark horror of the massacre. These were not men's things, they had belonged to women and children. As we went down the cliff, we were quiet. We could not joke about Hosteen Tsosi's dread of Massacre cave.

The old man had moved off his rock and sat under a tree smoking a corn husk cigarette. When we came up he said with a soft voice, "Now, that you have been up there, do you want me to tell you what really happened?"

"Of course I do," I answered.

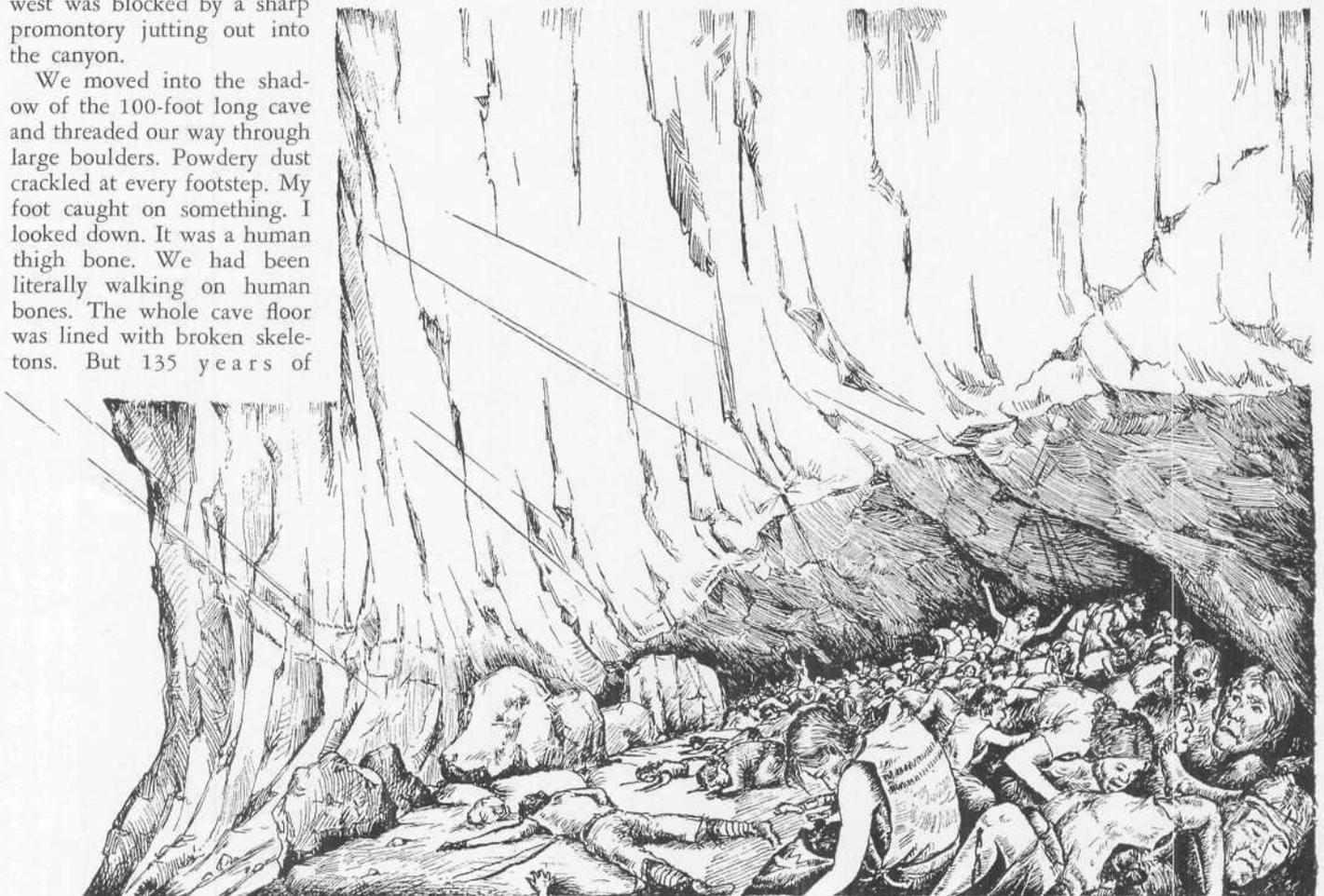
"*Djii ni*, old grandmother told me this. She was there. It happened more than 'one-old-man's-life-ago.'

"Many Navajo lived around here then. Late in the fall, or about time the big winds came, the men would go on a deer hunt in the Lukachukai mountains. They would have important Blessing Way ceremonies while they made the hunting gear. When they arrived at the hunting grounds, great corrals were made of logs and the deer driven into them.

"It was early winter. The snow was just starting to crust. All of the able-bodied men were away hunting. Only the women, children, and a few aged or crippled men were in the hogans.

"Early one frosty morning, an old woman came screaming up the canyon. 'The Mexican soldiers with Zuñis are at *Cb'inlé!*' (present Chin Lee, Arizona) 'Mothers clutched their babies in their cradleboards. The young and strong helped the crippled and aged. They all started up the canyon to hide in that cave you just visited. In those days the Navajo called it Hiding cave. They knew that the Mexicans were afraid to enter the mouth of the canyons at *Cb'inlé* and would follow the rim.

"By evening everyone was in the cave. The leaders told them not to build fires or make any noise. Young women were



posted in the rocks to give the warning if the Mexicans appeared.

"When the moon started to sink, my grandmother heard the Mexicans cursing their mules as they drove them over the rough rocks along the rim. Then she saw their black figures strung out against the lemon-yellow moon glow. They passed on toward Spruce creek.

"Morning came. The Navajo thought that their enemies were gone. Just when they started to take full breaths, the Mexicans appeared at the foot of the cliff . . . right here where we were sitting."

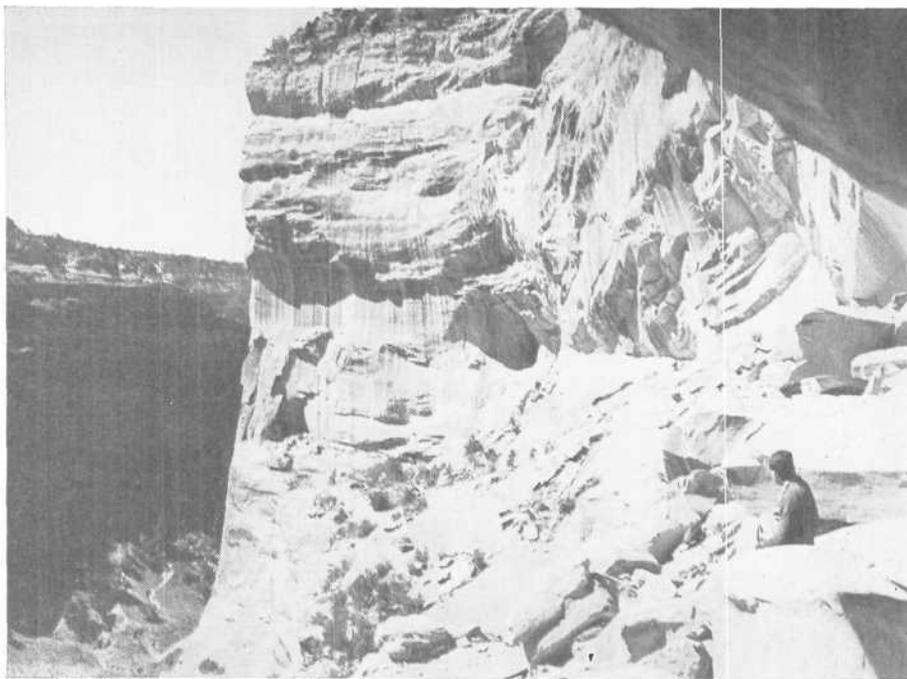
"But how did they get down into the canyon, Grandfather?" I asked. "The only trail that I know up here is the Bad Trail, and no Mexican would dare come down that."

"That is something that most whites don't know. The Mexicans followed horse and sheep tracks to the head of a small canyon a few miles above here, and worked their way down over a hidden horse-trail. That's the trail we Navajo today call 'Where the Mexicans Came Down.' Of course now the rocks have fallen and a horse can't make it. It's even dangerous for a man."

Hosteen Tsoosi continued his story:

"The Mexicans started to climb the cliff. The Navajo rolled stones down upon them and shot arrows. Remember, Hosteen Van, that Navajo women in those days were warriors.

"After the Navajo drove back the Mexicans who were attacking them from the canyon bottom, an old woman, who



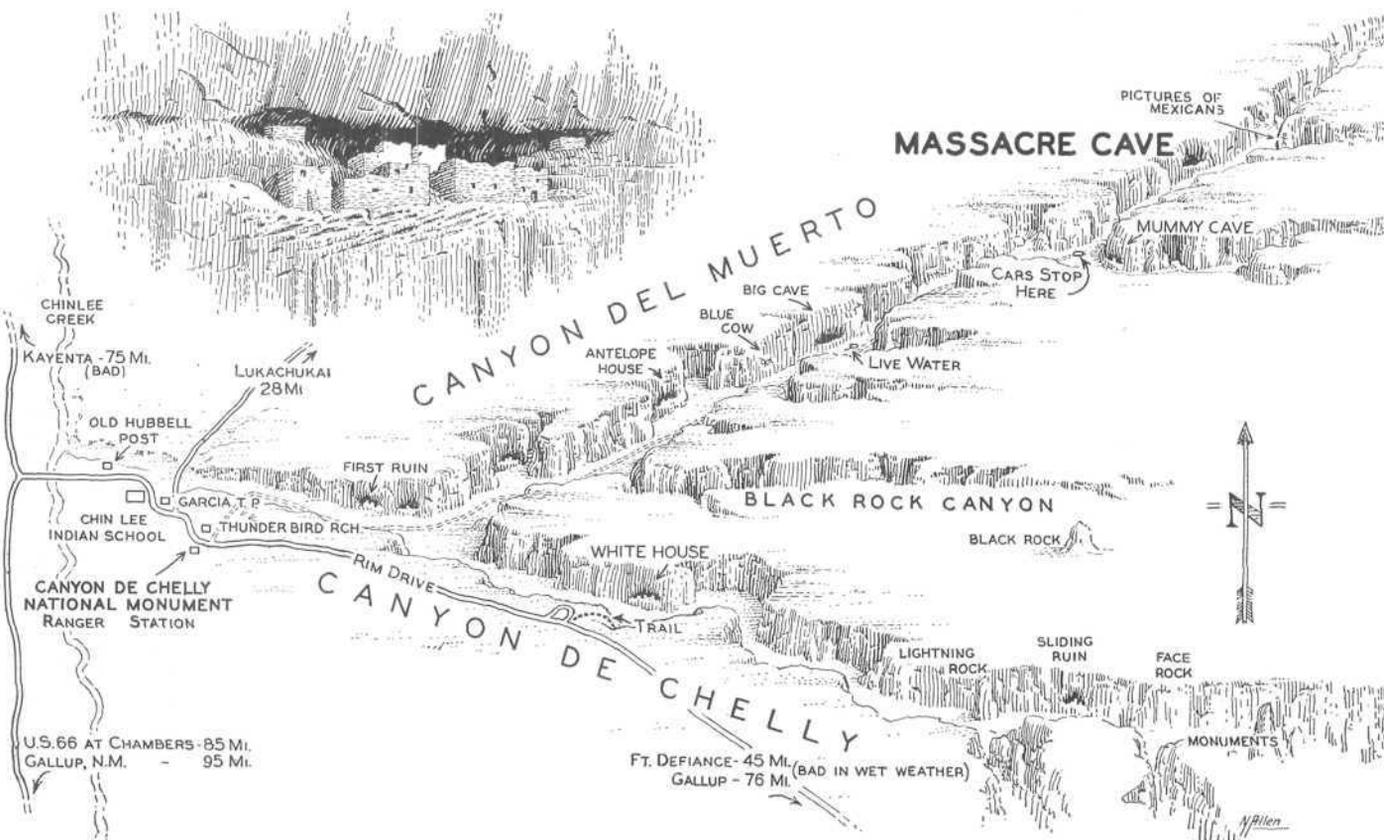
In Canyon del Muerto, looking from Massacre cave toward the rim from which the Mexican attackers, guided by Zuñi scouts, slaughtered the Navajo.

