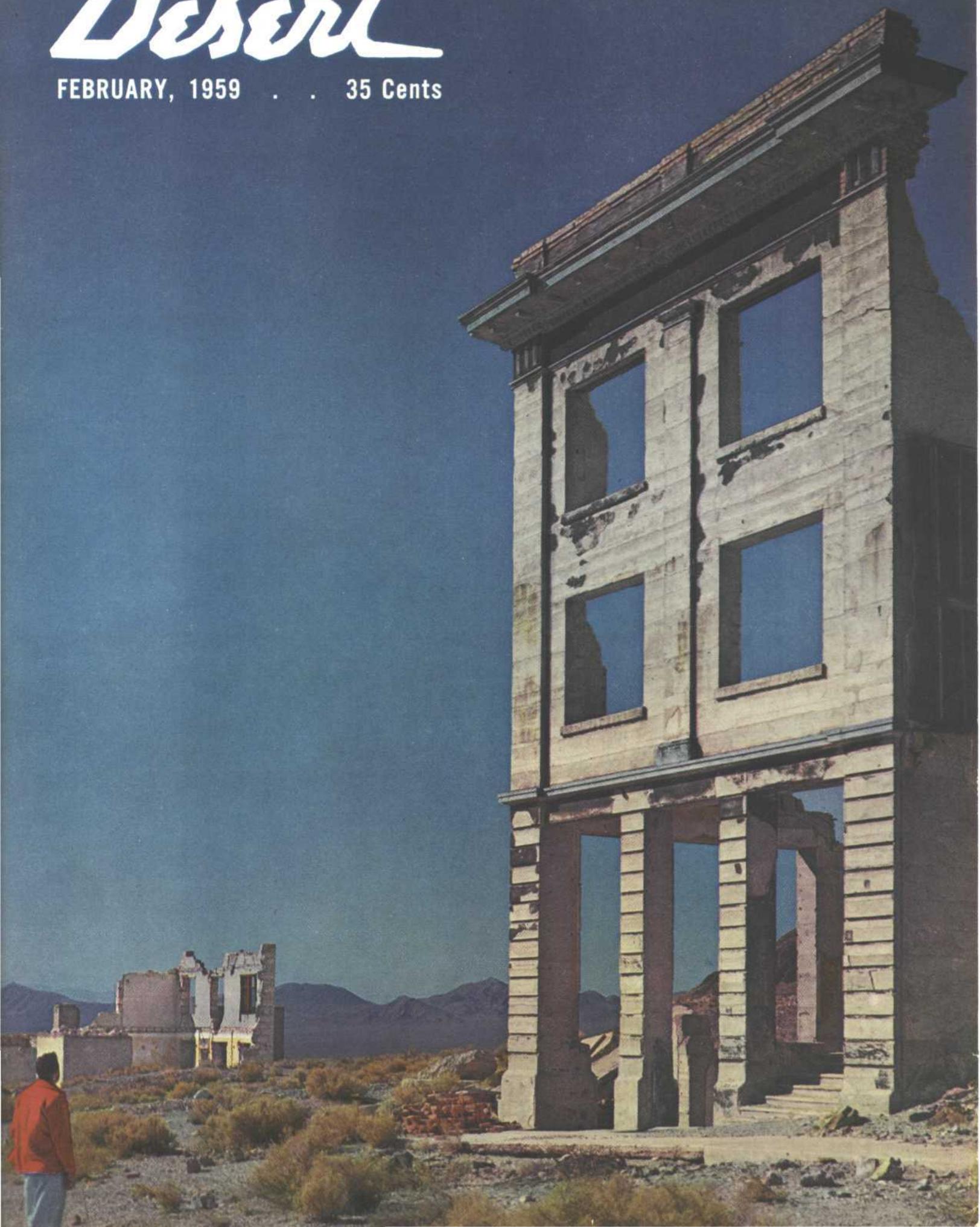


Desert

FEBRUARY, 1959 . . . 35 Cents





FEBRUARY on the DESERT

last month's beautiful back cover?) art exhibit. The admission-free gallery is open seven days a week during the winter season—from 9 to 5.

ARIZONA

- January 30-February 1 — Parada del Sol, Scottsdale.
- January 31-February 8 — Exposition of Modern Living, Exhibiting Homes, Sports, Boats, Foods. Park Central, Phoenix.
- February 1—Annual Buffalo Barbecue, shooting demonstrations, archery, world champion vermin calling contest, Chandler.
- February 1 — Black Canyon Saddle Club Gymkhana, Phoenix.
- February 2-15 — Contemporary Arizona Art Exhibit, Tucson.
- February 5-8 — \$17,500 Open Golf Tournament, Phoenix.
- February 7-8—Junior World Championship Rodeo, Rodeo Grounds, six miles east of Mesa on Highway 70.
- February 7-8—11th Annual All-Western Stampede, Phoenix.
- February 8 — Desert Sun Ranchers Rodeo, Wickenburg.
- February 8—Dons Club Trek to Ray-Hayden Copper Mines, from Phoenix.
- February 10-22 — Arizona Weavers Guild Annual Show, Heard Museum, Phoenix.

- February 11-15—Third Annual Sport Show, Arizona Game Protective Ass'n, State Fairgrounds, Phoenix.
- February 12-15—Open Golf Tournament, Tucson.
- February 13-15—Dons Club Bus Tour to Hopi Villages, Petrified Forest National Monument, from Phoenix.
- February 13-15 — Gold Rush Days, Wickenburg.
- February 14-15 — Jaycee Silver Spur Rodeo, Yuma.
- February 19-22 — World Championship Rodeo, Fiesta de los Vaqueros. Parade on 19th, Square Dance on 20th. Tucson.
- February 20-21 — Great Southwest Square Dance Festival, Phoenix.
- February 21-22—Dons Club Superstition Mountain Overnight Hike.
- February 21-22 — 4th Annual All-Arabian Horse Show, Paradise Park, Scottsdale.
- February 22-March 1—Cactus Show, Desert Botanical Gardens, Phoenix.
- February 28—Arizona Pekingese Club Dog Show, Phoenix.
- February 28 — Desert Sun Ranchers Rodeo, Wickenburg.
- February 28-March 1—Sheriff's Posse Rodeo, Chandler.

CALIFORNIA

- February 5-8—19th Annual Imperial Valley Tomato Festival, Niland.
- February 7-8—19th Annual Rodeo, Parade on morning of 7th, Palm Springs.
- February 7-8 — 2nd Annual Ridge-runners Jeep Cruise, assemble at Truckhaven.
- February 14-23 — Riverside County Fair and National Date Festival, Parade on 22nd, Indio.
- February 18-22—Whiskey Flat Days, Kernville.
- February 19-22—12th Annual Carrot Carnival, Holtville.
- Month of February — Marjorie Reed Art Exhibit, *Desert Magazine* Gallery, Palm Desert.

NEW MEXICO

- February 2 — Candlemas Day Ceremonial Dances at San Felipe, Cochiti and Santo Domingo pueblos.
- February 9-15—Southwest Livestock Show and Rodeo, El Paso (Texas).
- February 19-23—All American Auto Show, Albuquerque.
- February 21-22 — Rocky Mountain Down Hill Slalom, Taos Ski Valley.

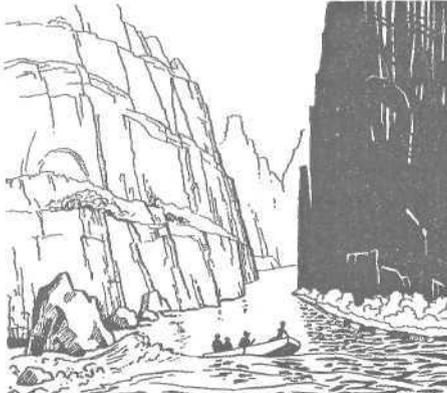
UTAH

- February 12-14 — Jaycee Snow Cup Race, Salt Lake City.

Rodeos highlight the February desert events calendar. In Phoenix, Tucson, Mesa, Wickenburg, Yuma, Chandler, El Paso and Palm Springs many a cowboy will bounce off the hard ground . . . many a rodeo enthusiast will thrill to the always different, always thrilling show.

Indio, California, is the setting for the International Date Festival — a very unique fair featuring such Near East flavored events as camel races and a nightly Arabian Nights pageant.

If your February travels find you in the Palm Desert vicinity, stop by the *Desert Magazine* Pueblo to view the month-long Marjorie Reed (remember



1959

SCENIC FAST WATER
FLOAT TRIPS ON THE
SAN JUAN RIVER, GRAND
CANYON, RIVER OF NO
RETURN, HELL'S CANYON

Mexican Hat Expeditions
Mexican Hat, Utah

GLEN CANYON FLOAT AND POWER TRIPS
MAY THROUGH SEPTEMBER

Explore and photograph this wonderful canyon,
soon to be covered by rising lake waters.

Mexican Hat's
GLEN CANYON BOATING, Inc.
WHITE CANYON, UTAH

Publisher's Notes

It is interesting to me that many of our readers are not aware of the area that *Desert Magazine* covers. Briefly, *Desert* defines its "beat" as New Mexico, Arizona, Nevada, southern Utah, and the desertland of California. We also consider Baja California and Sonora, in Mexico, as our field.

And just for a change of pace, we take a big-brother look this month at the smallest desert patch in the United States, the displaced, postage-stamp Desert of Maine.

* * *

A short report on the Reader Questionnaire that we sent out recently is also included in this month's *Desert Magazine*. I think that one of the most heartening facts to come out of the survey was the high return of answers. Forty-seven per cent of those receiving the questionnaire took the time and trouble to fill out the form and send it to *Desert*. No publisher in America has a more loyal and cooperative family of readers!

* * *

Postal rates for second class mail (which include magazines) went up another 10 percent the first of the year. This is a part of the Post Office Department's three-year program to increase second class mail charges by about one-third over the 1956 rates. And only last month President Eisenhower announced that he favors even further and higher boosts in the postal rates.

* * *

Our Desert Southwest covers about one-fifth of the "original" 48 states, and is a vast and fast-growing region, leading the nation in percentage growth populationwise.

Covering the many activities and stories of the Southwest is becoming increasingly difficult. As all magazines do, we are constantly looking for new authors, photographers and ideas. Most of our material is submitted by free-lancers, professional and amateur. Though we can accept less than one of 10 that is sent us, we always welcome contributions.

* * *

The first of our series of wildflower reports for 1959 starts this month. *Desert Magazine* has many volunteer "spotters" all over the Southwest; they send us their estimates of Mother Nature's floral moods—and we print the predictions, hoping that a cold snap, or a heat wave, or a sandstorm won't alter our report too drastically.

CHUCK SHELTON



Volume 22

FEBRUARY, 1959

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ABOUT THE COVER . . .

. . . This is all that remains of the John S. Cooke bank building in Rhyolite, Nevada (see next page), a \$90,000 monument to the everlasting hopefulness of the gold boomers. This hardy breed rushed to the new strikes, mined the ore, promoted the mines, built cities and paved streets, celebrated each new high-grade discovery. But, unlike raising cattle or wheat which multiply themselves, there's only so much gold in a district. When it is removed, the new town's excuse for being also is removed. Then the ghost town is born. Cover photographer is Carlos Elmer of China Lake, Calif.

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GHOST TOWN DWELLERS



By NELL MURBARGER
Map by Norton Allen

Once the most elaborate station in Nevada, the Rhyolite Depot was a roadhouse and casino for years before it became the home of its present occupants.

FROM THE winding grade that climbs out of Death Valley by way of Daylight Pass, I eased my car onto the short dusty road to the ghost town of Rhyolite, Nevada.

As I came into view of the town, I was pleased to see that the big gray depot still watched over the ruins with the complacency of a Buddha. Farther along Golden Street loomed the shell of the John S. Cooke bank building—a three-story-and-basement structure built at a cost of \$90,000. Beyond the bank rose the broken walls of a \$50,000 schoolhouse and a \$100,000 hotel—one of 10 hotels in the city in 1907!

The rubble-littered area between the remaining stone ghosts once held stores, cafes, brokerage offices, 45 saloons, homes, four newspaper plants, a Stock Exchange — even an opera house! Here had been no claptrap mining camp, built of castoffs and canvas; but a flourishing city, for a time the largest in southern Nevada.

I walked across the depot's wood-bine-shaded porch and stepped into the cool duskiness of the former waiting room. This building is owned by my friends, the Hershel Heislers; and since they are former Georgians who brought with them a bountiful supply of Southern hospitality, I never visit

here that I'm not made to feel like a lost lamb returned to the fold.

Mrs. Heisler inherited the depot from her brother, N. C. Westmoreland, who had bought it for a song and then converted it into a roadhouse and casino which he operated for many years. Mrs. Heisler had been a teacher of English and history; and for 36 years Mr. Heisler was a minister in the South Georgia Methodist Confer-

Rhyolite and Bullfrog—spectacular boom towns of the early years of this century—live on. Seven people make up the combined population of these towns on the Southern Nevada Bonanza Trail. They are interesting folks—good neighbors who love their desert homes as they do the full lives they lead.

ence. In view of this background I asked why they had chosen to leave their lovely Southern home and lifelong friends to begin life anew in this desert ghost town.

Mrs. Heisler said the answer to that question had its beginning 16 years ago when she first visited her brother in Rhyolite.

"I suppose you fell in love with the desert at first sight," I suggested.

"Mercy no!" exclaimed Mrs. Heisler. "I thought it was the most horrible place I had ever seen! I stayed 10 days—that was as long as I could stand it . . ."

But each summer found Mrs. Heisler visiting her brother at Rhyolite; and gradually, his desert home became more pleasing to her, the days less bleak, the mornings and evenings more beautiful. After her brother's death in 1947, she found it necessary to remain longer at Rhyolite each summer in order to do assessment work on the several inactive claims she had inherited from him; and instead of dreading those visits to the desert, she began looking forward to them.

But she still was dubious about how her husband would feel about living in such a place. For years he had suffered from sinus congestion and arthritis which eventually became so



Jimmie and Bessie Moffat

acute he no longer could carry on his ministerial duties. Mrs. Heisler prevailed upon him to accompany her to Rhyolite in the summer of 1953.

"Hershel thought it was a terrible place at first, but the next summer we came out to stay," she said. Since then, Heisler has lost all trace of his sinus trouble, and his arthritis has almost disappeared. They've established a comfortable home and worthwhile museum in the old depot, have made legions of new friends, and both have grown to love the bare brown hills and clear skies of Nevada.

Lying in bed that night in the old depot, while the desert breeze fussed around the window curtains like an over-meticulous housewife, I let my

Louise Morrison



thoughts drift back to those days when this place was being built and some of the West's greatest financial giants were pushing railroads toward this new town. The Clarks—Senator W. A. and J. Ross—were building the *Las Vegas & Tonopah* to give Rhyolite direct outlet to the *Union Pacific*; Francis Marion Smith, of Pacific Borax Company fame, was bringing the *Tonopah & Tidewater* north from Ludlow, California, where it connected with the *Santa Fe*; and the *Bullfrog & Goldfield Railroad* was building south to give connection with the *Southern Pacific*. Each line was straining every effort to be the first to reach Rhyolite.

The Clarks won the race. The first regularly scheduled train of the *Las Vegas & Tonopah* left Rhyolite December 16, 1906; a year later both the *Bullfrog & Goldfield* and Borax Smith's *T&T* were making regular runs. As the only Nevada town served by competing lines, Rhyolite was the state's most important railroad center.

Next morning I browsed through the old waiting rooms, reveling in the fascinating collection of historical material which the Heislers have assembled. One case is filled with relics and photographs supplied by Ed Cross who with Shorty Harris made the original gold strike that sparked the Bullfrog boom in August, 1904. Another case holds Rhyolite material loaned by Alfred Snead of Marlin, Texas, who installed the first telephone system here in 1906. And so it goes — former residents or their descendants loaning and giving treasured souvenirs of Rhyolite's boom days to the Heislers who maintain the museum as a public service, making no charge for admission.

Later, Mrs. Heisler and I went across the road to call on Louise Morrison, a Paiute Indian lady who has lived in Rhyolite since 1929.

"You must have been quite young when you came," I said to her.

Louise looked coy. "How old do you think I am?" she asked.

Appraising her coppery complexion and black hair, only a little streaked with gray, I guessed 48.

"Add another 20 to that," said Louise. "I'm 68."

A widow, she lives in a little house kept in apple-pie order; and since she owns a good spring whose water is piped to her kitchen, she is the best situated in that regard of anyone in Rhyolite. The supply is sufficient enough to irrigate a little garden containing flowers and vines, a few small cottonwoods, and one apricot tree.

Louise showed us a beautiful sun-purpled cruet and cake plate she had found in the ruins, and then told us



Tommy and Mary Thompson

how the town looked when she first arrived.

"The Overbury Bank was still standing," she said. "It was a fine three-story building that had cost \$100,000. Later it was torn down and the materials taken somewhere else and reused. That's what happened to most of the buildings in Rhyolite. They didn't fall down—folks hauled them away.

"There was no one in the depot when I came here. All the windows and doors were gone, and the flooring was torn out of one upstairs room. An old man was living in the Bottle House, and some of the other cabins had folks living in them.

"Rhyolite never was completely de-

Rev. and Mrs. Hershel Heisler



LETTERS

Attack Is Unwarranted . . .

Desert:

The November editorial against dove hunting irked me. It ranks with the Bambi Lovers who have driven hunters to distraction ever since Disney made the film.

Doves, deer and quail have become pests of the first order since most of their natural enemies have been destroyed. Why remove the last predator left that can control these animals: man himself?

The dove is not an important insect destroyer, as stated in the editorial. It is a seed eater, and any insects it eats are by accident.

If you wish to make an attack on someone, make it on the ones who despoil, litter and destroy the outdoors—not on those of us who use hunting seasons as a means of getting out into the country that we love.

VINCENT ELLIOTT
Healdsburg, Calif.

V.E. — Close association down through the years with the things that live and grow on this desert has taught me many lessons. One of the most important is the satisfaction that derives from the creed: "Live and let live!" I am afraid there will continue to be wars as long as that primitive impulse to kill is fostered by human beings.—R.H.

Fears of the Kit Fox . . .

Desert:

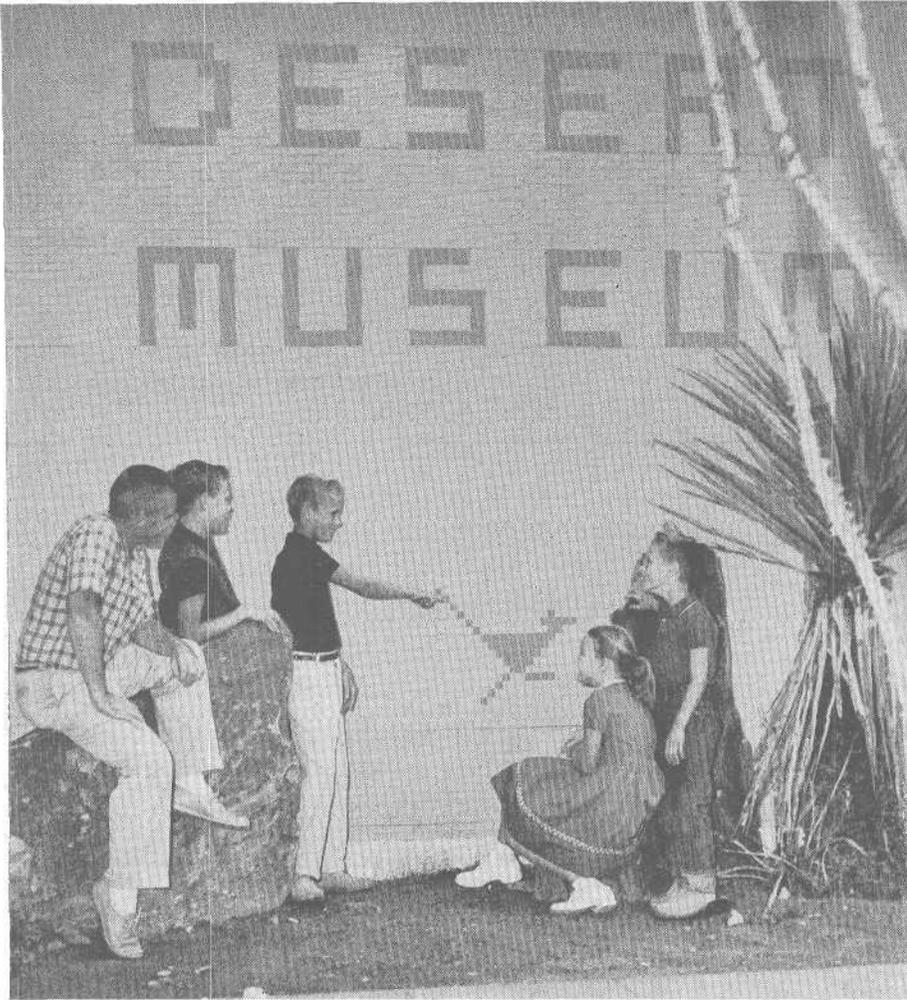
Recently we spent a month at our desert cabin in Canebreak Canyon. We had a lot of fun feeding a family of kit foxes which became quite friendly. Some came within three feet of us to receive food, but usually we'd scatter scraps on our front porch and watch through the window as five or more foxes fed there.

They did not seem to have any fear of the house, but after every bite or two they would peer into the surrounding darkness. After finishing their meal, they would go a few feet from the house and look intently into the night before entering it.

We have not heard coyotes in the canyon. Do you have any idea what it is they fear?

WILBER H. WIER
San Diego, Calif.

Dear Mr. Wier—I think your kit foxes are more alert than they are fearful. There may not be coyotes or other natural enemies of the foxes around, but nevertheless alertness becomes instinctive—and in the struggle for survival of the fittest, only the alert are the ones which endure.—R.H.



New museum building is faced in attractive tile. Young visitor points to road runner design.

of instruction and entertainment?" I asked him.

"We have some very active officers and committeemen who give me fine cooperation," he replied. "Although they serve without compensation, they give very generously of their time."

One committee is responsible for the maintenance of a Wildlife Sanctuary sponsored by the Museum. This Sanctuary, located near the entrance to Deep Canyon at the base of the Santa Rosa Mountains 14 miles from Palm Springs, was established largely through the interest of Philip Boyd, former California assemblyman. Boyd was instrumental in obtaining a long term lease at \$1 a year from the Coachella Valley County Water district on several hundred acres owned by the district and used as a water spreading basin. Boyd, at his own expense, fenced the Sanctuary, and when the water supply dried up during a long period of drouth, piped water into the area and established a permanent wildlife waterhole for the birds and animals in the area.

