

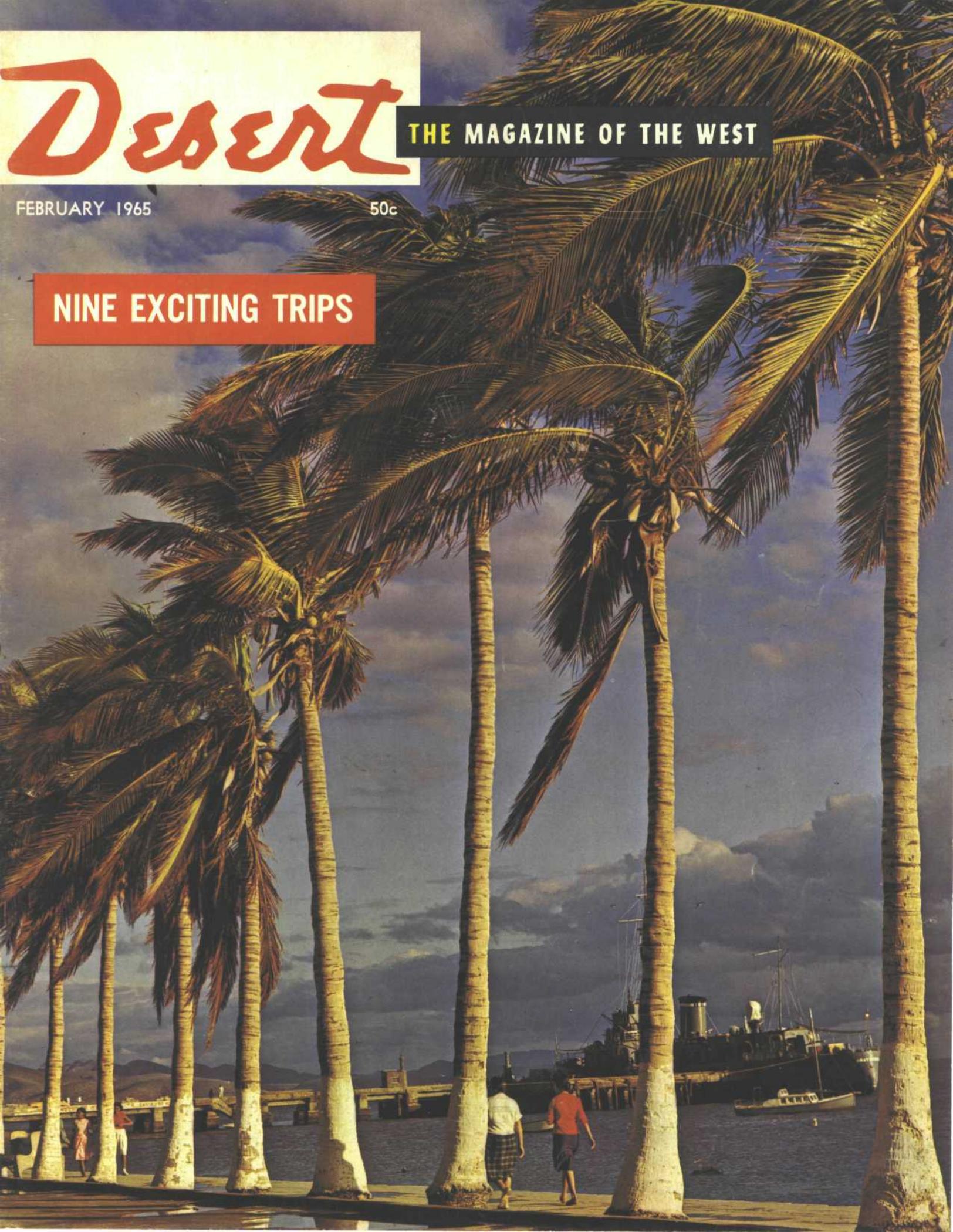
Desert

THE MAGAZINE OF THE WEST

FEBRUARY 1965

50c

NINE EXCITING TRIPS





First Prize

WHOOO?

For the best caption for this photograph of the two Monkey-Faced Owls DESERT Magazine will give an expense-paid guided tour through Death Valley by Wanderlust Death Valley Tours. You may either quote the owls or describe them in the caption which cannot be longer than 50 words. Entries must be postmarked no later than March 1, 1965.

MONKEY-FACED OWLS Ted K. Martin Fresno, California

These Monkey-Faced Owls were exposed by electronic flash using a Hasselblad camera and 150mm Zeiss Sonner lens. A separate exposure was made for the moon using a 500mm Dallmeyer lens.

FEBRUARY PHOTO CONTEST WINNERS

DESERT DWELLING Adele Reed Bishop, California

Buried by years of blowing sand this home of long ago is located at Teel's Marsh, Mineral County, Nevada near the once active Salt and Borax Works. DATA: Rolleiflex Magic 2 camera with Agfapan film.

Second Prize

PHOTO CONTEST RULES

1—Prints for monthly contests must be black and white, 5x7 or larger, printed on glossy paper.

2—Each photograph submitted should be fully labeled as to subject, time and place. Also technical data: camera, shutter speed, hour of day, etc.

3—PRINTS WILL BE RETURNED ONLY WHEN RETURN POSTAGE IS ENCLOSED.

4—All entries must be in the Desert Magazine office by the 20th of the contest month.

5—Contests are open to both amateur and professional photographers.

6—FIRST PRIZE will be \$15; SECOND PRIZE, 8. For non-winning pictures accepted for publication \$3 each will be paid. Although not part of the contest, Desert is also interest in viewing 4x5 color transparencies for possible front cover use. We pay \$25 per transparency.



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THE DESERT IN FEBRUARY

NATIONAL DATE FESTIVAL Rare imports from world-wide localities will be among the collections in the Gem and Mineral Show at the National Date Festival in Indio, Calif., Feb. 12 through 22. Included will be crystal for collectors, polished and unpolished cabachons, onyx, plastic jewelry, hand-made rock, laminations, and glass and rock of every hue. The annual National Date Festival is a salute to the harvesting of the seven million dollar crop in Coachella Valley

Other features of the festival are the Arabian Nights Pageant free to all festival visitors, camel and ostrich races, Queen Scheherazade and her royal court and hundreds of horticulture, floriculture, home arts, junior livestock and other displays. The National Horse Show is a daily event.

OTHER FEBRUARY EVENTS: Parada Del Sol, parade and rodeo, Scottsdale, Ariz., Feb. 5-7. Tomato Festival, Niland, Calif., Feb 5-7. Imperial Valley Carrot Carnival, Holtville, Calif., Feb. 17-21. Whiskey Flat Days, celebrating the Kern River gold rush days, Kernville, Calif. Feb. 18-21. Elmer Sears Lettuce Tournament, Brawley, Calif., Feb. 21-28. Annual Cactus Show, Phoenix, Ariz., Feb. 21-28. California Mid-Winter Fair, Imperial, Calif. Feb. 26-Mar. 7, parade on Feb. 27.

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New Books For Desert Readers

STANDING UP COUNTRY

By C. Gregory Crampton

"No popular image exists of the canyon country of Utah and Arizona. One reason is that no history of the entire region has ever been written. It has always been the segmented view. Yet the history was as dramatically rich as the landscape and was given a unity by the river and its canyons." Now, at last, a biography of the region has been written by the man who made the above statement.

Dr. C. Gregory Crampton, professor of history at the University of Utah, tackled this ambitious project with the background and energy of a Superman. No land in the uninhabited, rugged area was too wild to resist his appraisal. No colorful episode of history eluded his pen. This is, indeed, the finest book ever published on the wonders of the canyon country.

Illustrated with 16 photographs in full color and over 100 black and whites, the dramatic text covers the times of the *conquistadores*, explorers, cattle barons, Mormons, gold rush, and famous Colorado river runners and the area covered reaches from Utah's Book Cliffs to the White Mesa of Arizona and from Bryce National Park to the Four Corners. Large format, 192 pages. Price \$15.00.

THE CALIFORNIA MISSIONS

Here, with information assembled by the editors of Sunset Books, is the most comprehensive book on California missions ever published. California's large cities grew up around the 21 missions established to bring Christianity and civilization to Stone Age Indians. With the advent of trading vessels from New England, however, Alta California was doomed as a province of Spain. Designed to become as self-supporting as possible, it wasn't long before various mission colonies became so independent they seceded from the mother country. New Spain led the way in 1810 when it set itself up as the Republic of Mexico. At the same time, the Mexican government ordered secularization of the missions, whereas mission properties were turned over to the Indians. Unfortunately, the California Indians were not yet ready for this, so secularization became a means for Spanish-Mexican settlers to obtain land grants for themselves. That

land which passed from the missions into the hands of Indians was quickly gambled away or hoodwinked from them. Having grown dependent upon the missions for welfare and guidance, the Indians were unable to support themselves on their own. Uncared for, the beautiful buildings deteriorated and fell into ruin. Many have been restored today; others are little more than monuments.

Mission architecture is described in detail and truly beautiful four-color reproductions of California's outstanding missions make this book one of the nicest to come to our attention. It is a book to prize and one we highly recommend. Hardcover, 321 pages, large format. \$12.75.

Books reviewed may be ordered from the DESERT Magazine Book Order Department, Palm Desert, California 92260. Please include 25c for handling. California residents must add 4% sales tax. Enclose payment with order.

FOLLOWING THE FRONTIER

By Freeman Tilden

As the West's first great travelling photographer, F. Jay Haynes really did follow the frontier. With a railroad car of his own, he pulled in on every spur between the Dakota and Montana territories to photograph sodbusters in their store-bought clothes, miners, freighters and cowboys. As official photographer for the Northern Pacific Railroad and newly established Yellowstone Park, he recorded many of these regions on film for the first time. Now his photographs are in the Haynes Museum along with a magnificent collection of artifacts, books and rare miscellany acquired by his son, the late Jack Ellis Haynes of Bozeman, Montana. It was with the help of Jack Haynes that the author accumulated data for this book, much of it never before published.

Text in the book is lively and encompasses country as far reaching as Canada, Puget Sound and Alaska. Many of the photos are of famous Indians. With 406 pages, this large format book will be cherished by collectors of Western Americana.

By Choral Pepper

THE SHOSHONIS

By Virginia C. Trenholm and Maurine Carley

Overlooked by historians, this tribe of American Indians has at last found a biographer. The Shoshonis roamed the Great Basin area—Oregon, California, Nevada, Utah and Idaho into Wyoming—until they became absorbed by the white man. Peaceful by nature, they suffered hardship, personal affront and loss of dignity in proving their abiding attachment to white friends.

In a revelation that came to the Mormon leader Joseph Smith in 1830, the Latter-day Saints were obligated to take the message of the Book of Mormon to the natives. Thus a missionary party was instituted to attempt to convert the Indians, establish friendly relations, and teach them to cultivate soil, as game was growing scarce in the area and the Indians weren't prepared to exist without it for food. This first company, led by Elder Orson Hyde, went into the region of the Green River where the Mormons withstood attacks by unfriendly mountain men and at last achieved success by winning the trust of two great Indian chiefs—Washakie and Snag—who subsequently became devout converts.

Illustrated with historical photographs, this hardcover, 367-page book sells for \$5.95 and is a revealing, well-written account of an era and a people worthy of recording.

HOSTEEN KLAH

By Franc Johnson Newcomb

The author and her husband operated a trading post on the Navajo Reservation and lived there for 25 years. In this book she retells the history of the tribe as told to her by Hosteen Klah, noted medicine man, wealthy Navajo stockman and unsurpassed weaver whose family were her neighbors, helpers and close friends. Through his influence she was invited to attend ceremonies rarely witnessed by white men and, because she has a photographic memory, was later able to sketch them to preserve their flavor and symbolism.

The book is illustrated with black and white photos of the various Indians she has described in the book. It is nicely written and details, as usual, material covered very thoroughly



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SPICE YOUR SPANISH WITH DICHOS

By Ricardo Castillo

"Dichos" are the pungent Spanish proverbs which add so much color and logic to the conversation and thinking of our Mexican neighbors.

"Jala mas un pelo de mujer, que una yunta, de bueyes."

A single woman's hair, can pull more than a team of oxen.

"De el arbol caido, todos quieren hacer lena."

From the fallen tree, everyone wants to make firewood.

"Mas vale pajaro en mano que ver un ciento volar."

A bird in your hand is better than the sight of a hundred on the wing.

New Books

any number of times in other books. It's hard to find anything new to say about the Navajos as a tribe, but the author has tried valiantly to achieve freshness by using a biographical slant regarding individual Navajos. If you haven't already read enough about the religion and heritage of these interesting people, you'll find this a pleasant book. Hardcover, 225 pages. \$5.95.