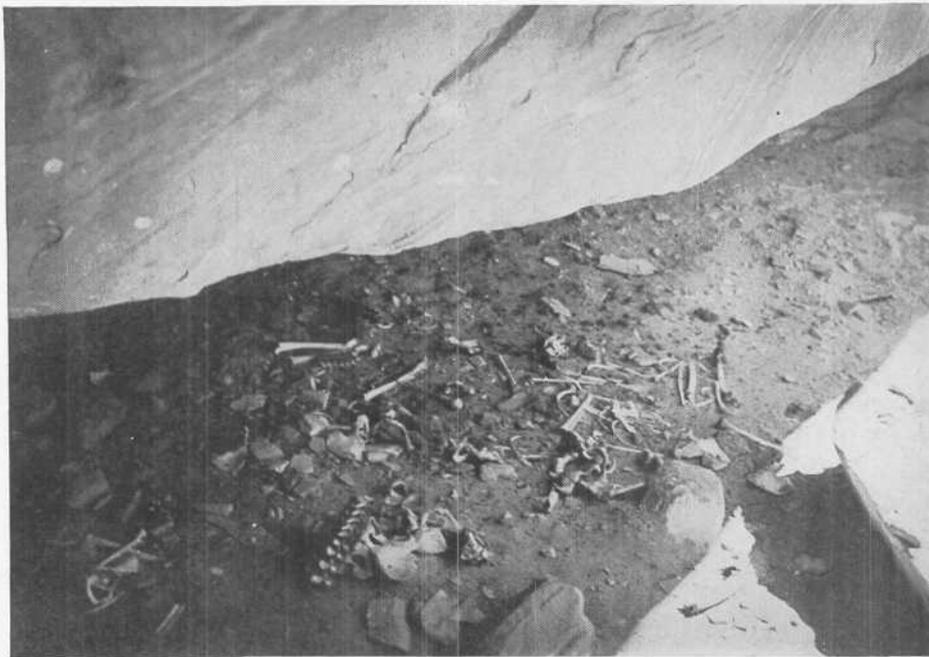
had been a slave to the Mexicans got away and ran out of the cave yelling curses in Spanish. One party of Mexicans had hidden on the rim, and just as she yelled they came out on that point to the west of the cave.

"They looked closer and saw all the Navajo huddled together. Taking careful aim, the Mexicans fired into the Navajo. The balls could not hit them directly; so they started glancing them off. For a

long time they fired, and only stopped when there was no movement in the cave below. Then the party from down in the canyon came up and finished the wounded with their lances and gun butts.

"Old Grandmother was lucky. They could not find her because she hid under a large rock. It was two days before she dared sneak out. She feared to go back





After 135 years, grim evidence of the tragedy enacted in Massacre cave still is found. Note the marks left on the overhead rock, presumably by the musket balls of the Mexican attackers.

into the cave, for she knew that all of the Navajo were dead.

"Two days later the men came back from their hunt. They chased the Mexicans and caught up with them near Wide Ruin. A great many Mexicans and Zuñis were wounded, but because the Navajo arrows would not travel as far as the musket balls of their enemies, they could only wound them.

"Near 70 murdered Navajo women and children lay in the dust of that cave floor, Hosteen Van. Now you know why it is so evil to the Navajo. It is one of the most dreaded places in Navajoland."

Doug and I were silent as we drove down the canyon. We, too, felt that we were driving away from a place of horror. Now, we knew why the Navajo did not like to talk about Massacre cave. Who could blame them? It is one of the memories seared deep into the minds of the de Chelly people, for not a family escaped the loss of a child, wife, or relative in the Massacre of 1805.

After returning to Fort Defiance, Hosteen Tsosi's story keep nagging me. I started searching through the copies of old Spanish records kept there. I wondered if the commanding officer had reported what had happened in the Canyon of Death. I finally found a footnote of Bancroft's "History of Arizona and New Mexico," as taken from the Santa Fe archives:

"January 25th, 1805, Lieut. Narbona reports from Zuñi a fight in the Canyon de Chelly, (Canyon del Muerto was named after the massacre), where he killed 90 men, 25 women and children, besides capturing 36 women and children; also 30 horses and 350 sheep. Narbona had only one Indian chief killed and 64 wounded."

Thus Navajo unwritten history contradicts the written Spanish record. With the evidence at hand from our visit to Massacre cave, I am inclined to accept the Navajo version. The only men killed were the aged and crippled. All other

victims were women and children. I believe this is the first time the story has been written of what really happened at Massacre cave in the Canyon of Death.

Sez Hard Rock Shorty of ... Death Valley



By LON GARRISON

Hard Rock settled himself comfortably in his battered old rocker on the Inferno store porch and gazed out over the landscape. A rapidly moving cloud of dust approaching over the backroad caught his eye.

"Dude comin'," he commented, "an' don't ask me how I know it's a dude cause I'm just about to tell yuh."

He delved back into his memories a minute before he went on.

"It all goes back to the first car there ever was in this country. A dude comes in an' was goin' our way so Pisgah Bill an' me rode out to Bill's ranch with 'im. He drove like the sheriff was after 'im, tearin' along the old dirt road, climbin' sand dunes, an' leavin' a cloud o' sand an' dust behind 'im for four mile. Bill an' me set there absolutely petrified. Bill swallowed his chaw o' tobacco, an' me—I didn't dast to spit. Tried to oncet an' it met me 10 foot ahead so I quit. It was close to 30 miles out there an' we made it to the cabin in 30 minutes flat.

"Bill an' me stood up to get out an' danged if we didn't bust right through the floor boards an' get all tangled up.

"Well, I'll be ding-danged!" sez the driver. "That never happened before!"

"We gets unscrambled and looks 'er over, an' do you know, that guy'd drove so fast the sand'd sandpapered the bottom o' that car 'til them floor boards was thin as paper! Yes Sir—that's a fact! That's how I know a dude's comin' far as I can see 'im. Folks that lives here don't drive so fast."



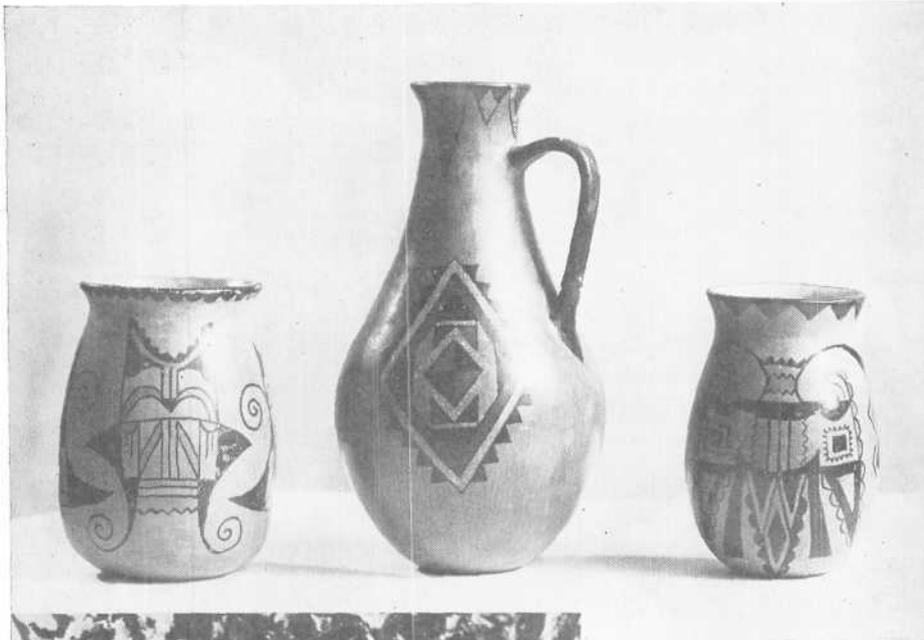
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Here is Hav-Cho-Cha at work at her pottery bench on the Yuma reservation, and above, three typical pieces of her craftsmanship.

Yuma Pottery on Exhibit

Tom Worthington probably has the finest collection of contemporary Yuma pottery to be found anywhere in the Southwest. Forty-odd pieces from the Worthington group will be on exhibit during February at the Desert Magazine building in El Centro, California, where they may be seen by readers who find it convenient to call at the Magazine office.

Most of the pottery made by Yuma Indians is of the inferior type sold to tourists during train stops at the Yuma railroad station. But Yuma women have the native skill necessary to create good pottery — and a few of them are doing it despite the fact that their market is very limited. Here is a brief history of the Yuma pottery industry, written by a man who has lived among these tribesmen for many years.

Pottery of the Yumas

By TOM WORTHINGTON

QUECHAN (Yuma) Indians cremate their dead, and since the highly ritualistic ceremony includes the burning of all personal and household effects, archaeologists have found it difficult to trace the development of the pottery craft among these tribesmen.

Such few specimens of old pottery objects as have been uncovered from ancient caches or from earth burials made when cremation was not possible due to emergencies of war or pestilence, show but a moderate development of this phase of their culture.

It would seem that the Quechans were never far advanced in the decorative or artistic manipulation of clay artifacts. Their whole desire appears to have centered in the utilitarian motive.

Pots and jars of symmetrical form used by ancient members of the tribe for cooking or for the storage of liquids, grains and seeds are sometimes brought to light but these give no evidence that pride in the art of decorative design ever held a place in their culture comparable with that of the ancient and modern pueblo tribes of Arizona and New Mexico.

With the coming of the whites the Quechans were quick to adopt metal and glass utensils as of more practical use in their domestic economy. Hence the art of manufacturing even the plain utilitarian pottery of their ancestors deteriorated until generally speaking, pottery making among them at this time has but one objective, the sale to tourists and others of small pieces such as can be easily carried away as souvenirs.

These facts might lead one to assume that the Quechan women have but limited artistic ability. Such is not the case. Proof is found in the beautiful work turned out by several tribeswomen who have, to an extent, revived the ancient art. Perhaps inspired by the artistry of the women of the pueblo tribes these modern Quechan potters are now producing decorated pottery of a grade and design comparable to that found among the more experienced pottery makers of the pueblos.

Outstanding among these modern artists is Hav-Cho-Cha, the 46-year-old wife of Lincoln Johnson who, like her husband is a full blood Quechan, born and raised on the Yuma reservation. Not in the best of health, this native artist finds time, in addition to her many household duties, to go into the desert hills and procure the necessary types of clay, screen and blend the rough earth, and from the selected product, shape by hand and without knowledge of the wheel, vases, bowls, pitchers and jugs of fine quality.

Properly proportioned, symmetrical in form, painted with a harmony of color in background and design, her work is technically excellent. No two pieces are exactly alike in painted design although it is possible to obtain a matched series of her ware which blends into a perfect set for cabinet display.

After the utensil is formed, dye and paint pigment is applied free-

hand with the aid of a sharply pointed reed shaped somewhat like the old quill of our forefathers.

Design is applied from memory and while it is symbolic in its ancient meaning the symbolism has been lost and its exact significance is unknown to any of the present tribe. Some of the designs are borrowed from other tribes though all are but memory copies of the ancient art of the southwest.

With the hope of but a few cents reward, long hours are spent in preparing the clay, forming the piece, applying the design and firing the finished product. Soft warm colors, blending in perfect harmony, give an effect seldom acquired by white artists even after years of study and training.

That this is art in its purest sense goes without saying. It knows no conventionality nor does it follow any "influence" or school of technique. Primitive, it expresses the inherent urge for beauty and harmony of design and color born of close association with Nature.

FIELD DAY AT BOULDER CITY . . .

Continued from page 14

that picture was taken early in September, a record cloudburst visited this region and carried an estimated 100,000 cubic yards of rock, sand and debris over the edge of the falls into the 100-foot pool of water in this scenic cove. The top of the cone formed by this huge volume of wash material now shows above the surface of the water and forms a 20-foot bar at the point where Emory falls pours into the lake.

From this point we continued up the lower Grand Canyon. I shall make no effort to describe this part of the trip. Not even the best photograph does justice to the beauty and grandeur of this region. One simply has to see it.

We passed the cove where the cave of the ancient ground sloth is located high up in the limestone wall. Mr. Schenk did much of the original research work in this cave and gave me an ex-

cellent account of what was found in the test pit sunk by excavators. This is regarded as one of the most remarkable deposits of sloth remains found in the United States and its exploration has scarcely been started. The cave is sealed against intruders pending the time when scientists can complete their work here.