Another committee, in charge of publications, has published two books of special interest to desert visitors. One of them is a pictorial booklet,

The Desert in Pictures, and the other, *Driving, Riding and Hiking Guide*, in which are described and logged 16 interesting scenic places within a few hours' motor distance of Palm Springs. These books are sold at the Museum for just enough to cover the printing costs.

With the exception of the books, there is no charge for any of the services offered by the Museum. The lectures, the movies, the field trips and the Museum itself are available to all who come regardless of membership. Hours at the Museum are from 10 to 5 except Sundays.

In the building of such an institution the people of Palm Springs have established a precedent in community service which might well be a pattern for many other such educational centers in the Desert Southwest. The desert is indeed a fascinating land to those who look behind and beyond the grim mask of its arid landscape—to the miracle of life that has survived and thrives in its seemingly sterile sands and the heat of its blazing summer sun. —END

House and moved his stock up there, business was better . . .”

Bessie operated the Bottle House, part time, for nearly two decades. During these years she enlarged her original adobe cabin with more rooms and a porch, and improved its appearance with paint, wallpaper and new furnishings. Today it's as pleasant a home as any desert dweller could ask; and Bessie—still happy, healthy and vivacious at 78 years of age — has enough hobbies and interests for half-dozen women.

Precious Water

One of Jimmie's chief avocations is landscaping their home—despite the fact he must haul every drop of water from Beatty, five miles distant.

“When a friend saw the cottonwoods and locusts I planted he said I was crazy, and that in a few years, if the trees lived, I'd be hauling 50 gallons of water a day for each one. He's probably right, too,” said Jimmie, “but I think it'll be worth it to have some trees.”

In addition to cottonwoods and locusts, Jimmie planted native cactuses, Joshua trees and yuccas, and surrounding the base of each is a neat circle of white rock. When he said this stone was bentonite, I visualized those handsome borders disappearing with the first rain.

“Won't it dissolve this winter?” I asked.

Jimmie grinned. “Not in Rhyolite,” he said.

From the Moffats' I went to the Bottle House. Built in 1906 by Thomas Kelly, a saloonkeeper, this unique residence is a Southwestern landmark.

Into the building of this strange house went 51,000 quart bottles — originally containers of potent spirits. The place is in good repair today, due largely to the fact that at one period in its history, the Bottle House was rescued by a motion picture company filming a movie at Rhyolite. The company later deeded the house to the Beatty Improvement Association which, in turn, leased it to curio-dealer Murphy. When Murphy died in 1956, the Association granted a new 20-year lease to Tommy and Mary Thompson.

Two minutes after meeting the Thompsons I knew the Bottle House had found its ideal tenants. Everything, to the Thompsons, is a big joke; and it's easy to see that they believe in savoring life to its fullest.

Tommy and Mary

Before sending down roots in this ghost town, the Thompsons were in show business — Tommy playing the accordion and Mary doing a song-and-dance act. Tommy's career be-

Rhyolite in 1909. Three-story white building in upper right-hand corner is the John S. Cooke bank whose ruins are pictured in this month's cover photograph.

gan in the Nevada mining camps around the turn of the century when he played in honky-tonks, saloons, at political rallies and even supplied the music for the Gans-Nelson championship fight at Goldfield in 1906. After their marriage, he and Mary toured the country playing for carnivals, circuses, fairs, rodeos and special celebrations.

“Anywhere folks wanted a little clean fun and laughs,” explained Tommy.

“We played all over the country,” added Mary. “In one season alone in Model T Days we played engagements in 22 states!”

Entertainers

“When I reached my 70th birthday I hung my old music box on the wall and said, ‘I've had it!’” chuckled Tommy. “Of course, I still play for weddings and dances, and things like that . . .”

The Thompsons — who boast 29 grandchildren and three great-grandchildren — have stocked the Bottle House with an amazing assortment of relics salvaged from the ruins. It will take the full term of their lease to accomplish even half of the plans they have for this place, but I can't imagine them ever growing bored!

I continued down the road, past the ruins of Senator W. A. Stewart's home, to the cemetery where I saw much improvement since my last visit. This is another of the Heisler projects. Since



ON DESERT TRAILS WITH A NATURALIST

THE BURRO often is spoken of as a creature of stupidity and obstinacy, but this is far from the truth. I have owned a number of these animals, ridden and walked behind them over hundreds of miles of trail. The donkey is no fool. It merely resents man's often unreasonable bidding.

If a burro is taken into training early and treated with kindness, it is very responsive and cooperative, almost as much so as a dog. The burro has ideas of its own which should be respected. Mistreated and abused burros are the hard ones to deal with, and they show their disrespect in many clever and often amusing ways.

If loaded too heavily, they will lie down and refuse to move until relieved of their burden. An overloaded burro I once hired on a mountain trip would wait until she got to a sizable stream, then with a deep groan fold her legs, sink down and refuse to move until I lightened her load. I always imagined she was pleased to think she had gotten even with me by thoroughly wetting my provisions.

Donkeys, especially young ones, have good senses of humor and sport. A six-month-old female I had raised from birth used to play every morning for 15 or 20 minutes with a neighbor's cat. The cat thoroughly enjoyed being caressed by the burro's big soft nose, or picked up in her mouth and then dropped to the ground. The burro had fun running alongside the neighbor's barking dog, showing its pleasure by playfully bucking, snorting and swishing its tail from side to side.

This shaggy-faced bright-eyed burro, full of perpetual inquisitiveness, had to learn many lessons by hard experience. The first time she saw a campfire she walked up and poked her nose into it. She thought cholla cactus was good to eat because it was green, and found too late that it was treacherously painful. The prickles went deep into her tender nose, the cactus joint stuck tight. To free herself she butted her nose into her mother's tough-skinned belly where the cactus clung tenaciously. Quickly pulling her nose away, she left the cactus joint clinging to her parent's hide. When this animal grew up she used to get out of pasture by lying flat on her side and working her way under the fence. Quite a clever animal, I'd say.

The burro is an important animal in Mexico, Italy, Spain, Greece and North Africa where for ages it has

El Burro

Here is new insight into the character of the burro — an animal which repays measure for measure the treatment given it by man.

By EDMUND C. JAEGER, D.Sc.
Curator of Plants
Riverside Municipal Museum

been the poor-man's chief burden-bearer and enduring friend. The Egyptians domesticated it long before they had horses.

The original wild burro (*Equus asinus*) from which the donkey we know was derived, came from the wild deserts of Nubia in northeastern Africa where, though rare, it still runs in small herds. It is the fleetest of all animals for long sustained runs over rough country.

The Nubian asses differ from their Asiatic cousins in having much longer ears and narrower hoofs. They are gray in color and have very distinct shoulder and dorsal longitudinal stripes, markings seen on most domestic donkeys. There are numerous cross-bands on the legs, but these are not as prominent.

The three Asiatic wild ass species more closely resemble the horse. Their ears are smaller, their coats sandy or chestnut in color, and their shrieking bray has little of the volume possessed by the Nubian animals. The largest Asiatic species is the Kiang (*Asinus kiang*) of the high tablelands of western Tibet and Mongolia. Their thick long furry coats are needed at these cold 14,000-foot altitudes.

The Dziggetai (*Asinus hemionus*) of Mongolia is somewhat smaller. The Onager (*Asinus onager*), even paler and smaller, ranges across the Asiatic deserts from Syria to Mongolia; it is the wild ass of the Bible.

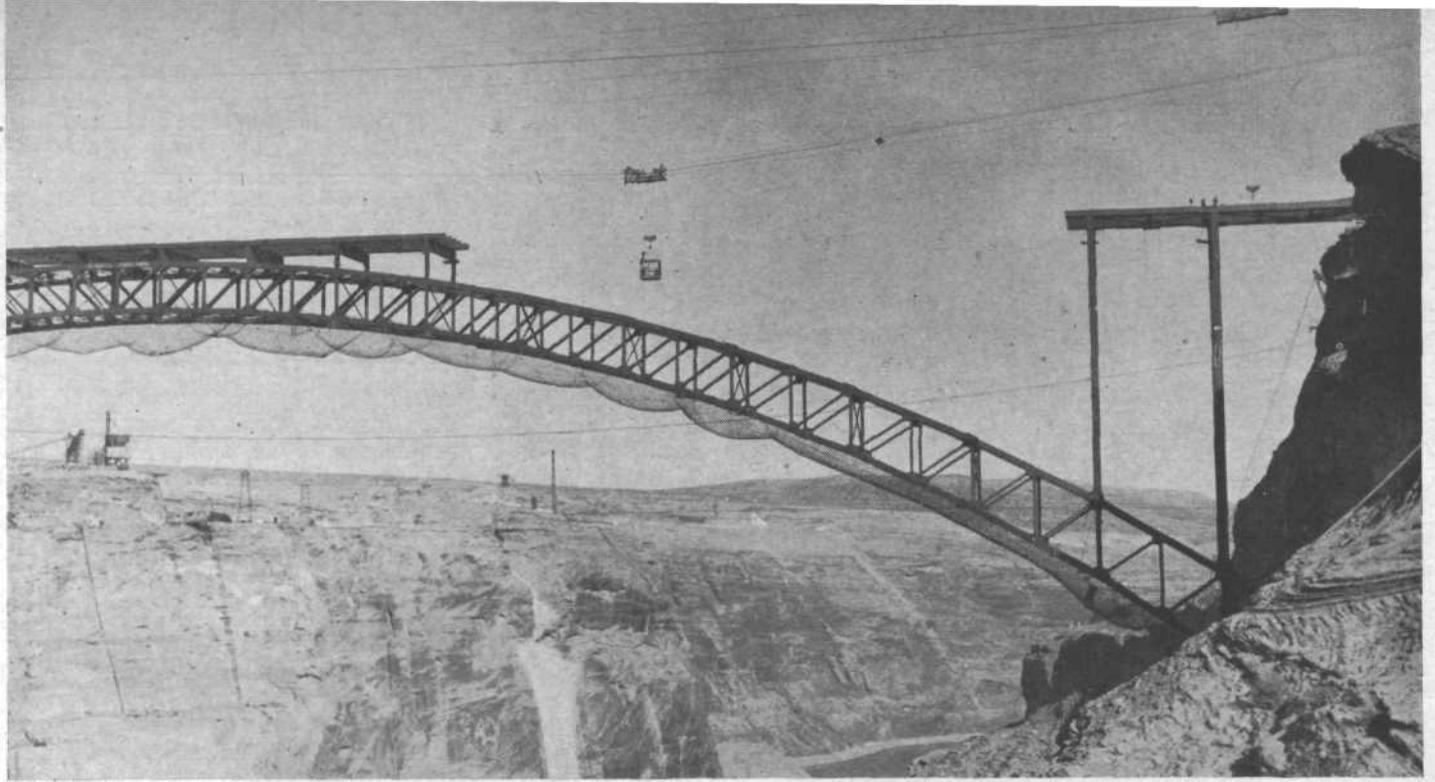
Domesticated donkeys in England, Spain and Italy often are very small, weighing only about 350 pounds; in Mexico they average a little larger. This smallness of stature is due to inbreeding and age-long neglect, abuse and lack of proper food.

A healthy well-fed burro, especially a male, may be nearly the size of a small horse. Such animals are capable of carrying without apparent fatigue surprisingly large loads over long

distances. In central Mexico I often see them trotting along with loads of hardware on their backs weighing up to 150 to 200 pounds; and behind on the haunches will be riding a boy or even a man.

Donkeys have a limited vocabulary of sorts and can convey many ideas. I once heard of some men who studied baboons, and learned after two years that they could "talk baboon." I am satisfied that we could learn to "talk burro," or at least understand them. Their brays and whines and guttural grunts have many meaningful inflections. They also express feelings with their tails and ears. A decision suddenly arrived at or a feeling of disgust may be indicated by a rapid single swish of the tail; anger may be shown by a quick drawing back of the ears. I have heard burros cry and beg for food or attention with sounds akin to those of a dog. There are notes which





Progress at Glen Canyon Dam

By THELMA BONNEY HALL

Work is moving ahead at the Glen damsite. The highway bridge is taking shape, and in the canyon the way is being prepared for the dam.

CAMPED ON THE northern Arizona desert, then drove to Page to see if I could find a cup of coffee. It's a strange dynamic town. At 7:30 a.m. the unpaved bit of road which climbs the mesa into Page was so churned by traffic it seemed suspended in air. By 10:30 that morning it had been paved.

It's a town with only one excuse for being—to build Glen Canyon Dam. It's a raw town. The white dust was filled with hurtling cars, loaded with hard-hatted men going down the mesa to do the big job at hand.

By the time I reached Page, the streets were deserted except for one boy who was tending the unsheltered gas pumps on the corner. An open air sandwich shop—the only town concession for tourists—was deserted. The gas boy said they might give me coffee at the mess hall. "You never can tell," he said, "this is a funny town."

Except for the chrome appliances, the mess hall might have been transported from my more familiar lumber camps in the north woods of Maine. Not only did I get my coffee, I was served ham and eggs, pancakes, hash, toast and donuts! Shades of the Maine woods!

I'm an old hand at Glen Canyon, for I was here the day the men started scaling the walls on the Arizona side nearly two years ago. That day only silence hung over the infinite miles of rock and cliff and space. Not a grain of sand had been turned at the Page townsite. One venture-some businessman in a trailer, busy estimating the business potential of the area, was here. All the workmen were housed on the Utah side, and were flown across the canyon to their jobs.

I'm glad I saw the place then, for there was an eternity about it which remains with me. The magnificent grandeur of the new scenery that will be made accessible by the reservoir behind the dam allays my regrets over the transfiguration of the canyon damsite.

A few months later I again visited the area, and the untouched quality was gone. Sand and gravel pits erupted at the end of every cart track on the mesa tops. Buildings and superstructures were going up. There was no housing, and the trailer sites were utilitarian in the ultimate. An observatory platform for tourists on the Utah side was the only island of frivolity in a sea of business-like determination.

On my latest visit the mood had changed somewhat. Many houses had been built, there was a school for the children of the construction workers, and the trailer grounds had received some spit and polish. An observation platform was completed on the Arizona side.

The underarch of the magnificent bridge was finished, and I watched as steel men in the cage were carried by cable from the Utah side to a point above the unfinished bridge section. The car slid down to the arch. The cage door opened and the men stepped out with all the aplomb with which I exited from my car at the mess hall. Then the great derrick boom on the rim fingered a steel upright to the men, and they bolted it in place. Except for the gaping maw of the canyon, they looked like children playing with an erector set.

Meanwhile, work was progressing on the four-inch-diameter lock coil steel cable which will deliver 50-ton buckets of concrete to the site of the 700-foot-high dam. It is the largest cable ever manufactured commercially in the U.S.

It all looked so easy, but so vast is this setting there is an unreal feeling of unreal figures playing out a script for which there is no plot—until suddenly a steel upright is bolted into place, a boulder on the canyon side is dynamited off, a truckload of materials rumbles up to the rim—and you begin counting on your fingers how many more days it will be before you can drive across the bridge.—END



Cocopas (above) were less-warlike than their northern cousins, the Yumas.

He Sailed Into the Unknown Rio Colorado

By EUGENE L. CONROTTO

THE YEAR was 1826. The place: the unexplored waters of the Gulf of California.

In command of the 25-ton *Bruja* sailing northward toward the mouth of the Colorado River was Lt. R. W. H. Hardy, an Englishman "engaged in the capacity of a commissioner by the General Pearl and Coral Fishery Association of London" to find beds of pearl oysters. His employers also gave "great latitude in my endeavors and urged my greatest alertness for sunken ships or gold and silver mines."

But, Hardy was more than the 19th Century English businessman—he was a wonderfully alert, amazingly curious and delightfully humorous human be-

ing. It is indeed fortunate that he wrote a book on his New World experiences: *Travels in the Interior of Mexico, 1825, 1826, 1827 and 1828.*

Of his shipmates, Hardy said: "Our crew was composed of the most wretched set of people, in the shape of men and sailors, that ever set foot on the deck of a vessel. The captain was an Englishman. Two seamen . . . were also Englishmen. Two were Italians; my Mexican servant; one California Yuma Indian, our diver; and two Indians from the Manilas . . . These were all the living souls, except flies, fleas, bugs, etc., on board the *Bruja.*"

Navigating without chronometer,

sextant or even a nautical almanac, Hardy had only the very incomplete "Chart of the Gulf and West Coast of North America," published by Arrow-smith of London, to guide him. The mapmakers, unfamiliar with the northern Gulf, sketched in that area from information supplied to them by Indian pearl divers.

Adair Bay

The morning after the ship had been caught in a gale, Hardy saw before him what he supposed to be the mouth of the great river. Boldly he sailed forward—only to find a bay on the coast of Sonora. Hardy had served in the Royal Navy from 1806 to 1815, and his training as a British officer left him with excellent qualifications for making and recording scientific observations. He mapped the area and named it "Adair Bay"—the name it bears to this day.

Two days later, after bucking a new storm, the *Bruja* found the Colorado's delta:

" . . . we saw an opening ahead, which appeared to be the mouth of the river; and both seas were covered with a delicate green, arising from the herbage growing on the banks . . . the river had clearly two, if not three mouths, and the land on either side was very low . . . having now lost all apprehension of danger, we were proceeding forward carelessly, when, to our astonishment, we observed breakers close under our bow. We immediately hauled our wind on the starboard tack, and, having cleared this new danger, we again bore up, and reached the entrance to the Rio Colorado . . . here we came to an anchor for the night . . ."

Before going to bed, Hardy sounded four fathoms of water below the *Bruja*.

Next morning he received his first lesson in the river's treachery.

To his consternation, there was just enough water for the ship to maneuver in. The range and violence of the tides at the mouth of the Colorado were to further plague him as his tiny ship moved inland.

He took time off to name two islands at the river's mouth: "the largest . . . I have named after my earliest, best, and most honored patron and friend, Admiral Sir George Montagu, G.C.B. (today called Isla Montague). The other I have called Gore Island . . ."

Lost Rudder

A few miles upstream the tide caught the *Bruja* and swept it along "like an arrow" at the rate of nine miles an hour. Ten yards from the bank the helmsman took fright, the vessel smashed into a sand bank and with a tremendous crash the rudder

play across the Freeport dunes. There are places here where the land has been lowered 30 feet from its original level. In some parts of the Desert, great dunes tower over the surrounding countryside—one is 85 feet high! The sands constantly shift about. They are forever creating and then filling gullies and low places, and have covered houses.

In some areas, sand has nearly buried 70-foot-high trees. This is one of the Desert's most amazing aspects, for these giant trees, buried to within scant feet of their very tops, still live! An apple tree of which less than two feet remains above sand, not only lives and bears leaves, but until only recently, bore fruit.

The sands themselves are fascinating. Over 100 different colors, shades and tints are plainly visible. There are pink, violet, blue, yellow, lavender, red, gray, brown and white sands—made even more conspicuous after a rainstorm. Some cups of sand I have examined contain as many as 25 different color-shadings. These colors are caused by pulverized vegetation and minerals, and are so permanent that hundreds of washings in experimental laboratories and long exposure to the sun have failed to change them. They are indeed Nature's own "fast

colors." The sands of the Desert of Maine, as a whole, are considered as having the finest texture in the world.

In one section of the Desert I came across a cluster of bare, cracked and darkened trees half buried in sand. These were once part of a thriving orchard. They are now in the first stages of petrification. In a hundred-thousand years or so, Maine may have a Petrified Forest which will equal in quality, if not in quantity, the famous northern Arizona locale.

In the opinion of many medical men, the Maine Desert has definite therapeutic value. Many sufferers from joint diseases, rheumatism, arthritis and kindred ailments, visit the area yearly to walk barefooted over the hot sun-baked sands.

The Tuttle family was proud of its spring over which they built an exceptionally large spring house. Today, the spring house is partially covered by the shifting sands, but the ice cold water still bubbles up through the sands to form a crystal clear pool, six feet in depth. The properties of this water compare favorably with those of famed mineral springs.

Although the Desert has been

Encroaching sands have started to cover the Tuttle Homestead barn.

thought to possess no commercial value, several nationally-known commercial corporations currently are doing research and experimental work on these sands. One interesting result of these tests is that scientists now are certain the Desert was never a portion of the sea bed. Microscopic examination has positively shown that each of these highly magnified grains of sand are angular or crystalline in shape, not oval and smooth as they would be if evolved from the constant action of the ocean.

Visitors from many foreign countries have examined with interest the Desert of Maine. Geology students have studied, pondered and advanced theories of its existence and rapid spread. The riddle of its origin has been mulled over and analyzed by noted scientists. No one theory has been completely accepted.

The future of the Desert is food for thought. Should the sands continue to spread at the accelerated rate of the past five years, it is only a matter of time before much of Maine is turned into a bleak expanse of rolling dunes.

Perhaps the day will come when the sands will cease to spread, and, as abrupt as was the Desert of Maine's beginning, so may be its ending. Only time will tell.—END



river at that time, bears the name Hardy River today.

Hardy's description of the river mouth would still apply today:

"On the western side of the river there are forests of the thorny shrub called mesquite, an inferior species of quebrahacha . . . on the banks there was a profusion of stems and large branches of the willow, poplar and acacia, which had been brought down by the flood . . . on the eastern bank, where we were aground, there were also wrecks of these trees; but there was no other vegetation but a dwarf sort of reed . . ."

He told the men who accompanied him on these exploration forays to be on a sharp lookout for cattle. Provisions on the *Bruja* were dangerously low.

Presently they came upon some horses quietly grazing. "They were not in the least alarmed at the appearance of strangers—from which circumstance I knew that they must be tame, and belonging to human creatures . . ."

On the left bank of the river they found a hut occupied by six old men and two old women who showed great displeasure in seeing the white men.

By sign language and deep grunts the Indians conveyed to Hardy that he had better depart as quickly as possible because the country was swarming with Indians who would chastise him for this unwelcomed intrusion.

Hardy Speaks

Undismayed, Hardy made a speech—beginning it in Spanish and ending in English—finding one language as unintelligible as the other.