ARIZONA'S DARK AND BLOODY GROUND

By Earle R. Forrest

Probably the wildest Western thriller to be written, this newly revised edition vividly relates the struggle for range rights that eventually degenerated into a gunfire war "to the last man." Making the Tennessee Martin's and McCoy's feud sound like a tea party, Arizona's Grahams and Tewksburys harbored a vengeance so violent that its tale shouldn't be read by the faint of heart—among which this reviewer numbers. However, if you like this sort of thing, Mr. Forrest has done a fine and authentic job of recreating it for those who, unlike himself, were not on the scene. As one of the first to bring a camera into the Western frontier, his rare, old photos illustrate the book. Interesting bits of Arizona history and color make it valuable for collectors of Western Americana. Hardcover, 385 pages. \$5.95.

RECOMMENDED BOOKS ON GHOST TOWNS

SOVEREIGNS OF THE SAGE by Nell Murbarger is a word-picture of Old Timers of the desert whose vanishing generation spanned the era from covered wagons to satellites. Traveling hundreds of miles into back country, the author garnered historical facts that would otherwise have been lost to history. Hardcover. 342 pages. \$6.00. Some copies autographed.

GHOSTS OF THE GLORY TRAIL by Nell Murbarger is a fast moving chronicle of the desert boomcamp and bonanza. Rich in human interest as well as authentic history, this book covers ghosttowns of Nevada, western Utah and eastern California. Hardcover, 291 pages. Price \$6.75.

GHOSTS OF THE ADOBE WALLS by Nell Murbarger, the well known "roving reporter of the desert." The author's just-published book is an intimate chronicle of Arizona's once-booming mining towns, stage stations, army posts, marauding Indians and fantastic human characters. 380 pages, illustrated. Hard Cover. \$7.50.

WESTERN GHOST TOWN SHADOWS by Lambert Florin. Fourth in a series of superb ghost town books by DESERT's favorite ghost town writer. Large format, good photos, rousing text. \$12.50.

PICTURE GALLERY PIONEERS by Ralph W. Andrews. Remarkable collection of historic photos recording places and events important to the West between 1850 and 1875. Also includes lively text. Hardcover, large format, \$12.50. Makes an excellent gift.

JEEP TRAILS TO COLORADO GHOST TOWNS by Robert L. Brown. An illustrated, detailed, informal history of life in the mining camps deep in the almost inaccessible mountain fastness of the Colorado Rockies. Fifty-eight towns are included as examples of the vigorous struggle for existence in the mining camps of the West. 239 pages, illustrated, end sheet map. Hard Cover. \$5.50.

NEVADA'S TURBULENT YESTERDAY by Don Ashbaugh. Illustrated with a fine collection of old photos and throbbing with exciting tales of Nevada's robust past, this an authentic ghost town history written by one of Nevada's favorite authors. Hard cover. 346 pages. \$7.50.

GHOST TOWN TRAILS by Lambert Florin is third in a series that ranks among the best ghosttown books ever written. Excellent photos and stories cover an area that stretches across the entire west from Alaska to New Mexico. Large format, 192 pages. Hardcover. Price \$12.50.

I PAINT THE GHOST TOWNS by Evelyn Boynton Grierson is a current record of 20 Nevada and California ghost towns as depicted by this talented young artist who makes her reports with brush and paint. Large format, black and white reproductions, text covers each ghost town. \$3.00.

SHADY LADIES OF THE WEST by Ronald Dean Miller is a lively account about lively women. Hardcover, 224 pages. \$6.95.

BUNKER HILL LOS ANGELES by Leo Politi is a colorful, large format, hardcover book by an outstanding artist who brings alive the gaiety and charm of a once elegant and fashionable neighborhood that is now being razed to make way for modern city buildings. Wonderful, full-color reproductions. \$9.00.

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NEVER EAT CROW



by Bob and Jan Young

A WISE MAN once observed that if all men were transformed into birds, very few would be clever enough to qualify as crows.

Perhaps that is why there are so many of them. Estimates indicate their number has increased since the Pilgrims landed, despite the fact these feather egg-heads are beset on every side by enemies.

Man has wired favorite nesting trees with dynamite to simultaneously destroy hundreds, which he could never shoot because the crow seems to have the ability to gauge the range of a gun. Owls and other natural enemies have taken their toll. Even the crow himself decimates his own ranks by occasional executions!

Crows seem to have evolved an unique system of justice, which involves trial and punishment of the errant bird. Great numbers gather at a designated safe spot, with guards posted. The crow being tried is usually encircled by the others and there follows a great deal of chattering, just as though a prosecution and defense were being offered. These discussions may last for hours, their voices increasing in volume or subsiding as seems warranted. At length, when a decision apparently has been made, the entire flock flies off with

the matter forgotten, or the others peck the convicted crow to death and leave him behind without a backward glance. Here, indeed, is a mystery which may never be solved.

While an occasional criminal may be killed, their overall sagacity explains their survival and success. They never alight to feed without first posting reliable guards at points which provide maximum security from all directions, (Inattentive guards are thought to be later indicted at bird trials.) In almost every instance, the sentries have an unerring sense of danger: let an automobile drive by, even slowly; a dog sniff through a nearby field with its young master; even a cat, for whom hundreds of crows are more than a match, go its way and the flock is not alerted. But let a man, armed with any type of weapon, appear and screeches and black wings immediately fill the air.

Their individual intelligence is evident in other aspects too. At least one could utter human words. And since humor is often considered a key to intelligence, the crows get their jollies in a number of ways.

One of the most usual is for a crow to follow an intent gardener busy planting seeds. The crow will follow along behind and pluck up the seeds merely to set them on the sides of the furrows without any attempt, or seeming desire, to eat them.

He apparently does this out of some puckish sense of humor.

They are among the worst known creatures for stealing glittering objects that catch their eyes. Some crows become so bold they will take ignition keys from unattended motor vehicles, which in a way, might be a service after all . . .

But they are gregarious and this is perhaps the real reason for their survival. (There is heated discussion between conservation forces and others whether this survival is for the overall good or not.) A crippled or wounded crow will be patiently mothered by another black genius, who will forage for food and attend to his other wants. A crippled crow once fell into a river and his brethren hovered over him providing aid and steering him safely ashore.

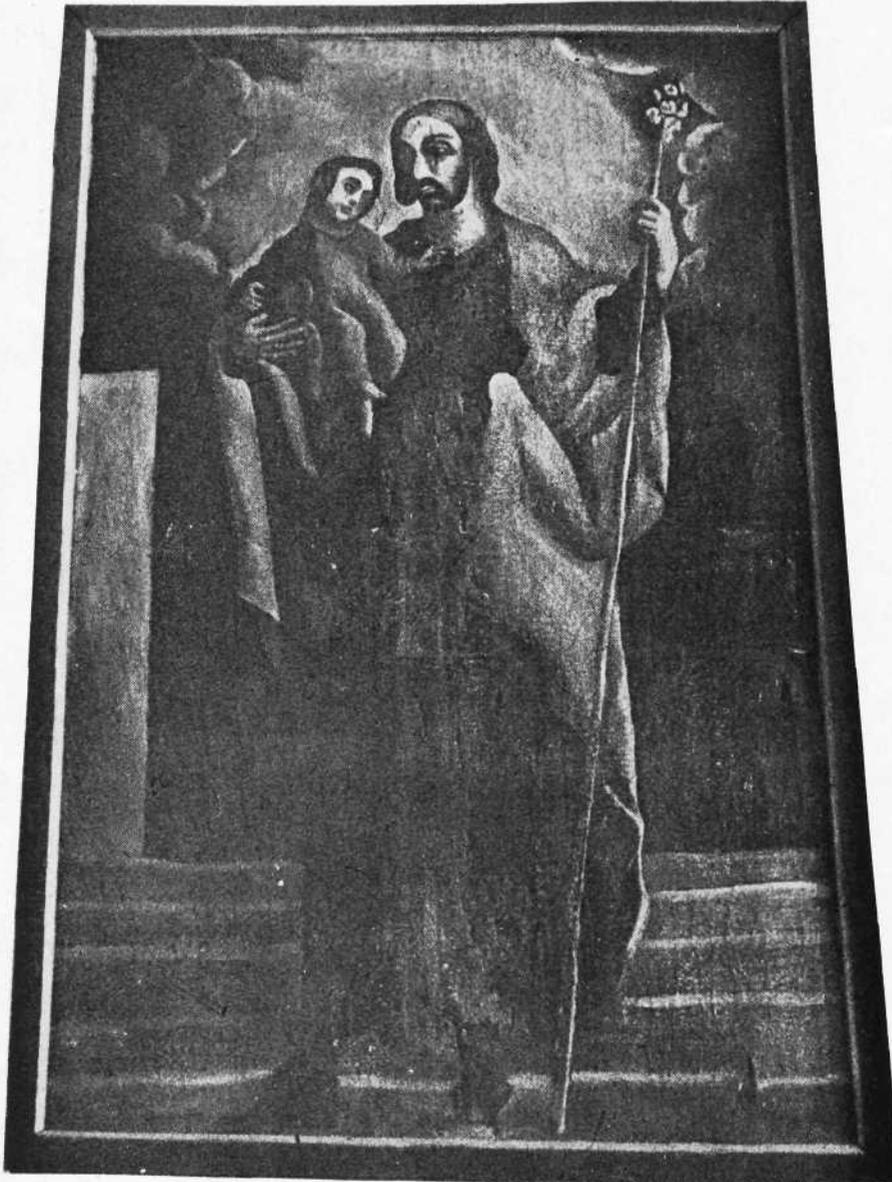
A tethered or trapped crow will seldom exhaust himself in attempting to solve his problem alone. If he is unsuccessful in cutting the string with his beak, untying the knot or unlatching the door, he may enlist the aid of his fellow crows who will all add their efforts in helping the distressed brother.

Despite their depredations, these shiny black geniuses do some good and from the manner in which they so generously aid each other, mankind perhaps could learn a lesson. ///

This portrait, presented to a New Mexico mission by a Spanish king, instituted two wars and wound up as the object of one of the U.S. Supreme Court's hottest battles.

The Miracle of San Jose

by Marge Johnson



KING CHARLES II of Spain was having problems with his New Mexico province. Indians, revolting in and around Santa Fe, killed Spanish settlers. Others destroyed missions and massacred Franciscan priests. Only one community enjoyed peace in the year of 1696 and that was Acoma, the famous Sky City which still stands today.

In this Indian city a Spaniard had, miraculously, won the respect of its native population. Tall, thin, and clad in a long dust-covered robe, he first appeared on the citadel's outskirts in the year 1629. Greeted with a volley of Indian arrows, Franciscan apostle Fray Juan Ramirez' only weapon was his faith in God. According to legend, a child fell from a high cliff during the fracas and landed at the padre's feet. Believing this a blessing, Father Ramirez lifted the uninjured child and struggled up the steep rock trail to place the precious burden in the arms of its mother. This won him friendship with the Indians of Acoma.

Throughout the years Fray Ramirez taught his flock better methods of farming and building, but his most imposing accomplishment was in the construction of the largest Franciscan mission erected in New Mexico territory. In view of trouble elsewhere, it occurred to King Charles II that a reward for this effort might set an example for other settlements and squelch any possible uprising idea fomenting among the Indians of Acoma.

His choice for this gift was strange, indeed. It was an enormous painting executed by an unknown artist. A more cultivated nation might have considered it a joke. The portrait, poorly rendered and composed, was of St. Joseph, foster father of Jesus. In his arms he holds an infant believed to be the Holy Child. The painting was shipped in a Spanish galleon and survived the perils of sea in fine condition. The ship docked at Vera Cruz and from there the heavy crate traveled by wagon to Mexico City. To reach Santa Fe, capital of the New Mexico province, it was hauled by mule train 1,600 miles. From there armed escorts accompanied it the final rough, arid 130 miles to isolated Acoma.

The church had been partially destroyed by a revolt in 1680, but with the arrival of the King's gift it was restored and a new coat of white-wash

applied to its walls. A holiday was declared to celebrate the ceremony and at last San Jose's portrait hung above the high altar.

Years passed and it was noticed by neighboring tribes that Acoma had prospered in all its undertakings dating from the day the painting was hung, while Laguna, only 16 miles to the northwest, suffered crop failures, storms and epidemics. As a result, Laguna's headmen held a pow-wow. "We," the council said, "are as righteous as they. We are pious in our church and obey the padre. We have as much right to the miraculous powers of the sacred painting as have they!" Thus, they made a trip to Acoma to tell of their woes and beg to borrow the San Jose portrait until its benedictive power overcame their misfortunes.

The natives of Acoma had grown devoted to their benevolent Saint, and they, too, believed in its powers. But many of those now living in Laguna were once of Acoma, so Acoma's council took pity and in a spirit of Christian love agreed to loan the portrait on the condition that the Laguna men would promise to return it to its rightful place by the next new moon.