The lake was glassy smooth as we returned in the late afternoon and reflected a perfect image of the canyon walls above. Added to this were the beauties of an unusually colorful sunset. It is no wonder that the little harbor at Lake Mead is dotted with the craft of private sportsmen and nature lovers, and that more and more people are taking the scenic boat trips provided by the Grand Canyon-Boulder Dam Tours.

There are fertile fields for the rock collecting fraternity in every section of the desert region—but the Prospectors' club of Boulder City has the unique distinction of being able to take its field trips either by automobile or by boat and I am grateful to my hosts for one of the most enjoyable outings in my experience.



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It looks like Verbena — and every one calls it that—but it really isn't Verbena at all. However, it is a beautiful and fragrant little flower, and it loves the desert sand dunes. In the accompanying text Mary Beal tells us some interesting facts about a blossom every desert visitor has seen.

Everybody's Little Friend

By MARY BEAL

NOT one bit shy and retiring is Abronia, Sand Verbena to most of her friends. She dominates a wide area and often chooses to dwell by the side of the road where the world goes by. Not all go by. Many linger to feast their eyes—and their noses—on the fragrant gorgeously-patterned carpets she has woven and flung over the sands with beneficent prodigality. So generous is her largess of beauty that most folks, visioning the desert in bloom, see in their mind's eye a riot of Sand Verbenas.

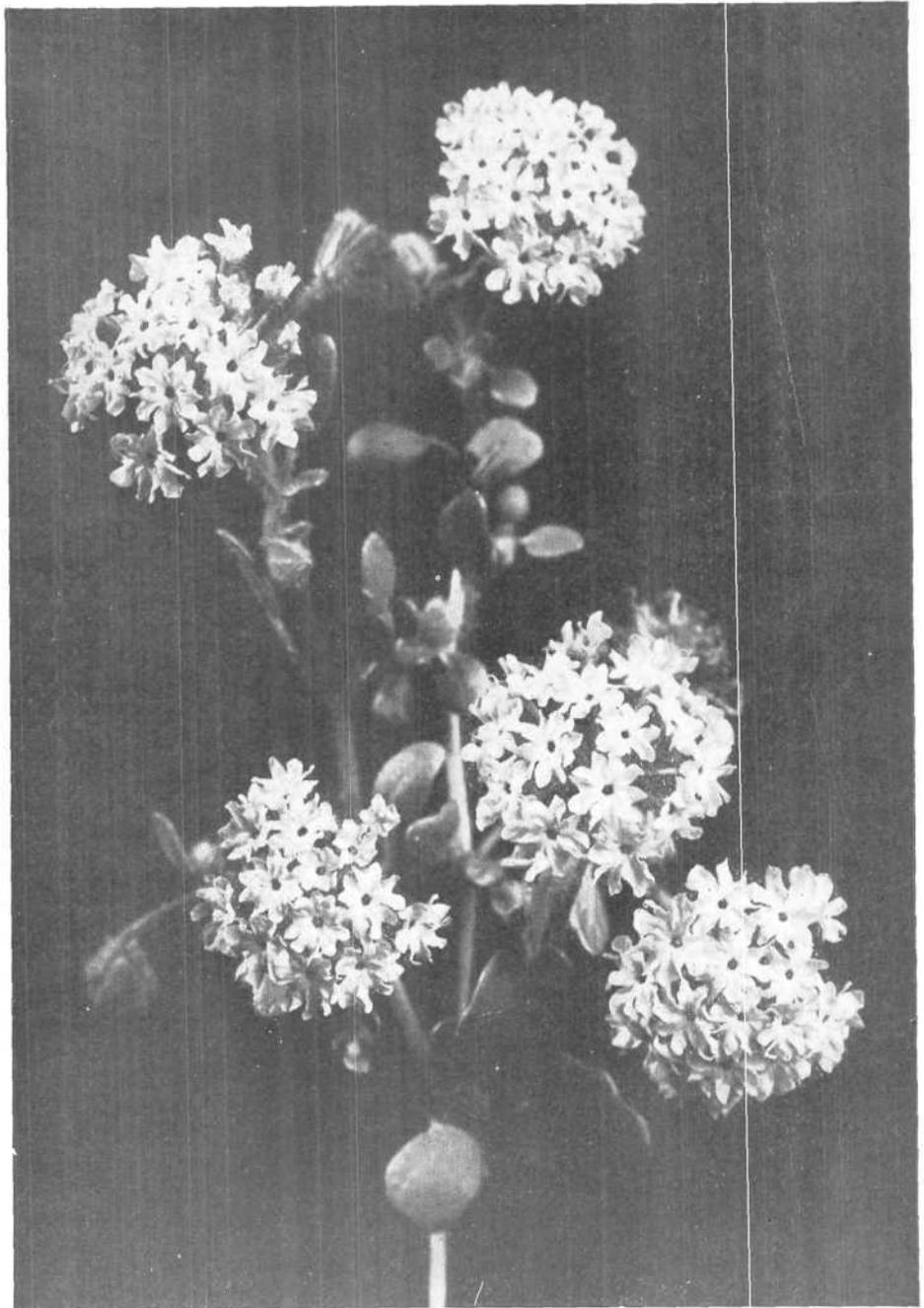
Abronia takes first prize for boosting the desert's reputation for wild-flower display. Let's pay homage to her for an obliging readiness to stage an off-season performance any time of the year Jupiter Pluvius sees fit to surprise the desert with ample rains.

Did you know they are not really Verbenas? The flowers do resemble the Verbenas of our home gardens but are not even distant relatives. The Four O'clock family claims them but they pay no attention to the family schedules for blooming.

They foregather in impressive numbers but are also good mixers, in especially friendly accord with the Evening Primrose clan and the Blue Giliis. I've never found mention of any use made of the desert species by native tribes but they achieve such a grand success in splashing marvelous color and charm over desert sands that we can take them to our hearts and be thankful that "Beauty is its own excuse for being." By the way Abronia's Greek derivation means "graceful." Among the several western species are the following desert-loving ones:

Abronia villosa

This species spreads over many sandy areas of the Mojave and Colorado deserts, its range extending into Arizona,



Nevada and Utah. The sticky, hairy pink stems sprawl over the ground from four inches to three feet, forming flowery mats, sometimes as much as six feet across. The thick, pale blue-green leaves are round-ovate, almost hairless, $\frac{1}{2}$ to $1\frac{1}{2}$ inches long, with wavy margins. The bright lilac-pink flowers, about $\frac{3}{4}$ inch long, are clustered in heads of 14 to 20 flowerets. The fruit is usually bright pink, with three to five broad thin wings, the body netted by conspicuous veins.

Abronia villosa var. *aurita* has the same general form and habits as the species. The flowers are usually longer, the wings of the fruit prolonged beyond the body, which is only slightly netted. The striking difference is apparent at once even to a novice, the deeper resplendent color, a vivid rose-purple. But

I defy anyone to pin down to a single word such elusive color. The warm sands of the Palm Springs-Coachella-Mecca area produce this brilliant variety. If you visited that region last fall you know what a lavish show they made, in response to the heavy rains of early September. I made the rounds of their domain in late October and found the Abronias holding such high festival that I was fairly intoxicated by the spectacle. Never have I seen them put on a more magnificent display even in springtime.

Abronia pogonantha

This species tends to an erect or semi-erect manner of growth, its red or rose-pink hairy stems from six to 20 inches long. The bright-green leaves, one to two inches long, are an attractive contrast to the red stems. The flowers are very pale

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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, to Margaret Hussmann of Nevada and Hugh F. O'Neil of Utah.

ARIZONA

A 1 (A One) mountain Coconino county

Solitary peak named after Arizona cattle company of Flagstaff which ran the A 1 (A One) brand of cattle in the early 90s. Captain Bulwinkle, former chief of the insurance fire patrol of Chicago, was its manager at one time. His wild rides on blooded race horses from Flagstaff to the headquarters ranch near this mountain in Fort valley were the talk of the ranges. Nine miles in about as many minutes was his aim. He was killed on a dark night in 1896 when his horse fell on him. Some maps show the mountain as Crater hill.

MARICOPA

Pinal county

Station on SP 10 miles south of Gila river. When the railroad reached here in 1880 the military telegraph office was opened at this location and gone was the glory of the old Maricopa wells stage station three miles south of the Gila river and seven miles northwest of present Maricopa. Barnes says Maricopa was a very lively village when he was there in 1880. There the change was made by travelers for Tucson and the east. Travel to Tombstone was at its peak. Huge 20-passenger stages rolled away with every seat, inside and out, filled. Great 24-mule freight wagons lined the road to Tucson and Tombstone. Maricopa was also the getting-off place for Phoenix, Prescott, McDowell and points north, to which the military telegraph line ran. It was a busy place, day and night, "with special emphasis on the night life." Post office established November 26, 1880, Perry Williams, P. M.

CALIFORNIA

WILEY'S WELL

Riverside county

Nearly midway between Chuckawalla and Mule mountains and at south side of Chuckawalla valley. This well was dug by A. P. Wiley of Palo Verde in 1908 and was named for the digger. It has been a useful watering place for desert travelers on the old, little-used prospectors' road from Mecca to Blythe, by way of Dos Palmas and Chuckawalla well. A county signpost stands on the road about 50 feet south of the well, which is on the east bank of a large wash through which a considerable territory on the south slopes of the Chuckawallas drains into Ford dry lake. Along the wash there is a heavy growth of palo verde and ironwood trees.

THE CANEBRAKES

San Diego county

Local name for small mountain stream, on east slope of Laguna mountains (T. 15 S., R 7 E). The creek disappears at the desert's edge after the water flows through a narrow canyon whose bottom is choked with dense tangles of grass, arrowweed, mesquite and cane. From the abundance of cane the stream takes its name. Remains of a stone-lined aqueduct extend for some distance along the canyon. Mountain walls at the canyon entrance are sheared granite, whitened, kaolinized and altered and there is suggestion of a fault line along the mountain front. Half a mile upstream, by an almost impassable trail, the traveler finds rocks much more

dense and unweathered. Above a small cabin the canyon bed widens into a boggy marsh, beyond which rounded hills rise, their tops in places showing many pieces of broken pottery. A pinto burro, something of a rarity, was seen here in a herd of wild burros when the locality was visited not long ago.

NEVADA

DUN GLEN (Sometimes Dunn Glenn)

Pershing county

Near Unionville. Settled by James A. and R. B. Dun in 1863. They came from California with about 500 head of cattle, seeking new grazing land. The settlers were killed and their cattle driven off by Indians shortly thereafter, whereupon a military post was established at the place.

SMITH VALLEY Douglas and Lyon counties

Settled about 1859 by S. Baldwin, J. A. Rogers and the Smith brothers, in whose honor the valley was named. Their home ranch was located on west fork of Walker river and about 20 miles south of the Mason ranch. The Smiths built the first house in the entire Esmeralda county. Their valley is almost an extension of Mason valley, from which it is separated by a wild but easily traveled canyon up which the railroad passes. There are about 50 square miles of rich land. Elevation 4500 feet.

NEW MEXICO

ORGAN

Dona Ana county

Town and mountains. Named from the mountains which have formations resembling organ pipes.

LA LUZ (lah looze)

Otero county

Sp. "the light," originally "Our Lady of Light," referring to the beautiful sunsets visible from this place.

DAWSON

Colfax county

Named for John B. Dawson who came from Kentucky and bought a ranch of 23,000 acres. Later this property was sold to the Dawson fuel company.

UTAH

HELIOTROPE (mt.)

Sanpete county

So named because in early days a heliograph station was established there by the United States Geographic survey and the name "Heliotrope" was a local corruption of "heliograph." Now renamed Wasatch peak by the geographic survey, after the Wasatch range of mountains.

KIZ

Carbon county

Named for the first woman settler, Kiziah Dimick.

ENSIGN PEAK

Salt Lake county

From this peak Mormon pioneers unfurled the American flag soon after their arrival in Utah in 1847. A little later the name was given by Brigham Young.