But there were two other languages all Indians understood: force and barter. Hardy chose the latter. Whipping out tobacco and a few printed cotton handkerchiefs, he traded them to the Indians for fish and other food.

Indians, Hardy knew, almost always welcomed traders. When a trader was killed, it was years before another dared bring the esteemed wonders of the white man's world to the tribesmen.

Next day, two Indians approached the ship.

"One of them had a covering of cotton which he took off without ceremony and offered for sale. He had also a small quantity of raw cotton in a basket, which I presume he brought as a present, as he gave it to me without seeming to expect any return. I made signs to him to bring down cattle, but as he did not understand what I meant, I drew a cow with a stick on the sand, which seemed to convey my meaning, for he nodded his head in token of assent, pointing

at the same time to the road by which he had come."

So far so good. The word was out that Hardy was a trader. As soon as the Indians were out of sight, he ordered a tightening of the *Bruja's* rather absurd defensive position. An extra quantity of grape was introduced into the carronades, which only could be fired once because of the deck's angle of incline. The matches were lighted and placed in their proper situations, the crew's muskets carefully examined and "three buck shot added to their present charge." The boarding net was extended around the vessel.

Indian Visitors

Next morning 13 Indians visited the *Bruja*. After making sure they were unarmed, Hardy allowed them aboard. They showed great curiosity in the ship's hull, masts and rigging. At noon more Indians arrived, and Hardy ordered the first 13 to depart. One of the newly arrived Indians, whom Hardy judged to be a sub-chief, cried out lustily, "*Bueno, bueno,*" as he approached the vessel.

"More Spanish than this, however, he did not understand, but as soon as he cast his eyes upon our diver, also an Indian, he addressed him, as I afterwards learned, in his vernacular language, which is the Yuma. We had thus, unexpectedly, an interpreter . . . In reply to my questions, he said there were no horned cattle in his country, and only a few horses. Melons, zandias, pumpkins and maize, he said the *Capitan Grande* would send down, as soon as the true objects of our visit were explained to him."

Before the party departed, Hardy shot off a cannon, hoping it would leave a lasting impression on the curious visitors — one that they would convey to their *Capitan Grande*.

A few hours later another party appeared. They explained that the *Capitan* had dispatched them to manifest his expressions of welcome, and to embrace the visitors and to offer to them the great *Capitan's* protection. The cannon shot had not been wasted.

Suspicious Tribesman

One of the Indians, whom Hardy recognized as having been on the ship earlier, came forward and conversed with them in Spanish.

"This circumstance," Hardy wrote, "awakened a little suspicion, and I determined to be very cautious in my future dealings with his tribe."

The next day brought an incredible scene to the *Bruja's* slanting deck.

Lt. Hardy, the cultured English gentleman stranded 200 yards from the raging Colorado, was host to the powerful *Capitan Grande*—who used the tiny craft as a speaker's platform to address the hundreds of Indians who

sat in the sand completely encircling the vessel.

After the talk, Hardy casually inquired as to the import of the oration just delivered.

The interpreter answered that the *Capitan* had made a "war speech" to his people, reminding them that the Great Spirit had given the care of the nation to the safe keeping of its chiefs; and that these were the leaders around whom the Indians should assemble with submission and a fixed determination to abide by their counsels.

As the *Capitan* was taking his bows, Hardy ordered his men to begin trading. Commerce erased some of the tension. That night, Hardy suggested that the *Capitan* and his interpreter remain on board, under the charge of sentinels.

Next day, the *Capitan* did Hardy one better. Instead of making war speeches, he held a council of war on the *Bruja's* deck with several of his sub-chiefs.

During the afternoon hundreds of Indians swam across from the other side of the river. Several more sub-chiefs and an old woman joined the council.

"Her age could not, I think, have been less than 120, and her body was more shriveled than I had supposed possible in a living creature. Her face was painted yellow . . ."

Cacique

The deliberation gained impetus when the chief-of-chiefs, the great and powerful *Cacique*, joined it. Hardy had to move fast. He trained two blunderbusses on the warriors. This had "magic effect" on them, for the council immediately broke up. The *Cacique* departed with all except *Capitan Grande*, the interpreter, and the old woman.

"Soon after this I ordered dinner on deck, and invited the remaining party."

An Indian whom he had met some days earlier, joined them.

" . . . finding his friends seated round a tablecloth, and quietly devouring the good things which had been laid upon it, he thought he too might look out for a spare berth, which he attempted to do in the first place, by putting his foot, which was still covered with mud, on the middle of our table."

This enraged Hardy, but his guests went on eating as if nothing had happened.

Soon after the meal, all the Indians who had departed earlier returned, the great majority of them still unarmed as ordered by Hardy.

Capitan Grande pointed out to his colleagues that they outnumbered the white men 500 to 1; that it would be a simple matter to drive the foreigners

ging sticks, pottery paddles and other items available for comparison.

While the preparation of exhibits for the spacious new museum is far from completion, the weekly programs arranged by the Director and his staff are on full schedule, as they were even before the new building was erected.

Every Saturday Dr. Smith leads a field trip caravan to one of a score of interesting places within a few miles' drive of Palm Springs. While these Nature study trips are especially interesting to students of the natural sciences, the group ranging from a dozen to 60 or more people, driving their own cars, includes some who go out for photography or art sketches. And there are always a few who go merely to enjoy a picnic lunch in a setting of natural beauty. These excursions have as their destinations such places as Snow Creek in the San Jacinto Mountains, Painted Canyon in Mecca Hills, Salton Sea, Palm Canyon and the Joshua Tree National Monument.

Every Friday and Saturday nights there are lecture programs in the auditorium, generally with pictures in color. Dr. Edmund C. Jaeger, dean of the desert naturalists, presents one or two of his lectures each season, as does Nell Murbarger, the "Roving Reporter of the Desert." Other speakers include Mr. and Mrs. "Cactus Slim" Moorten, W. Scott Lewis, Glenn and Martha Vargas, the Desert Nomads (Verl, Donna and Kathy Martin), Bill King of Beaumont and members of the faculties from U.S.C., U.C.L.A., Redlands and Pomona colleges.

Education, Entertainment

The Tuesday evening programs present slides or moving pictures, generally of an educational character. For instance, in December the films included the subjects: "Adaptations for Survival," "Migration and Hibernation," "Water Birds of the Desert," and "Song and Game Birds of the Desert."

Dr. Smith is an archeologist by profession, having received his doctor's degree at the University of California in 1950. "I thought I wanted to be a mechanical engineer when I entered school," he confesses. "But I soon realized that I preferred the role of scientist to that of engineer, and since I was not doing too well in my mathematics, I set a new goal in the field of archeology." Dr. Smith is still a student. His work at Palm Springs requires some knowledge of all the natural sciences, and so he has been doing diligent home work in geology,

botany, zoology and history since coming to the desert.

One of the services rendered by the Museum and its staff is in the identification of Nature specimens which constantly are brought to the office. This information is freely given regardless of membership in the Museum. Visitors bring plants, insects, reptiles, rocks and Indian artifacts. "Even if I had no calendar I could almost tell you the month of the year, based on the type of specimen material brought here for identification," said the Director.

"Sometimes these requests for information come by phone. And sometimes I flunk out on these tests. For telephone inquiries, in the absence of scientific detail often are hard to answer and it is a matter of guesswork. This happened a few months ago when an out-of-town woman phoned in to ask the name of a bird 'making strange noises in the tree in front of my house.' When she tried to give me an imitation of the bird calls over the phone, I could only suggest that maybe it was a hoot owl, but I couldn't be sure."

The Museum is organized as a non-profit corporation and its normal oper-

ating budget is about \$20,000 annually. The Museum has no subsidy from any source, its income being derived from memberships which range from \$5.00 for an Active Member to \$5,000 for a Benefactor. In raising funds for the new museum there were several contributions of \$5,000—and the institution was able to open in December without a penny of indebtedness.

A Big Job

Dr. Smith's staff is small—himself and a secretary, with artist Janet Wullner putting in part time in the preparation of the exhibit panels. Maryon Drake, the secretary, is on duty eight months of the year, the Museum closing for three or four months during the summer.

The Director's duties are many. In addition to scheduling the programs and serving as naturalist-guide on the field trips, he is projectionist for the moving picture programs, an information bureau — and when the janitor fails to show up he sweeps the floor, which is quite a chore in a 10,000 square foot building.

"How is it possible for one man and a secretary to provide so wide a range



Dr. Clarence E. Smith explains evolution of Mt. San Jacinto.

Navajo Slave Blanket

Slavery and weaving were integral parts of the demanding lives led by the harried Spanish Colonists who settled in New Mexico's Rio Grande Valley. Here is the story of a rare and beautiful blanket which resulted from a combination of these life factors—a splendid tapestry woven by a young Navajo slave girl.

By JOSEPH H. TOULOUSE, JR.

LEAVES OF COTTONWOOD trees were edged in gold fortelling the colorful Fall days ahead. Inhabitants of the small Spanish-American village of Abo Viejo, 70 miles southeast of Albuquerque, were busy with Autumn housecleaning chores—repainting and replastering walls, repairing woodwork and furniture and airing bedding, so that harvesting of crops and hauling of wood could be done in time to settle down to the coming winter. On the slopes of the Manzano Mountains, winters are cold and accompanied by snow.

Pigs were rooting beneath juniper and pinyon trees, grunting in joy at the tender roots uncovered. An occasional cluck of wandering hens drifted toward me as I walked through the village after visiting the nearby ruins of the 17th Century Mission of San Gregorio de Abo. I was in charge of the job of excavating and stabilizing these ruins.

The labor of the men and women was everywhere in evidence, but my attention was arrested by the reds, browns, blacks, grays, yellows and greens of blankets hung over fences and porch furniture. These blankets were different from those woven by the Navajo and Pueblo Indians which I was familiar with. My curiosity was aroused—and satisfying that curiosity led to the discovery of two beautiful and unique blankets in these mountains—blankets of New Mexico's little known Spanish Colonial weaving period—blankets, in this case, woven by a Navajo slave.

"The origin of these blankets stems from the desire of the Spanish Colonists to own the highly prized but costly serapes and blankets from Monterrey and Saltillo in Old Mexico," Dr. H. P. Mera of the Santa Fe Laboratory of Anthropology told me. Dr. Mera is an authority on Southwestern weaving, and it was from him I sought a clue to the Abo Viejo blankets. "Wool from the sheep flocks in New Mexico was plentiful, and what was more natural than to weave blankets during the long and cold winters? The modern Chimayo Blankets, created at the village of Chimayo in north-central New Mexico, descend from this Colonial weaving period." (See back cover.)

Dr. Mera calls the Spanish tapestries Rio Grande Blankets. Unfortunately, his monograph on this craft remains unpublished. He encouraged me to seek all the information I could, particularly names of weavers, dates and places of manufacture. The weaving, being a homecraft, left little in the way of business records or other documentation, he warned.

I returned to Abo Viejo to photograph as many of the blankets

Rockhounding With A Camera

Collecting rocks can be fun, as increasing numbers of people are discovering. Here's a suggestion on how to get the "big ones" home—the mountain-sized monoliths that won't fit into your rock sack, or even the backyard rock garden.

By HENRY P. CHAPMAN

7 HERE ARE more ways than one to skin a wildcat — and more ways than one to enjoy collecting rocks. I do it with a camera.

The rocks I pick up in the desert and canyon country of the Southwest range from man-size to mountain-size. Film provides the only means I have to take them home.

Rockhounding with a camera, like doing it with a prospector's pick, is enjoyable and rewarding. It's easy, too. With a little practice and polish every rock picture can turn out to be a precious gem.

The entire Southwest is a happy hunting ground for camera rock collecting. I started the day I pointed an f/5.6 lens opening at the Grand Canyon. After a few clicks I had photographic possession of three of the Southwest's most spectacular rock formations: The Battleship, Confucius Temple and Cheops Pyramid.

Mittens and Rainbow

In Monument Valley I added the giant time and wind-knitted Mittens to my rock collection. Utah contributed Rainbow Bridge, the 300-foot-high arch under which Theodore Roosevelt went swimming in a rain-water pool.

In Utah's Zion Canyon I struck a bonanza. Here the incomparable architect, Nature, has fashioned majestic cathedrals out of rock. Mighty temples and sky-high altars, painted deep crimson by the sun, populate the canyon. Among the mammoth rocks at Zion which fattened my growing collection were The Temple of Sinawava, The Great White Throne and The Altar of Sacrifice.

The thousands of pink and white marly limestone skyscrapers in Bryce Canyon were next to enhance the Chapman Collection. I had to aim my camera down at this metropolis of the moon because its grotesque skyscrapers are in the canyons. The Paiute Indians called this place *Unkati-mpe-wa-wince-pock-ich*—"red rocks standing like men in a bowl-shaped canyon." I also picked up another rock here that is a beauty—Natural Bridge.

Two of the most unusual rocks in my collection were gathered in Ne-

vada's Valley of Fire. Elephant Rock looks as much like an elephant as does Jumbo, and it is three times larger. The other unique specimen I found here was Mosquito Rock.

In New Mexico I bagged another animal for my rock menagerie. Camel Rock, on the Santa Fe-to-Taos Highway, could be Nature's monument to the U.S. Army's First Camel Corps which journeyed from Fort Defiance, New Mexico Territory, to the Colorado River on the California border 100 years ago. Another collector's item for a camera rockhound is the Tent Rocks of New Mexico, near Cochiti Pueblo.

Near Split Rock, California, I pointed my camera at The Bogey Man Rock. It's a weird monster's head poking out of the ground. Cave-like eyes, a bulbous nose and a dinky cap propped on its peaked bald head, all of rock, give the formation a comical look.

There is another giant gem at California's Joshua Tree National Monument that belongs in every camera rockhoulder's collection. The Hot Potato is a huge spud-like stone held aloft gingerly on the tips of giant granite fingers.

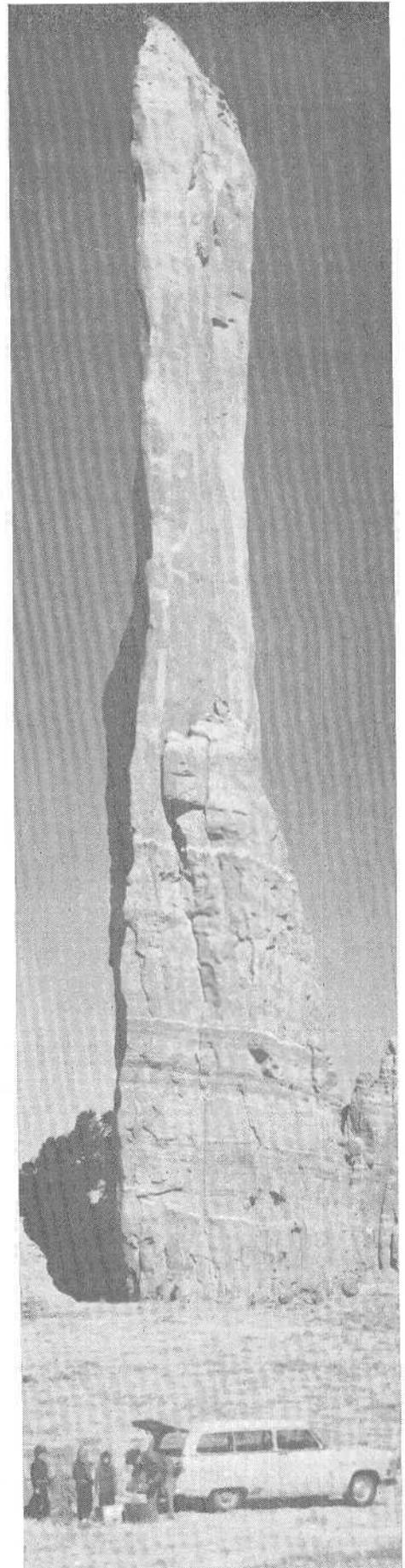
My collection has more than 150 rocks in it now, both in black and white and full color. I'll never be able to make cuff links out of them the way lapidarys do, but I can quickly and easily show off my collection by hanging the pictures, or projecting the slides on a screen.

Move Mountains

A rockhound with a camera can move mountains. He takes them home in his little black box, and yet leaves the rock behind for the next camera enthusiast to collect.

When I go rockhounding with a camera, I use a Rolleiflex loaded with either Panatomic-X or Verichrome film, for black and white photos; Kodachrome for color. To get a natural effect and separation between rocks and sky in black and white pictures, a medium yellow filter is slipped over the taking lens.

The next time you go rock hunting with a pick, take a camera along, too. You will double your pleasure.—END



"Cleopatra's Needle" in Todilto Park, near Gallup, New Mexico.

Basin, she was captured by men from Punta de Agua on a salt gathering expedition.

At Punta de Agua, Guadalupe Salaz was held as a slave. The people of these small mountain villages knew nothing of the Emancipation Proclamation, and even if they had, custom and tradition would have prevailed. From the earliest days in Spanish Colonial New Mexico it had been a matter of survival to make raids against the marauding Navajo, Apache and Comanche—not only as punishment, but to secure hostages who could be exchanged for Spaniards cap-

tured by Indians, or kept as servants or slaves.

Even as late as 1863 Kit Carson wrote General James Henry Carleton, then in charge of military operations in New Mexico, to approve an arrangement whereby the Ute Indians used in tracking down the Navajo could be rewarded by granting them captive Navajos. In this request Carson wrote: "As a general thing, the Utes dispose of their captives to Mexican families, where they are fed and taken care of, and thus cease to require any further attention on the part of the government. Besides this, they're being dis-

tributed as servants through the Territory which causes them to lose that collectiveness of interest as a tribe which they will retain if kept at any one place . . ."

The leader of the party who captured Guadalupe Salaz had first claim on her services, and after a year or two, being handsome, she was claimed in marriage by his eldest son. Not long afterwards Senora Manuelita Otero was born.

In the years preceding the American Conquest of New Mexico, Indian blankets had been popular items of export, and the Pueblo and Navajo were widely known for their weaving abilities. It was no surprise then that the slave, Guadalupe Salaz, achieved local fame in the Manzano Mountain villages for her blankets.

Before I left that afternoon, I obtained Senora Otero's permission to take both blankets with me. After I dropped Anastacio at his home, I drove the hundred miles to Santa Fe so Dr. Mera could have a look at my discoveries. I had Senora Otero's promise that I could buy one of the blankets—my choice—the other she would keep as a remembrance of her mother.

One look at the Navajo blanket and Dr. Mera's enthusiasm rose. It was a rarity—a Navajo Slave Blanket. Very few are known—perhaps two dozen, none about which there is much information or history. The Slave Blanket was given a Laboratory of Anthropology registry number, completely described and photographed. Upon analysis it was determined that the mottled red of the blanket as well as the salmon was made of unraveled bayeta from soldier uniforms. The rest of the wool was from local sources.

The following week I returned the Rio Grande Blanket to Senora Otero. My purchase of the Slave Blanket was completed.—END

Hard Rock Shorty of Death Valley



"There comes that dude prospector again," remarked Hard Rock Shorty as a shiny new Model T stopped in front of the Inferno store and the driver approached the lean-to porch where Shorty and a couple of other old-timers were taking turns reading a three-week-old newspaper.

The newcomer was decked out in a plaid shirt, well-creased riding breeches and polished leather puttees.

"I thought Death Valley was full of snakes," the visitor greeted them, "but I haven't seen one yet. What's become of them?"

Obviously the question was directed to Hard Rock. "Ain't seen one for years!" Shorty remarked without looking up from his newspaper.

But the dude was curious. "What kind of snakes were they? Were there any sidewinders? What became of them?" the visitor persisted.

Shorty paid no attention at first, but when the stranger kept prodding him he finally laid down his newspaper in disgust.

"Sure, I'll tell yu what happened to 'em," he said.

"Death Valley usta be overrun with big rattlers. Millions of 'em. An' they wuz big fightin' reptiles. They'd come right in the house an' take grub off the dinin' table. They wuz always hungry.

"That's the way it wuz back in '15 when Pisgah Bill decided

to start a chicken ranch over on Eight Ball crick. Bill bought one o' them incubators an' a lotta eggs an' soon had several hundred chicks in the pen he built for 'em. Then one night them snakes found a hole in the fence—an' the next mornin' Bill wuz outta the chicken business.

"But Bill is a stubborn cuss and he figgered he would outsmart them snakes. He ordered a couple a hundred more eggs, but fergot to put a fence around the incubator, an' the next mornin' the eggs wuz gone.

"That made Bill plenty mad. 'I'll fix them consarned reptiles,' he exclaimed. So his next order wuz fer a big batch o' them china nest eggs.

"He put 'em in some nests in the pen, an' then fixed the hole in the fence so it wuz barely big enough fer a snake to squeeze through. An' the next morning there wuz 43 big rattlesnakes in the pen, each with a bulge in the middle o' him. Them snakes'd swallowed the eggs and couldn't digest 'em—an' the bulge wuz too big to go through the hole.

"Bill caught so many snakes that way he lost count — and skinned 'em and sold their hides fer making fancy belts an' pocket-books. 'Fore the summer was over he'd made more money sellin' snake skins than he coulda made outta raisin' chickens.

"An he'd be doin' it yet, only he ran outta snakes."

CONSTRUCTION CITY FOR DAM COMING TO LIFE

Dutch John, Utah—By mid-winter over 500 persons were residing in Dutch John, construction city of the \$29,000,000 Flaming Gorge Dam project. Already occupied were 20 permanent homes, in addition to temporary transahomes, house trailers and barracks.

Under construction were more permanent housing, a hospital, the U.S. Bureau of Reclamation's permanent administration building, garage-fire station, and laboratory buildings. Completed facilities include a mess hall and community office. All of the government town's paving is finished.

express satisfaction and cries indicative of keen disappointment. No, a burro's bray is not merely something amusing or startling or loud.

Clean Animals

The donkey is a very clean animal both in its eating and drinking habits, and in the care of its coat. Water must be clear and free of odors; its favorite foods are the tender shoots of pungent-tasting herbs and shrubs as well as fresh grasses and flowers. I never saw a burro that would eat canned beans or onions, and if they occasionally chew on paper and dish rags, it is because normal foods are not available. A burro is resourceful, and if pressed far enough will even eat the bitter creosote bush rather than perish.

At the end of a hard day's work on the trail, a burro will immediately start rustling something to eat as soon as out from under the pack, whereas a horse will stand around for a hand-out of grain, or wait to be shown where the green grass is.