The Laguna delegation agreed to these terms and, with great joy, bore the canvas to Laguna. There the entire population worshipped the revered painting daily and lo, their troubles seemed to vanish!

The day of return came and went. Acoma grew alarmed. At last they sent a delegation to Laguna to retrieve their painting. A Laguna spokesman received them with hostility. He stated bluntly that the portrait belonged to Laguna and it would remain there even if he had to declare war.

This threat was related to a council back in Acoma. Their current padre, Fray Mariano de Jesus, was consulted. He pointed out that if they fought the Laguna population, twice their own number, and on Laguna's grounds, they wouldn't have the advantage of the safe, high citadel that had always protected them at Acoma. It would be better to negotiate, he advised, and acting as intermediary, he subsequently obtained an agreement from both sides to have the painting placed in his care until they could agree upon its proper owner.

The day of decision arrived. Both

tribes met at the Acoma church. The padre prayed an urgent prayer asking for God's help in reaching a fair decision. He then placed 12 slips of paper in a clay olla. All were blank except one. On this he made a crude sketch of San Jose. A child from each side was selected to participate in the drawing and the side drawing the slip with the sketch would win the painting for its own. The first four draws were blank. And then the fifth bore the sketch. Acoma tribesmen shouted with joy. It was their child who drew the prize!

But their joy was short lived. At early Mass one morning the wall of the high altar stood empty. Laguna citizens had stolen the beloved Saint!

Again Fray Mariano intervened. It had been 150 years since the painting first arrived in Acoma and now New Mexico was a territory of the United States. The padre reminded the citizens of Acoma once again of their small number and warned them that in war the painting might become damaged or destroyed. After long sessions of delicate diplomacy, he finally persuaded both sides to take the case to the United States court in Santa Fe. In spite of their lack of faith in the white man's court, delegates were chosen to represent Acoma and Laguna, lawyers were hired, and the case was presented to court. After lengthy deliberation, the Judge decreed that the painting rightfully belonged to Acoma.

Laguna representatives would not accept this decision and appealed to the Supreme Court of the Territory. There, they argued that their people were of the Acoma tribe and this entitled them to the painting. Nevertheless, the original decision was upheld and they were commanded to return it to Acoma.

Again Acoma resounded with joy. A group was formed to march to Laguna to retrieve their precious Saint. About half-way there, the delegation was astonished to discover the painting propped against a rock on the trail. Falling to their knees, they offered fervent prayers. It was a miracle! And there are Indians living in Acoma today who still believe the portrait of San Jose traveled the trail alone in its eagerness to reach its rightful home.

And there it continues to hang to this day, cracked and faded, in the dim light of Acoma's great mission, San Estevan. ///

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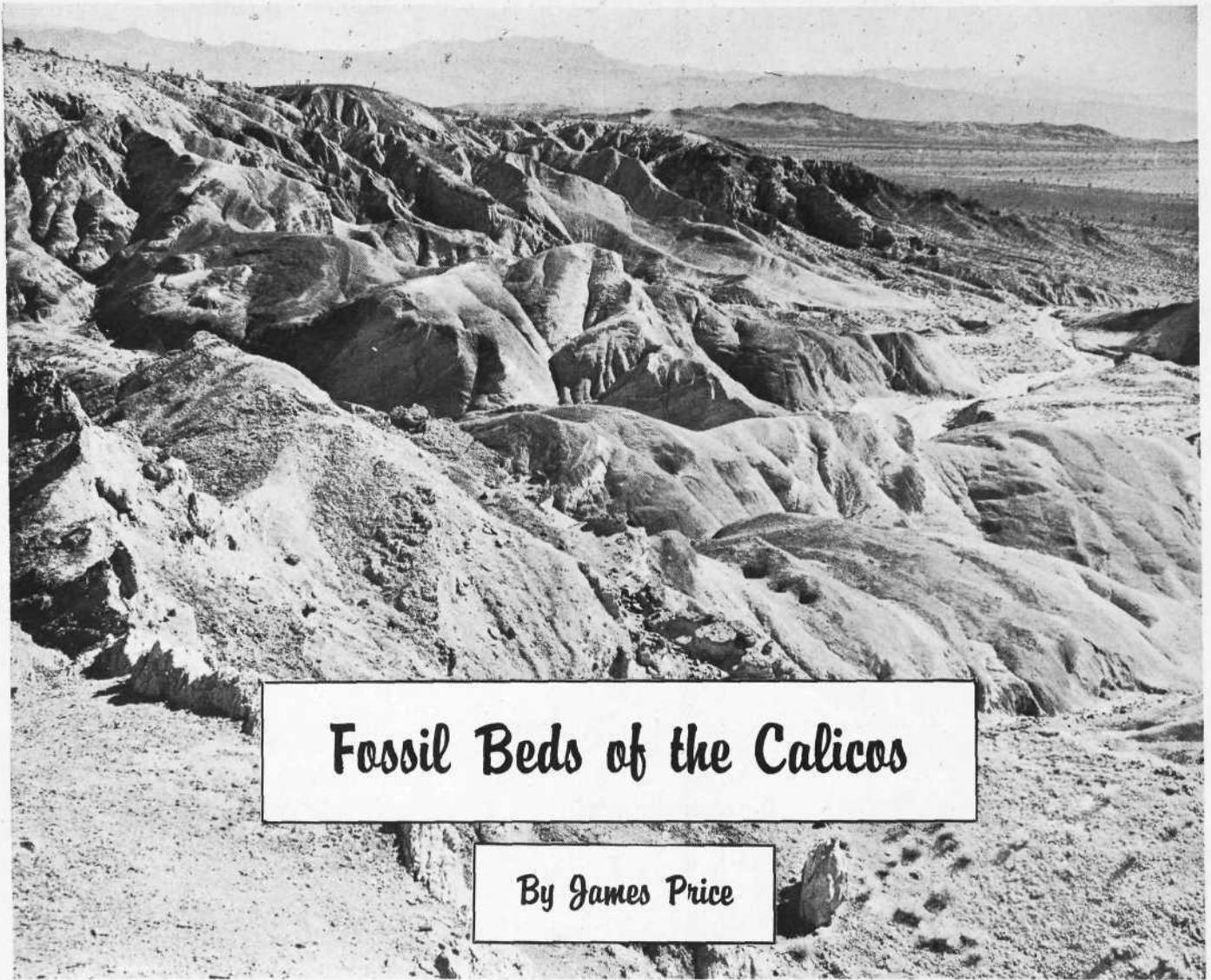
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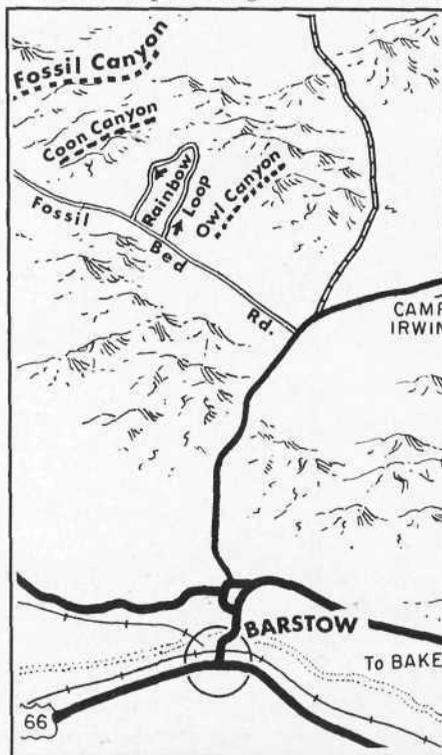
Fossil Beds of the Calicos

By James Price

THE STUDY of fossils can be an interesting adjunct to weekend desert trips in search of minerals, gems, bottles, and other desert finds. For here, among broken sections of the earth's crust caused by faulting, erupting, and mountain-building, are revealed fragments of life that existed millions of years before man put in his precarious appearance. Fossilized traces of prehistoric life may be seen throughout the world, but those found in desert locations are particularly interesting. One such area is about eight miles from Barstow, just off the Fort Irwin Road. Here are bones, teeth, and petrified trees that belonged to the prehistoric age known as the later Miocene Epoch.

Approximately 15 million years ago, the Barstow area was a grassy plain with a mild climate, abundant water, and luxurious palm trees. The age of reptiles had flourished and passed, with the last of the great dinosaurs unaccountably extinct for about 70 million years. Mammals were rising on the evolutionary ladder and latecomer man was millions of years

from appearing on the scene. As could be expected, grass eaters, and

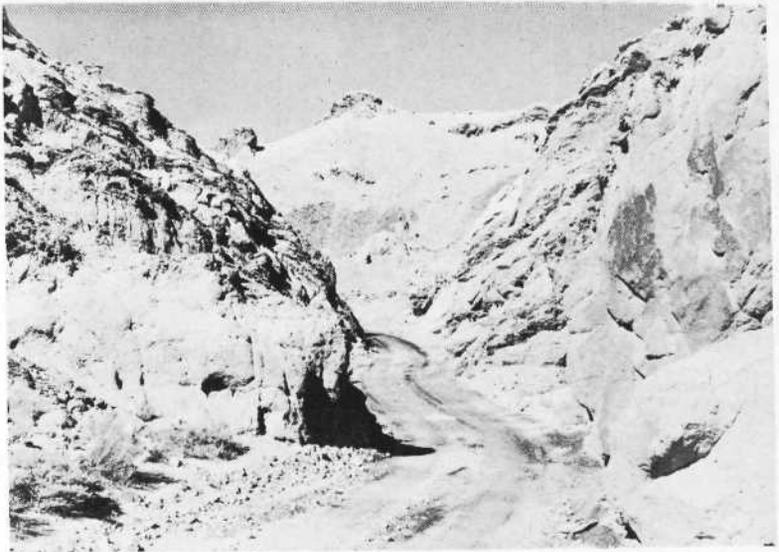


the carnivores that preyed off them, were the principal actors on the scene. Some birds and animals of that era remain today, but many more have evolved into other forms or, like the great dinosaurs, have become extinct. Oddly enough, only a few major forms of animal life that occurred there then have survived on this continent. At that time, a land bridge existed between Alaska and Siberia and life migrated freely between the two continents. Later this bridge sank and animals who were ancestors of present-day wild-life adapted themselves according to the conditions and climates they encountered.

One of the most awesome of pre-historic Barstovian beasts was the great dog-bear, an ancestor of modern bears and dogs. It was the largest predator of that time, being considerably larger than our grizzlies. A species of sabre-tooth cat also preyed on the Miocene grass eaters that frequented the grassy plains. Several types of camel, a small horse, and an even smaller prong-horned ancestor of the antelope were among the herbivores victimized

by the giant bear and the powerful sabre-tooth.

Although scientists have learned much about our prehistoric past, great finds still remain to be made in the Calico area. This was just appreciated in 1954 when prehistoric insect fossils were dug up and again in February of 1964 when the area was included as part of the Calico Resources Conservation Area. This 125,000-acre tract extends from Black and Opal Mountains to Coyote Lake and Calico, and takes in an area 38 miles long and from 5 to 13 miles in width. At the present time, a section of Coyote Lake is under excavation by a group working with the National Geographic Society for the purpose of unearthing artifacts of early man.



The Calico Resources Conservation Area was set up by the Bureau of Land Management in an effort to preserve an area of historical interest. Development plans contain provisions for construction of campsites, additional access roads, and hiking and riding trails. The fossil bed area includes a section known as Rainbow Basin. This is easily reached by vehicles with high clearance, although large campers and trailers might jam in the narrow canyons. The Rainbow Basin loop is a one-way dirt road and covers

approximately 4 miles of some of the most picturesque geological formations in the country.

Rainbow Basin comprises a dazzling profusion of lofty spires, broken cliffs, and up-ended rock. In many places it is difficult to determine whether the strata is jutting into the air at a 45 degree angle, or whether it has flipped over and is now 135 degrees from its original position. As many as 20 different layers of earth and vari-colored stone can be count-

ed, and it is in these layers of mud and volcanic ash that fossils are found.

Beyond Rainbow Basin are Coon Canyon and Fossil Canyon. Fossil Canyon is considered richer in fossils than Rainbow Basin, but probably not as rich in color and is far more inaccessible. Even with the current topographical map (1955) we were unable to locate the roads into these canyons and recommend them only for 4-wheel drive vehicles. ///



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CLOUDBURST, DESERT STYLE.

by
doris cerveri



THE "GULLY-WASHER" is one of Nature's strangest phenomena. Torrential rainfalls in which precipitation reaches 10 inches in less than an hour occur frequently in Southwestern deserts. These storms are devastating and sudden. Desert travelers, especially those who camp, should always be on the alert.