The DESERT MAGAZINE

The Monster Cheta

(A Hopi Legend)

As told to
HARRY C. JAMES

Illustration by
Pop Chalee

YOU will remember in the story of the people coming up from the underworld how the two little war-gods—Pookonghoya and Balonghoya—who are often called by the Hopi the "Pookongs," helped the people by holding the tops of the reed and the pine trees. These two little war-gods and Spider Woman accompanied the Hopi on their travels and finally came to live near them on the high mesas where they dwell today. In fact, some of the old men even today believe that they have seen them together.

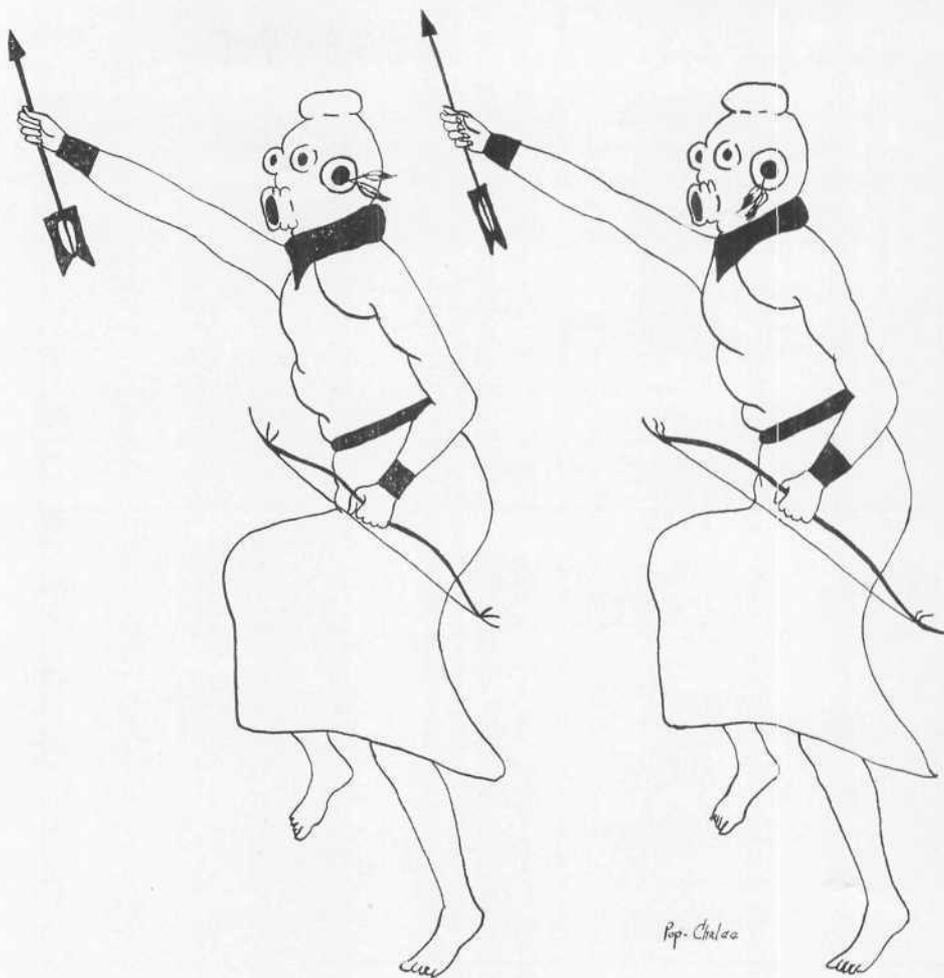
A long time ago there was a huge monster called Cheta, who lived somewhere in the west between Oraibi and the mountains of the Katchinas, which by the white people are called San Francisco peaks. Many times this monster came right into the streets of Oraibi and carried off children and ate them. This awful creature became so fearless it even captured women and men and tore them to pieces for food.

The chief of Oraibi held many councils to plan some way to rid the world of Cheta. Finally, he determined to secure the assistance of the little war-gods, for at this time they were living close by Oraibi.

The Pookongs listened to the chief's plea and then told him: "Make us each an arrow feathered with the wing-feathers of the bluebird."

This the chief did and the little war-gods said they would go out and see if such a monster as he described really did exist.

The Pookongs selected a place to watch very near the village. They had not long to wait before they noticed something



coming from the east side of the mesa. They were frightened when they saw how enormous the creature really was.

As Cheta came closer, it growled: "I'll eat you both!"

The Pookongs objected, but Cheta would not listen to them and swallowed first the older and then the younger of the little war-gods.

To their surprise the war-gods found that it was not dark inside the great creature. They could see that they were on a queer sort of trail leading down into the monster's stomach. They followed down the trail into the cavernous stomach and found there a regular little world to itself with rocks, trees, grass and all kinds of animals and people which Cheta had swallowed in different parts of the world. Although all of the people seemed to be living comfortably, they were anxious to be back in their own homes and so they pleaded with the war-gods to find some way to kill the monster so that they could all escape.

The Pookongs then remembered that Spider Woman had told them that the only way Cheta could be killed was by putting one of their arrows through its heart. There were many, many trails

leading about the great stomach. One day they had gone a long distance along one of these, when high overhead they saw a huge something hanging. Pookonghoya shot his arrow toward it, but it was too high and his arrow failed to reach. His brother shot and pierced the heart. As Pookonghoya had recovered his arrow by that time he shot once more, and he, too, buried his arrow in the heart.

In a few minutes it began to get dark and the war-gods knew the monster was dying. They called together all the people and led them to the mouth of the creature. But its teeth were clenched fast. They could not escape that way. They were in despair! Finally, the Pookongs found a trail that led up the nostrils and out the nose. Through this all the people gained freedom.

The chief of Oraibi had seen the monster die and had called to the people to assemble. Great was their joy when they saw friends and relations emerge well and happy from their strange confinement. Those people who were not Hopi soon set out to find their own people, the Oraibi men and women supplying them with food and water for their journeys.

Greetings to New Readers of the Desert Magazine . . .

Many hundreds of new readers have been added to the Desert Magazine fraternity during the Christmas gift season. To these new companions along the desert trail, the editorial staff extends welcome—and the sincere hope that during 1940 the Desert Magazine may impart through its pages a generous measure of the peace, understanding and courage which are the desert's greatest gifts to mankind.

Each month the Desert Magazine carries many pages of authentic information in the fields of travel, recreation, history, mineralogy, Indian lore and the natural sciences, and this material is accurately indexed annually in the October number. A majority

of the readers of this magazine value this information so highly they save their back copies as a permanent addition to their libraries.

In order to provide permanent covers for these back numbers, the publishers award a gold-embossed loose-leaf gift binder to each renewing subscriber who remits to the office of publication the regular rate of \$2.50 for a year's renewal at the expiration of the year's subscription. Readers who renew their subscriptions at special rates through club or combination offers may obtain these binders at \$1.00 for each volume by writing to the Desert Magazine, El Centro, California.

Travel in Death Valley . . .

For the information of motorists seeking detailed information regarding roads and accommodations in the Death Valley national monument, the national park service has issued the following bulletin:

Approach Roads

From Southern California; via U. S. 66 to Barstow, U. S. 91 to Baker and state route 127 to Death Valley; or, via U.S. 6 through Mojave to Lone Pine, thence on state route 190 to Death Valley. Alternate entrance from U. S. 6 is provided by way of Trona or Olancho; former has about 25 miles of

unsurfaced road, well maintained. The Olancho route has about 19 miles of unsurfaced road, well maintained.

From northern California; via U. S. 99 to Bakersfield, U. S. 466 or state route 178 to junction with U. S. 6, thence by way of Trona, Olancho, or Lone Pine. Or, via Reno, Nevada, thence by U. S. 395 or state (Nevada) routes 3 and 5.

From the east, entrance can be made either by Beatty or Death Valley junction. All the above roads are paved except where otherwise stated.

Death Valley Roads

Artist's drive Good gravel road
Titus canyon Temporarily closed
Ubehebe Crater road All paved
Scotty's Castle road All paved except 3 miles
Confidence Mill and Saratoga springs Good dirt road

Camping

All modern camping facilities are available in Death Valley. The national park service maintains the Texas Spring public camp ground near Furnace creek, 4½ miles from park headquarters. Water, tables and restrooms are available without charge. Firewood, however, must be purchased, or obtained before entering the monument, for it is prohibited to cut or in any way disturb trees or other plant life in the national parks and monuments. Camping is permitted at Mesquite spring. Camping is limited to 30 days. Camp in designated areas only.

At the Furnace Creek auto camp, campsites for trailers are available with electric outlets, toilet and bath facilities for a nominal charge.

Notice

Visitors must refrain from picking Desert Holly and all other plants.

Weather

Excellent weather still prevails in Death Valley. The temperatures range from the lower forties at night to upper sixties in the day time.

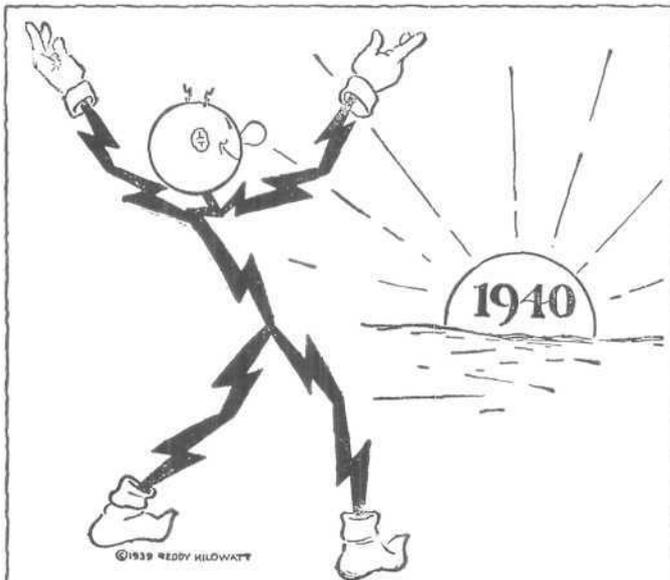
Accommodations

Furnace Creek inn — American plan hotel, from \$9.50 single.

Stovepipe Wells hotel and cabins, restaurant, from \$3.00 single.

Furnace Creek auto camp—Cabins, restaurant, store, from \$2.00 single.

Accommodations are also available in the nearby localities of Death Valley junction; Beatty, Nevada; Panamint springs and Owens valley points.



HELLO, FOLKS! Let's get acquainted at once for 1940. I am the newest employee of the Nev-Cal and already feel at home as I have been working for more than a hundred power companies for several years, bringing to people in all walks of life messages about the uses of electricity.

It is my hope to bring you important messages about the benefits of electrical power and telling you of new electrical ways that I have been able to disclose to millions of other people to their benefit.

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Writers of the Desert . . .

J. C. BOYLES, Jim Boyles to his friends, is not a professional writer, but he probably is better qualified to write the story of Indian George, which appears in this number of the Desert Magazine, than any other living person.

For many years Boyles has been friend and advisor for the Shoshone-Panamint Indians. These Death Valley tribesmen are under the jurisdiction of the agency at Stewart, Nevada. But Stewart is so far away the Indians have to write a letter when they need advice from their white guardians. Jim writes the letters for them. He also helps them sell their wool and solve the other problems involved in their dealings with the whites.

No one ever knew Indian George's Shoshone name until the aged Indian one day revealed to his friend Jim that it is Bah-vanda-sava-nu-kee. Boyles lives at Trona, California, and is interested in photography, mining, prospecting, and the exploration of out-of-the-way places on the desert.

Collecting and shipping spiders is merely one of RAYMOND W. THORP'S interesting sidelines. His main occupation is writing, and he has supplied short fact features for many hundreds of publications, including the tarantula story in this month's Desert Magazine.

His home is in Los Angeles and he became interested in spiders when his son brought home a tarantula in his hand. Until then Thorp had shared the popular fallacy that these hairy little beasts were highly poisonous. Since that first meeting with a tarantula he has studied the habits of centipedes, scorpions, black widows and many other species of the spider family, and has made a motion picture of them.

KATHRYN BOMAR, whose story about Jake McClure is in this copy of the Desert Magazine, is a feature writer for the News-Journal at Clovis, New Mexico. Mrs. Bomar is 22 years old, a native of Missouri, and went to New Mexico five years ago. Her husband is manager of the J. C. Penny store in Clovis.