Burros are especially fond of sweets, and many a burro owner has found it profitable to start out the day by passing out a few lumps of sugar or a cookie. Prospector Gus Lederer (*Desert*, Oct. 54) of Corn Springs baked a pancake for each of his 18 burros every morning. It was a gesture of good will that paid big rewards.

My burros were always much frightened by rattlesnakes — not only the sight of a reptile, but also the odor of a snake, dead or alive.

Burro flesh is tempting to the mountain lion. Twice I have had to drive off pumas which were ready to spring upon my burros. One evening just at dusk I heard my two animals snorting and blowing very loudly, a sign of extreme apprehension. I rushed forth to see what could be alarming them, and in the faint light I discerned a female lion crawling low to the ground, just about to spring. I gave a great whoop as I sprang into the air, and frightened the big cat off.

It is my belief that some burros have an appreciation of scenery. I've had several which, when turned loose to graze in mountain country, would seek a vantage point and then gaze for many minutes at the broad vista before them. This was especially true at sunset or in the very early morning.

Burros in the wild possess a keen and lively eye, and are sleek of form. They are social and gregarious. If they cannot find animals of their kind to be with, they often choose those of other species.

A Sociable Burro

Tristram, author of the monumental *The Great Sahara*, tells how wild asses of the African desert often consort with the ostrich. One burro I had with me one summer chose a big white bull to wander about with. They were very much attached to one another, and where one was the other was certain to be.

I have become acquainted with several wild burro bands in the Panamint-Death Valley region. Each consists

of several males accompanied by 10 to 20 females. They wander about as a merry company grazing closely together, and if any of the females wander far to one side they are promptly guided back into the herd by the males.

At a Waterhole

It is amusing to watch these animals watering at a spring. Mighty are their trumpeting brays, magnificent their show of prowess and skill in meaningful banter.

Prospectors long ago learned that the best way to guard against burros straying from camp was to have only one of the string a female and all the others jacks. The female is tied up at night, and the male burros turned loose to fend for themselves. So attached are they to the jenny, they will never wander out of her sight.

I always feel sorry for donkeys left to stand alone in dreary and often near-grassless enclosures. The burro is a naturally gregarious freedom-loving animal. If people are not prepared to give thoughtful care to such an animal, they should not attempt to keep one. No creature more readily makes response to kindness than a burro. It is as faithful as a dog, and returns attention with equal eagerness.

To the burro I owe many of the happiest and most scientifically fruitful days of my life. It has taught me patience, wise ways and perseverance, as well as love for the simple unhurried life. *Senor burro*, I salute you as a good neighbor and faithful friend.

—END

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. . . can be yours

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ON DESERT TRAILS WITH A NATURALIST

series which has appeared monthly in *Desert Magazine* for the past five years. Dr. Jaeger is a world-recognized authority on the desert natural scene.

You may purchase these back issues individually (25c each, except those scarce issues marked * which cost 50c), by special combinations (any six issues not marked * of your choice: \$1—please order by month and year), or in their entirety (all 56 issues: \$11). Prices include tax and postage.

1954

- *Apr. Campfires, camp cooking
- May. Life on Kelso dunes (Calif.)
- June. Pinnacles, Searles Dry Lake (Calif.)
- July. Clark Mt. (Calif.) Wonderland
- Aug. Hesperia (Calif.) ghost town

- Sep. Identifying plants by odor
- *Oct. Gus Lederer, Frank Coffey
- *Nov. Poorwill
- *Dec. Road runner

1955

- *Jan. Sahara Desert
- Feb. Mexican Caracara bird
- Mar. Darwin (Calif.)

- Apr. Desert denizens who live by wits
- May. Tortoise
- June. Plant oddities
- July. Pack rat
- Aug. Insect hatching
- Sep. Land snails
- Oct. Cirio
- Nov. Wildcat
- Dec. (no article)

- July. Skunks
- Aug. Parasitic plants
- Sep. Shrike
- Oct. Singing insects
- Nov. Jackrabbits
- Dec. Milky plants

1958

- Jan. Doves
- Feb. Life on Mojave Desert playas
- Mar. Cactus collector A. H. Alverson

- Apr. Ring-tailed Cats
- May. Life at night
- June. Laguna Salada (Baja Calif.)
- July. Amargosa River (Nev & Cal)
- Aug. Edible wild plants
- Sep. Watering habits of wildlife
- Oct. Quail
- Nov. Life in sagebrush deserts
- Dec. Out-of-place birds

1956

- *Jan. Rock wren
- Feb. Termites
- Mar. "Frying Pan" Ebbens
- Apr. Parry Pinyon tree
- May. California Palm-borer beetle
- June. Poisonous plants
- July. Antelope
- Aug. Owls
- Sep. Non-cacti thorn-bearing plants
- Oct. "Midget" denizens
- Nov. Elephant tree
- Dec. Cardon cactus

- Apr. Ring-tailed Cats
- May. Life at night
- June. Laguna Salada (Baja Calif.)
- July. Amargosa River (Nev & Cal)
- Aug. Edible wild plants
- Sep. Watering habits of wildlife
- Oct. Quail
- Nov. Life in sagebrush deserts
- Dec. Out-of-place birds

1957

- Jan. Watering habits of birds
- Feb. Eleodid beetle
- Mar. Ants
- Apr. Underground-dwelling denizens
- May. Plants of saline soils
- June. Mojave River (Calif.)

Is there a desert Nature topic missing from the above list that you would like to see covered by Dr. Jaeger in a future article? If so, we'd like to hear from you. Send your suggestions to the Editor, *Desert Magazine*, Palm Desert, California.

REPORT FROM THE READER

MEMBERS OF *Desert Magazine's* reader-family drove more than 13 million miles last year on trips and travelogs suggested by articles in *Desert!*

Readers of *Desert Magazine* hope to buy (and may their dreams come true) more than 5000 jeeps within the next two years!

Desert subscribers rate articles on the fascinating ghost towns of the Southwest as their favorite, Number One reader interest!

These facts, and many more, were supplied to *Desert Magazine* by those of you who answered the questionnaire which was mailed in October to one-out-of-ten of our subscribers.

We mailed the Reader Survey to 1820 subscribers, representing a 10 percent sampling of our more than 18,000 annual subscribers. Your replies were almost record-breaking in quantity: 862 questionnaires were returned. This represents a 47 percent response. The publishers of *Desert* know of no other similar magazine that can approach this survey participation figure. Your high percentage of questionnaire returns indicates a reader loyalty almost unheard of in American magazine history!

Here's how you rated the various reader interests: (from first preference to lowest) —

First Five—

- Ghost towns
- Travelogs with Maps
- Gem and Mineral trips
- Lost Mines
- Historical Features

Second Five—

- Indians of the Southwest
- Nature Subjects
- Archeology
- Desert Personalities
- Editorial Page

Third Five—

- Desert Quiz
- Mining News
- Southwest News Briefs
- Letters to Editor
- Photo Contest

Final Three—

- Book Reviews
- Poetry
- Monthly Calendar

What kind of reader-family are you? Your average income is \$8160. Five out of six of you don't live in the desertland. You are spread over the 49 states, plus a few foreign countries. You spend \$97.94 a year—on the average—for camera equipment. Two out of three of you, according to the survey, collect rocks or enjoy the lapidary hobby. You are folks who get off the main highways and onto the unpaved backroads of the desert country, yet five of you prefer motels to the four who indicated you prefer to camp out when on vacation.

CONFIDENTIAL QUESTIONNAIRE

1. My permanent residence is in the _____
2. I spend about 14 days a year on vacations.

HERE IS THE RESULT OF OUR RECENT READER SURVEY—a personal glimpse into you, the reader—a composite of your editorial preferences, your vacation habits, your interests and aspirations. It is our desire to escort you along old and new desert paths you desire to explore. This survey will aid us to better serve you in the months and years ahead.

3. My choice of a desert vacation spot is _____
4. My business or profession is _____
5. I have read _____ issues of *Desert Magazine* for _____ years.

6. I prefer to Camp or Motor .
7. In the past year I've traveled _____ miles and _____ days.
8. I prefer to stop at Motel or Camp .
9. My vacation state is _____
10. I travel _____ times a year.

CONFIDENTIAL QUESTIONNAIRE

1. My permanent residence is in the _____
2. I spend about 3 weeks for vacations.

3. My first choice of a vacation spot is _____
4. My hobbies are _____
5. My business or profession is _____
6. My copy of *Desert Magazine* is _____ years old.

7. I keep *Desert Magazine* in my library .
8. I have read _____ issues of *Desert Magazine*.
9. I prefer to read _____ articles.
10. I prefer to read _____ articles.
11. I prefer to read _____ articles.

While we are on the subject of travel, our survey reveals that *Desert Magazine's* readers travel more than 50 million miles a year by plane, and almost 4 million miles a year by train.

Each copy of the *Desert Magazine* is read by 3.6 persons, according to the survey analysis. Four out of five keep *Desert* in the library for future reference.

The average reader of *Desert Magazine* has been a subscriber for more than eight years, and the average reader loyally reports that he digests 80 percent or more of each issue of *Desert*. He receives an average of seven magazines each month, and rates *Desert* high in the top two, alongside *Saturday Evening Post*, *Arizona Highways*, *Life*, *Holiday*, *Look*, *New Yorker*, and many highly specialized trade magazines.

The "average reader" is an interesting composite. Our readers are retired people, government employees, doctors, engineers, educators, housewives, machinists, artists, laborers, small businessmen, farmers, auditors, aircraft workers, students, bankers, salesmen and some 40 other classifications of employment. Their choice of a vacation area includes all the Southwest, Colorado, Wyoming, Oregon, Hawaii, Minnesota plus many other areas, and—in one report—"the front porch."

Hobbies include hiking, flowers, wildlife, flying, travel, woodworking, stamps, art, boating, jeeping, caving, archeology, square dancing, rockhounding, photography, fishing, hunting and herpetology, as well as some 30 other listed hobby choices.

According to the questionnaire our *Desert* readers spend about 400,000 days on the desert for vacations, and rate California as the first vacation choice, Arizona second, and Utah and Nevada a close tie for third. The average family spent \$516 last year while on vacation. One of six owns a house trailer.

One of the most amazing facts brought out by the survey is that *Desert Magazine's* family hopes to buy more than 3000 pairs of hiking boots in 1959. It's a healthy sign that many Americans still look forward to the pleasure of "legging it" across dune and sagebrush country—for there is an unestimated amount of pleasure that 3000 pairs of boots can afford in the great American Southwest.—END



The Englishman Hardy, one of the earliest explorers of the upper Gulf of California and the mouth of the Colorado River, left an invaluable record of his New World adventures in a book published in 1829, the year after he returned to London. Clear thinking and capable, Hardy twice escaped disaster on the Colorado: from the river itself, and from the Cocopas who dwelled on its banks.

was carried away. They had to work fast. A new storm fell upon them, and in a slashing rain Hardy ordered the ship secured in the middle of the channel. A new rudder was quickly constructed, and Hardy tied a rope around his chest and dove under the ship to examine the damage.

"We waited . . . in the hope that, at slack water, we might be able to ship our rudder, but, in the Rio Colorado, there is no such thing as slack water."

The worst was yet to come.

Tidal Bore

"Before the ebb had finished running, the flood commenced, boiling up full 18 inches above the surface, and roaring like the rapids of Canada."

The *Bruja* was caught in the Colo-

rado's tidal bore. This phenomenon, only known to a few rivers in the world, took Hardy by surprise. He let the *Bruja* drift while all hands attempted a last desperate effort to secure the rudder. The vessel went fast aground, and before he could order his men to pole the ship off the sand, the tide fell just as rapidly as it had risen. The *Bruja* was left 200 yards from the water's edge!

All was made ready to ride out the next tide, but to Hardy's great amazement high water found them 150 yards from the river. They would have to wait for a full moon and its crest tide. He considered abandoning the ship, but decided against it for he did not want some future explorer to encounter such a "monument to our misfortune as our abandoned vessel would have presented."

Indians

Now the *Bruja's* crew prepared for a danger equal to that of the Colorado: Indians. They were in Cocopa territory. This small tribe had reached its peak of cultural greatness and strength about 50 years earlier. In 1775 they numbered about 3000, but by 1826 were in steady decline. These tribesmen chiefly subsisted on corn, melons,

pumpkins and beans, which they cultivated. They were thought to be less warlike than their cousins to the north, the Yumas, but when the occasion called for it, they turned into savage fighters.

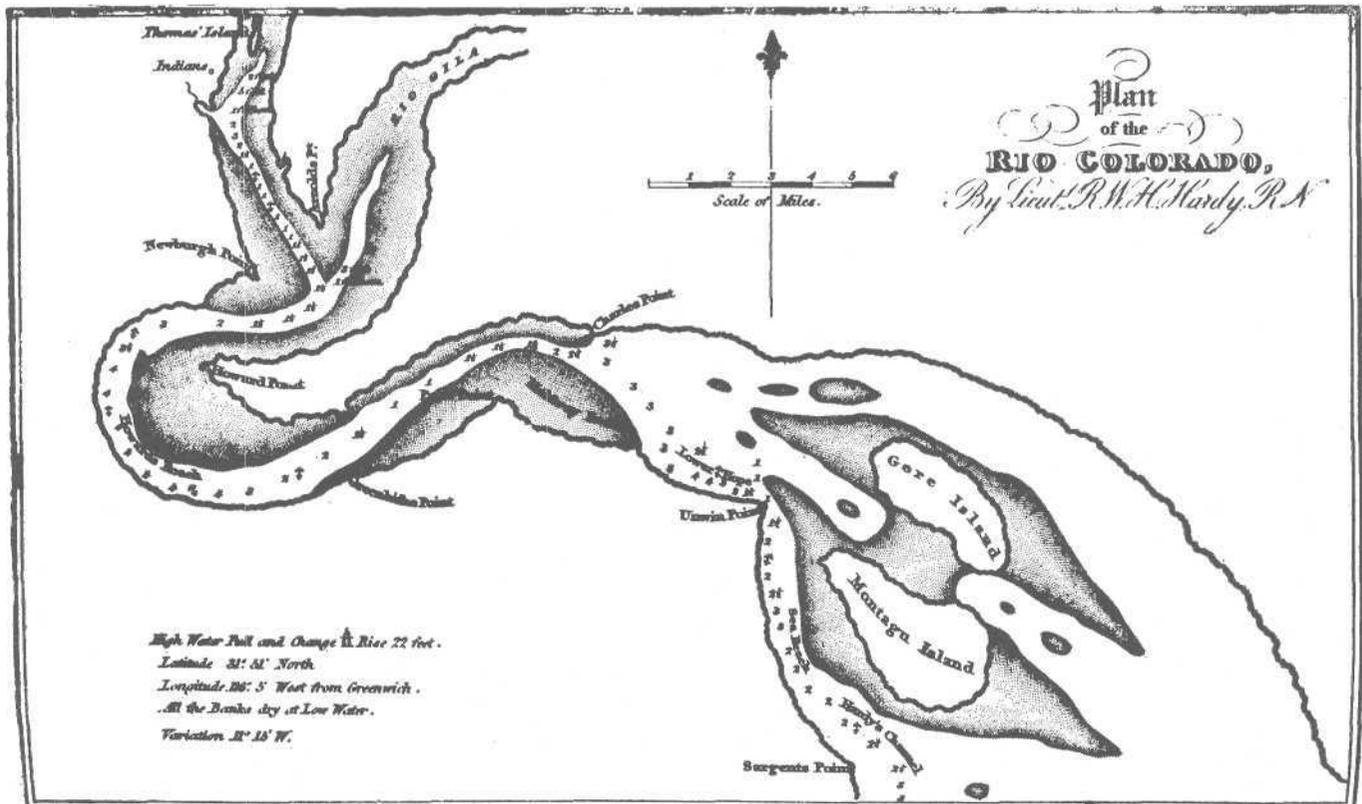
The Yuma Nation

Hardy knew little of the Cocopa, in fact he did not at first distinguish between them and the Yumas who occupied both sides of the Colorado in the vicinity of present-day Yuma. Masters of the only safe fording place on the lower Colorado, the Yumas had revolted in July, 1781, and wiped out the Spanish fort and mission at the crossing. Hardy gave these Indians credit for their stand against the Spaniards—despite the fact he was in immediate danger of sharing the same fate.

As the tides continued to drop, Hardy reconnoitered the area in a canoe. Relying on a compass for bearing, and dead reckoning and estimation for distances, he charted the mouth of the Colorado, complete with low water readings.

The Arrowsmith map was confusing, and it caused him to make one glaring error in his map. He showed the Gila River joining the Colorado at the head of the funnel-shaped estuary. Actually, this was the east (now main) channel of the Colorado. The west fork, which Hardy called the Colorado and which very likely could have been the main channel of the

Map Hardy drew of the Colorado River mouth. His "Rio Gila" is the east or main channel of the river today. West channel was named Rio Hardy in his honor.



Trestles were built, and carloads of earth and stone and even entire box-cars were dumped into the seething waters.

Today the Imperial, Parker, Laguna and Hoover dams hold the turbulent river to its course. The inland Salton Sea, 40 miles long and 14 miles wide, rests within the 2100-square-mile area of ancient Lake Cahuilla; ringed by the Lake's old shorelines on the mountainsides, and its coral reefs plainly seen in a long jutting ridge near the mountains west of Thermal.

The rocky shoreline where once the Cahuillas lived now is a rendezvous for sports enthusiasts, fishermen and desert lovers who flock to this warm sunny playground each fall, winter and spring. Summer temperatures are extreme.

Although adjacent to busy Imperial

and Coachella agricultural centers, irrigated by Colorado River water, the land around the Sea developed rather slowly until the recent and spectacular boom fostered by development companies which have dubbed this area the "American Mediterranean."

Speedboating is unsurpassed on Salton. The unusual water density has made it "the fastest water in the world," and several records have been established here.

The Sea's fishing prospect is promising. Plantings have been made of corvina, pompano, gulf grunion, halibut, several varieties of sea bass, bonefish and smelt. Gulf croakers were introduced in 1950, and have multiplied. They feed on an imported marine worm, and are themselves the food of the orange-mouth corvina, a

coveted sports fish which is doing well in the Salton waters.

Salton Sea State Park along the northeast shore of the Sea has camping and picnicking facilities. There are ramadas here for shade, and gas plates, showers, drinking water and laundry trays are provided. Facilities for boats include a launching ramp between the present State Beach and Stump Beach. Boat trailers may be parked close by. Private beaches and boating facilities are located on the western lakeshore.

The Sea's Future

What is going to happen to the water level of the Salton Sea? This is a question asked innumerable times. The pioneer development, Desert Beach, is under water. Mullet Island and the Mud Pots near Niland, where steaming acres of mud in many colors once formed tiny volcanoes, also are submerged.

An Imperial Irrigation District engineer told me there is no mystery about the rapid rise of the Sea in recent years. When the annual inflow from local storms and return from the 700,000 acres (including 150,000 acres in the Mexicali Valley of Baja California) of irrigated lands exceed the amount removed by evaporation, the level of the sea rises, he explained. Other factors influencing elevation fluctuations are changes in cultivated acreages, changes in crop patterns, and the efficiency of drainage in the irrigated areas.

Salton's water surface varied from -240 feet in 1942 to -235 feet in 1955. The Sea has maintained a -235 to -234 foot level for the past four years. The U. S. Geological Survey predicts the stabilized elevation of the Sea is between 226 and 223 feet below sea level.

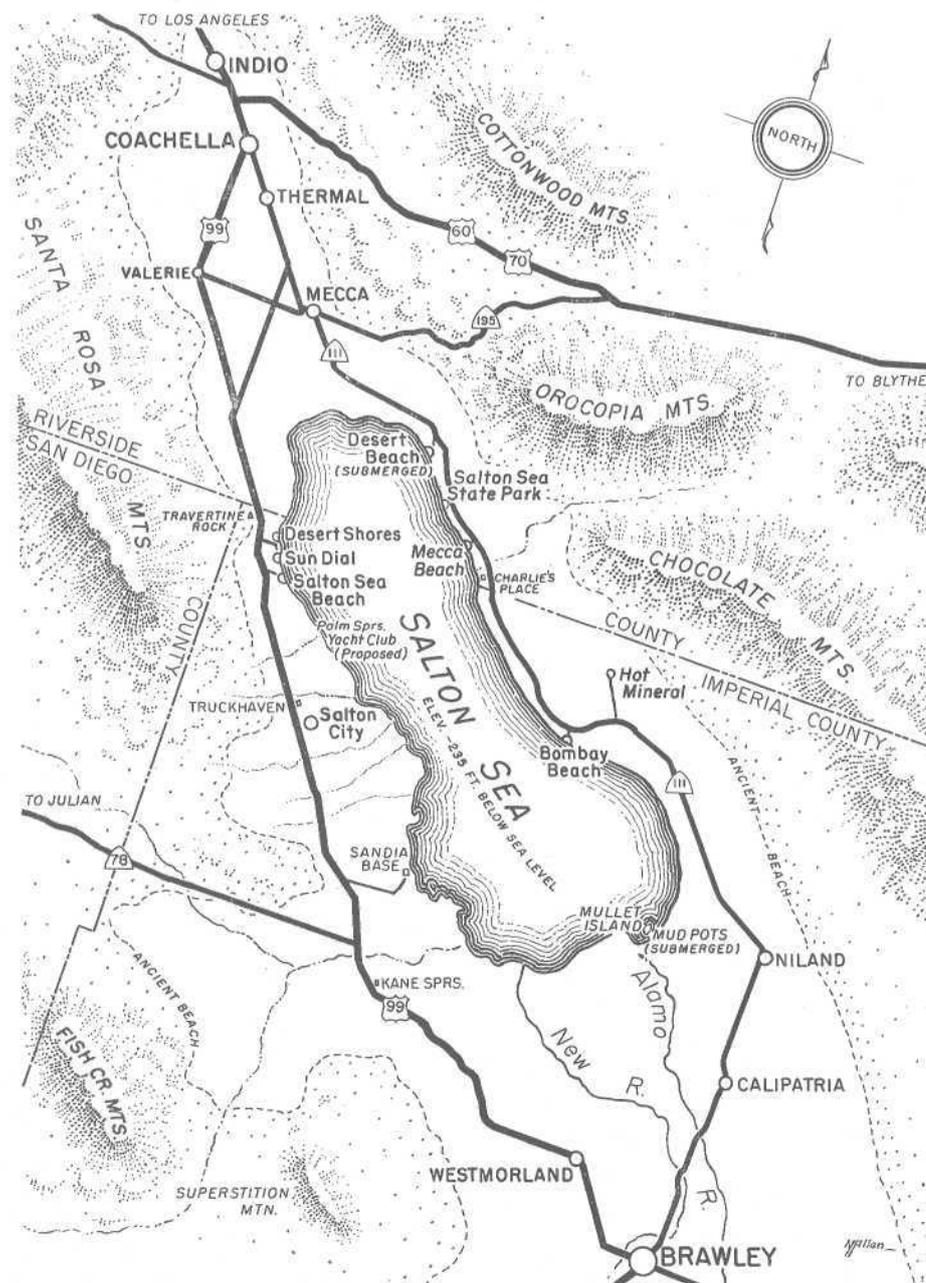
The desert around Salton is a fantastic land in which legends abound. One persistent tale is the story of the lost pearl ship. This Spanish galleon supposedly lies beneath the Salton waters, although some sources give its location as being in the sands near Dos Palmas northeast of the Sea.