One cloudburst after another has plagued Nevada throughout the years. The earliest on record occurred in 1862 near Genoa. A man, standing beside a friend, was swept away and never seen again. In 1874 a similar disaster hit in the same area.

Inclines or valleys, in which towns such as Austin and Eureka in Nevada are situated, provide natural settings for storm destruction. Currents have rushed 10 feet deep and 100 feet wide during storms in these areas. Byways are in as much danger as buildings. An 1874 cloudburst in Eureka washed away substantially constructed houses and engulfed a stagecoach loaded with passengers.

Of all desert areas, Nevada seems to have suffered the most. One memorable torrent climaxed a bang-up

celebration in honor of the completion of the narrow gauge railroad in Tonopah in July of 1904. Immediately following the festivities, not one, but a series of cloudbursts and thunderstorms, unparalleled in number and severity, washed out tracks all the way from Rhodes to Silver Peak and Coaldale. After being rebuilt, they were swept away a second time. More rains came on Monday, August 22, 1904. Five miles of Tonopah roadbed vanished completely. When the waters receded, it was discovered that the track was in worse condition than had been supposed. Crews sped out to make repairs, but a week later a train left Sodaville and ran into another cloudburst. Before high ground could be reached, the tracks ahead and behind were washed away, leaving the engine and cars stranded.

A light rain fell in Lovelock on July 18, 1912, while 25 miles away, in the small mining community of Mazuma, this rain turned into a 20-foot-high sheet of water. Bits of houses, the little postoffice and the dance hall whirled and bobbed in the torrent. All but two structures in the entire town were swept away in the ava-



lanche of water. Four small children and five adults lost their lives and many people were injured.

Residents of Goldfield were enjoying a pleasant rain which started falling about 11 o'clock on Saturday, September 13, 1913, but at 2:15 a distant roar announced the opening of a great black cloud. Nearby Rabbit Springs Canyon resounded to the pounding of the turbulent waters and 50 cabins were swept away like matchsticks while the flood rushed to the "red light" district and rolled on to the Tonopah and Goldfield railroad yards. Waves of water four feet high engulfed city streets and stores and basements were filled to overflowing, their contents completely damaged. People still occupied some of the houses being carried down the streets on the current. Rescuers secured ropes and, bracing themselves against the force of the water, threw lines to those in the midst of the flood to save their lives. Most buildings were reduced to kindling wood by the force of the water. One victim, a Mrs. DeGarmo, wife of a livery stable keeper, was warned of the danger, but returned to her house to save some furniture.

Nevada's most recent cloudburst occurred at Galena Creek, about 14 miles from Reno, in July 1956. This popular picnic ground and camping area was completely destroyed when an immense sheet of water rushed down the canyon, carrying boulders and automobiles with it. Four people lost their lives—three being members of one family. Two of the victims were buried under tons of silt, mud, rocks and debris and it took three weeks to recover their bodies.

As more and more people venture into desert country—on foot, by jeep, or on horseback, a word of caution is necessary. Don't camp in low places between mountains, in gullies, ravines, washes or out on flats. Always find a high place. To camp where it is low is to risk your life. Also, if you are on the desert and the sky turns a dirty, slate gray with black cloud formations rolling and tossing toward each other, don't stand around until you hear a sudden crescendo like crashing cymbals. Because, if you are inadvertently in the path of a cloudburst, there will be no time for escape. First, a few drops will fall, but this misleading patter may soon run an inch deep—then waist-deep. Every gully, ravine, and natural basin will burst with run-away water, and if brooks or small streams are in its path, they will unite with the onslaught. Such an awesome spectacle you will never forget! ///

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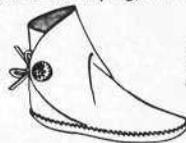
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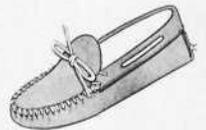
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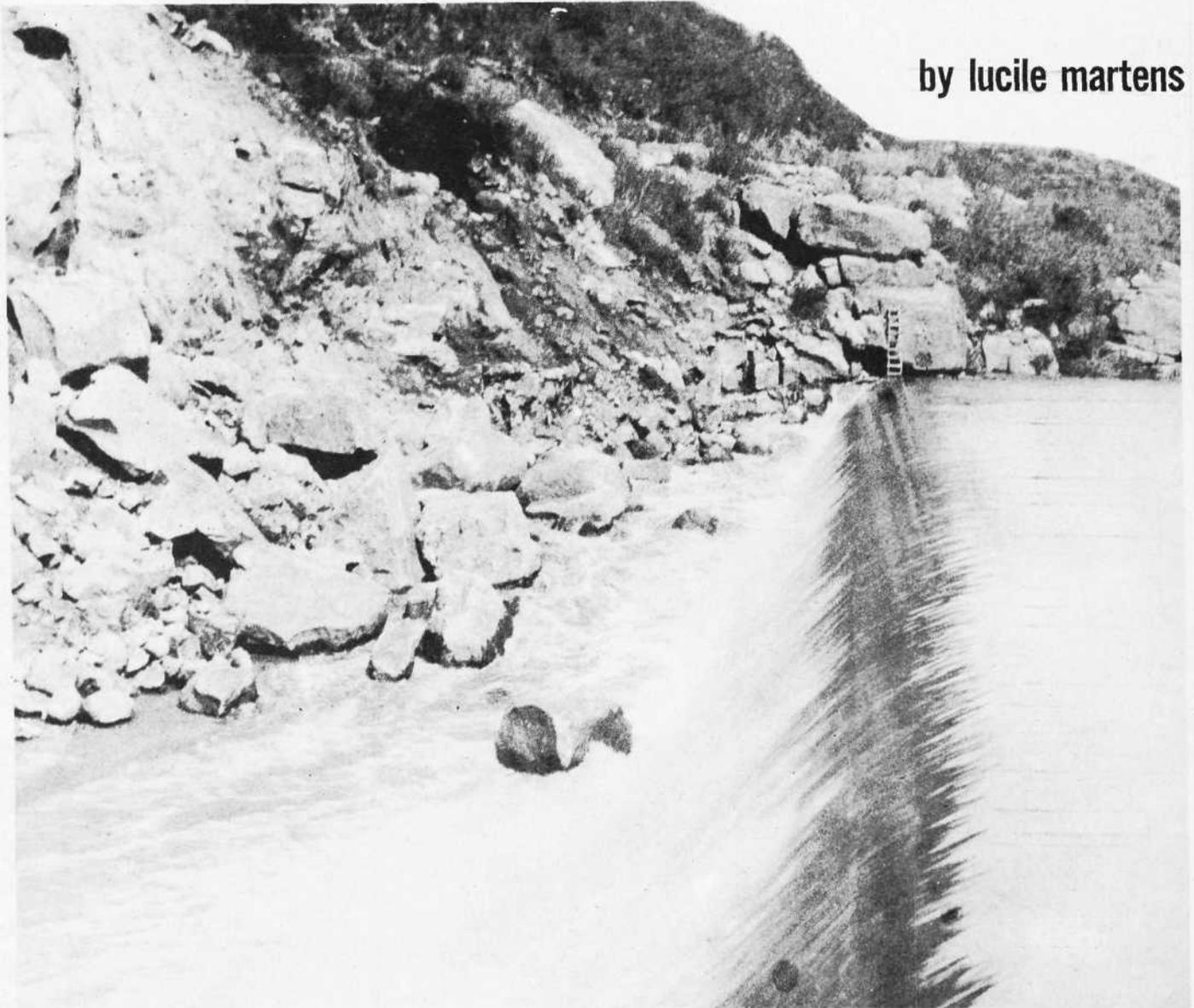
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FALLEN GIANT

by lucile martens



MEMORIES ARE short and recreation lovers are quick to forget the past in a search for newer and better fishing grounds. Lake Morena stands among the forgotten, but for those who look to the future, its history bears a lot of repeating.

Cradled high in the mountains separating the desert of San Diego County from its beach, is Morena Valley. Early in 1895 it was a rock-studded meadow surrounded with a picturesque rim of misty mountains. Through this pleasant pasture land drifted the lazy waters of the Upper Cottonwood River, at times joined by those of Kitchen Creek, La Posta Creek, and Mahagaut Creek. In late spring, after rain and melting snow

had been tossed down from the nearby mountains, those two streams widened and deepened and danced wildly over the rocks. Both crops and livestock thrived.

Mountain rainstorms were frequent and heavy in those days. It is recorded that in 1896, in nearby Campo, it rained 10.26 inches in 80 minutes. Heavy storms regularly turned crystal streams into raging torrents which in turn washed out crude roads and bridges and took their toll of sheep and cattle.

To the west, sleepy San Diego was stirring restlessly. Although water from Lake Cuayamaca had been harnessed for city use in 1888, and an earthen dam had been built in lower Otay more recently, these sources only

sharpened the city's thirst. So while thriving San Diego sucked water from its two mountain reservoirs, pumped wells dry, borrowed from neighbors and struggled to maintain its growth with dwindling water supplies, the city planners eyed Morena Valley with envy.

Just before the turn of the century, E. S. Babcock and J. D. Sprecels, pioneer owners of the Southern California Mountain Water Company, proposed building a dam at the head of the wild canyon behind Morena Valley. This ambitious project, when completed, would halt the flow of water from the Morena basin and store it for later use by the city of San Diego as needed. The plan, although elaborate, sounded feasible

to the officials and the contract was signed.

In July 1895, the first wagon load of workers and supplies made its steep and treacherous ascent and work was started toward this goal. But Morena did not yield meekly. For two heart-breaking years it resisted with every rock and stone and flooding stream.

Engineers were challenged by desert heat and winter snows. The taming of the Morena Valley was a feat too difficult and too expensive for its time and in 1898 the work was suspended.

Eleven years passed. Babcock and Spreckels reconnoitered their resources; Morena lay dormant and rebellious. Then in 1909 the job was attacked with new vigor. Although 30 mules strained to haul the boiler up the mountain trail, new funds, better equipment and advanced know-how and government cooperation marked the new effort with success. Morena continued to resist until the last, but every inch of construction of the original 150-foot dam stands today as a monument to the men who made it possible.

Morena dam was completed in 1912. The officials of San Diego contracted for the abundant supply of water and took a 10-year option to purchase the property and all water rights. In 1913 the City of San Diego voted a \$1,500,000 bond issue and in 1914 took up their option and purchased Lake Morena. The fate of the giant lake was sealed.

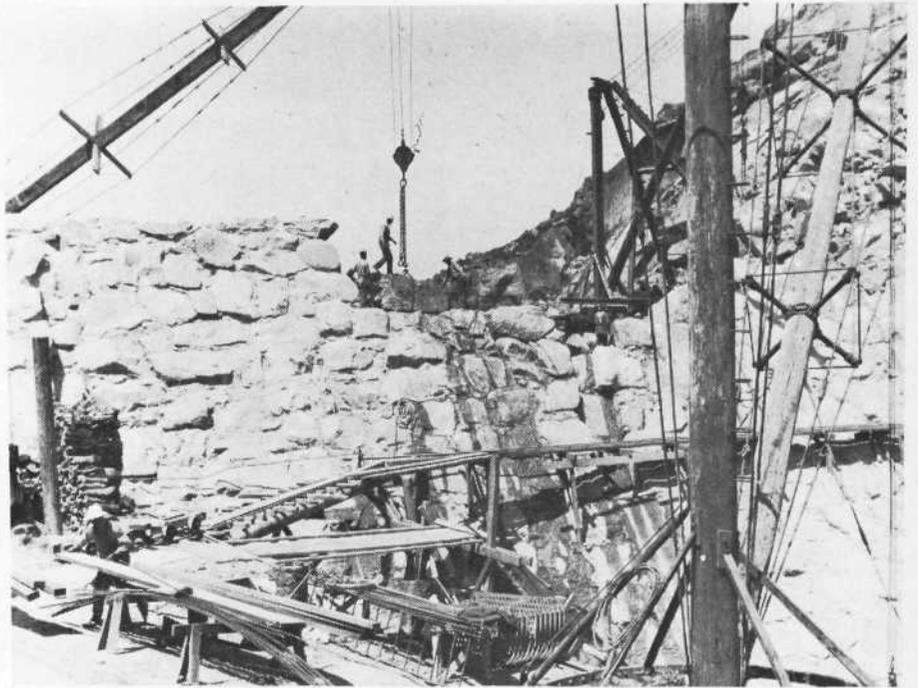
But Morena's rich productivity was short lived. Years of drought came upon the county and the supply of water in the reservoir dwindled. By the winter of 1915 dry winds and evaporation took their toll. The City opened the lower valves and drained the lake to the last possible drop, but still there was not enough water for the stricken ones below.