LON GARRISON, national park ranger who has been entertaining Desert Magazine readers during the last two years with his tales about Hard Rock Shorty of Death Valley, has been transferred from Yosemite national park to Hopewell Village national monument at Birdsboro, Pa. The transfer is a substantial promotion for Garrison. The Desert Magazine staff send congratulations. Lon says his heart will still be in the West—at least long enough every month to spin another yarn about his old pal, Hard Rock Shorty.

If the desert Indians of the Southwest were graded according to their skill in the arts and crafts, the Yumas would rate far down the list. In fact, no one ever regarded them as serious contenders for honors in this field—that is, no one except TOM WORTHINGTON. Tom insists that his friends the Yumas are capable of just as fine craftsmanship as any other tribe—and that all they need is a little encouragement from their white neighbors. As a long-time intimate of these tribesmen he has done what he can to develop their art in pottery—and has acquired a very fine collection of bowls and jugs and vessels which he exhibits as evidence of the skill of the Yumas.

It was only natural then, that when the Desert Magazine wanted a feature story about Yuma craftsmanship, Tom was the man who

should write it. Worthington lives at Winterhaven, California, close to the Yuma reservation. He has spent his entire life in the desert Southwest—and a busy lifetime it has been. At various times he has been a newspaper publisher, archaeologist, cowhand, prospector and miner, real estate developer and trader. His hobby is craft work in wrought iron. Recently he has shown symptoms of that popular malady known as "rockhounditis," and has been neglecting his iron work while he built himself a cutting and polishing outfit.

Worthington's story of Yuma pottery appears in this number of the Desert Magazine.

Another new contributor to the Desert Magazine this month is MORA McMANIS BROWN of Riverside, California. When her two boys reached the age that they required less mothering, Mrs. Brown, according to her own admission "yielded to a long-repressed desire to write, and acquired the fundamentals by a year's attendance in Riverside junior college." Her "I, too, Have Learned" appearing in the Desert Magazine this month is her second sale. Like many other aspiring writers, she has a novel in the background. Her husband is chief deputy surveyor in Riverside county.

Weather

DECEMBER REPORT FROM U. S. BUREAU AT PHOENIX

Temperatures—	Degrees
Mean for month	57.6
Normal for December	52.
High on December 8	84.
Low on December 27	31.

Rain—	Inches
Total for month	T.
Normal for December	1.

Weather—	
Days clear	18
Days partly cloudy	7
Days cloudy	6

G. K. GREENING, Meteorologist,
FROM YUMA BUREAU

Temperatures—	Degrees
Mean for month	61.
(Warmest December in 62 years)	
Normal for December	55.2
High on December 8	82.
Low on December 27	36.

Rain—	Inches
Total for month	0
70-year average for December	0.53

Weather—	
Days clear	28
Days partly cloudy	3
Days cloudy	0
Sunshine 96 percent (299 hours out of possible 311 hours).	

Colorado river—December discharge at Grand Canyon 311,000 acre feet. Release from Boulder dam 680,000 acre feet. Estimated storage December 31 behind Boulder dam 22,720,000 acre feet.

JAMES H. GORDON, Meteorologist.



DATES

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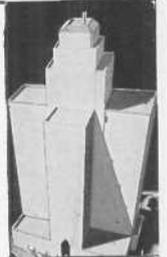
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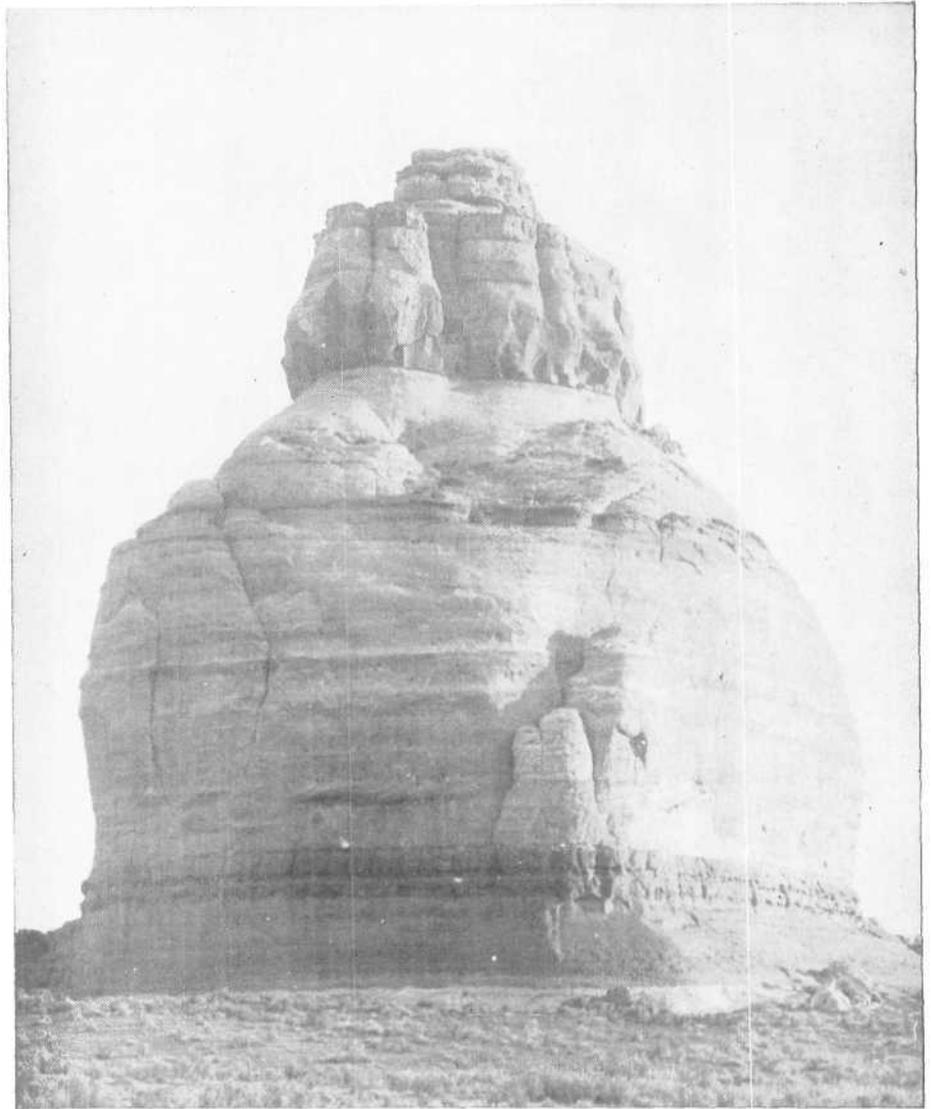


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CHURCH ROCK

John Stewart MacClary of Pueblo, Colorado, is winner of the \$5.00 cash prize offered by the Desert Magazine in December for the best descriptive story of the natural monument shown in the accompanying picture. MacClary's manuscript is published on this page.



By JOHN STEWART MacCLARY

Your Landmark photograph in the December number of the Desert Magazine is Church Rock, a striking formation of red sandstone located along U. S. Highway 450 in Dry valley, southwestern Utah, between the oldtime Mormon settlements of Moab and Monticello.

Seen from an angle it looks like a gigantic streamlined sphinx, and from another point it resembles a domed and steepled church. It is necessary to leave your car and walk a half mile to get the sphinx-like view. Examining the western base closely you will find some

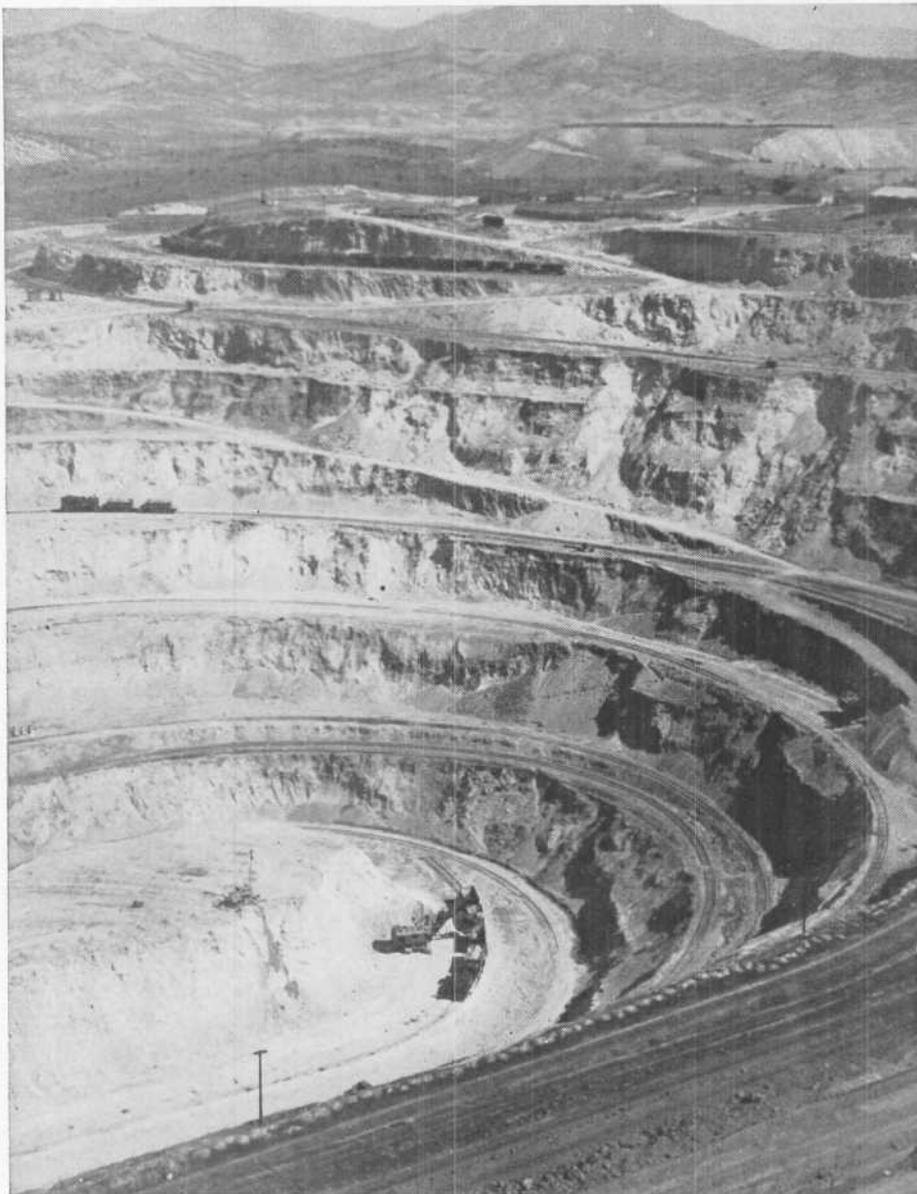
"stone saints" etched in the rock by Nature.

While natives of that area call this rock monument "The Church," I believe the "Streamlined Sphinx of Dry Valley" is a more colorful designation.

Although the bulk of the rock in this formation is red sandstone, the upper level is of grey-buff, demonstrating two distinct geologic ages.

The rock is nearly 200 feet high and approximately a quarter of a mile in length. It once served as an important landmark in this desolate, waterless region.

Who knows the story of this mammoth excavation in Nevada?



PRIZE CONTEST

For the February landmark contest, the Desert Magazine has selected a Nevada mining project with which travelers in the desert country should be familiar.

There is an interesting story in the digging of this huge pit. The tale would fill a book—but the Desert Magazine editors want the most essential facts, including the location, ownership and accessibility by highway, condensed into a 500-word manuscript. A cash prize of \$5.00 will be awarded to the writer who gives the most complete and accurate information within this word limit.

Entries must be in the office of the

Desert Magazine by February 20, and the prize-winning story will be published in the April number.

MONUMENT PEAK IS SCALED BY CLIMBERS

Another desert pinnacle which long has defied the efforts of climbers was scaled December 31 when four members of the Sierra club of California reached the summit of Monument peak in the Whipple mountains of California near Parker dam.

Successful climbers were Arthur Johnson, Paul Estes and Ruth and John Mendenhall. Actual ascent of the 300-foot pinnacle required four hours, and seven pitons were used.