Cargo of Pearls

The ship, so the tale goes, sailed up the Gulf with a cargo of pearls, trying to find the mouth of the Colorado. Instead, it "sailed into a vast sea which extends to the horizon."

The 50-ton vessel was trapped by the unknown confines of a rapidly receding Sea, and after going aground, the captain gave orders to abandon ship. Exhausted and fevered, the crew reached an old mission in Mexico where their tale was related.

Time and again reports were heard



into the ship's cabin under a hail of arrows; and once in that position, the Indians could enter the vessel at its stern and secure the prisoners.

The great *Cacique* grunted his approval to *Capitan Grande's* plan, and called for the interpreter.

The Trap

And now, for the trap:

It seemed, he told Hardy, that a neighboring nation of Indians had attacked the tribe the preceding evening, and besides killing a great number of men, had carried away several women and children. To revenge this outrage, the great chief was determined to march all his warriors against the aggressors. But, before he started he had a favor to ask of Hardy: could the Indians please assemble, equipped with their arms, in front of the vessel? In that way, he hastened to add, they could make a formal and friendly farewell to the *Bruja* and its crew.

Hardy, suppressing a great desire to laugh out in astonishment, replied with calmness:

"I desired the interpreter to tell the Great Chief that I wished him every success in his expedition against the Yumas; but that I could not suffer the assemblage of armed men near our vessel; and that if such a measure were attempted, I should consider their intentions as hostile toward myself, and should certainly fire upon them."

Hardy's answer obviously disappointed the Great Chief. Sulking, he departed from the ship.

That night no one aboard the *Bruja* dared sleep. Next day the Indians assembled as usual, and "so great was their number that they extended along the banks of the river nearly as far as the eye could reach . . . The great *Cacique* did not make his appearance, but the *Capitan* and his interpreter were busily forming plans" to lure Hardy away from the ship.

Hardy ordered the Indians out of the area, and also suspended trade for six days. He needed this time, for his calculations told him that the crest tide would be in then.

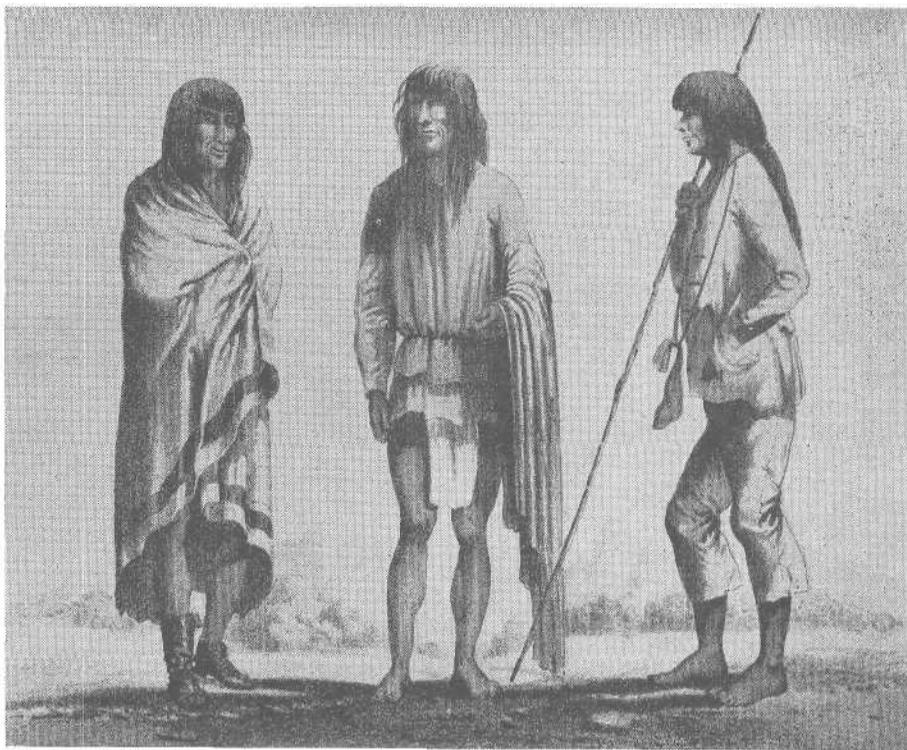
War Chant

The old woman who had been a dinner guest on the *Bruja*, began shaking a leather rattle, accompanying this sound with a low hum.

Hearing her song, the despairing Indians became excited. They were being lulled into a war spirit!

Hardy acted quickly. He fixed his guns on the medicine woman and the *Capitan*, and sternly ordered them to leave.

As the old woman turned to go, Hardy, the diplomat, gave her four



Yumas were the much-feared masters of the lower Colorado River.

leaves of tobacco and a narrow strip of red cloth which she immediately tied around her head to bind together her muddy hair.

Apparently, the gifts touched the aged woman.

" . . . with the expression of a sort of smile on her haggard countenance, she took my hand, and said, '*Adios, adios!*' "

An armed youth stepped in front of the departing woman and presented her with his arrows.

"She gazed at him an instant; then seizing the proffered arms, she mut-

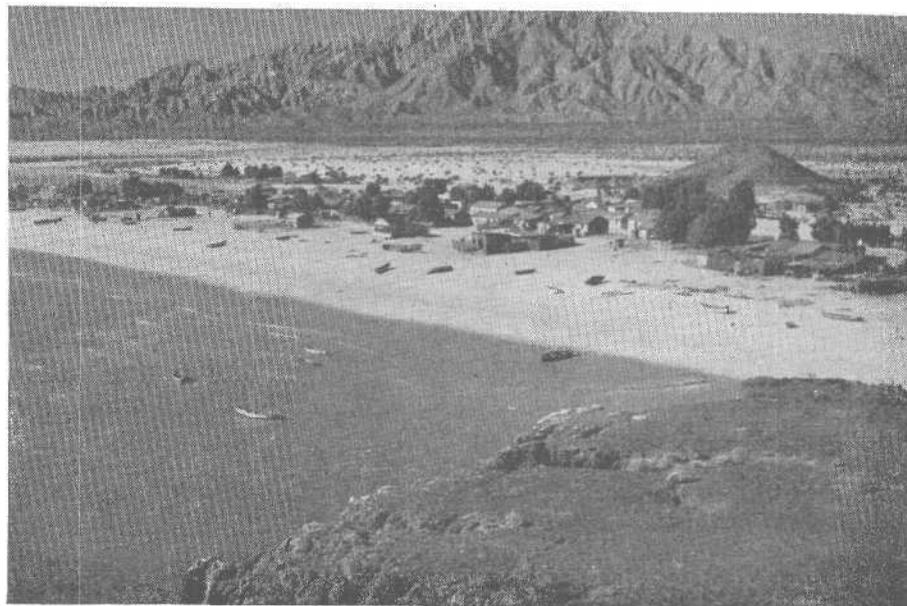
tered something between her teeth, and threw them on the ground with violence, apparently to the great chagrin of all the Indians."

Their strategy spent, the Cocopas retired.

The tide was steadily rising, and on July 29, 1826 (Hardy entered the Colorado on the 20th), the ship moved into deep water.

The commercial consequences of Hardy's explorations were fruitless. He found neither rich pearl waters, sunken vessels or precious metals. His journal is the real treasure to come from this adventure.—END

Fishing village of San Felipe on the east coast of Baja California. Hardy's charts indicate he sailed his small vessel near this beach.





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SOUTHWEST NEWS BRIEFS

Hi Jolly's Daughter Dies . . .

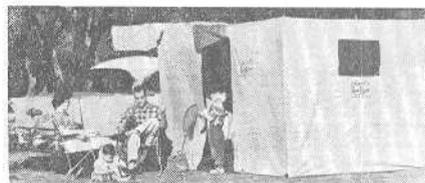
Tucson—Mrs. Minnie Tedro Hansford, who spent 73 of her 75 years in Tucson, passed away in early December. She was the daughter of Philip Tedro who came to this country in 1857 with the famed Army Camel corps. Tedro, a Greek, assumed the name Hadj Ali when he was converted to the Islamic faith. His American neighbors corrupted his name to Hi Jolly. After the camel idea was abandoned, Tedro became a prospector. He is buried at Quartzsite where he died in 1903.

Park for Blythe . . .

Blythe, Calif. — The State Small Craft Harbors Commission earmarked a \$500,000 loan for construction of a Colorado River park at Blythe. Estimated cost of the complete 70-acre facility to be located on both sides of the U.S. 60-70 bridge is \$700,000. The allocations are subject to review by the Legislature, and County supervisors also must approve the park loan. Riverside County planners believe the park will be almost self-supporting from concession leases.

Cedar Breaks Closed . . .

Springdale, Utah — Heavy snows have closed the Cedar Breaks National Monument roads—and rangers predict it will be late May or early June before they again can be traveled. A record number of people—101,879—visited the Monument last year.



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New Town Planned . . .

Navajo City, N. M.—A new town with 10 business houses in the San Juan Basin to be known as Navajo City is expected to rise on a privately-owned 80-acre tract near the Turley Dam. The land is located in Rio Arriba County on Highway 17.

Lid Off Mexican Gambling . . .

Mexicali, Baja Calif.—Reports were being circulated along the border that Mexico's new regime is expected to grant gambling licenses in Nogales, Mexicali, Tijuana, Ensenada, Acapulco and possibly other cities. The *Phoenix Gazette* said unofficial reports credit Nevada gambling operators—looking to new fields free from strict stateside regulation—as pressing Mexico's new president, Adolfo Mateos, to open up the south-of-the-border towns to federally-licensed casinos. Two \$1,-000,000 hotels, complete with gambling casinos, reportedly were in the planning stage at Tijuana and the nearby Coronado Islands.

Drive to Save Pinnacles . . .

Trona, Calif.—A campaign to save the Pinnacles area near Trona is gaining headway, the *Indian Wells Valley Independent* reports. Recently the Bureau of Land Management tentatively approved a San Bernardino County application to reserve the area for park purposes. Many groups called upon the County to save the geological phenomenon following reports that heavy mining equipment was being brought into the area to quarry the soft stone and haul it to the Los Angeles area for use as ornamental building material.

Courthouse May Be Park . . .

Tombstone, Ariz. — Tombstone's historic courthouse tentatively has been accepted as Arizona's third state park. An agreement between the City of Tombstone, the Tombstone Restoration Commission, and the state remains to be worked out before the property title can be transferred.



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as possible, and to record weaving techniques. After a week of photographing and taking notes on the Abo blankets, I asked my workmen at the Mission ruins if similar blankets were known in their villages, and whether they could be obtained for my examination or, better still, purchased.

The workmen had been recruited from the small villages of Manzano, Tajique, Chilili and Punta de Agua, lying in the forested east slopes of the Manzanos. It was their custom to return to their homes over the week end. Next Monday morning, Anastacio Cisneros came to work with a beautiful blanket from his native village of Punta de Agua. Its condition was perfect, and it was much finer than any I had seen in Abo.

An Invitation

Anastacio said the blanket belonged to a Senora Manuelita Otero, and that she had another blanket, even finer, *muy hermosa, muy bonita*, but would only let one blanket at a time out of her possession. Senora Otero was not sure she could part with either one, but I was welcome to visit and talk to her. Anastacio was almost sure that if I accepted her invitation, she might be persuaded to sell one or both blankets.

In spite of my excitement, the week passed rapidly, and early Saturday morning Anastacio and I set out over the narrow unpaved mountain roads, twisting their way through stands of gnarled juniper trees in their dark evergreen foliage. Every now and then we passed a stand of pinyon trees, their nut-bearing cones gradually ripening for harvest by squirrel and man. At the end of a narrow rutted street we came to a large barn-like house with a high-peaked corrugated tin roof and walls built of rough stone set in adobe mortar. Bidden to enter by a small girl, we were led through an entryway into a sparkling clean and spacious room where I was introduced to Senora Otero.

She was a large and buxom Spanish-American lady, 67 years old, dressed in lace-trimmed black. Her hair, although slightly sprinkled with gray, still had the glossy blackness of youth, and she retained a bright sparkle in her eyes.

Formalities

As in all of the older Spanish-American homes, certain formalities were necessary and, until these pleasantries were completed, business could not be discussed. As soon as I could without offending, my questions poured out: where had the blanket come from? How long ago? Who wove it? Not until I asked about the other blanket did Senora Otero answer, and then it

was to ask us to follow her down a long corridor to a rear bedroom. There, she lifted back the mattress of an old-fashioned brass-steaded double bed and pulled out the blanket. It exceeded my expectations in its pristine beauty and cleanliness.

This blanket differed considerably from the other; its edges were bound, while the first had fringe-decked ends; it had "lazy lines" (lines left by a Navajo weaver in building up the weft or body of the blanket in one spot and then moving over to weave in another spot until the design was completed

mother weave them, fascinated by the way the colored threads were quickly added to the body of the fabric, the darting shuttle and the quick tamping down of the weft.

But, wait—her mother? Confused, I asked again: "Who did you say wove these blankets?"

"*Mi madre*," came the reply.

"But, was it common for a Spanish family to use a Navajo loom? I thought not," I said.

"*Mi madre era Navajo*," she answered. Her mother had been a Navajo slave girl.



An upright Navajo loom of the 1880s.

across the width of the blanket). This blanket was of Indian origin — not Spanish Colonial — although it was striped like the other, and lacked the intricate designs of steps, diamonds, figures, frame lines and blocks of typical Navajo weaving.

This blanket was woven on an upright Indian loom, suspended between poles at top and bottom. The upper pole unwound the warp threads for weaving while the lower wound up the completed work. The Spanish loom on which the first blanket had been woven was considerably narrower than the Navajo loom, and required that a blanket be either woven in two pieces and then sewn together, or that the warp threads be doubled back under so that in weaving across and back under, two warp threads on one side were pulled together. A Rio Grande Blanket woven in this fashion has a double warp thread running down its center.

The blankets were 50 or 60 years old, Senora Otero said. When she was a little girl she had watched her

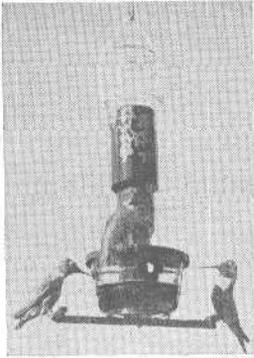
The Navajo expeditions carried on by the U.S. Army in the 1860s resulted in the imprisonment of many Indians at the Bosque Redondo, an Indian reservation in the vicinity of old Fort Sumner on the Pecos River in New Mexico. Most of these captives were from the Canyon de Chelly and the Navajo country west of the Lukachukai Mountains in northeastern Arizona.

Few were happy in their new home. There was constant friction with the Apaches, also confined at the Bosque Redondo. The Navajo were not culturally or traditionally adaptable to the white man's ideas of an intensive cultivation of crops for a livelihood. They had a strong attachment for the red mesas of their homeland.

In their nostalgia and longing for home, many attempted to escape. A few succeeded. One of these was a young girl, Guadalupe Salaz. She crossed the mesas between the Pecos and Rio Grande, but while passing through the salt flats of the Estancia

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HARRY JAMES HONORED AS DESERT MAN-OF-THE-YEAR

Harry C. James, for many years head of the Pathfinders school for boys, and one of the most active advocates of conservation of the natural resources, has been designated by the Desert Protective Council as the man who in 1958 has contributed most to preservation of desert recreational and cultural values. Dr. Edmund C. Jaeger was accorded this honor in 1957.

James, from his home on the desert slope of the San Jacinto Mountains, has crusaded aggressively for the protection of Joshua Tree National Monument against commercial encroachment, for the establishment of more parks and recreational areas in the Desert Southwest, against the destruction or removal of desert plants and wildlife, and for every cause which will insure for present and future generations as much as possible of the natural beauty of the desert landscape.

Abiquiu Dam Progresses . . .

Espanola, N. M. — Bids for the Abiquiu Dam were scheduled to be opened on January 22, with a contract let and work started as soon as feasible thereafter. The Corps of Engineers expressed hope that work will start in the spring on the vast embankment of earth which will span the Chama River gorge seven miles north of Espanola to form the Abiquiu Dam. Estimated cost of the project is \$10,000,000.

Trucks Replace Stock Drives . . .

Magdalena, N.M.—The passing of another romantic phase of the Old West was indicated by the recent livestock shipping season in Magdalena—largest in recent years. More cattle were transported to the shipping pens by motorized trucks than arrived on their own power in stock drives.

"OVERLOOKED FORTUNES"

IN THE RARER MINERALS

Here are a few of the 300 or more rarer minerals and gemstones you may be overlooking while mining, prospecting or gem hunting. Uranium, vanadium, columbium, tantalum, tungsten, nickel, cobalt, selenium, germanium, bismuth, platinum, iridium, beryllium, golden beryl, emeralds, etc. Some minerals worth \$1 to \$2 a pound, others \$25 to \$100 an ounce; some beryllium gems worth a fortune! If looking for gems, get out of the agate class into the big money; an emerald the size of your thumb may be worth \$500 to \$5000 or more! Now you can learn how to find, identify, and cash in on them. New simple system. Send for free copy "Overlooked Fortunes"—it may lead to knowledge which may make you rich! A postcard will do.

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TRUTH OR CONSEQUENCES, NEW MEXICO

PER CAPITA WATER REQUIREMENTS RISING

Las Cruces, N.M.—The nation's per capita water needs are increasing at a much greater rate than is population, Undersecretary of Interior Elmer G. Bennett told delegates to the Third Annual New Mexico Water Conference at New Mexico A&M. Today's daily requirement is 1600 gallons per individual — nearly three times our average individual need of a half-century ago.

Southwestern states are enjoying the greatest rate of population increase, and conversely have the greatest water supply problems. Short of the desalting processes, which Bennett said still were not feasible because of the cost factor (at present about \$1.75 per thousand gallons), he said there were three ways in which Western states could enlarge their water supplies: by salvaging moisture now consumed by nonbeneficial plants along the various streams; by coordinating small water conservation projects on a state-wide basis; and by increasing the use of the chemical, hexadecanol, for use in curbing reservoir evaporation.

LAND BUREAU GAINING ON SMALL TRACT BACKLOG

Los Angeles—The Bureau of Land Management's Los Angeles Office hopes to conclude successfully its protracted "Battle of the Backlog" this spring. During the Christmas holidays approximately 3500 patents were issued to small tract homesteaders, many of them in the Mojave Desert east of Yucca Valley.

Demand for desert recreation sites remains high, and the Land Office is working with the county governments of San Bernardino and Riverside to reserve school, public buildings, recreation and highway land in public domain tracts that will be opened for homesteading in the future. A BLM spokesman said such cooperative planning slows up the work of fulfilling the tract orders, but in the long run the public will benefit through greater value of the land.

After the pending land request backlog is filled, the government hopes to offer about 5000 small tract homesteads in Southern California each year.

KENT FROST JEEP TRIPS

Into the Famous Utah Needles Area
Junction of the Green and Colorado rivers; Indian and Salt creeks; Davis, Lavender, Monument, Red, Dark and White canyons; Dead Horse and Grand View points; Hovenweep and Bridges national monuments.
3-day or longer trips for 2-6 person parties —\$25 daily per person. Includes sleeping bags, transportation, guide service, meals.
Write KENT FROST, Monticello, Utah.

Desert Path In Spring

By MIRIAM R. ANDERSON
San Bernardino, California

A day this is to seek a desert path,
Where spring has flung with lavish gypsy
hand
A heart full of delight—rain's aftermath,
A bright-hued flower blanket on the land.
A day this is to listen, as the wind,
A messenger of beauty, trails soft wings
Of song from earth to sky, song disciplined
By all the heady perfume that it brings.
A day this is for fevered time to halt—
To slow its frenzied roller-coaster flight;
And let the spell of quietness exalt,
Unfold its sun drenched beauty to the sight.
A day this is, if desert paths are trod,
The seeking heart finds here the peace of
God.

THE OLD GHOST RANCH

By GRACE PARSONS HARMON
Desert Hot Springs, California

Where the Old West opens its heart again,
Where a welcome is quick, sincere,
Where the desert sun and the desert moon
Keep tryst throughout the year—

There the song is gay and the step is light
To the tune of a twanged guitar;
There are winding trails that wander on,
Where the haunts of the wild things are!
A pony waits in the near corral;
A smoke tang drifts from the west
Where the old chuck wagon and ranch cook
wait
To welcome the ranch house guest.

Here the Old West opens its heart to you,
Here a friendliness knows no bars,
And the Old West keeps its old-time faith
Under the desert stars!

DESERT GYPSY

By FLORA SCHRACK
Los Angeles, California

Would you like to be a gypsy,
A wild and roving gypsy?
Get on your boots and knapsack
And come along with me.
We'll clamber over sand-dunes
And bathe in desert sun.
We'll climb through rocky caverns
With breezy, bracing fun.

Would you like to be a gypsy
From city cares set free,
A dusty, sun-tanned gypsy,
Then come along with me.

DESERT THOUGHTS

By E. A. RICKETTS
Cayucos, California

I walked through the streets of the city,
Saw the busy crowds go by;
Heard the clatter and clang of its traffic,
Saw the smoke blot out the sky.

I gazed at the man-made canyons
Of marble, brick and stone,
And felt, though I stood among hundreds,
A stranger, I was alone.

I walked through the desert at twilight,
Saw the distant age-old hills,
And I heard not the sound of Life's struggle
Nor the echo of human ills.