Hatfield, the famous Rainmaker, appeared on the scene. He was slender, mild-mannered and brimming with confidence. He brought with him a record of success in other parts of the world, and claimed he could make rain at will. City officials listened unwillingly but thirstily. In the end they agreed to a fee of \$10,000 if he should succeed in refilling Morena reservoir.

It was a bargain! They shook hands all 'round and Hatfield accepted the challenge.

All eyes turned toward Morena. Hatfield built his scrawny tower strategically near the lake and installed

Millions of tons of solid rock went into the building of Morena Dam—one of the earliest rock-fill dams in the nation.



his pots and secret chemicals. Here, probing as near heaven as his clumsy tools would bring him, he offered wisps of smoke to the gods of rain.

The mountains and the valleys waited! Some folks prayed while others scoffed. Down below in San Diego old-timers passed an occasional bet with their eyes on the sky. The City Fathers joined anxiously in their prayers, but secretly congratulated each other that no money had yet passed hands.

Then, in the midst of jests and supplications, the clouds rolled down from the north and the rains came. Not "Hatfield" rains, mind you, but just plain, everyday drizzles that soaked into the parched earth and brought assurance of more to come.

Safely perched on his tower, Hatfield himself modestly viewed these early showers while claiming that more would come. But in spite of his predictions the rain stopped for several days, while skies lowered,



The pack mule was the principle means of transportation. Here repair crew arrives after the storm of 1916.

wells re-filled, and an ominous black cloud rolled up and hovered directly over the Morena Dam. Local residents became uneasy; farmers eyed the sky apprehensively. Even the city officials unwillingly conceded that a good thing had gone far enough and that more rain might bring disaster.

On January 27, 1916, the bottom fell out of the sky! Sheets of rain washed through stream beds and down gullies; bridges were torn from their moorings and roads were obliterated.

Cries for help were drowned in the raging downpour, "We've had enough . . . please, no flood!" But the pleas fell upon deaf ears because telephone lines were down and communications impossible.

Every creek and canyon became a raging torrent. In Mission Valley farmers and their families fled their homes; cattle and sheep gathered on higher ground. Earth-filled Lower Otay Dam resisted the deluge for a while but then crumbled and fell. The churning cataract, now unchecked, turned its full fury on the city of Otay, uprooting trees, shattering buildings and swallowing homes, pets, and people in its greedy race to the ocean.

Only Morena Dam, at the crest of the mountain country, held firm against the wrath of the unbridled storm. Constructed of solid rock to check and store water for the growing

city of San Diego, it now stood valiantly in the path of total devastation and unflinchingly performed its gigantic task. In this hour of grave danger, this Giant of Morena saved the city from destruction.

And what about Hatfield? Should he be blamed for this disaster? Or should we blame his employers? Did he really have the supernatural powers which he claimed and seemed to have exhibited?

The man evaded the clamor. When he realized that he could not halt the rain he believed he had started, the rainmaker departed Morena on foot; wading through swirling streams, wallowing through bottomless mires, trudging his sodden way into history, taking his secret with him.

For a while Morena smiled. Basking in the sun, spreading generously among picturesque rocks and pines, Morena Lake graciously supplied San Diego with the where-withall for lawns, bath-tubs, and industrial needs. Its 28-mile shoreline was steeped in beauty and each spring the lake, freshly filled with rain and runoff from winter snow, lured countless greedy fishermen.

Now a sportsmen's paradise was in the making. It rapidly became apparent that Morena Lake was a natural spawning area for bass, bluegill, crappie, perch and even trout. Fish not only thrived in the crystal water, but matured to unprecedented size.

There were "bad" years for water supply, but no "bad" years for fishing. True, the City closed the lake from time to time, but at late as 1956 Morena Lake was spewing up fish to make records and break them, and anglers were jubilant with limitless catches of the plentiful spiny creatures.

But as San Diego matured, its needs became insatiable and even its growing chain of dams could not quench its thirst. Morena was the first to be sacrificed! As year after year its waters were drained, the giant lake gasped and groaned. The coming of the Colorado river water in 1945 did not alleviate the continued mutilation. By 1957 further drainings, noxious weed growth, and record fish population spelled finish to Morena as a sportsman's rendezvous.

Heavy rains in April 1958 revived interest in the dying lake, and as the water level rose, hope soared. But before the rain stopped, valves were again opened and Morena's water rushed down the flumeway.

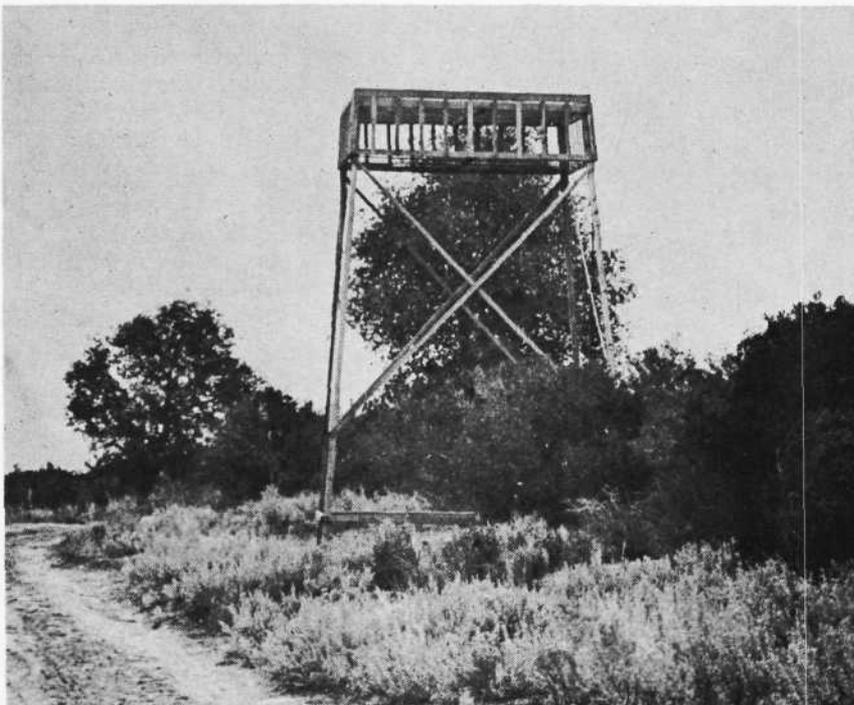
A storm of protest failed to halt the damage. San Diego citizens and officials joined in the outcry but it was too late. Subsequent efforts to convert Lake Morena to trout fishing resulted in disappointment and failure.

For the past two years there has hardly been enough water in the lake to support the growth of mosquitos which swarm lazily over its scummy surface. The City of San Diego, owner of one of the oldest and finest dams in the State, has sucked the lake dry; has driven the local water level dangerously low, and has ruined its own fishing paradise.

Today the giant of Morena is a legend of pioneering spirit, beauty, and majesty, and unstinting service. In the Indian tradition, it recalls happy hunting grounds, superb fishing, and carefree summer holidays.

At present, although a fallen giant, Morena still maintains comfortable public camp and picnic facilities, good roads, and much of the natural beauty of the surrounding landscape. The sun is hot but the summer breeze is cool and at night the stars shine so fiercely you want to touch them.

And some of these days the rains will come again; and when this happens the giant of Morena will rise again, stretch lazily and then resume its work; but next time, it is hoped, the City and County of San Diego will seek its preservation instead of its ruin. ///



Famous tower from which Hatfield the Rainmaker brewed his formula to bring on the rain.

A lost mine region accessible by passenger car.

LOST QUAIL PERCH LODGE

BY KENNETH MARQUISS

TO SWIPE A phrase from the elastic vernacular of our politician friends, the story of the "Lost Quail Perch" lode comes to you "only after an agonizing reappraisal!" The politicians, of course, have some fancy translation for this—but it boils down to facing the facts of failure, and easing the risks of ridicule.

There are several reasons for this.

In the first place, it's the goofiest lost mine deal I ever tangled with and doesn't fit into any of the proper

patterns. Any self-respecting "lost mine story" should concern a ledge or mine of fabulous rich gold ore, found long, long ago by some hairy-eared, "tubaccy chewing" prospector, or his dog or burro. It should be located in some wildly remote mountain fastness. Properly, it should have become lost due to some dramatic catastrophe such as an Indian attack, murder, thirst, or a double-dealing dance hall girl. And it should have a romantic name.

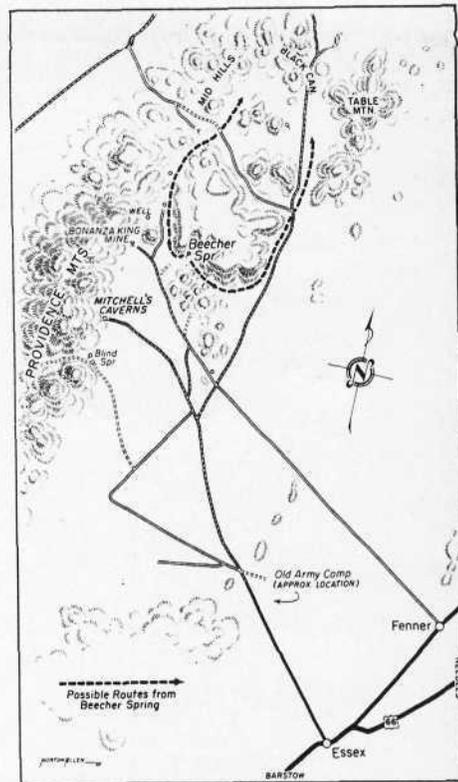
The "Lost Quail Perch" story just doesn't fit in anywhere!

It is a highly valuable deposit of bismuth ore—probably walked over by a number of people—that was found and lost within the memory span of any reader who ever drove one of Henry's shiny new Models As. It is in wide open "low country" and a standard station wagon will put you in the center of the search circle. In the fall of 1948 I took my 10-year-old daughter with me on a short trip prospecting for it, as a reward for a prize report card, and she had no trouble hiking in the area.

It was found by a plumber hunting quail, and lost because of an acetylene torch!

It doesn't look like ore until you cut into it; and I'd bet the back wheel off my Tote-Gote that when it is

Author indicates gouge where attempt was made to melt ore with a welding torch. Although size was reduced for tests, this sample weighs over two pounds.



found it will probably be spotted by some winter weekender enjoying the desert sunshine—or by his wife out hunting arrowheads!

My part of the story goes back to the late '30s.

A worker in our office asked me to identify a heavy piece of steel-grey glittering mineral from the rock collection of a high school boy. At first glance I thought it was galena, a common lead ore; but a closer check threw me for a loss. The crystallization, fracture, weight and other qualities were slightly different, and I couldn't identify it with anything I knew.

She said the boy's uncle had found a lot of it, but didn't think it was worth anything. I had a hunch I had cut the trail of something good. People don't like having their collection items chopped up, and I wanted to test the stuff. So I went to see the boy who owned the collection. He confirmed the story, and seemed interested in doing a little swapping.

Anyone who has qualms about the future of the country should try some "horse-trading" with a bright teenager who thinks you *really* want something he owns! It cost me two choice Arizona gold ore specimens, a piece of rich Nevada silver ore, and \$5 cash to get my hands on a couple of his larger samples. One of the pieces had two deep, smooth, curved grooves in it. The boy said his uncle had been told it was lead ore, and had tried to melt the piece down with a welding torch. The only result was



a sudden dense cloud of choking "awful smelling" smoke, some white powder, and the hot, smooth gouges in the mineral. So the uncle wrote it off as worthless, and some years later gave the samples to the boy for his collection.

The crystalline "ghosts" in the torch-melted surface gave me a hint as to the nature of the mineral, but I wasn't sure it was an antimony-bismuth group ore until I foolishly tried some borax bead tests—and watched \$10 worth of platinum bead wire go pffft when it hit the flame.

It still resisted exact classification, so I took my puzzle to a long-time friend, Dr. Stephen W. Dana at the Geology department of the University of Redlands. Besides being a geophysics whiz, Steve kindly refrains from frightening us laymen with six-bit technical words, is generous with his time, and has a friendly ear for ordinary prospectors and their problems.

So I went uncle hunting.

He turned out to be an in-law of a construction acquaintance, was now a plumbing contractor, and not bashful about his opinion of my equilibrium or the worth of "that heavy junk" he had found.

For obvious reasons I will call him Andy.

He stalled me for months. The mineral was worthless; he wasn't about to do any work underground; he was tied up with job contracts; he'd think it over; etc. Finally, in desperation, I contacted an eastern backer and with his O.K. was able to make a hard, flat offer of \$10,000 cash for a half interest, provided the deposit proved 75% as big as Andy described it.

This got action, but not in the direction I had hoped.