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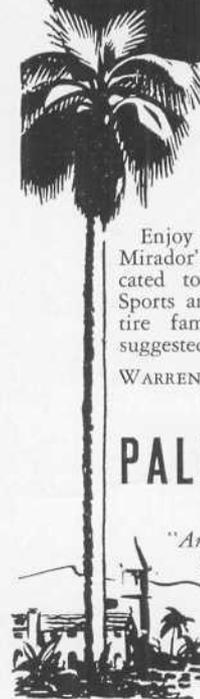
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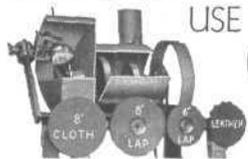


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Gems and Minerals

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 other collectors.

ARTHUR L. EATON, Editor

BASANITE

Basanite (first syllable pronounced bay) is a fine grained velvet-black species of chalcedony. Its superior blackness and toughness recommend it for necklaces, ring sets and all other jewelry where a fine black stone is required. It is better than all known artificial substitutes. Found throughout the Colorado desert.

BASSANITE

"If Basanite is a velvety black silica, what is Bassanite?" Note the difference in spelling. Several collectors have asked for a statement on this point.

Bassanite is a rare form of gypsum, or hydrous calcium sulphate. It is always white in color, and occurs either as slender needles, or in a mass, with the needles loosely connected in parallel arrangement. Its hardness is only 2. It was discovered originally in Vesuvian lava deposits.

Forty members of the Imperial County Gem and Mineral society went on the recent excursion to the Quartzsite region of Arizona. The party spent two days in a virgin field of literally countless geodes, chalcedony roses, agates, arrowheads, opal, fluorite of many colors, galena, pyrite, etc. etc. Even the newest recruit brought home a bag with many fine specimens. All are planning another weekend in the same place!

Orlin J. Bell, president of East Bay Mineral society, Oakland, reports that the rapid growth of the year-old society is due, in his opinion, to the friendly and sincere spirit of its 130 members, and to the fact that it is able to provide attractive programs and outstanding speakers. The organization displayed one of the most interesting exhibits at the National Hobby Show last December. It consisted of a large case of showy mineral specimens and cut stones; also two sets of lapidary equipment in operation.

Colorado Mineral society meets in the museum of natural history, Denver, September to June. Summer meetings are field trips. The society sponsors a course in rocks and minerals at the Y. M. C. A., presenting prominent Colorado speakers on such subjects as "Lure of Gem Stones," "Dinosaurs," "Fluorescence." At the January meeting of the society Chester R. Howard, president, awarded prizes for snapshots showing material of interest to mineral collectors.

Death Valley was the objective of the January field trip taken by Los Angeles Mineralogical society. Members met 9 a. m. December 30 in Beatty, Nevada, and spent three days prospecting and collecting specimens, crossing the valley from east to west.

The California Division of Mines will, for 15 cents, mail a monthly list of mineral properties wanted and for sale. These publications may be obtained from the San Francisco office of the Division of Mines or from the Sacramento or Los Angeles offices.

Misnamed Minerals

"MEXICAN FIRE AGATE"

Among the poorest imitations ever perpetrated on the gem buying public is the so-called "Mexican Fire Agate." It evidently originated as an imitation of the fire opal. It is apparently glass, with artificial "fire" produced by inclusion of mica or small particles of color in the very bottom of each stone. It is necessary only to look through the stone from the side to detect the imitation. It has glassy fracture and loses its luster rapidly when worn.

HISTORY OF KUNZITE

BY HOWARD KEGLEY

Perhaps you are the proud possessor of a Kunzite specimen, or maybe you are so fortunate as to have the gem in the form of a piece of jewelry, but did you know that for years it masqueraded under erroneous classification and had to be taken to New York before its true identity was discovered?

This jewel of the desert, one of the loveliest of our gem stones, was discovered nearly 40 years ago in the Pala Chief mine, not far from Warner's ranch, in association with the rather unusual mineral we know as lepidolite. It may interest many to know that this mine is the country's foremost producer of lithia.

A Mission Indian was first to lay eyes upon Kunzite, and he took samples of it to Pala where Charley Magee, who was prospecting, jumped at the conclusion it was cinnabar. After going out and staking several claims he took samples of it to an assayer who couldn't find cinnabar in them and overlooked the lithia, with the result that Magee allowed his claims to lapse.

A year or two went by, and a Mexican who heard of the deposit paid it a visit, filing on the most important claims under the impression that he had discovered a fine marble quarry. In the course of time he learned of his mistake, and likewise let his claims lapse.

Nearly a decade rolled by before two prospectors opened up the mine and shipped samples to a jeweler in New York. It was there that a gemologist by the name of Kunz properly classified the material. In the course of time it was named in honor of him.

The gem really deserves to be listed among the rarities because it is found in but few of San Diego county's marvelous gem mines, and not in quantity even there.

The color range of this gorgeous stone is from white with pink shimmering through, to several distinct shades of pink, and also from pink to lilac and on up into deeper tones to a dark lilac.

Tiffany in New York is reported to have been the first gem dealer to exploit this remarkable stone after it was classified by Kunz.

BIRTHSTONES

February—Amethyst

Amethyst is a purple or violet variety of quartz. Its color varies in intensity. The crystals are hexagonal and usually well formed. They are found widely distributed over all continents. Amethyst may be cut cabochon or facet and makes fine intaglios.

NEW GEM CLUB TO BE FORMED AT BARSTOW

Persons residing in a radius of 75 miles from Barstow, who are interested in mineralogy and geology, have been invited to meet at the Beacon tavern in Barstow at 7:30 p.m., January 20 to participate in the organization of a new mineralogical society. Notice of the meeting has been sent to many known collectors who have been requested to invite others interested in the hobby. Sponsors of the proposed society hope to take in the Barstow, Randsburg, Daggett and Yermo districts. Anyone interested should communicate with Tom Wilson at Beacon tavern in Barstow.

The various earth science groups and mineral collectors of Wyoming met in November at Rawlins to found a state-wide unit. The Wyoming federation is on a basis similar to that of California.

GEM MART

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ENHYDROS AGATES

By WILL L. GRIGSBY,
President Newport, Oregon, Agate Society

Among gem stones found in beach gravel, there is none that gives the finder a greater thrill than does the water-bubble agate (enhydros). It is estimated that out of a thousand agate pebbles, one is an enhydros—unless the seeker is unusually lucky, or has found a technique through experience with the stone, its characteristics and places of likely occurrence.

Theoretically, all silica geodes at one time contained water, carbon dioxide, petroleum or whatnot, as the medium from which was deposited the silica that forms the walls of the geode. It is assumed that most of our agate was formed by silica-bearing magmatic waters in cavities in rock, sand, clay, shells and wood or weed stems. Cavities which the silica-bearing solution entered through a large opening, built up from the bottom and sides as a solid mass. Where the entrance was small, the silica from solution deposited on all sides of the cavity, ultimately closing the passage through which it entered, and sealing, within the cavity, a filling of silica in solution. Time passed, and the silica was deposited from the imprisoned solution, and there remained only water.

It is obvious that all crystalline geodes have had a liquid filler. Also, unless the hollow agate or geode was in contact with moisture, in time it lost the water. This line of reasoning accounts for the greater frequency of enhydros agates in localities that have abundant moisture.

There is a theory that water may have been forced into the cavity under great pressure. This theory is untenable as it takes no account of the origin of the cavity, and must assume that the magmatic water has been lost by the stone—not impossible but hardly probable. There is, however, the possibility that enhydros agates which have lost their water content through evaporation may have had the water renewed by alternate heating by the sun as they lay in the sand at the water's edge, then cooling as the waves passed over them. Air in the cavity was expanded by heat, a minute portion escaping through the porous walls; as waves chilled the porous stone, the air again contracted and the partial vacuum induced drew in water to replace the air lost. This is the theory of the "tea-kettle" method of restoring water to dry enhydros agates. I think it better to hold to the belief that the water is the original magmatic water. No other theory explains the formation of the cavity.

Most enhydros agates found are under three inches. Larger stones have water but it is difficult to detect the transparent bubble in the translucent stone. Best types are irregular chalcedony with unbroken surface. Carnelian, cloud, "turtle-back" and saganite enhydros are found, but rarely agate of the fortification type.

It is stated that polished specimens go dry more readily than the rough, because a "glaze" that sealed the pores of the agate has been removed. There is a possibility of an exterior glaze on some agates, but not on beach stones.

There is no way to predict how long water will remain in enhydros agates. One specimen has been kept dry more than 25 years and is as good as ever. Another was worn as a watch charm for 15 years without loss of water. Yet some lose their water in a short time. The finding, the polishing, the permanency of the water, all depend on luck, pure luck.

AT SANTA BARBARA

Annual convention of California Federation of Mineralogical societies to be held April 20-21.

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HERE AND THERE

... on the Desert

ARIZONA

Window Rock . . .

More than 4800 Navajo children are attending reservation schools, an increase of 1100 over 1938-39, reports E. R. Fryer, superintendent. Population survey indicates 30.8 per cent, or 13,860 of the Navajos are children between 6 and 16, and 23.8 per cent or 10,710 are between 6 and 13.

Tucson . . .

Trustees of the Carnegie Institution of Washington, D. C., have turned over to the state university the Desert laboratory near here. State control of the \$100,000 plant and its 840 acres of land will be based on a program of cooperation with scientists representing other educational institutions. Seeking data to aid the new civilization on southwestern deserts, the laboratory staff has worked 36 years. Dr. Forrest Shreve, director, and his associates gave up their posts under Carnegie sponsorship on January 1. University regents have not announced staff appointments. Dr. Shreve, predicting bright future for life on the American desert, said, "Desert dwellers of today have a rational and organized basis for living profitably on the desert. The possibilities of a newer desert civilization are large." He will continue his work of 22 years for Carnegie with studies in northern Mexico desert regions.

Tucson . . .

Photostatic copy of the church record of the death of Father Eusebio Francisco Kino has been presented to the Arizona Pioneers Historical society by E. D. Fulwood of Winkelman. The document, dated March 15, 1711, is in the archives of the national library at Mexico City. In ancient Castilian it says Father Kino "died in great splendor and edification in this house and town of Santa Maria de Magdalena, aged 70 years. He . . . discovered the Casa Grande and the rivers of Gila, Colorado, and the tribes called Cocomaricopa, Iumas and Quicamasa of the island. And in peace he is buried in this chapel of San Francisco Xavier at the side of the chancel where the second and third seats fall."

Phoenix . . .

Chicken Jim (Cil-Cua-Mah) is dead. This aged Apache (relatives say he was 85) served as a guide to U. S. cavalrymen in tracking down Geronimo, since the end of the Indian wars lived at Fort McDowell, where he died in December.

Yuma . . .

Six hundred square miles of "no-man's land" in southwestern Arizona is being surveyed by federal engineers. Eleven men will spend at least six months in heretofore unmapped regions of Maricopa, Pima and Yuma counties, extending west of Ajo to the Gila mountains east of Yuma, and south to the Mexican border. Purpose is to establish boundaries of approximately 50 townships. Bighorn mountain sheep range in the area.

Tucson . . .

Fire, destroying \$1,000 worth of property in the right wing of the 200-year-old San Xavier del Bac mission, has delayed work of restoring the ancient edifice. Priests had raised \$1,000 to repair damage caused by lightning. Now they must ask for more money.

Yuma . . .

An average of 40 marriage licenses daily has been issued in Yuma since California's new medical examination law went into effect. Licenses are available "24 hours each and every day," says Clark S. Mont Smith, "magistrates, j. p.'s, superior court judge, clergymen are ready to officiate at all hours."

Nogales . . .

Elders of the warrior tribe of Yaquis in Sonora are fighting Mexico's plan to repatriate Yaquis long exiled in Arizona and California, according to reports received here. The "old people" object to possible introduction of "American ways."

Phoenix . . .

Historian turns detective as Dr. V. Aubrey Neasham of the national park service sets out to trail Coronado, Conquistador captain-general, over the route that famous explorer followed 400 years ago when he crossed what is now the United States border seeking the mythical seven cities of gold. Dr. Neasham's assignment comes from the U. S. Coronado commission and the Arizona Coronado Cuarto centennial commission. Uncle Sam has appropriated \$10,000 for a monument at the spot where Coronado first set foot on U. S. soil. The doctor's job, with the help of eminent consultants, is to say where X marks the spot. It's all a part of big preparations in the southwest for the Coronado celebration, set for later in the present year.