I gazed at the vaulted ceiling
Where the stars above me shown
And I knew that God was in heaven
And I felt I was not alone.

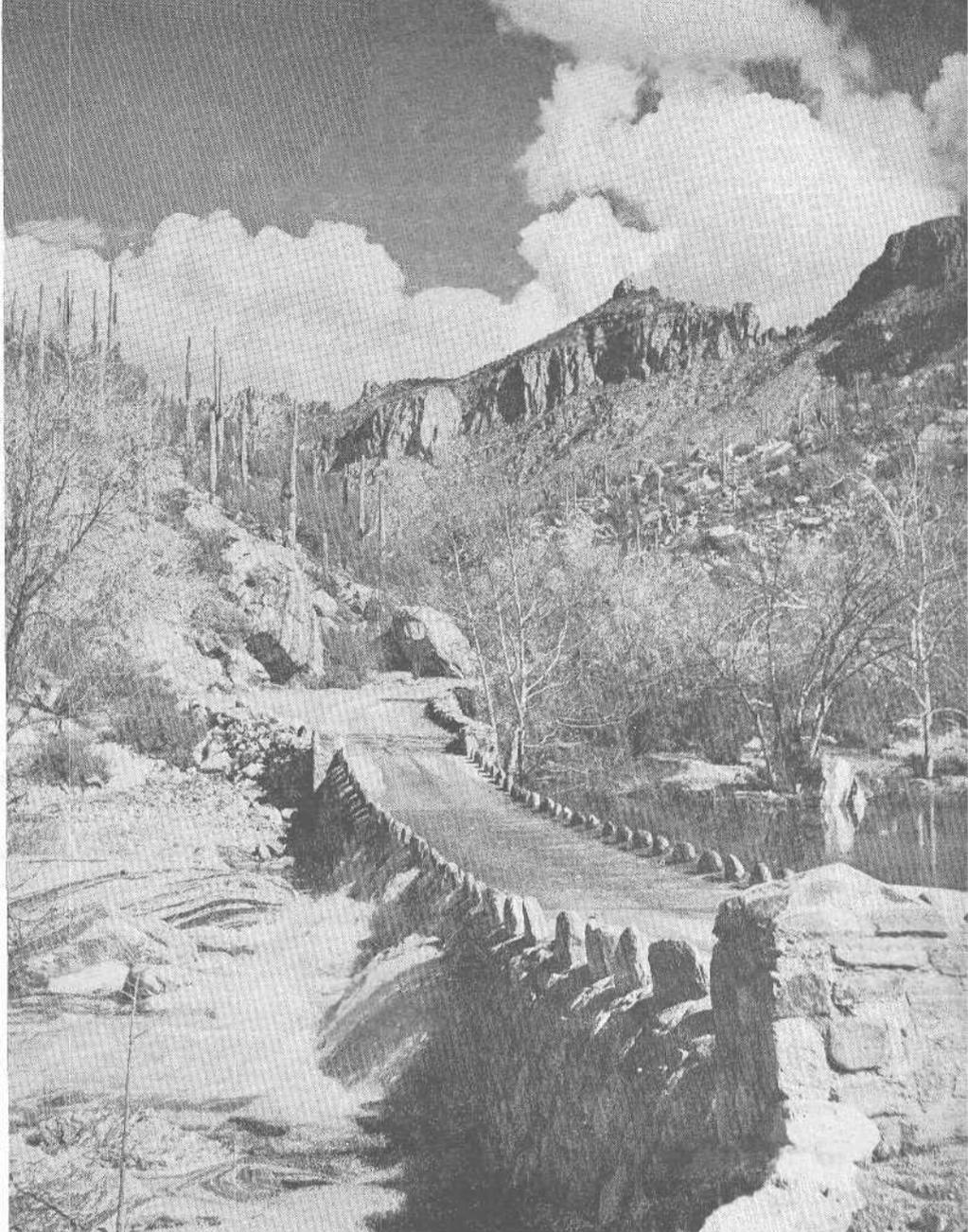


Photo by Chuck Abbott, Tucson

NOT THE END

By DARRELL TOTTEN
Henderson, Nevada

There's a desert cemetery
Out beyond the edge of town;
There the fading headstones carry
Tales of those who missed renown.
Each now sleeps beneath the cactus;
Nameless, some, where wind and rain
Swept away, by desert practice,
Precious dates, that once were plain.
Eagerly, they sought life's treasure,
And I doubt that even one
Knew that he might help to measure
Sand and wind and rain and sun.

Counsel

By TANYA SOUTH

How then to brave life's heavy storm,
And rise unscathed and free from
harm?
I know not—save in being good;
Allowing all the highest thought
And noblest impulses to flood
One's inmost. For, as one has caught
The gleam of Love and Truth Divine,
In that full measure will he shine.

KIT FOX

By LILYAN JOHNSON LEVY
Downey, California

Furry desert dweller,
Shy, and Nature-wise,
Peering through the cholla
With your wary eyes,
Circling near our campfire
At the close of day,
Gulping down the meat scraps
Which we toss your way;
Would a bone to gnaw on
Please your taste at all?
Take this to your fox hole,
Thank you for your call!

MOONLIGHT ALCHEMY

By ETHEL PEAK
Santa Barbara, California

Our Mojave moonlight teems
With magic all its own,
In silence a strange alchemy
Transforms the crudest stone.
The jewel-studded canyon walls
Glisten in the light,
And desert sands become thin points
Of diamonds in the night.

THE DESERT TRADING POST

Classified Ad rates are 12c per word, \$2 minimum per issue. Copy deadline for the March issue is February 1. Mail copy to: Trading Post, Desert Magazine, Palm Desert, California.

● BOOKS - MAGAZINES

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OIL SHALE specimen 50c. No stamps, please. W. L. Haskin, 3 Humboldt Star Bldg., Winnemucca, Nevada.

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Interest in the Salton Sea as a winter recreation site is on the upswing. Thousands of boating enthusiasts, campers, Nature lovers, motorists and fishermen are becoming acquainted with this inland sea's great holiday potential.

By MIRIAM R. ANDERSON
Map by Norton Allen

THE SALTON Sea of California's Colorado Desert lies in a basin setting teeming with legendary and historical lore—and the promise of being tomorrow's favorite desert-water playground.

There is a breath of bygone ages here, and a great silence. There is a lure in the Salton—and a challenge. Long before man left his footprints in these sands, life was slowly evolving in the waters that covered this trough. Even today, the mysteries of the surrounding desert defy understanding.

The waves of this beautiful blue inland sea lap gently against sands that were once the deep beds of two great bodies of water—the old Tertiary Sea, a part of the Gulf of California, and the lovely fresh water Lake Cahuilla which may have occupied this huge earthen bowl as recently as 500 years ago.

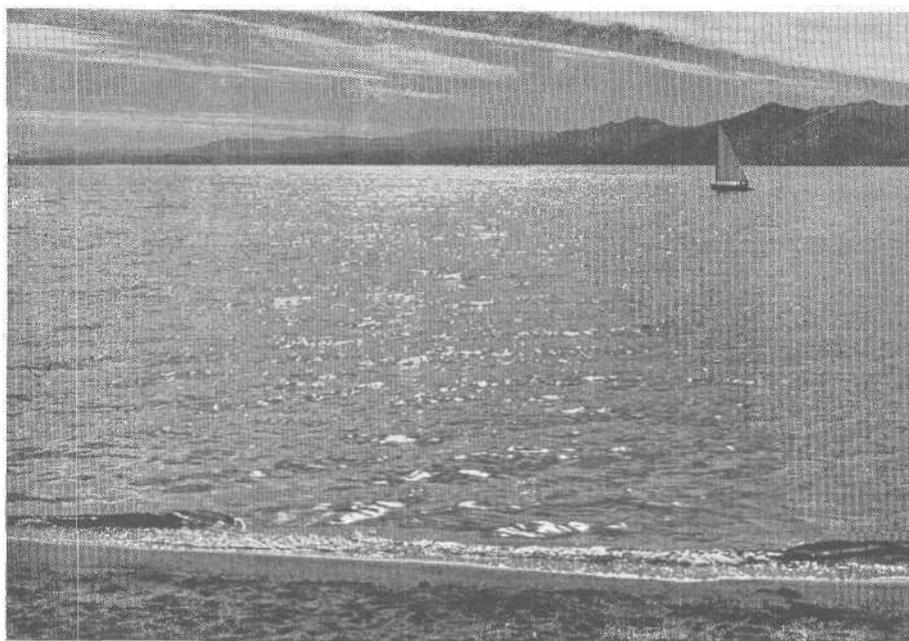
According to Dr. Stephen Bower, early geologist and explorer, the ancient Tertiary Sea filled the below-sea-level Salton Sink as far up as the San Gorgonio Pass near Banning. This water was favorable for the growth of oysters and other marine mollusks, and their remains are found today in vast fossil beds, some being 200 feet or more below the ground — others 1000 feet above the valley floor on the slopes of the San Jacinto Mountains.

The water of the Sea receded due to land shiftings and the rise of a great chain of mountains which partially cut off the Sea from the Pacific. These mountains now form the crest of the Peninsula Range from San Jacinto to Cape San Lucas in Mexico. The land rose and fell many times throughout these unfathomable years.

Vast Delta

The Colorado River, in those remote years as potent a factor in the life of this valley as it is today, deposited its silt in mammoth quantities far and wide. In places the delta was 2000 feet in depth, and eventually a dam was formed below Mexicali which cut off the Gulf from the Sea. The orphaned salt water lake evaporated.

Then the Colorado shifted its course and flowed into the arid depression, forming the great fresh water Lake



Lure of the Salton . . .

Cahuilla. Professor William Blake, in 1853, discovered evidence that this body of water had existed, and he named it after the local Indians who had once flourished on its shores. Geologists estimate this lovely lake was 100 miles long and 35 miles wide. Peaceful and progressive, the Cahuillas raised corn, squash and beans, fished in their lake and hunted on its shores and in the surrounding mountains and desert.

Fish Traps

Remains of their brush homes, built on the formations known as the Fish Traps, may be seen near Valerie Jean's on the north end of the Sea. These circular craters excavated from the boulder-strewn talus of the foothills, were thought to be traps for fish, hunting blinds or ceremonial pits. Today scientists are in general agreement that these pits were dwelling sites. An important reason for believing so is that charcoal, fishbones and potshards have been found in these holes. To this day the Indians refer to them as houses.

That Lake Cahuilla was their ancient home is told over and over in Cahuilla legend. It is also related that the great lake "became dry for the lifetime of nine grandfathers." Willows, tules and arrowweed as well as a few palms and mesquite fringing its shores died, and dead stumps of some of these palms have been unearthed along the strand of the present-day Sea.

When the fickle Colorado changed its course, the lake slowly evaporated. Fish died and game no longer came

to the lake for water. With its food base destroyed, the Indian culture declined rapidly. Some of the tribesmen fled into the high coastal mountains, others to Arizona. These hard times were shared by the Indians into whose territories the starving Lake People came.

And so the desert again lay barren. In 1774 the Spaniards came. Sebastian crossed the dry salt beds, and Anza passed this way. In 1849 the Sonora gold seekers traversed the dreaded expanse of shimmering sand and salt which taxed the fortitude of even those intrepid adventurers.

The New Liverpool Salt Company mined the 1000-acre bed at the now-submerged north end of the Sea from 1855 to 1905. Although 1500 tons were taken out the first year alone, this represented only a fraction of the vast deposit.

The Colorado River, both hero and villain in any story of the Sea, rampaged and overflowed periodically into the below-sea-level Salton Sink. There are records of at least 10 such floodings from 1828 to 1892.

Birth of Salton

In 1905, the last such flooding occurred. The Colorado, swollen by an unexpected summer storm, hurled its waters through a break in the river bank at the site of an unfinished irrigation canal project. The water charged northward over the channels of the Alamo and New rivers into the parched Salton Sink.

The Southern Pacific Railroad spearheaded the two-year battle by men and machines to repair the break.

GEMS and MINERALS

REPORTS FROM THE FIELD

These notes are intended as suggestions for your collecting trips. Always make local inquiry before following trails into uninhabited areas. Mail your recent information on collecting areas (new fields, status changes, roads, etc.) that you want to share with other hobbyists, to "Field Reports," Desert Magazine, Palm Desert, California.

Profusion of Material . . .

Siam, Calif.—"Blue agate, fossil-marble and trilobites (extinct marine arthropods) were among material obtained in profusion" by members of the Orange Coast Mineral and Lapidary Society (Costa Mesa) who spent a week end searching the many mineralized areas in the Siam area. Siam (an abandoned railroad siding on the Mojave Desert) is reached by going 2.7 miles east of Cadiz Summit on Highway 66, then turning right on a dirt trail that crosses the Santa Fe Railroad at 6.3 miles from Cadiz. Immediately southeast of the tracks are the Ship Mountains on whose northern slopes there is an abundance of opalite in concentrated areas.

Lodestones Along the Road . . .

Lucerne Valley, Calif. — The field trip chairman of the Ontario, California, Bear Gulch Rock Club reports two Mojave Desert collecting fields off of the Lucerne Valley to Old Woman Springs Road. The first area is at the abandoned copper mine about three miles down and two miles west of the Bessemer Iron Mine Road which connects to the main highway 12 miles east of the Big Bear turn-off. Parents are warned to keep children away from the dangerous mine shaft. Material found here is blue-and-green-stained feldspar—not of gem quality, but very attractive and suitable for garden stone. The second collecting field is farther along the road to the still-active iron mine. Here lodestones are found. They are recognized by their hairy appearance caused by the attraction of minute iron particles from the soil.

Fire Opal Area Open . . .

Oatman, Ariz.—Word from Oatman is that the famous fire opal collecting field, held under claim by Martin Cuesta, again is open. Cuesta is charging \$1.50 per person for a full day's hunting. It takes plenty of digging to find fire opal, and proper tools should be brought by visitors. Cuesta's headquarters are at Ed's Camp near the old mining towns of Gold Road and Oatman on the original Highway 66. Nights are cold, and sufficient bedding is recommended.

Wide Choice of Material . . .

Barstow, Calif.—Kern County Mineral Society members from Bakersfield who explored the Afton Canyon area in the central Mojave Desert said it was a "veritable paradise." They report collecting these materials: red jasper, nodules, seam agate and calcite crystals.

Obsidian Field Hardly Touched . . .

Glass Buttes, Oregon—Dr. H. C. Dake, editor of *Mineralogist Magazine*, says the famous Glass Buttes obsidian fields in central Oregon remain relatively unexplored after over 20 years of rockhound activity in this region. Few dirt roads traverse the 50 square miles of known obsidian flow. Nearly all visitors have concentrated their efforts in a small area on the north side of the Buttes. They enter the area from the highway at Milepost 79 Road. A few have gone in at Milepost 82. On a recent trip to Glass Buttes, Dr. Dake rediscovered a double-flow outcrop at the top of a ridge. Apparently, he writes, two flows of obsidian came together here in an almost straight line, the flow from one side of the hill being black, and from the other, bright red. Contact was made at the top of the ridge—but instead of intermixing, the colors fused and chilled on contact leaving a sharp line of color demarcation in the gem-quality material. Dr. Dake believes the colorful obsidian from this ridge is unique in the world. Obsidian is found almost everywhere in the huge area, and where it is not exposed on the surface, digging generally reveals material below the surface. Especially plentiful are large fracture-free blocks of obsidian ideally suited for large spheres. Dr. Dake believes the interior and southern portions of the Buttes offer the greatest potential for new prospecting activity. The dirt roads here, mainly used to serve sheep grazing camps in the spring, should not be traveled over in the wet season. Standard cars can negotiate some of them. Most of the area lies within the Public Domain.

New Regulations . . .

China Lake, Calif.—In the future, large club caravans into the Randsburg Wash and Lead Pipe Springs portions of the Naval Ordnance Test Station will not be allowed, the NOTS commanding officer announced. Permission to enter the area only will be given to four-vehicle maximum parties. Those wishing to visit these famous collecting fields should send their requests to the NOTS Security Officer, China Lake, Calif., at least four days prior to the Sunday (the only day the areas are open to the public) on which the trip is planned. Recent visitors to the Randsburg Wash area reported finding excellent rhodonite specimens, although hard digging was required.

Short-Cut Freeway Dedicated . . .

Victorville, Calif. — Recently dedicated was the 29.5 mile freeway connecting Victorville and Barstow. The new road, which generally follows the Sidewinder Trail used by freighters in the old days, replaces the highway running along the Mojave River. The freeway passes through a desert area that has seen considerable mining, prospecting and gem collecting activity.



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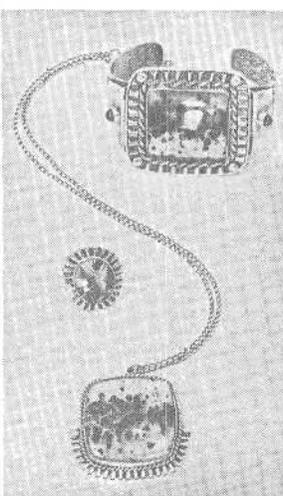
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that this ghost ship was sighted, her keel buried deep in sand. Some accounts told of seeing the ship protruding from the Salton Sea at moonrise. In this land where mirages are common, where ironwood sinks and pumice stone floats, where the Lost Pegleg Smith gold mine still spurs exploring trips into the rugged encircling mountains—nothing seems too improbable!

Trips of absorbing interest are many in the Salton country. Besides the Fish Traps and nearby Indian petroglyphs, there is famous Travertine Rock at the northwestern corner of the Sea. This rugged outcropping is covered to the Lake Cahuilla high-water mark by rough algae-and-min-

eral etched tufa. This spectacular rock is Biblical in its setting — a sun-drenched inspirational symbol of the past and present.

In the country between Highway 99, south of the new Salton City development, and the Borrego Badlands, wind and water have carved out weird sandstone concretions in realistic shapes of animals, birds, gargoyles and flowers. Many hobbyists collect these stones for rock gardens and conversation pieces.

Near Niland, hot mineral water gushes forth in a miniature Yellowstone park, where walls of mineral formations are red, blue and yellow.

In the hills east of Mecca, Painted Canyon, Box Canyon and Hidden Springs Canyon are pageants of spectacular beauty, especially when spring covers the sands with flowers.

In the Coachella farm lands north of the Sea stand the exotic date groves. Between 90 and 95 percent of all dates grown in the United States are produced in this area.

All around the Salton Sea, Nature has wrought her art with a spectacular hand. More and more sun lovers are becoming acquainted with this unique and lovely area—a land filled with the romance of the wide unspoiled desert, and an indescribable peace.—END

Trees-that-look-like-smoke

The beauty of Smoke Trees adds immeasurably to the delight of exploring sunny desert washes.

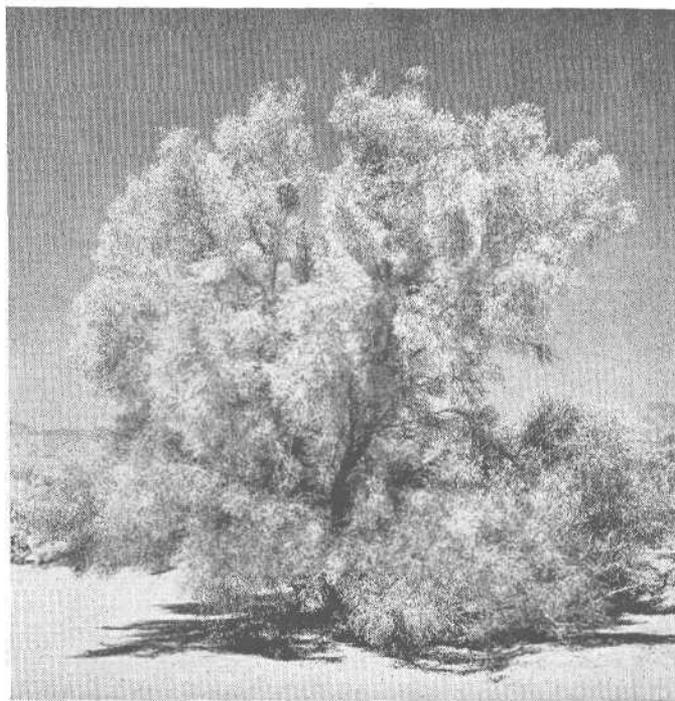
By BLAIR CHAMBERLIN

ONE OF THE most bewitching sights on the lower and warmer deserts are those blue phantoms of the wastelands — the Trees-that-look-like-smoke. Once seen, arrayed in their gowns of royal-blue, they are never forgotten. Almost always found along sandy boulder-strewn arroyos, these peculiar trees possess a misty ethereal beauty throughout the year. But, when their dark-blue blossoms burst into bloom in June, they truly live up to their name—for then from a distance they look like wisps of blue smoke hovering in the stillness of the desert sunlight.

These misty-looking members of the pea family are confined to a small life zone: the practically frost-free areas of the Mojave and Colorado deserts south to Sonora and Baja California. Their scientific name, *Parosela spinosa*, refers to their thorny character. Close inspection reveals that in place of leaves, the branches are covered with a thick mass of sharp woody spines. The greenish-gray bark, like that of the Palo Verde tree, contains chlorophyll. Thus the process of photosynthesis, usually performed in the leaves, takes place in the trunk, branches and twigs. As a result, evaporation of the tree's precious store of moisture is held to a minimum.

Smoke Trees grow either as shrubs or trees, depending on the water supply. They are fast-growing but short-lived plants. The death rate among these "ghosts of the desert" is high, for growing in sandy washes they are at the mercy of the flash floods which occur during the rainy seasons. Veteran desert travelers claim they can tell how long it has been since roaring floodwaters swept an arroyo by the size of the Smoke Trees along its course. The opposite condition to flash floods—drouth—is another reason why Smoke Trees, especially young plants, do not live long.

To offset this high mortality rate, these hazy-looking trees have developed the ability to produce an amazing abundance of seeds. Soon after a summer shower, the ground beneath a mature tree is covered with tiny seedlings bearing broad well-formed leaves. So greatly do these seedlings contrast to the leafless parent trees, usually it



takes a botanist to detect them. The seedlings' leaves display conspicuous veins, and are notched along the edges. It is several weeks before the tiny plants begin to bear the characteristic spines.