It was many more months before Andy would admit he now couldn't go back to the ledge "that any kid

makes up the backbone of the Providence Mountains. This would tend to tie in with Andy's description. Anyway, none of us found it, and the ledge is still lost, and waiting for somebody to stumble over it again. Maybe I looked too hard, too fast, or in too wide a circle.

Or perhaps luck is the answer.

If your brand is more potent than mine, here is Andy's story, along with his directions—and your sweat, boot-leather and disappointment are your own responsibility.

Andy said that during quail season in 1926 he had been visiting a war buddy who was camped at a water-hole known on the old maps as Beecher Spring. This is near the old Domingo ranch, about 3 or 4 miles E-N-E of what is now known as the Mitchell Caverns State Park.

Andy's buddy was a World War I veteran who had successfully crash-landed his riddled Spad near the Allied lines and beat the German machine gun fire into a big, convenient shell hole. Unfortunately, aviators didn't carry gas masks, and there were traces of mustard gas left in his crater. After the war the doctors sent him to the desert to try to stay alive, and Andy was a regular visitor.

One morning Andy took the horse and rode leisurely "northward" hunting quail. Most of the birds were somewhere else until about noon, when he jumped a large covey. "The quail took off westward, up a wide sloping wash." Andy dismounted and stalked them "to the saddle at the head of the wash." Four or five birds were poised for flight "on a low bench (outcropping) about knee high." Andy's quick "snap" shot was a little late and low, and netted him only a few feathers, a spurt of dust—and exasperation! In disgust, Andy "sat down on the bench to rest and cuss."

He thought at first his foul luck was due to irregular or extra soft bird shot, as the rock appeared to be well splattered with tiny bits of lead; but closer examination showed it was the rock itself that was glittering wherever the shot gun pellets had knocked off the soft, dark grey, weather-corroded crust. Andy picked up a convenient cobble, broke a chunk off the ledge, and put it in his pocket to show his friend in camp.

Andy's buddy had been in the desert long enough to gain a partial knowledge of ores, and he immediately dubbed it lead. They had a jubilant (if quail-less) supper, as Andy could envision calking future job

(Continued on Page 33)



Remains of Bonanza King ghost camp.

Together we pegged the mineral as bismuth ore, probably Bismuthinite.

Bismuth is a metal of many uses, and has a warped personality—like a mule. It is used in medicine and making special glass. It is a "left winger" among metals because it swells when it cools, and can't take heat. It makes iron brittle (for hand grenades and shrapnel); and makes lead melt quicker and fills its mold better—so you read this magazine more easily because of bismuth in the type metal. And the automatic ceiling fire extinguishers that protect you at the supermarket, office and in the courthouse all have bismuth alloy triggers. Obviously, any sizeable amount of bismuth ore would be highly valuable.

could find"—and we shook hands on a deal for the directions, so I could try my luck.

And it was many years after that before I would admit my many between job prospecting trips were, as my skeptical Dad expressed it, "just so much money and time down the sparkler drain!"

Even Dr. Dana had a whack at the bismuth; armed with a sample, he took a senior student to the area on a short field trip for practical training. Dr. Dana's condensed theory (in my type of language) is that—due to the low melting point and purity of the bismuth ore—the deposit is probably of hydro-thermal origin; and the best bets in search area are along the lower flanks of the limestone upthrust that

MALIGNED BAJA



Original bells still hang in San Luis Gonzaga church built in 1737 by Jesuits.

BAJA CALIFORNIA has been described as forgotten, God-forsaken and uninhabited. It is the most maligned piece of real estate on the North American continent. Had this peninsula become a part of the United States a century ago, it would rival our most fabulous resorts today. It has desert, mountains and an unparalleled beach all the way around it. Since the 1700s, authors have written about it. Jesuit Father Baegert couldn't stand it. Today's Erle Stanley Gardner can't stay away from it!

Wishing to see more than we had time to cover by auto, my husband and I took off from Mexicali in a friend's small plane. What we saw was "forgotten," maybe—by the tourist. But not uninhabited. There are

by katherine taylor

The new ferry recently inaugurated between Mexico's mainland at Mazatlan and La Paz makes Baja California's tip more accessible to motorists who are not equipped to travel Baja's rugged roads.

people everywhere. Drop down on any of the more than 200 air strips between Tijuana and La Paz, and you'll find people. They materialize out of cactus.

The strip over which we hovered, our hearts in our mouths, was cut

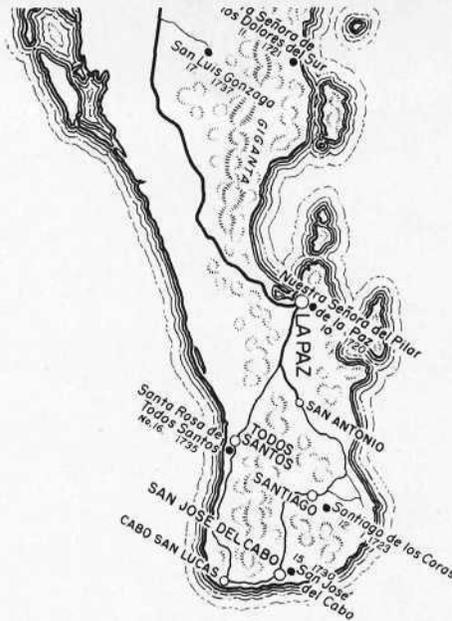
from the desert by the military in 1942 and abandoned more than five years ago. Our Cessna circled over the strip while we debated our chances of flying our suddenly crippled plane over the rugged inhospitable mountains between us and our destination, La Paz. We were losing power. We didn't know what had happened. Inside the engine a crash of metal sent terror coursing through our veins . . . but the closer we came to earth, the worse the abandoned strip below us looked. Soon we had no choice. We cinched our belts and hung on. The plane set down easily and the rocks and brush that scraped its belly sounded good. Shakily, we stepped from the little plane and resisted an urge to kiss the sand. Like apparitions, two young men materialized at the edge of the runway, their long

leather coats and heavy leather chaps warned us of the needle-sharp thorns that can pierce heavy leather and, if we weren't lucky, might damage the plane's tires.

We rallied our Spanish and asked, "Tiene usted un telefono?" . . . "No, Senor." Hopefully, "Un radio?" . . . Again the negative. "Un carro?" . . . not even a horse, or truck—and 20 miles from the nearest traveled road!

We were welcomed at the rancho by Papa and Mama Alvarez and their eleven children, each of whom offered a firm handshake, one after the other. The sun was setting in brilliant desert colors and we thanked God for being there to see it.

Then we began to worry about getting out. Papa asserted this was the main road to La Paz . . . but gra-



through its cemetery. When we read his book, later, we could understand his dejection over the barrenness, although he probably raised dates, figs, oranges and mangoes as the Alvarez family does today.

Isolation was hard for Father Baegert, but the families living at San Luis Gonzaga now appear happy and content. They don't go to the store for supplies, they wait for the *viajero* with his store on wheels. They have few of the things we consider necessities, yet they laugh and joke. Part of the Presidio in which they live has no roof. This area is used as a patio and out-door kitchen. The owner, their *padrone*, lives in La Paz and they rarely see him. Life for them is simple and satisfying.

Presently, a young Mexican pilot in another Cessna flew in to take us to the city of La Paz, the largest town south of the border, with a population of about 25,000. Its airport is modern, with a tower and repair shop. Within the week, our plane was ready to go.

La Paz has comfortable hotels and beautiful promenades along the beach. Most of the Norte-Americanos who come here do so for the fishing. The people are hard-working, self-respecting, clean, happy and independent. The rates in the hotels include meals (sometimes the food is indifferent) and range, at Los Arcos and other downtown hotels, around \$10 to \$12 double, while Los Cocos, up the beach a way, offers a little more and costs a little more.



San Luis Gonzaga family with 11 children, none of whom read nor write, live in this deserted presidio adjacent to church. Right: Goat milk will be made into cheese in patio of presidio.

dually we began to understand that it was the *only* road to La Paz. It looked like a long walk. After much speculation, our pilot decided to fly the crippled plane into La Paz the next morning. The engine had failed when a valve stem crystallized and the valve head had broken off and punctured the piston top and dropped into the crank case. If he could get the plane, lightened without passengers, into the air, he could glide to the paved road from Santo Domingo Valley to La Paz, and, if the engine didn't get too hot, perhaps make it to La Paz.

We relaxed a bit then, and Mama Alvarez brought hand-embroidered pillow cases for the beds which they insisted we take, although they were

the only furniture in the whole place. We tried to sleep on the hard boards, while bats fluttered overhead against the 20-foot ceiling and a melancholy cat serenaded our door. Even this remote area, so empty from the sky, was not deserted.

Next morning, after our little plane left us there, we watched Papa and the boys drive the lean cattle to pasture, and the girls milk the goats and make cheese. This was the abandoned mission, San Luis Gonzaga, founded in 1737, and administered to by Father Baegert, S.J., who wrote so discouragingly of his 17 years there. The church is still standing. We ran our fingers over dust on its altar, examined its broken roof and wandered





Beach is now uninhabited, but soon site will hold plush hotel. Right: Marlin run at Bahia de Palmas at times when they are not running elsewhere.

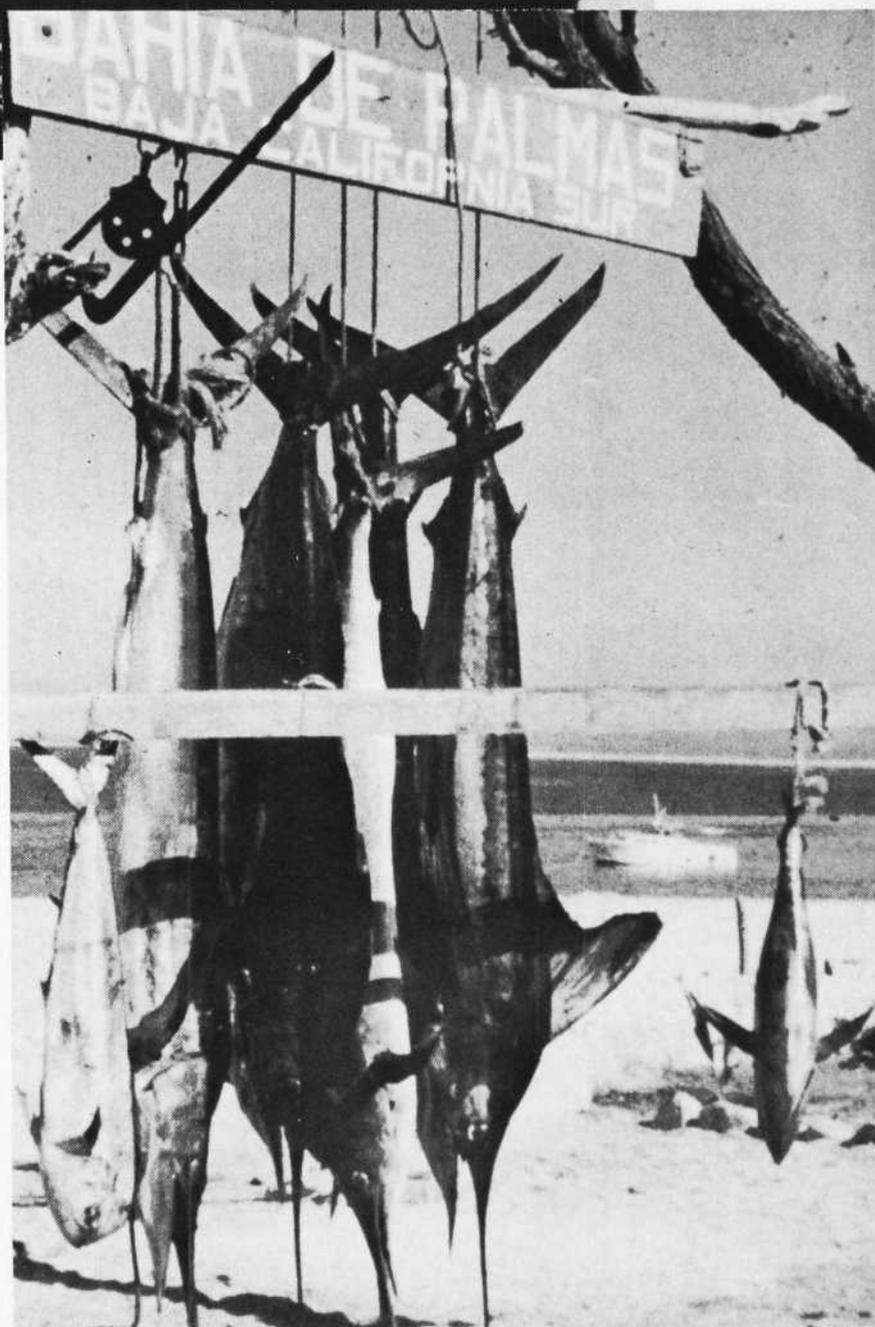
While the plane was being repaired, we hired a taxi to see the country. A few hours through cactus forests, with stops at two villages to see the deserted mines and photograph the ancient churches, brought us into a palm-shaded oasis on a bleached beach. Fishing boats were coming in with their flags flying and great black marlin strung up for picture-taking.