Phoenix . . .

Arizona Cactus and Native Flora society dedicated its new administration building in Desert Botanical Gardens January 21. Mrs. Gertrude D. Webster, president, announced it as another step in the constructive work of the society.

CALIFORNIA

Brawley . . .

Astonishing variety of bird life is disclosed in census report from Salton sea migratory water fowl refuge. In December, Luther C. Goldman, refuge manager, made a survey by car, afoot and by boat. Then he listed 84 species and 331,272 individual birds he saw during the census taking.

Calexico . . .

"Desert Cavalcade," Calexico's March 28-30 festival, with rodeo on March 31, has been listed on the calendar of the U. S. travel bureau. All-Year club of Southern California and the American Automobile association also are giving publicity to these events to be staged in this colorful community on the international border.

Barstow . . .

Three caverns off Highway 91 near Wheaton springs will be open to the public in the summer of 1940, following exploration disclosing interesting formations of stalactites and stalagmites.

Palmdale . . .

Where is the largest Joshua tree? H. W. Mennig reports a giant Joshua more than 40 feet high, its trunk three feet in diameter, growing in Little Rock wash, eight miles northwest of here. Editor of the Antelope Valley Press prints these figures as a mark to shoot at.

Blythe . . .

P. D. McIntyre of Blythe hasn't asked for any medals, but surely he deserves a flock of them. Through all the political upsets of the past 30 years he has served continuously as postmaster here. December 26, 1908 he took charge of the office when it was established under President Theodore Roosevelt. Old-timers made it a point to call on McIntyre the day after Christmas, to congratulate the postmaster as he started his 31st year on the job.

Indio . . .

S. H. Walker of Indian well is hunting for a thief who stole 50 rattlesnakes. Walker says he had about 100 rattlers in a pit at his ranch, 50 of the snakes hibernating and in boxes. In one night his snake farm was burglarized, the burglars got away with the 50 boxed reptiles.

Mojave . . .

Women of the Mojave mine, mill and smelter workers union auxiliary abandoned in December their annual Christmas relief program after diligent search revealed the fact they couldn't find enough needy families in the community.

El Centro . . .

Contractors will use 140,000 cubic yards of clay to line the All-American canal, Uncle Sam's biggest irrigation ditch, dug to carry water 80 miles to Imperial Valley and to Imperial's neighbors 120 miles to the northwest in Coachella. Engineers say the clay blanket will line the canal 14 miles in the Bard district near the Colorado river preventing seepage.

NEVADA

Topopah . . .

Wild-horse trappers caught and sold more than 500 head of mustangs during the 1939 season in lower Stone cabin valley, it is reported here. Springs were posted or closed and the animals were trapped in a corral near Pine creek well. Buyers paid an average of \$5 for each horse, hauled them in trucks, generally to Los Angeles, where they were used for dog food or chicken feed.

Fallon . . .

Use of peyote, a drug made from a desert cactus, figured in a coroner's inquest here. Said to be widely used by Indians in several states, peyote's effects are said to include manifestations of religious frenzy and curious orgies. Said one Indian witness: "God has sent peyote to the Indians to help them. It makes us tell the truth."

Searchlight . . .

Carl Myers, miner, went down an 85-foot shaft, calmly walked past 10 sputtering charges of dynamite to rescue his partner. Myers and Harry Reid had planted 11 charges, lighted a fuse for each. One charge went off prematurely, rock fragments tore into Reid's leg and thigh, knocked him out before he could reach safety. Myers, perched above his partner in the shaft, went down, hoisted Reid on his back and climbed slowly up the ladder. He reached a safe place with his unconscious burden just as the blast let go. Myers will be recommended for a Carnegie medal for bravery.

Boulder City . . .

By July 1 an exhibit building will be completed by the U. S. bureau of reclamation for convenience of visitors to Boulder dam. It will contain rest rooms and a hall to house a model of the dam, showing also such features on the lower Colorado river as Parker dam, the Metropolitan aqueduct, Imperial dam and the All-American canal.

Las Vegas . . .

Plans have been announced to build between here and Boulder City the largest hotel in Nevada, with swimming pool and private bungalows on tree-shaded lawns.

NEW MEXICO

Albuquerque . . .

Expansion of U. S. Weather bureau activities has made the local station regional office for climatological and hydrological sections embracing all of New Mexico, parts of Texas, Colorado, Kansas, Oklahoma, Utah, Nevada, Arizona and California. It receives reports from 600 points in the United States and Mexico and from ships at sea.

Gallup . . .

Inter-tribal Indian ceremonial association directors announce August 14, 15, 16 and 17 as dates for the nineteenth annual ceremonial here. Erection of a steel stadium finished in native architecture is proposed, with exhibit space, offices and other facilities under the structure.

Santa Fe . . .

Creation of an interstate park at the "four corners" of New Mexico, Colorado, Arizona and Utah is suggested by Governor Miles in letters to governors of the other states. Miles says the national park service has promised cooperation.

Deming . . .

Beginning with one barrel cactus, Mr. and Mrs. Frank Nordhaus in 18 months developed a cactus garden now including 850 plants of 200 varieties.

Zuni . . .

Thousands of neighboring Navajo and a few hundred pale faces in mid-December braved the desert winter cold to come to this western New Mexico pueblo as guests of the Zuni fathers at their annual New Year party. Their hosts spent \$5,000 on entertainment at the feast of supplication to tribal gods. And the gods smiled. Shakalo actors representing messengers of the rain gods ran successfully the race foretelling good times.

UTAH

Goulding Trading Post . . .

Three hundred near-starving Navajo gathered here Christmas for rations of white man's food, sent to them as a gift from Salt Lake City merchants. Indians had reported crops killed by drought and livestock dying around dried up water holes.

Milford . . .

Scientists from the university of Utah are making a study of habits and life history of the desert tortoise in the southwestern part of the state. Near Beaver dam wash 175 tortoises have been banded during the past three years for observation. Complete records of their travels and maps of their habitat are made. There's a suggestion of community life in the report that as many as 15 of the reptilians dig an underground apartment house for hibernation.

Salt Lake City . . .

Discovery of teeth and bones of primitive mammals which lived 80 million years ago in central Utah is announced by the Smithsonian institution at Washington, D. C. They were "weird creatures," says the announcement, "and became extinct long before appearance of the direct ancestors of mammalian fauna of today." Dr. C. Lewis Gazin found the bones in a pocket beneath 125 feet of blank rock.



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NEW LIGHT ON SOUTHERN CALIFORNIA HISTORY

I have often wondered why the old Butterfield stage coaches in Southern California traveled by way of Vallecito and the Warner ranch instead of following the more direct route from Yuma through San Geronimo pass. And now I know the answer. It was a case of follow the line where most water was available.

For this information I am indebted to George William and his wife Helen Pruit Beattie. The story of the bitter three-cornered feud waged between San Diego, Los Angeles and San Bernardino to gain a place on America's first transcontinental mail route in 1857-58 is told in one chapter of *HERITAGE OF THE VALLEY*, written by the Beatties and published by San Pasqual Press at Pasadena, California.

There are 38 other chapters in this 460-page book and each of the chapters is an encyclopedia of historic information covering the early history of Southern California. The "valley" referred to in the title is San Bernardino valley—but the early history of San Bernardino is tied so closely to the desert region which extends away to the east of the coastal range as to make the volume a rare source book of desert information.

The span of the book is from 1772 when the first white explorer of record entered the San Bernardino valley, to 1870 when the major towns of Southern California had become firmly established.

The Beatties have done a masterly piece of work, both in the years of research they devoted to this task, and in the clear readable presentation of their material. The volume is illustrated with photographs, many of them of rare historic interest, and is indexed. \$5.00. —R. H.

STYLE TRENDS IN PUEBLO POTTERY

Out of the turbulent centuries of Spanish occupation of New Mexico and Arizona grew changes in pottery styles which were to form a definite link between the late prehistoric and the modern Pueblo wares. A study of the trends as they reflected that unstable period has been made by H. P. Mera for the third volume of the *Memoirs of the Laboratory of Anthropology at Santa Fe*, published in November 1939.

Little has been known of the ceramic development of the 16th to early 19th centuries. Most of the sites were continuously occupied even after the rebellion of the pueblos in 1680, and hence there was almost no opportunity for excavation. Enough specimens have now been found and dated to present an outline of the style trends.

A brief summary of the period just preceding the Spanish era shows five main groups of distinct ceramic specializations. It is from these—the Biscuit ware of the Upper Rio Grande, the polychrome of the Middle Rio Grande, the black-on-white of Jemez, the red-ware of the Little Colorado, and the yellow and orange colored pottery of the Hopi—that the later, more complex styles derived.

Analyses of characteristic examples from the late prehistoric to the middle of the 18th century have been made chiefly by drawings and photographs covering 67 plates. Each specimen is analyzed by a line drawing of the shape, photograph of the vessel and reproduction of the design on a flattened band in color.

There is an explanation of the plates, including the region, date, decorative symbols and influence indicated. 165 pp., bibliography. \$7.50.

Prizes to Amateur Photographers

Each month the Desert Magazine offers two cash prizes for the best camera pictures submitted by amateur photographers. The first award is \$5.00 and the second \$3.00.

Pictures are limited to desert subjects, but there is no restriction as to the residence of the photographer. Entries may include Indian pictures, rock formations, flowers and wild animals, canyons, trees, water holes—in fact anything that belongs to the desert country.

Following are the rules governing the photographic contest:

1—Pictures submitted in the February contest must be received at the Desert Magazine office by February 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, 2 1/4 x 3 1/4 or larger, and must be on glossy paper.

Pictures will be returned only when postage is enclosed.

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

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

Contest Editor, Desert Magazine, El Centro, California.

DATING PREHISTORIC RUINS BY TREE-RINGS

Dendrochronology is a long word, but it answers one of the first questions of the visitor to the Southwest Indian ruins. How old are they?

For those who are interested in the archaeological remains of Pueblo land, a recent bulletin of the general series published by the Laboratory of Anthropology, Santa Fe, offers a vivid and concise summary of the tree-ring method of dating prehistoric ruins.

W. S. Stallings, Jr., in this 20-page bulletin, discusses tree-ring character and growth, the establishing of chronologies by matching patterns of tree-rings, and the construction of plots by which a specimen of unknown date may be identified.

More than 400 years ago Leonardo da Vinci in Italy recorded the observed relation of tree-ring growth to weather conditions. But it was not until 1901 that the system received serious attention as a possible means of investigating climatic cycles, and many years later that it was applied to archaeological research. Its use today is due to the labor and genius of Dr. Andrew Ellicott Douglass, of the university of Arizona, who discovered and developed the science of dendrochronology. Although its first contribution was to climatology, it has since involved botany, astronomy, anthropology and geology. It is considered one of the most important contributions ever made to American archaeology.

The present bulletin is written for the layman and is illustrated with drawings and photomicrographs. Bibliography. 50c.

HOPI USE OVER 200 NATIVE PLANTS IN TRIBAL LIFE

One of the functions of the Museum of Northern Arizona at Flagstaff is the publishing of short monographs on important phases of northern Arizona science. Such a work is the recent **ETHNOBOTANY OF THE HOPI**, by Alfred F. Whiting.

Northeast of the Painted Desert in Arizona live the Hopi, whose plant environment is the subject of the present investigation. There are more than 200 flowering species in the Hopi reservation and there has been an intensive adaptation of these plants to all phases of tribal life. The first part of the monograph, in describing this utilization, gives an intimate picture of Hopi life and thought. It deals with the plants as used in agriculture, in construction, implements and decoration, in medicinal, ceremonial and magical rites, and as symbols in social and ceremonial life.

The second section of the study consists of an annotated list of all plants investigated or discussed in the first part. The botanical, common and Hopi names are given, together with description, use and location. Supplementing it is a comprehensive bibliography, index in both English and Hopi and a phonetic key.

Mr. Whiting regards this paper only as a preliminary study.

ETHNOBOTANY OF THE HOPI is important in that it provides the future ethnologist with an accurate handbook of basic terminology.

PRESERVING THE RECORD OF THE DEATH VALLEY 49ers

After several years of research, Carl I. Wheat has compiled as nearly as possible a record of the names of the Forty-niners in the Jayhawker, Bennett-Arcan and other parties which met tragic experience in attempting to short-cut through Death Valley to the California gold fields. Over 100 names are in the list, but Wheat does not regard it as complete. It is published in the December, 1939, Quarterly of the Historical Society of Southern California.