Although few seedlings survive, those that do grow rapidly. If the rain gods are kind, the new plants often reach a height of five feet or more when two years of age. Full grown trees usually are 12 to 15 feet tall. Smoke Trees as high as 25 feet are rare. On the other hand, if water is scant, the plants may remain in the dwarf stage, perhaps attaining but three feet in stature after several years' growth.

This blue desert phantom is of little value as a shade tree. But to those who admire the strange exotic beauty of desert plant life, the haunting purple loveliness of the Smoke Tree's blossoms and the delicate filigree of its lace-like foliage is ample reason for its perpetuation.—END

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CLOSE-UPS

"I'm a transplanted desert rat—female species. In 1933 I lived near Palm Springs, Calif., when it was so different. I knew many of the Indians personally, and came to know and to love the desert with as deep an attachment as I shall ever know for any place."

These are the words of Miriam Anderson, author of "Lure of the Salton" in this month's *Desert*. The Andersons live in the mountains above San Bernardino — "an ideal place," she says, "for a writer to work." In addition to travel articles, Mrs. Anderson writes children's stories, verse, and television scripts.

Thelma Bonney Hall came to the Southwest from her native New England in the '40s. "My mountain climbing hobby made me a natural to fall in love with the upland desert, the upside down mountains, and to seek out the remote corners," she writes. She is author of "Progress At Glen Canyon Dam" in this issue of *Desert* — a story about one of the desertland's remotest—and busiest—corners.

Mrs. Hall is employed by the Arizona State Employment Service in Winslow, work which calls for finding jobs for Navajos (in agriculture and increasingly in industry) and Hopis (as fire fighters).

Nature study is Blair Chamberlin's hobby. He is author of "Trees-that-look-like-smoke" in this month's *Desert*. Chamberlin, an electrician for Titanium Metals Corporation, and his family live in Henderson, Nevada.

"To me the plant life of the desert is especially fascinating," he wrote. "Happily, my wife and son share my enthusiasm for the desert, and as a result we three spent much of our spare time during the past four years exploring and photographing the flora in the desert hills and valleys of the surrounding area."

Chamberlin is a native of Eau Claire, Wisconsin. Many of his articles have been published in leading Nature magazines.

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After a New Mexico vacation in 1952, free lance writer and photographer Henry P. Chapman quit his editorial staff job with a New York publishing house and moved West. Today an adobe in Tesuque is his home and office, and the Indians of the Tesuque Pueblo his neighbors.

Henry and his wife, Toni, have "prospected for facts and photos all over the world and in most of the 49 United States." His article in this month's *Desert*, "Rockhounding with a Camera," tells how they gather "treasure" in the Southwest.

"Navajo Slave Blanket" was written by Joseph H. Toulouse, Jr., a native of New Mexico who now resides in Canoga Park, California. During his school days, Toulouse developed a deep interest in New Mexico's prehistory and history. He worked with Dr. Kirk Bryan in the locating of prepottery camping sites in the vicinity of Grants. Later Toulouse excavated and restored portions of the former Mission of San Jose at Jemez Springs, and completely excavated and stabilized the Mission of San Gregorio de Abo near Mountainair, the setting for his story in this month's magazine.

Toulouse was superintendent of Gran Quivira National Monument for five year. At present he is Security Officer of an Air Force air photographic and charting squadron—"still deeply interested in the desert, and gathering material for a series of books on the military forts of New Mexico."

TRUE OR FALSE ANSWERS

Questions are on page 8

- 1—False. There is no law against taking dead ironwood from the public domain.
- 2—False. Smoke tree is very short-lived. Its span is seldom over 15 or 20 years.
- 3—True.
- 4—False. Elephant Butte dam is in New Mexico.
- 5—True. 6—True. 7—True.
- 8—True.
- 9—False. Europeans brought the first horses to America.
- 10—False. Furnace Creek Inn was built by Pacific Borax Company and is now operated by Fred Harvey.
- 11—False. The Datura flower is white.
- 12—False. Sandstone is a sedimentary rock.
- 13—True. 14—True.
- 15—False. Ubechebe was extinct long before America was discovered by the white men.
- 16—False. Calcite is too soft to make good arrowheads.
- 17—True. 18—True.
- 19—False. University of Arizona is at Tucson.
- 20—True.

Boundary Fight Cools . . .

Yuma, Ariz.—The Arizona-California controversy over "The Island" in the Colorado River flared briefly at year's end when graders and water trucks from Imperial County showed up on the 4000-acre no-man's-land. Arizona officials were alerted, but matters cooled down when the Imperial Engineer explained that the equipment was there at the request of Island farmers, and Imperial merely was being "neighborly." The question of the land's ownership currently is before the U.S. Boundary Commission.

Lagunas Split Money . . .

Laguna, N. M.—The Laguna Indians plan to divide a \$1,200,000 cash pot among members of the tribe—a split that would provide about \$300 to each eligible tribesman. The money is part of the accumulated royalties paid to the Lagunas by the Anaconda Company for uranium ore mined on Indian lands.

Mojave Reservoir Approved . . .

Victorville, Calif. — A \$3,000,000 flood control reservoir on the West Fork at the head of the Mojave River has been approved by the Corps of Engineers. The *Victor Press* said the

latest Army move presumably kills efforts to get a dam constructed at the Upper Narrows between Victorville and Apple Valley. In endorsing the project, the Army pointed out the reservoir would prevent \$240,000 in annual flood damage which occurs in the basin.

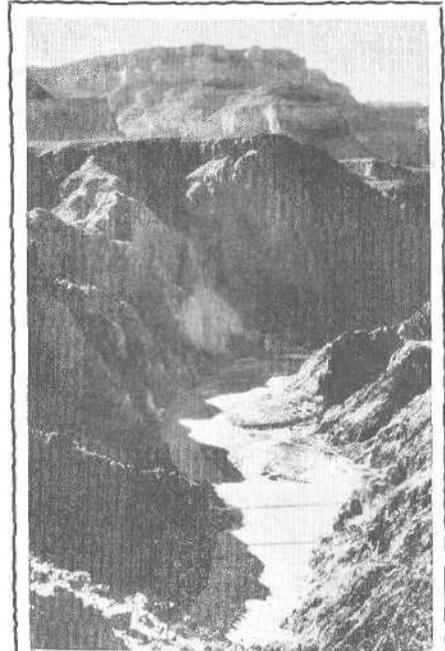
Fossil Discovery Preserved . . .

Reno—the Bureau of Land Management has proposed withdrawal of approximately 520 acres of public land in the Toiyabe National Forest from application of the mining laws. The move was made to protect the fossilized ichthyosaur discovery at Shoshone Mountain, being explored by the state Park Commission and the University of California Paleontology Department.

Wheeler Field Study Ends . . .

Ely, Nev.—Naturalist-Ecologist Dr. Adolph Murie has completed extensive field studies of the proposed Great Basin Park area in the Wheeler Peak-Lehman Caves area. The studies, begun in 1956, were conducted for the National Park Service. Dr. Murie and his associates considered all aspects of the area in their work: scenic values,

variety and combinations of plant and animal life, geology and the way it serves to illustrate and interpret the main geological events of the Great Basin geographical province.



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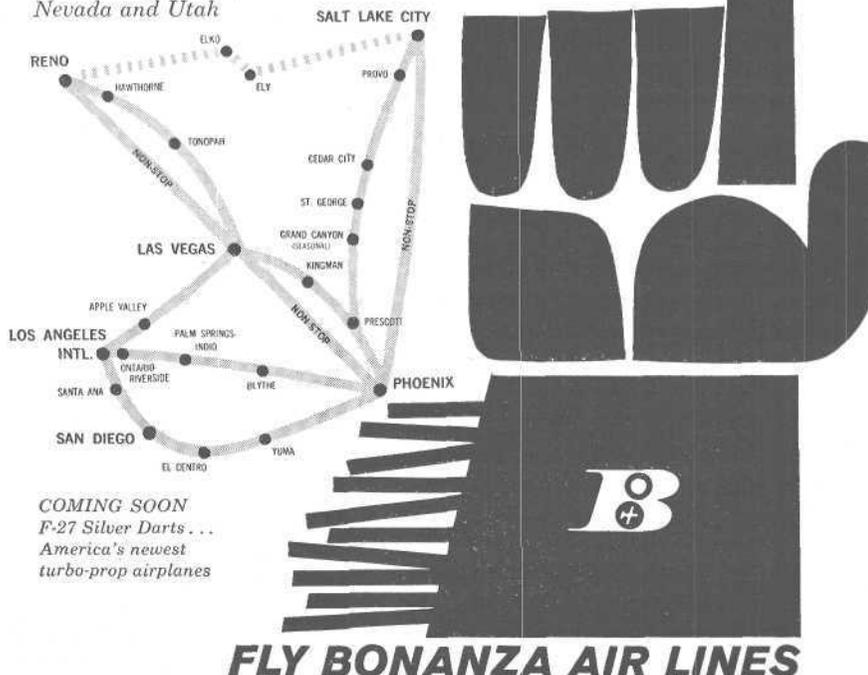
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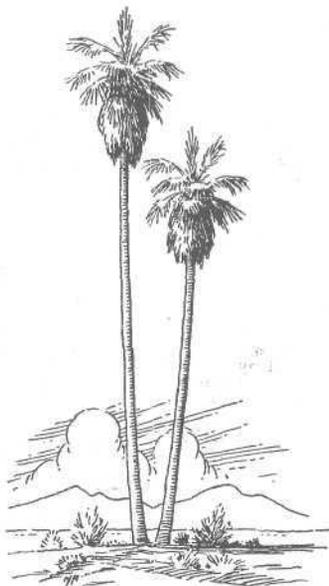
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Washington, D. C. . . .

The Atomic Energy Commission will no longer guarantee to purchase concentrates of uranium ore from domestic reserves developed after November 24, but will honor its promise to purchase concentrates from reserves developed prior to that date. The AEC will pay \$8 a pound for these concentrates from April 1, 1962, through December 31, 1966. The *Santa Fe New Mexican* said the tremendous Ambrosia Lake reserve in the Grants, N.M., area was the chief cause for the AEC policy revision. The five Ambrosia mills threaten a possibly serious overproduction of uranium when they reach full production in two years. The AEC had extended its unlimited buying order to 1966 before the size of the Ambrosia Lake deposits became known. Observers feel the AEC order will squeeze out the marginal U-mining operations, and curtail the search for new U-ore deposits. The Ambrosia operations, where ore is easily mined, probably will benefit from this latest development.

Moab, Utah . . .

Standard Uranium Corporation recently disclosed that its ore reserve in the Big Buck Mine in the Big Indian District has in excess of \$20,000,000 in place. About 600,000 tons of above-average-grade low-lime-content U-ore has been blocked out, with exploration and development continuing.

Spray, Utah . . .

Ponds, harvesting and processing equipment, and other facilities of the Deseret Salt Company have been purchased by the Leslie Salt Company.

Washington, D. C. . . .

A regulation guaranteeing the nation's Indian tribes a "fair price" for mineral leases of their lands was approved by the Interior Department. The new rule requires advertising for bids before issuance of leases, except where the Indian Commissioner grants permission in writing that a lease may be negotiated. The Interior Department pointed out that in the past, leases could be negotiated without any advertising which resulted in a tribe letting its lands be leased for much less than it could get through advertising. The new ruling applies to leases for mining of minerals other than oil and gas.

San Francisco . . .

Plans for increased research on mercury during the coming year were disclosed by the U.S. Bureau of Mines. The program is designed to provide industry with information on the occurrence, mining and recovery of mercury.



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By RANDALL HENDERSON

7HANKS TO Dr. O. N. Cole of the Searles Lake Gem and Mineral Society, I recently learned about a new racket in desert real estate which should be exposed for what it is.

The stage setting for the latest scheme in skulduggery is the Mojave Desert where it is reported that certain get-rich-quick gentry have been staking out 20-acre placer claims for folks who are gullible enough to put up their money for location fees and assessments.

Mining law requires annual assessment work on placers the same as lode claims. At the end of five years if assessments have been kept up, \$500 in improvements completed, and commercial values in minerals revealed, the claimant may obtain a patent.

The area involved is north of Trona where according to some of the old prospectors there isn't enough placer gold on an acre to make a decent wedding ring.

The "locators" working the Trona area were grouping their victims under a provision of the law which enables eight persons to associate together and file on 160 acres. Each claimant, in addition to his location fee, is to pay \$7.50 a month to the "locators" who agree to keep up the assessment work.

When Nolan Keil of the Los Angeles Land Office learned about the operation he called in the men who were working the racket and read the law to them. However, no law can be made completely foolproof. As Edward Woolley, director of the Bureau of Land Management once said: "Land locators and filing services have engaged in land promotional schemes—schemes that, while staying within the letter of the law, border on unethical and fraudulent practices."

Questionable practices also have been reported in the locating entrymen under the Desert Lands Act of 1877. The Los Angeles Land Office has on file nearly 5000 applications involving 1,500,000 acres, mostly desert land. Since the average filing is for 320 acres, and "locators" charge from \$2.00 to \$10.00 an acre for their services, it is a very lucrative business. But a desert land entryman under the Act of 1877 cannot prove up and obtain patent until water is available for agricultural purposes.

Developing water on desert land is very costly, and it is doubtful if two percent of the applicants ever will be able to get their patents. In the meantime they have invested large sums in location fees and annual assessment work. The only winner is the locator.

Not all realty men engaged in locating persons on public lands are guilty of ethical violations. The self-respecting real estate operators on the Mojave have a code of ethics which they try conscientiously to observe. These men would like to keep racketeers out of their field, for

the slippery operators bring discredit to the entire profession.

* * *

This page is being written early in January, soon after the New Year arrived. I hope you-all are still holding fast to the good resolutions you made for 1959. I didn't make any. Instead, I spent a quiet hour day-dreaming about what a world of peace and goodwill we could have if somehow we could contrive to bring out the best in human nature. For all of us—every last one of us—has the capacity for both good and evil. There's a bit of saint in every human being—even though he may be spending time in prison. And a bit of the devil in every human even though he may be a preacher. We have the genetic potential.

And so I dreamed about a model town—which if we could bring it about, would be the most popular town in the United States. It would be a small town, perhaps only a few hundred people. Under the leadership of a few men and women who read non-fiction books and spend a little time every day in meditation—perhaps a school teacher, the local pastor, a doctor, a music teacher, a lawyer, yes, and even a real estate man—they would get together and form a chamber of culture. Not commerce, but culture!

They would decide that all the resources of the community should be devoted to Beauty, Cooperation, Creative Art and Industry. Every householder would be encouraged to clean up his premises, put a new coat of paint on the buildings, plant flowers in the yard, spend an hour or two every day playing and working with the children, and a few hours a week in the home workshop or studio doing something creative — carpentry, lapidary, wood carving, painting, writing, practicing music—there are a thousand creative hobbies.

The community would have the best schools because the teachers are dedicated to the greatest profession on earth, medical costs would be moderate because of a cooperative hospital, motor and gasoline costs would not take much of the family budget because it would be more fun to stay home, the two grocery men would be pals because they are more interested in giving service to the townsfolk than in trying to get rich by cutting each other's throats—and all would reflect an inner peace and security and the understanding that are the most important ingredients of happiness.

The tourists would come from miles away just to breathe the atmosphere in a place where the folks really had attained the highest art in civilization—the art of living together in peace and beauty and love.

Just a New Year's day dream, yes, but they cannot put a fellow in jail for dreaming.

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● MAPS

SECTIONIZED COUNTY maps — San Bernardino \$1.50; Riverside \$1; Imperial, small \$1, large \$2; San Diego 50c; Inyo, western half \$1.25, eastern half, \$1.25; Kern \$1.25; other California counties \$1.25 each. Nevada counties \$1 each. Topographic maps of all mapped western areas. Westwide Maps Co., 114 W. Third St., Los Angeles, California.

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DESERT INVESTMENT. \$20 down, \$15 month buys level 20 acre lot, on road. In NW 1/4 Sec. 6-12N-18E, in beautiful Lanfair Valley, San Bernardino County, California. Full price \$1295. Owner, Dale Henion, 2086 E. Colorado, Pasadena, Calif.

80 ACRES near Lockhart, level, \$125 acre, 25% down. 20 acres Highway 395, level, north of Adelanto, \$150 acre, 10% down. 2 1/2 acres west of Adelanto, level, \$1495, 10% down. 2 1/2 acres Lancaster on paved highway, shallow water, level, \$2495, 10% down. Dr. Dodge, 1804 Lincoln Blvd., Venice, Calif.

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REPORTS FROM THE FIELD

These notes are intended as suggestions for your collecting trips. Always make local inquiry before following trails into uninhabited areas. Mail your recent information on collecting areas (new fields, status changes, roads, etc.) that you want to share with other hobbyists, to "Field Reports," Desert Magazine, Palm Desert, California.

Profusion of Material . . .

Siam, Calif.—"Blue agate, fossil-marble and trilobites (extinct marine arthropods) were among material obtained in profusion" by members of the Orange Coast Mineral and Lapidary Society (Costa Mesa) who spent a week end searching the many mineralized areas in the Siam area. Siam (an abandoned railroad siding on the Mojave Desert) is reached by going 2.7 miles east of Cadiz Summit on Highway 66, then turning right on a dirt trail that crosses the Santa Fe Railroad at 6.3 miles from Cadiz. Immediately southeast of the tracks are the Ship Mountains on whose northern slopes there is an abundance of opalite in concentrated areas.

Lodestones Along the Road . . .

Lucerne Valley, Calif. — The field trip chairman of the Ontario, California, Bear Gulch Rock Club reports two Mojave Desert collecting fields off of the Lucerne Valley to Old Woman Springs Road. The first area is at the abandoned copper mine about three miles down and two miles west of the Bessemer Iron Mine Road which connects to the main highway 12 miles east of the Big Bear turn-off. Parents are warned to keep children away from the dangerous mine shaft. Material found here is blue-and-green-stained feldspar—not of gem quality, but very attractive and suitable for garden stone. The second collecting field is farther along the road to the still-active iron mine. Here lodestones are found. They are recognized by their hairy appearance caused by the attraction of minute iron particles from the soil.

Fire Opal Area Open . . .

Oatman, Ariz.—Word from Oatman is that the famous fire opal collecting field, held under claim by Martin Cuesta, again is open. Cuesta is charging \$1.50 per person for a full day's hunting. It takes plenty of digging to find fire opal, and proper tools should be brought by visitors. Cuesta's headquarters are at Ed's Camp near the old mining towns of Gold Road and Oatman on the original Highway 66. Nights are cold, and sufficient bedding is recommended.

Wide Choice of Material . . .

Barstow, Calif.—Kern County Mineral Society members from Bakersfield who explored the Afton Canyon area in the central Mojave Desert said it was a "veritable paradise." They report collecting these materials: red jasper, nodules, seam agate and calcite crystals.

Obsidian Field Hardly Touched . . .

Glass Buttes, Oregon—Dr. H. C. Dake, editor of *Mineralogist Magazine*, says the famous Glass Buttes obsidian fields in central Oregon remain relatively unexplored after over 20 years of rockhound activity in this region. Few dirt roads traverse the 50 square miles of known obsidian flow. Nearly all visitors have concentrated their efforts in a small area on the north side of the Buttes. They enter the area from the highway at Milepost 79 Road. A few have gone in at Milepost 82. On a recent trip to Glass Buttes, Dr. Dake rediscovered a double-flow outcrop at the top of a ridge. Apparently, he writes, two flows of obsidian came together here in an almost straight line, the flow from one side of the hill being black, and from the other, bright red. Contact was made at the top of the ridge—but instead of intermixing, the colors fused and chilled on contact leaving a sharp line of color demarcation in the gem-quality material. Dr. Dake believes the colorful obsidian from this ridge is unique in the world. Obsidian is found almost everywhere in the huge area, and where it is not exposed on the surface, digging generally reveals material below the surface. Especially plentiful are large fracture-free blocks of obsidian ideally suited for large spheres. Dr. Dake believes the interior and southern portions of the Buttes offer the greatest potential for new prospecting activity. The dirt roads here, mainly used to serve sheep grazing camps in the spring, should not be traveled over in the wet season. Standard cars can negotiate some of them. Most of the area lies within the Public Domain.

New Regulations . . .

China Lake, Calif.—In the future, large club caravans into the Randsburg Wash and Lead Pipe Springs portions of the Naval Ordnance Test Station will not be allowed, the NOTS commanding officer announced. Permission to enter the area only will be given to four-vehicle maximum parties. Those wishing to visit these famous collecting fields should send their requests to the NOTS Security Officer, China Lake, Calif., at least four days prior to the Sunday (the only day the areas are open to the public) on which the trip is planned. Recent visitors to the Randsburg Wash area reported finding excellent rhodonite specimens, although hard digging was required.

Short-Cut Freeway Dedicated . . .

Victorville, Calif. — Recently dedicated was the 29.5 mile freeway connecting Victorville and Barstow. The new road, which generally follows the Sidewinder Trail used by freighters in the old days, replaces the highway running along the Mojave River. The freeway passes through a desert area that has seen considerable mining, prospecting and gem collecting activity.

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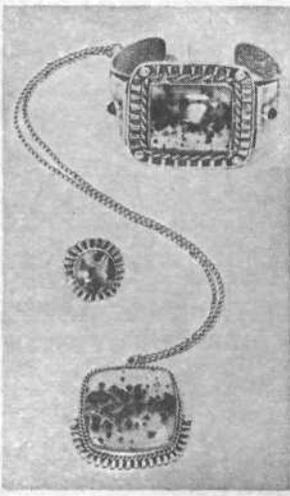
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BULLETIN EDITORS WILL ATTEND SECOND SEMINAR

Gem and Mineral Bulletin editors from the Southwest will gather at the *Desert Magazine* Pueblo in Palm Desert, California, on February 14-15 for the 2nd annual editors' seminar. The affair again is being presented in co-operation with the National Bulletin Editors' Association and the Shadow Mountain Gem and Mineral Society of Palm Desert.

Featured seminar speaker will be Don MacLachlan, editor of *Gems and Minerals Magazine*, whose subject will be "Publicizing the Hobby." Also slated are talks by *Desert* staff members, and the open discussion led by

NBEA Editor-in-chief Vivienne Dosse. A program highlight will be Jack Novak's showing of his color slide essay, "The Fascinating Desert," a recent Photographic Society of America contest winner.