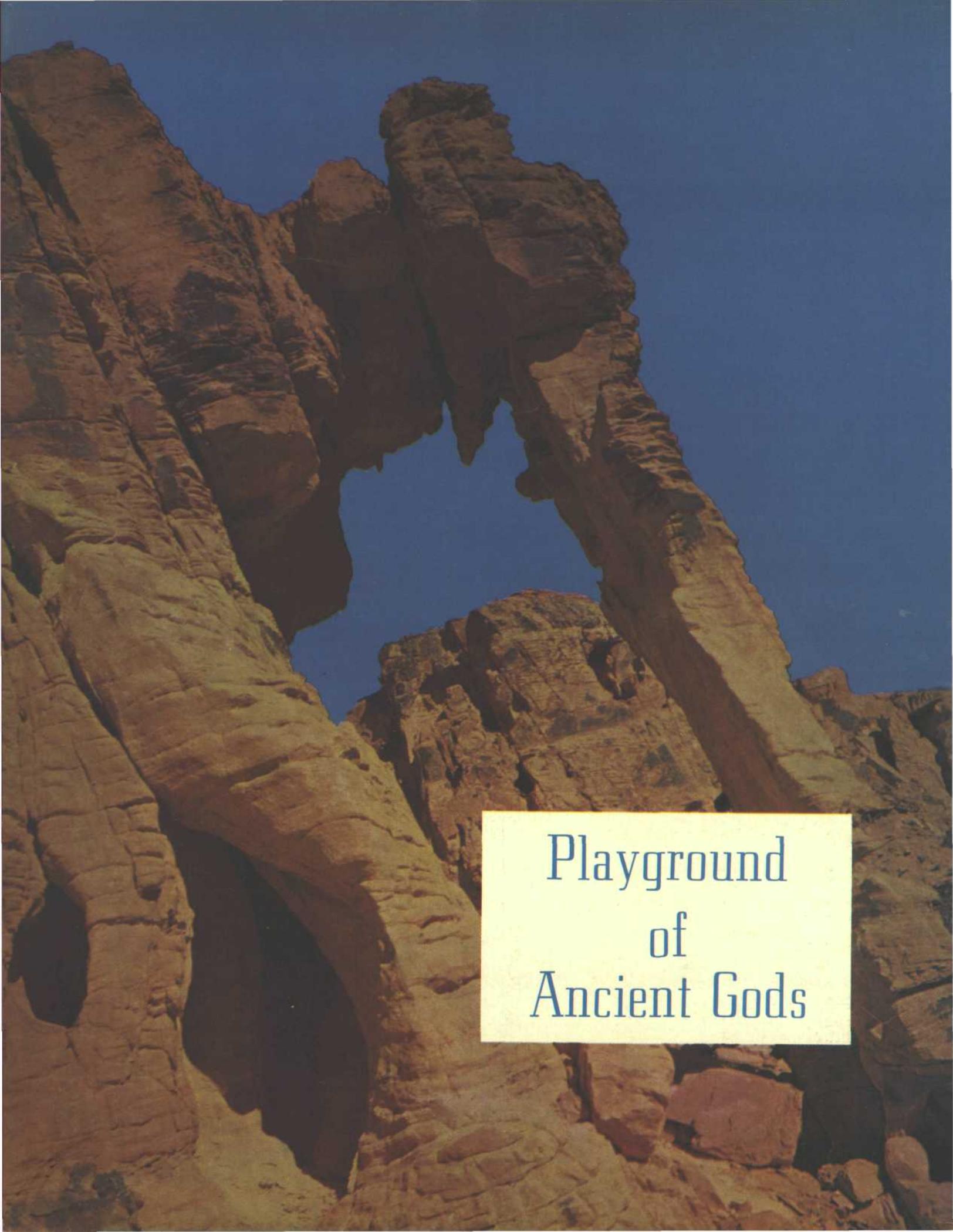
We were some 80 miles south of La Paz, at Bahia de Palma, where clean accommodations cost \$11 per day, American. Another hotel, Buena Vista, a couple of miles down the beach offers equivalent quarters. Fishing boats rent for \$40 per day, and the fishing is excellent. My husband borrowed some tackle from the boats and wet the line from the beach. The baby marlin he hooked would have made fine mounting, but we sent him on his way, a wiser fish, we hope.

Our taxi cost us \$30 for the round trip with an overnight stop. This included a slight premium because the driver spoke English—naming trees, dating churches and relating tales of Triomfe, an old mining town now delegated to ghosts.

Next day we bargained for another trip and drove to the ocean. This

(Continued on Page 35)



A photograph of a natural rock archway in a desert landscape. The arch is formed by two large, weathered rock pillars that meet at the top, creating a natural opening. The rock is a reddish-brown color and shows signs of erosion and layering. The sky is a clear, deep blue. In the foreground, there are more rocky terrain and some smaller rock formations. A yellow rectangular text box is overlaid on the right side of the image, containing the title in a blue serif font.

Playground
of
Ancient Gods

by barbara woll

THE ROCKS TUMBLED and twisted and fantastic shapes appeared and the gods laughed with the joy of living. As they conjured a wonderland out of the brilliant red sandstone, they called exuberantly to each other and the canyons echoed with their delight. When they had tired of their play they went on to more serious work and left the incomparable Valley of Fire for mortals to enjoy in their leisure.

Some many years later the State of Nevada looked at their handiwork and decided to set aside a State Park so that modern demi-gods might, in their earthly pursuits, take pleasure in the enchantment of this area.

Wanderers of the West may find Southern Nevada's Valley of Fire by turning off Highway 91 at Crystal, which is 20 miles east of Glendale on State Highway 12. This route goes through Moapa Valley and Overton where a stop at the Lost City Museum is recommended. Here can be seen the story of the ancient peoples of this area who were the first to follow the gods to their unearthly jumble of flame-red rock. Also, to be practical, Overton is the closet place to the Valley for gasoline or groceries.

The hills along the highway are low and rolling and give little promise of the visions to come. As the road winds through the stunted brush, the sharp, cold blue of Lake Mead appears below, confined within a badland desert frame.

The road into the Valley is maintained by the State of Nevada. Rangers are not on duty the year around, but the park is always open. Within its 30,000 acres a traveler may find a day's adventure, or spend a week photographing fantastic forms without repeating a single shot. Even a half-day will afford time to visit the Seven Sisters, petroglyphs in Atlatl Rock or explore a forest of petrified logs.

Back trails and improved roads are marked, but for any extensive tour it is wise to travel with an experienced navigator. It is easy to become lost in this jumbled rock maze. By contacting R. F. Perkins, curator of the Lost City Museum, you can obtain information about securing a jeep and a guide.

For those too unromantic to accept a theory of ancient gods, scientists have another to explain the Valley of Fire. They tell us that in an age recalled only by the exactitude of science, the earth's crust folded and twisted and rose due to internal pressures; thus a valley was formed. Then floods rushed down to the Muddy River and the Virgin River and the thin covering of rock waste went with them and left the brilliant sandstone exposed.

Ages passed. The mountain goat roamed freely among the spires and domes of this colorful valley and man followed him there. He came from the Lost City, which is now an Atlantis at the bottom of Lake Mead, and he came as long ago at 2000 years. This valley had for him a semi-religious significance because its strange formations changed shape in the moving sunlight. He didn't live here, but he hunted mountain goat, jack-rabbits and squirrels and his existence depended upon an ability to make use of yucca, mesquite, and other desert growths we call weeds today.

His great, great grandparents may have come to the red rocks before he did, as there is evidence that man lived a few miles to the northwest as long as 10,000 years ago. There is no indication that they were in the valley, but it is logical to assume they would have followed the mountain goat too.

It is unlikely that more than 50 to 75 of these people camped among the rock formations of the valley, due to lack of water. Fortunately for modern man, water is available at conveniently spaced picnic areas. There are also tables, stoves and shelters. In the heart of the park there are no camp sites, but you can always throw down a sleeping bag while the moon lazily climbs the cobalt sky and offers balm to a restless spirit. Surely the gods paused here to fill their hearts and souls with beauty, as do demi-gods of today.

But the traveler searches for majesty and humor also, and he will find both along the blacktopped main roads and well-marked trails. Elephant Rock is near the park's eastern entrance. Perched against an azure backdrop, it takes only a slight bit of imagination to identify it. Down the road is a master craftsman's version of another elephant—a mechanical one—with its body composed of square blocks of stone.

The Seven Sisters stand beside a picnic site and are so named because they resemble seven young ladies' heads. Also near the main road is Atlatl Rock with its famous prehistoric carving of the throwing stick used by ancient people to give force to their spear.

The interior road to Rainbow Vista may be broken and obscured by drifting dunes, but a hike along the trail reveals a view of distant cliffs where the eye stretches to infinity. The mind returns to reality on the return walk, though, for then the path climbs tremendous boulders which must be scaled by iron ladders secured into their sides. Among these mountains of rock is Mouse's Tank, once the hideout of an Indian renegade named Mouse, who gave the posse a merry chase in his wake of murder and thievery.

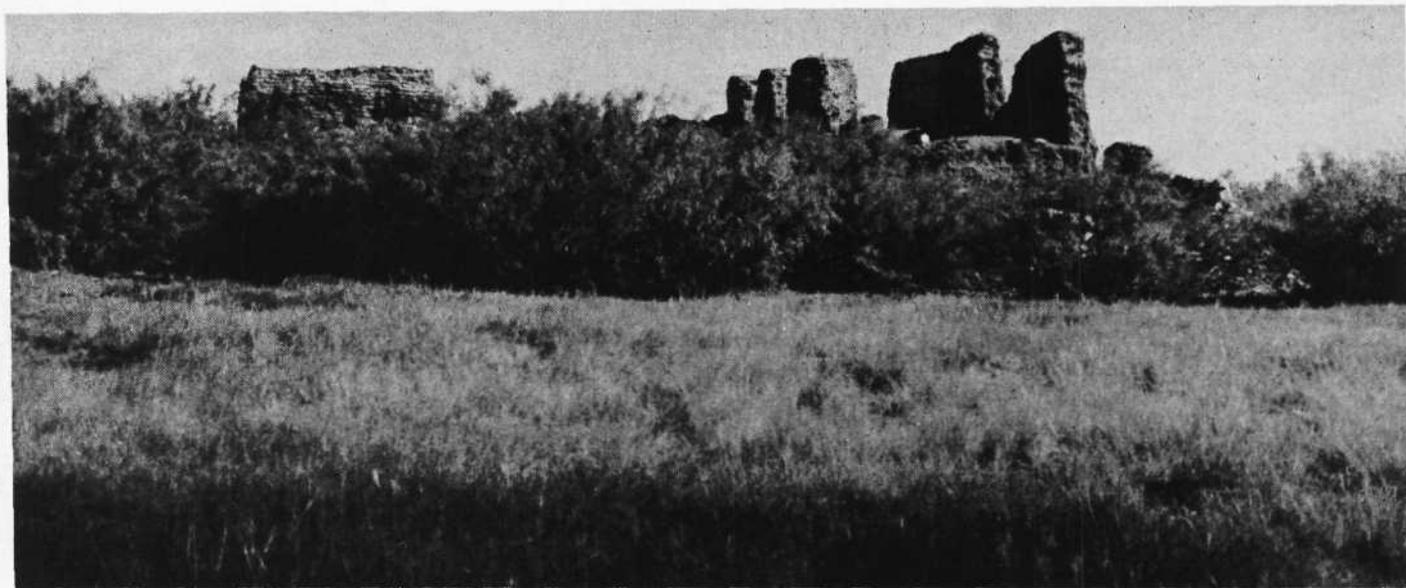
Back along the highway another trail leads to a large flat rock believed to be a prehistoric bulletin board. On it are pecked abstract symbols of an uncertain age. Mr. Perkins at the Lost City Museum will share with you his theory about them.

By the time this is published, the Nevada State Park System should have completed a 15-unit campground with a comfort station, water, firepits and trash containers. These facilities will no doubt encourage exploration of this relatively unknown area that was crossed for the first time by Jeep only three years ago. Few visitors have witnessed the Valley's wildest colors and wierdest formations, for these lie deep within its heart and may be reached only by 4-wheel drive or horseback. As whimsical gods moved toward the outer rim, they changed its firebrand rocks to straw, and molded sandstone hives for mythical bees.