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Mines and Mining . .

Virginia City, Nevada . . .

Old and unsolved is the mystery of an ancient mine discovered eight miles south of here. Workings indicate close to 800,000 tons of ore were taken from the location. Yet barely 300 tons of rock remain on the dump and there is no sign of trail or road. Samples from a 300-foot tunnel are said to average \$7 in free gold. It is believed the mine was worked by Spanish or Mexican miners long before the Comstock lode boom and that the early-day operators carefully covered all traces leading to the place.

Santa Fe, New Mexico . . .

Value of metals from New Mexico mines increased more than 100 per cent during the twelve months ended October 31, 1939, according to annual report by Warren Bracewell, state mine inspector. Total for the period was \$18,988,622, or \$10,697,575 more than the record for the preceding 12 months. Metal mines reported they spent \$919,044 for improvements.

Ajo, Arizona . . .

Dr. L. D. Ricketts, consulting engineer, was named by unanimous vote the James Douglas gold medalist for 1940. Citation by the board of directors of the American institute of mining and metallurgical engineers reads: "For inspirational leadership and distinguished achievements in the metallurgy of copper." The medal will be presented at the next meeting of the institute. Dr. Ricketts has been identified for many years with Arizona copper industry.

Winnemucca, Nevada . . .

To treat 1,000 tons of ore daily, additions are being made to the roasting plant of the Gatchell mine, Nevada's largest producer of gold. Daily average has been above 800 tons for some time, says the Nevada mining Journal.

Tucson, Arizona . . .

Burrell R. Hatcher retired January 1, after 21 years with the American Smelting & Refining company, the last 10 years as Arizona manager. He was succeeded by W. H. Loerpabel.

Quartzsite, Arizona . . .

Two new mills, a 65-ton flotation plant and a pilot mill are being installed to handle copper-gold ore mined in this vicinity. There is a considerable increase in gold mining activity hereabouts.

Los Angeles, California . . .

E. O. Slater has been elected president of the Mining association of the southwest, succeeding Howard Kegley, who served as president of the association three years.

Fallon, Nevada . . .

With increased demand for antimony, 15 tons were shipped recently from near Ely and other small lots have arrived at Lovelock. Investigation is under way at the Thorpe property south of Austin, where considerable tonnage was produced during the war of 1917.

Tucson, Arizona . . .

Engineers from the strategic minerals examination section of the U. S. bureau of mines began soon after January 1 preliminary survey in Arizona. They will study properties for possible strategic minerals projects. If examination shows the properties are favorable, examiners recommend development by the government. It is reported that three of eight properties now being investigated in Arizona "look encouraging." This is a high average, according to a mines bureau division chief, who says that sometimes it is possible to get only one mine out of 200 projects.

Las Vegas, Nevada . . .

Survey of molybdenum property 50 miles southwest of Goldfield is being continued by Freeport sulphur company of New Orleans. In Alum gulch 10 men are testing the field by diamond drilling. Samples go to the company's laboratory in Goldfield. The venture is first of its kind in Nevada.

Elko City, Nevada . . .

Inventories of copper accumulated by Mountain City Copper company up to last summer have all been sold, and despite accelerated operations, it is reported the company has made some sales for future delivery. Last July the company had 20 million pounds of metal on hand. Present production is said to average 2,400,000 pounds a month.

Tucson, Arizona . . .

Arizona small miners may learn now the quality of minerals in ores without paying the almost prohibitive cost of chemical analyses. New instruments at the state university have cut cost of analyzing an ore sample to \$2.50. Chemical analyses sometimes cost more than \$100, but the new spectroscopy equipment at the university gives results almost as accurate. To test samples requiring preliminary fire assay, the cost is \$3.50. Qualitative tests show elements present in a sample. To be identified directly from a sample with the spectroscopy gold must run about three ounces to the ton. Otherwise fire assay must be made first. Arizona miners or residents may send samples for analyses to the Arizona Bureau of Mines, University station, Tucson.

San Francisco, California . . .

A new map showing all known quicksilver deposits in California has been published by the state division of mines, announces Walter W. Bradley, state mineralogist. There are 2,000 quicksilver properties in the state, 200 of which have produced 92 per cent of the total quicksilver mined in the United States. The map is 37x42 inches, is a one-half scale reduction of recently printed geologic map of California. In the margin is information relating to many phases of the quicksilver industry. Price of the map is 50 cents, plus 2 cents state sales tax.

Beaverhead, New Mexico . . .

Twenty mining engineers headed by M. E. Volin of the U. S. Bureau of mines are exploring tin deposits near here.

BOULDER DAM PRODUCES MILLIONS IN POWER

Uncle Sam earned \$4,321,000 from sale of power generated at Boulder dam during 1939. Secretary Harold L. Ickes turned in this report to the president, along with his yearly review of interior department activities. Accompanying his review, Ickes sent a warning that war profiteers may try to raid the nation's national resources and to break down the administration's conservation program. During the war of 1917, Ickes recalled "the misuse of our resources was devastating." Today, he declared, the country is in stronger position than ever before, to withstand crises, particularly those of international nature.

Other matters emphasized by the secretary: Dependence on foreign sources of potash has been lessened, due to discovery of important deposits on public lands; the reclamation fund, on which construction of projects in the arid southwest depends, is decreasing and will be so depleted by the close of 1941 that new works will be threatened with suspension of operations; the U. S. Indian population is increasing and serious crowding of existing reservations can be expected. This pressure is already felt on the Navajo reservation.

COLORADO RIVER POWER TO SERVE PHOENIX AREA

Electricity will be flowing soon over a 140-mile emergency power line from Parker dam on the Colorado river to the Salt river valley of Arizona, according to announcement by the U. S. reclamation bureau. Construction schedule called for completion of the line the latter part of January. Until the power house at Parker is in commission, the new line will tap Metropolitan water district lines served from Boulder dam. Phoenix territory will benefit immediately, Tucson and other southern Arizona districts ultimately from proposed extensions.

INDIAN MEDICINE MAN NOW GOES TO HOSPITAL

Praise for the Indian medicine man is given by Dr. Estella Ford Warner, district director for the U. S. public health service in Arizona, New Mexico, Eastern California and southern Colorado. Says Dr. Warner: "The medicine man is more than just a herb doctor. He is a general counsellor and guide. We find that medicine men are now bringing cases to our hospitals and are coming in themselves for treatments. Indians generally in the southwest give us far better co-operation, have fewer taboos and are more intelligent about health problems than many groups of whites and colored persons in out-of-the-way places."

SCHOOL BUSES SPAN WIDE AREAS IN MOJAVE DESERT

School children living on the desert travel long distances to receive their education. Fifteen busses of the Antelope valley high school travel 1164 miles daily. Buses from the Barstow union high school pick up at Silver lake students who travel 140 miles every school day.

CONTRACTS AWARDED FOR NEW MEXICO PROJECT

Contracts approximating \$2,000,000 have been awarded by the secretary of the interior for construction of the first units of the \$8,000,000 Arch Hurley reclamation project, near Tucumcari, New Mexico. About 45,000 acres will be irrigated from the Conchas dam, completed in 1939.

NAVAJO TO LEARN FARMING FROM PUEBLO INDIANS

Motion pictures will be used to make farmers out of Navajo herdsmen. Films will be taken, showing age-old irrigation practices of the Pueblo Indians, from the planting of crops through all the processes of growth, cultivation and harvest. Land is being prepared north of Chin Lee, Arizona, where the Navajo will be taught to raise beans, corn, wheat, alfalfa and truck.

NEVILLS PLANNING 1940 TRIP DOWN COLORADO

Norman D. Nevills of Mexican Hat, Utah, who has piloted many successful expeditions on the Colorado river, states that a party is now being made up for a trip during the coming summer from Green River, Utah, to Boulder dam. The trip will be primarily for botanical purposes but will include photography and exploration of some of the tributary canyons.

The Desert Trading Post

Classified advertising in this section costs eight cents a word, \$1.60 minimum per issue—actually about 10 cents per thousand readers.

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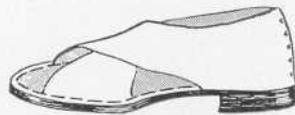
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BOOKS

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Just Between You and Me

By RANDALL HENDERSON

AS far as I am concerned, the New Year got away to a double-barreled start—and that ought to make it a happy and prosperous year.

New Years eve I was in camp with 60 members of the Sierra club—mostly Los Angeles folks who had left the bright lights and the festivities of the big city to spend the weekend exploring the desert hills.

Our camp was in Arizona just below Parker dam, in a little cove between the Colorado river and the Buckskin mountains. Our campfire that evening was the blazing dead logs of mesquite trees—that probably were in their prime when Lieut. Ives and his crew 82 years ago were pulling and pushing their old iron boat up the Colorado to find out whether or not the stream was navigable.

Because we were in Arizona we felt it proper to observe the customs and habits of Arizonans—and so when the New Year arrived (mountain time) we gave it a fitting serenade with the limited facilities at hand—mostly automobile horns. Having thus helped Arizona celebrate the New Year, we waited an hour until our California timepieces registered midnight—and then we gave 1940 another welcoming blast. If the New Year is a flop don't blame us campers—we did our best to get it started off right.

Then we crawled into warm sleeping bags, and awakened with the sun next morning, hungry for bacon and eggs, thankful for the privilege of a glorious day among the canyons and buttes of a virgin desert.

Our guide for a trip into the hills was Tudea Esquera, Chemehuevi Indian boy who told us about an old trail used long ago by trappers and scouts and gold-seekers going from La Paz and Ehrenberg to Fort Whipple. We found the trail. I have no doubt it was trod more than once by Pauline Weaver and Bill Williams and perhaps Pegleg Smith. They were the frontiersmen who first explored this country.

* * *

Among other interesting things, Tudea told me that the new name given to the reservoir at Parker dam—Lake Havasu—is spelled incorrectly. It is an Indian word meaning "blue water." According to Tudea, the spelling should be "Ahvasu."

* * *

A new department in the Desert Magazine next month will be a page devoted to the interests of the cactus and succulent collectors. They've been asking for it, and I am glad to assure them the arrangements have now been completed. Lucile Harris is editor of this department.

I'll confess it is a strange field to me, and somewhat baffling. The experts do not always agree among themselves. But

Lucile and I are not going to take sides in any of the controversies over names or species and classifications. We just want to pass along the kind of information that will interest the folks who grow cactus for the fun of it—and don't take it too seriously.

But we'll need some help. George Olin and E. C. Hummel and Scott Hazelton and some of the other experts have promised to give us a hand—and we are grateful for that, if they are not too technical. We're just simple desert folks down here at El Centro, and we don't want the DM to be too high-brow.

* * *

Some people fear and shun the desert—others accept it grudgingly. Occasionally you meet one of those rare souls who regards it as the most fascinating place on earth. If you have wondered how folks get that way I would recommend that you read Mora McManis Brown's "I, too, Have Learned" in this number of the Desert Magazine. She was an unbeliever when her husband first dragged her out into the land of rocks and cactus—and the story of her "conversion" is charmingly written personal experience that will help you understand how and why people love the desert.

* * *

One night recently I camped out in the Borrego badlands with my prospector friends, Henry Wilson and Carroll Hill. They were looking for the lost Pegleg mine—that mysterious hill with nuggets of black gold on top of it.

I don't know whether Pegleg Smith was a liar or not—but if I had all the cowhide that has been worn out in the quest for his lost claim I wouldn't care whether I ever found a mine or not.

The quest for gold is universal—but I really believe that the men who spend their years in the hills in vain search for legendary treasure, find more real wealth in the long run than a majority of the mortals who wear out their shoe leather on city pavements in a mad chase for dollars.

* * *

Verbenas are still blooming in profusion on the dunes, encelia and ocotillo and evening primrose are out in many places, and a number of the less common blossoms are to be seen along the roadsides. You'll find the desert at its best during the next two months. Come out and share the sunshine with us. It is good to camp in a secluded canyon occasionally—the worries of the home and office do not seem nearly so important. The Great Spirit that brings to the thorny cactus its beautiful blossom, also has a potent tonic that is good for the human soul.