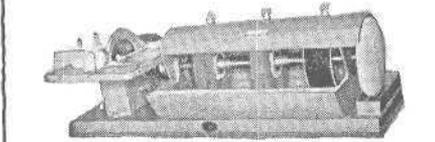
This year's seminar will begin at 10 a.m. on the 14th, with luncheon served at noon by the Bernard Kamp-Pack Food company. The Shadow Mountain club's chuckwagon crew, under the direction of Herb Ovits, will serve a barbecue dinner to the editors that evening. The next day the editors will attend the International Date Festival in Indio.

- April 4-5—Escondido, Calif. Palomar Gem-Mineral Society, Central School Auditorium, 4th and Broadway.
- April 11-12—Santa Monica, Calif. Gemological Society, Joslyn Hall, Willshire and Lincoln Blvds.
- April 11-12 — Eugene, Oregon. Mineral Club, Lane County Fairgrounds.
- April 18-19—Costa Mesa, Calif. Orange Coast Mineral-Lapidary Society, Agricultural Building, Orange County Fairgrounds.
- April 18-19—San Jose, Calif. Lapidary Society, Women's Gym, San Jose State College.

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- February 14-23—Indio, Calif. Mineral and Gem Show in conjunction with International Date Festival.
- February 27-March 1 — Phoenix Annual Gem and Mineral Show.
- March 6-8—Tucson. 5th Annual Show at Pima County Fairgrounds. Exhibitors should write to G. Dudley, 1017 Duquesne Drive, Tucson.
- March 7-8—San Lorenzo, Calif. Castro Valley Mineral-Gem Society, high school.
- March 7-8 — Bloomington, Calif. Arrowhead Mineralogical Society, Alpha Lyman School Auditorium.
- March 7-8 — Altadena, Calif. Pasadena Lapidary Society, Farnsworth Park.
- March 14-15—Seattle, Washington. North Seattle Lapidary-Mineral Club, Sky-Room, Ray's Boat House, 6049 Seaview Avenue.
- March 14-15—San Luis Obispo, Calif. Gem-Mineral Society, Veteran's Memorial Bldg.
- March 14-15—Reseda, Calif. Valley Independent Petrologists, Woman's Club, 7901 Lindley Ave.
- March 21-22—Montebello, Calif. Mineral-Lapidary Society, Taylor Ranch House, 737 No. Montebello Blvd.
- April 4-5 — Colton, Calif. Slover Gem-Mineral Society, Municipal Park.

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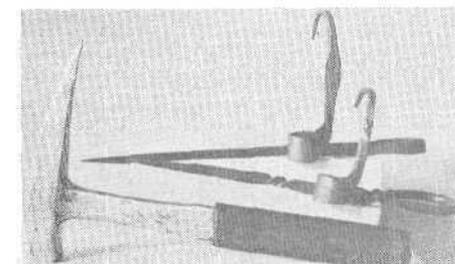
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"I'm a transplanted desert rat—female species. In 1933 I lived near Palm Springs, Calif., when it was so different. I knew many of the Indians personally, and came to know and to love the desert with as deep an attachment as I shall ever know for any place."

These are the words of Miriam Anderson, author of "Lure of the Salton" in this month's *Desert*. The Andersons live in the mountains above San Bernardino — "an ideal place," she says, "for a writer to work." In addition to travel articles, Mrs. Anderson writes children's stories, verse, and television scripts.

Thelma Bonney Hall came to the Southwest from her native New England in the '40s. "My mountain climbing hobby made me a natural to fall in love with the upland desert, the upside down mountains, and to seek out the remote corners," she writes. She is author of "Progress At Glen Canyon Dam" in this issue of *Desert* — a story about one of the desertland's remotest—and busiest—corners.

Mrs. Hall is employed by the Arizona State Employment Service in Winslow, work which calls for finding jobs for Navajos (in agriculture and increasingly in industry) and Hopis (as fire fighters).

Nature study is Blair Chamberlin's hobby. He is author of "Trees-that-look-like-smoke" in this month's *Desert*. Chamberlin, an electrician for Titanium Metals Corporation, and his family live in Henderson, Nevada.

"To me the plant life of the desert is especially fascinating," he wrote. "Happily, my wife and son share my enthusiasm for the desert, and as a result we three spent much of our spare time during the past four years exploring and photographing the flora in the desert hills and valleys of the surrounding area."

Chamberlin is a native of Eau Claire, Wisconsin. Many of his articles have been published in leading Nature magazines.

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After a New Mexico vacation in 1952, free lance writer and photographer Henry P. Chapman quit his editorial staff job with a New York publishing house and moved West. Today an adobe in Tesuque is his home and office, and the Indians of the Tesuque Pueblo his neighbors.

Henry and his wife, Toni, have "prospected for facts and photos all over the world and in most of the 49 United States." His article in this month's *Desert*, "Rockhounding with a Camera," tells how they gather "treasure" in the Southwest.

"Navajo Slave Blanket" was written by Joseph H. Toulouse, Jr., a native of New Mexico who now resides in Canoga Park, California. During his school days, Toulouse developed a deep interest in New Mexico's prehistory and history. He worked with Dr. Kirk Bryan in the locating of prepottery camping sites in the vicinity of Grants. Later Toulouse excavated and restored portions of the former Mission of San Jose at Jemez Springs, and completely excavated and stabilized the Mission of San Gregorio de Abo near Mountainair, the setting for his story in this month's magazine.

Toulouse was superintendent of Gran Quivira National Monument for five year. At present he is Security Officer of an Air Force air photographic and charting squadron—"still deeply interested in the desert, and gathering material for a series of books on the military forts of New Mexico."

TRUE OR FALSE ANSWERS

Questions are on page 8

- 1—False. There is no law against taking dead ironwood from the public domain.
- 2—False. Smoke tree is very short-lived. Its span is seldom over 15 or 20 years.
- 3—True.
- 4—False. Elephant Butte dam is in New Mexico.
- 5—True. 6—True. 7—True.
- 8—True.
- 9—False. Europeans brought the first horses to America.
- 10—False. Furnace Creek Inn was built by Pacific Borax Company and is now operated by Fred Harvey.
- 11—False. The Datura flower is white.
- 12—False. Sandstone is a sedimentary rock.
- 13—True. 14—True.
- 15—False. Ubehebe was extinct long before America was discovered by the white men.
- 16—False. Calcite is too soft to make good arrowheads.
- 17—True. 18—True.
- 19—False. University of Arizona is at Tucson.
- 20—True.

AMATEUR GEM CUTTER

By Dr. H. C. DAKE, Editor of The Mineralogist

Putty Powder

In the perusal of the old literature on lapidary polishing powders, the reader will note many references to items like putty powder and rottenstone.

Putty powder was of variable composition. In some cases it was the white oxide of lead, or a mixture of tin oxide and white lead. Since white lead powder is much less costly than tin oxide, even today we sometimes find tin oxide adulterated with white lead oxide. In any event, putty powder was a lapidary favorite for many centuries.

Rottenstone was and still is in wide use. This is our old favorite, tripoli. Rottenstone was the name given to a rather high grade of tripoli, which was mined in great quantities in both Derbyshire and South Wales, England. It was in very wide use in the glass, metal and ceramic polishing industries. The old text books tell us that "in the hands of the skilled lapidary, even the hardest stones may be polished." This is quite true if we eliminate the diamond.

For many centuries, the standard method for polishing sapphire was tripoli and the iron lap. In fact, this was once the only feasible way sapphire could be polished. True, it was slow, but it was highly effective. Modern micron-size diamond grits have now wholly replaced tripoli in sapphire polishing, both for natural gem and synthetics.

One of the difficulties with early tripoli was its lack of uniformity, due to various extraneous impurities encountered in the mines.

In short, the gem cutter found it annoying when one lot of tripoli worked fine on a certain gem material, and the next caused excessive scratching. All this is eliminated today by our modern methods of cleaning and grading this material. The air floated tripoli of today comes as near being our most universal of all polishing powders, and is more widely used in industries than any other polishing agent, natural or manufactured.

Tripoli also appears in the older literature under the name, Silex. This term was frequently applied to the red tripoli from Tripoli, Africa. A fine yellow tripoli from France has been termed French Tripoli, and was widely used for polishing light-colored hardwoods by hand. This was before the invention of power sanders.

Gas in Tumblers

The following information was received from Clark F. Barb, Department of Petroleum Engineering, Colorado School of Mines, Golden, Colorado:

"Several weeks ago we tested gas from a gem tumbler and found it would burn. Further tests indicated that it is violently explosive when mixed with air, and we have heard of two tumblers "exploding" while in use.

"A specific gravity test indicated that the gas may be methane. We are presently building a tumbler from which we can remove the gas continuously and run comprehensive tests.

"I have made test runs on agate and Jasper from Moab, Utah, from the Vernal area of Utah and Moffat County, Colorado, on samples from Wyoming, and Colorado dinosaur bone. In every case the gas burns violently with an intense flame. Overnight,

enough gas is generated in my 16x20-inch tumbler to fry an egg."

The above information would indicate that the gas formed in a gem tumbler could be a real hazard if a spark or flame was present when the tumbler was opened. It would be a good deal like using a match to see how much gasoline is left in the tank. Methane (marsh gas) may be deadly under certain conditions.

Crystal Growing

Some years ago the rock hobbyists took up crystal growing, and some of the supply houses carried these unique specimens in stock. After a time the fad died out, but I continue to receive inquiries on this rather fascinating pastime.

Growing groups or clusters of crystals of various water-soluble inorganic chemicals is a rather simple matter.

The whole secret of growing large single crystals and groups or clusters is a slow crystallization from the "mother" solution. One may start with almost any water-soluble chemical available in the kitchen, laboratory or drug store, such as sugar, salt, borax, boric acid. These are all colorless.

For spectacular colors, one may use copper sulphate, potassium permanganate, potassium chromate, or one of the many nickel, copper, or cobalt salts—just so long as they are water-soluble. Other common items include epsom salt, common alum, and the ammonium sulphate used as a common fertilizer. Each of these chemicals will crystallize in its own crystal system. For example, from common salt one may grow large cubes.

Start with a small amount of water, usually from four to eight ounces, more or less. Warm the water, and then dissolve as much of the chemical as is possible to give a fully saturated solution—the point when no more of the chemical will dissolve.

Then a "seed" of some kind should be placed in the container. This may be a common rock, a wire or string, or a crystal of the original material. The container is then placed in a cold place. For slow crystallization, the kitchen refrigerator is ideal. The water of the solution will evaporate to some extent, but the reduced temperature will promote the slow crystallization to produce the largest crystals. Any low temperature may be used, at or near the freezing point. One may use still lower temperatures in the deep freeze, but there is a limit here. However one can experiment.

It is advisable to use a clear glass con-

tainer, one with a wide mouth, to enable removal of the specimen. Dry in a warm place. In an earlier day some clever lad would grow a magnificent group of crystals resting on a common rock and then hand the specimen to some expert for "identification." At the outset this provided some amusing excitement, but after being once initiated, the innocent expert soon learned.

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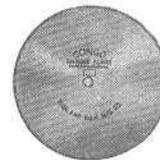
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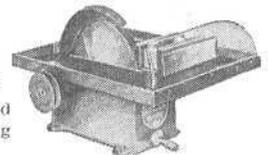
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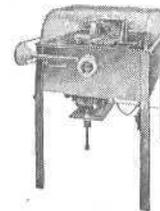
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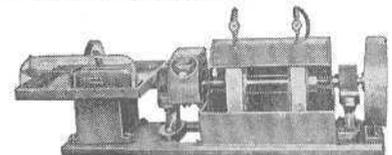
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JOURNEY OF THE FLAME By WALTER NORDHOFF

writing under the pen name of Antonio de Fierro Blanco. 295 pages of text. One of the classics of the west, it describes a fascinating, if imaginary, trip from Baja California to San Francisco. Intrigue and adventure fill this book, which has its setting in the early Californias of a century and a half ago. \$3.75.

* * *

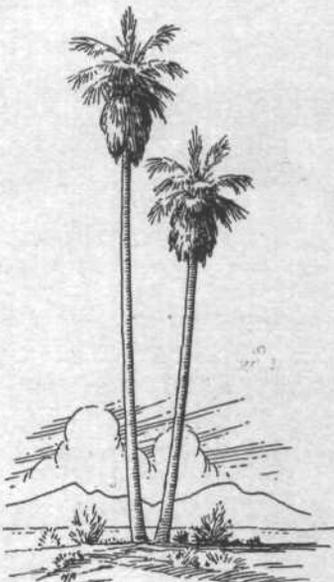
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Almost 300 ghost camps come to life in this book. Facts and fascinating reading fill the 328 pages. A Ghost Town Directory points out the boom mining towns of the Old West. Half-tone photos and index. \$5.75.

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THE NORTH AMERICAN DESERTS By EDMUND C. JAEGER

The ever-popular Jaeger, recognized as one of the top naturalists of the West, has divided this fine book into 164 pages of general text plus 146 pages of references, guides, and drawings about desert animals, plants, and insects. He describes the following five deserts: Chihuahua, Sonora, Navaho, Mohave, and Great Basin. \$5.95.

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BOOKS of the SOUTHWEST

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HISTORY OF THE EARTH IS REVEALED IN FOSSILS

Less than 300 years ago in Europe, the scientists of that day were attempting to explain the occurrence of fossils and fossil imprinted stones which they found, in terms of the Biblical story of the Great Flood and Noah's Ark. Lacking scientific knowledge as it exists today, there was no other explanation for the stone images of sea creatures picked up far distant and at elevations high above the seashore.

But today, the scientists know better. They realize this planet has been undergoing millions of years of change—and even more interesting is the fact that the fossil material scattered far and wide over the surface of the land supplies the clues which enable the men of learning to piece together the ancient story of creation and re-creation.

The finest contribution yet made to the story of prehistoric life on this earth as revealed in the extensive fossil remains found today is *The Fossil Book*, written and illustrated by Carrol Lane Fenton and Mildred Adams Fenton.

This fine volume of 482 pages not only identifies thousands of fossils, including many that have been seen by every outdoor person who has tramped the desert and mountain slopes, but

it illustrates them in intricate detail in the lithographic reproductions which appear on nearly every page.

The Fossil Book not only is a guide for paleontologists and rock collectors, but it is a book of history, dating back to the time when the first marine creatures began to wiggle their way onto the land, and eventually to acquire the pedal organisms with which to walk into the forests.

The Fentons write for the lay reader. Their *Rock Book* has long been recognized as an outstanding guide and reference volume in its field, and other books by them, *Our Amazing Earth*, *Our Living World* and *Our Changing Weather*, are all held in high esteem by teachers and students everywhere.

Published by Doubleday & Company, New York. 482 pp with many hundreds of illustrations, glossary, and index. \$12.50.

NEW BOOK EXPLAINS WORK OF COWBOY

What youngster hasn't dreamt of being a cowboy? There's a captivating romance about the whole business that is not in the slightest diluted by a new book on the market that deals with the more mundane aspect of the cowman's life: his work.

In *The Cowboy At Work*, author Fay E. Ward, himself a working cowhand for 40 years, chose as his theme the history of the cowhand, equipment he used in everyday work, and how he used it. This is a handsome book, effectively illustrated with 600 drawings by the author—everything from earmarks (134 different ways cow ears are cut to identify stock in conjunction with brands) to diagramed instructions for weaving a quilt out of rawhide strips. No facet of the physical world surrounding the cowboy is ignored, and enough salt comes through in Ward's writing to give this book the positive flavor of the men who made their living raising cows.

Published by Hastings House, New York; 289 pages; illustrated; index; \$8.50.

COWBOYS' HUMOR WAS GENUINE AND VITAL

Humor served many important purposes for the cowboy of the Old West. The campfire was (and still is) a marvelous arena for tall-tale yarns and

droll stories—especially after a long day in the saddle. There was precious little else by way of diversion. Humor also developed into a biting weapon of sarcasm, mainly used by the cowboy against his traditional enemy, the railroaders. And humor was a handy way to teach tenderfeet the lessons of the great wide open spaces.

But, wit had another use—as important as those mentioned above: the cowboy's life was a lonely one, and there was value in being able to laugh at himself and at the natural perils of his occupation and environment. When a foot-weary cowboy came trudging into camp after being thrown from his horse, a typical remark was likely to be: "Sure sorry I made that poor hoss come home all by itself."

Stan Hoig, a young Oklahoman, bares the roots of this kind of Native American wit in his recently published book, *The Humor of the American Cowboy*. In this delightful collection of authentic cowboy yarns, jokes, tall tales, anecdotes and humorous incidents, Hoig convincingly shows that the cowboy's sense of humor was as much a part of him as his 10-gallon hat.

Published by Caxton Printers; illustrated by Nicholas Eggenhofer; 193 pages; \$5.

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PALM DESERT

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By RANDALL HENDERSON

THANKS TO Dr. O. N. Cole of the Searles Lake Gem and Mineral Society, I recently learned about a new racket in desert real estate which should be exposed for what it is.

The stage setting for the latest scheme in skulduggery is the Mojave Desert where it is reported that certain get-rich-quick gentry have been staking out 20-acre placer claims for folks who are gullible enough to put up their money for location fees and assessments.

Mining law requires annual assessment work on placers the same as lode claims. At the end of five years if assessments have been kept up, \$500 in improvements completed, and commercial values in minerals revealed, the claimant may obtain a patent.

The area involved is north of Trona where according to some of the old prospectors there isn't enough placer gold on an acre to make a decent wedding ring.

The "locators" working the Trona area were grouping their victims under a provision of the law which enables eight persons to associate together and file on 160 acres. Each claimant, in addition to his location fee, is to pay \$7.50 a month to the "locators" who agree to keep up the assessment work.

When Nolan Keil of the Los Angeles Land Office learned about the operation he called in the men who were working the racket and read the law to them. However, no law can be made completely foolproof. As Edward Wozzley, director of the Bureau of Land Management once said: "Land locators and filing services have engaged in land promotional schemes—schemes that, while staying within the letter of the law, border on unethical and fraudulent practices."

Questionable practices also have been reported in the locating entrymen under the Desert Lands Act of 1877. The Los Angeles Land Office has on file nearly 5000 applications involving 1,500,000 acres, mostly desert land. Since the average filing is for 320 acres, and "locators" charge from \$2.00 to \$10.00 an acre for their services, it is a very lucrative business. But a desert land entryman under the Act of 1877 cannot prove up and obtain patent until water is available for agricultural purposes.

Developing water on desert land is very costly, and it is doubtful if two percent of the applicants ever will be able to get their patents. In the meantime they have invested large sums in location fees and annual assessment work. The only winner is the locator.

Not all realty men engaged in locating persons on public lands are guilty of ethical violations. The self-respecting real estate operators on the Mojave have a code of ethics which they try conscientiously to observe. These men would like to keep racketeers out of their field, for

the slippery operators bring discredit to the entire profession.

* * *

This page is being written early in January, soon after the New Year arrived. I hope you-all are still holding fast to the good resolutions you made for 1959. I didn't make any. Instead, I spent a quiet hour day-dreaming about what a world of peace and goodwill we could have if somehow we could contrive to bring out the best in human nature. For all of us—every last one of us—has the capacity for both good and evil. There's a bit of saint in every human being—even though he may be spending time in prison. And a bit of the devil in every human even though he may be a preacher. We have the genetic potential.

And so I dreamed about a model town—which if we could bring it about, would be the most popular town in the United States. It would be a small town, perhaps only a few hundred people. Under the leadership of a few men and women who read non-fiction books and spend a little time every day in meditation—perhaps a school teacher, the local pastor, a doctor, a music teacher, a lawyer, yes, and even a real estate man—they would get together and form a chamber of culture. Not commerce, but culture!

They would decide that all the resources of the community should be devoted to Beauty, Cooperation, Creative Art and Industry. Every householder would be encouraged to clean up his premises, put a new coat of paint on the buildings, plant flowers in the yard, spend an hour or two every day playing and working with the children, and a few hours a week in the home workshop or studio doing something creative — carpentry, lapidary, wood carving, painting, writing, practicing music—there are a thousand creative hobbies.

The community would have the best schools because the teachers are dedicated to the greatest profession on earth, medical costs would be moderate because of a cooperative hospital, motor and gasoline costs would not take much of the family budget because it would be more fun to stay home, the two grocery men would be pals because they are more interested in giving service to the townsfolk than in trying to get rich by cutting each other's throats—and all would reflect an inner peace and security and the understanding that are the most important ingredients of happiness.

The tourists would come from miles away just to breathe the atmosphere in a place where the folks really had attained the highest art in civilization—the art of living together in peace and beauty and love.

Just a New Year's day dream, yes, but they cannot put a fellow in jail for dreaming.

Photo of the Month



Paisano

Most desert folks have a special place in their hearts for the road runner. A conversation about these outlandish birds invariably produces smiles or an "I'll be darned" exclamation. The paisanos are independent characters—competent hunters, and yet almost bizarre in appearance. They are members of the cuckoo family, and have short rounded wings; long thin pale blue legs; long beaks; brilliant yellow-brown eyes surrounded by areas of naked blue and orange skin; a dark bristly crest atop their heads; coarse brown, black, purple, white and olive feathers clothing slim bodies; feet with two long toes pointing forward, and two toes pointing backward; and a tail almost as long as the body.

Attesting to its popularity, the road runner has a long string of aliases: paisano, chaparral cock, snake-killer, churca, cock-of-the-desert, correcamino, lizard-bird, ground cuckoo and others.

The road runner is not too particular about what it eats. Its diet consists of snakes, tarantulas, mice, insects, bird eggs, seeds, fruit and lizards. An ability to conquer small rattlers rates a nod of respect to this curious desert fowl.

Photographer Christian Walton is a resident of San Diego.

PHOTO CONTEST: you are invited to enter desert-subject photographs (black and white, 5x7 or larger) in Desert's contest. One entry will be selected each month, and a \$10 cash prize awarded to the photographer. All other entries will be returned—provided postage is enclosed. Time and place of photograph are immaterial—except that the photo must be of a Desert Southwest subject. For non-winning pictures accepted for publication, \$3 each will be paid. Address all entries to: Photo Contest, Desert Magazine, Palm Desert, Calif.



Chimayo Weaver

Dave Ortega, 41, is a sixth-generation weaver in Chimayo, a famous Spanish-American handicraft center in northcentral New Mexico. His 83-year-old father has been weaving for 65 years, and Dave's oldest son, Chris, now 12, is being taught the trade. Photo by Wallace Anderson, Santa Fe.