Then the burnt landscape turns to dun and you, the wayfarer, find yourself spinning a 4-lane thread to Las Vegas. Behind, you leave the topsy-turvy world of ancient gods. Ahead, you meet the tipsy world of today.

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The Mystery of Devil Spring



GEORGE LANE cut the throttle and our small plane eased delicately to the ground. With scarcely a bump, the wheels found the surface of the ancient dried lake bed and George gently applied the brakes. The plane rolled to a stop and we climbed out. A quarter of a mile away lay our destination—Ojo Diablo, a mysterious Spanish ruin located in the big wild empties of Northern Chihuahua, Mexico, some 80 air miles south-southwest of El Paso, Texas. I pulled my gadget bag from the cockpit and we began our long, hot walk.

At first sight, Ojo Diablo resembles any other crumbling adobe ruin. Thick walls jut skyward. Mud brickwork has collapsed above doors and windows, giving the place a sort of snaggle-toothed look, and the ground is a mess of ankle-twisting rubble. Why should a couple of ostensibly sensible guys risk an airplane, as well as life and limb, by landing on a lonely lake bed of unknown smoothness and consistency just to visit an old ruin?

Well, friend, I'll tell you why. Ojo Diablo has one feature that I believe to be unique. To my knowledge, no other ruin in the Southwestern United States nor Northern Mexico has

anything like it. Ojo Diablo is encompassed by what appears to be a moat!

George Lane has ranching interests in Mexico near Casas Grandes. For years he has heard tales of this enigmatic ruin and has flown over it many times on business trips to the States. On one of these occasions, he told me he was going to fly down there, land on that lake bed, and have himself a look-see. Naturally, I invited myself along.

So here we were, poking around in the rubble, exploring the ruins, taking pictures, and gapping in wonder at the moat.

The place is designated on U.S. aviation charts as Ojo Caliente. Either name is descriptive. Ojo Diablo means Devil Spring, and if the folk tales are true, the name is hugely appropriate. Around their campfires, *campesinos* whisper tales of a ghost—the tortured shade of a long-dead *conquistador* who nightly drives a herd of ghost horses at top speed through the ruin. Those who have seen it say the spectre rides a ghostly white stallion, that he wears a suit of Spanish armor, and brandishes a Spanish sword. And, for a bone-chilling fillip, he encourages his

ghostly mount with shrieks that send shivers of primitive fear honking up and down the spines of mortal beholders.

They tell, too, tales of treasure hidden at Ojo Diablo. In the nearby low ridge of hills, they say the ancients worked rich mines of gold, smelting the ore near the old building and casting the precious metal into ingots which they hid in the ruin. They say the mine shafts are still there, complete with notched-log ladders on which Indian slaves clambered with their *sirones* (leather ore buckets) on their aching backs.

They say the gold cache still is there, too, and that when the murderous Apaches attacked, the Spaniards buried their gold and drove a band of horses over the spot to conceal evidence of digging. And this is why the ghostly Spanish *caballero* gallops his ghost horses through the ruin each night. He is eternally securing the precious treasure from the savage barbarians!

Ojo Caliente means Hot Spring. And this name fits, too, for near the ruin are a number of small springs, some of which run well-nigh boiling water. Around these springs the heavy mineral content of the

by Joe Parrish

water has created colorful deposits, exquisite stone embroidery of varying hues that look like Captain Cousteau's famous underwater photographs. The lonely, brooding ruin sits atop a small rise, the slopes of which are coated with this calcium crocheting. The springs are the handiwork of Nature and have been there for uncounted centuries.

But the ruined buildings? No one knows who built them . . . or when . . . or why. Their origin and reason for being are lost in the misty reaches of time.

The buildings are fairly large. Rooms extend around three sides of an ancient courtyard. In places the old walls stand 10 feet high and four feet thick; in other places they have melted down and their adobe returned to the earth. One room has been recently roofed and used as a line camp for *vaqueros* of the mighty Santo Domingo Ranch, within whose endless bounds the ruin lies.

Nearby, as distances are calculated in the vastness of Chihuahua, are the famous ruins of Casas Grandes. This half-buried pueblo recently was excavated and some interesting facets of an unknown race and culture were discovered by the Amerind Foundation. But the ruins at Ojo Diablo are not Indian. Here they are Spanish, indicated by several arches in the walls. The Indians did not know of the arch as a construction device.

Indian artifacts, however, are plentiful at Ojo Diablo. You practically kick your way through potsherds and arrow points, even in the courtyard. I long since have quit picking up hunks of pottery, but arrowheads are something else. George and I filled a pocket apiece with those, but we found nothing of Spanish origin.

About that moat. Surrounding the rise containing the ruin, a depression forms an almost perfect square about three-quarters of a mile long on each side. The ditch, now almost entirely filled by blow sand, appears to have been about eight feet wide. Excavated soil was once piled on the

outside edge, but today the ridge has been worn almost level.

For two reasons I can't quite buy the theory that it was a moat. First, what would the *conquistadores* have filled it with? Water from the tiny springs runs only a few feet, then disappears into the thirsty earth. Second, the thing's not level, but follows the rolling contour of the land.

Could this ditch, and its earth piled on the outside perimeter of the ridge that surrounds the ruin, have been a forerunner of the defensive ditch used in World War I? If so, it's still unique in Spanish-America, for defensive trenches are not recorded as a device for warfare in the New World. But if it were neither moat nor trench, then I give up. Perhaps you'll have an answer.

Ojo Diablo was not on the famed Camino Real, the "Royal Road" from Chihuahua City to Santa Fe. Devil Spring is far from any road and far from any inhabited area, either ancient or modern. It may have been

Mysterious moat that surrounds little hill of Ojo Diablo may have had other purpose.

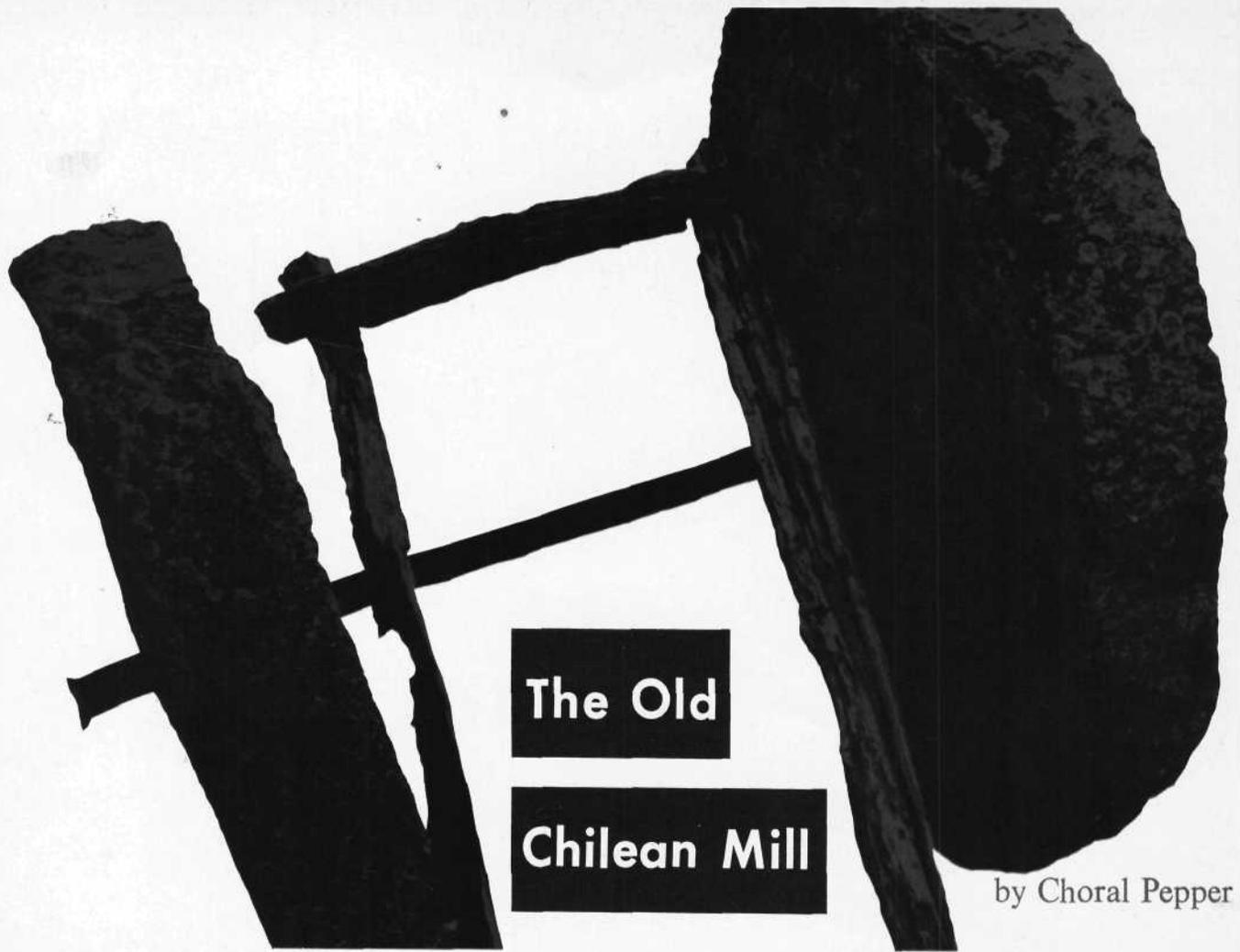


a fort, or presidio, built during the late 18th century for defense against the Apaches. Then, again, it might not have been. To complicate matters the remains of a slag dump lie nearby. At least, they resembled a slag dump to our unpracticed eyes. They could be residue from an ancient smithy, of course, but for the sake of adventure, let's say it's a slag dump where vanished Spaniards refined their gold. If so, are gold ingots still buried there?

To soon it was time to go. Reluctantly, we hiked back to the airplane, tied ourselves in, cranked up the engine, and taxied to the end of the lake bed. As we soared away, George circled Ojo Diablo and saluted a new mystery with a dip of a wing.

But some day I'll return to Ojo Diablo prepared. Next time I'll travel in a 4-wheeler so I can explore the hills for those forgotten gold mines. I'll take camping gear, food and water, prospecting stuff, shovels . . . and a metal detector. And next time I'll find a solution for that moat. ///





The Old

Chilean Mill

by Choral Pepper

SPOTTED WITH lichen and half-buried in brush, the Chilean Mill looked like a relic from a medieval torture chamber. Its yoke, once led by a mule in endless circles, rotted on the ground, but the powerful granite wheels that crushed a miner's ore stood as firmly as a monument to Forever.

We'd traveled a harrowing route to rediscover this monumental legacy created by an unknown artisan of Arizona's early mining era. Old timers reported that an archaic ore crusher existed in the Bradshaws, but its exact location had been lost for more than half a century. This presented a challenge to Dana Burden, a native Arizonian whose family founded Wickenburg's first guest ranch three generations ago and who prides himself, deservedly, on his back-country familiarity. Last Fall, as an objective for the annual 5-day pack trip sponsored by the Burden's Remuda Ranch, Dana decided to institute a search for the rumored mill.

The riders followed on horseback a burro trail along the side of a canyon until the precipice grew so steep that the only way up, down, or out was straight. Forced to retreat, Dana

led them back to a place where they could wait while he rode ahead to determine a more maneuverable route. It was then, following along a dry creek littered with boulders and paved with slick bedrock, that he came upon a picturesque glen where a rock formation caught his attention. Dismounting, he pushed aside the oak thicket and there stood a pair of stone wheels as high as his head. His victorious whoop brought the riders on the run and, as Dana tells it, even the horses stood spellbound at what rose from the grotto. For that's the way it looks—as if it had sprouted from a giant bulb.

Our own thrill of discovery was no less. Dana had reached the mill site by horseback, but he hadn't yet established a route to it by 4-wheel drive. We accompanied his maiden-voyage. In addition to us Peppers, the party included Sophie Burden, Dana's mother and an ambitious explorer herself; Val and George Boyd, Remuda Ranch guests from Oak Ridge, Tennessee; and career girl Betty Collins from Los Angeles.

Mining activity in this region reached its peak during the late 1880s, so the mill probably dates to this time. There is an arrastre in the

stream bed directly below it and Dana has found seven more following on down Silver Creek, but this is the only Chilean Mill. Whereas the common arrastres (heavy stones dragged around a circular bed by a mule) provided a crude method for grinding ore and amalgamating gold, the Chilean Mill, with its vertical rollers, or wheels, running in a circular enclosure with an iron base, was far more efficient. Weighing more than a ton and constructed from granite boulders at the site, it represents an enormous accomplishment. Drill marks rim the circumference of each wheel, but the drilling was probably for refinement and the major shaping of the powerful wheels achieved by heating the rock and then cracking it with cold water.

The originator of this wizardry was a magnificent artisan. Nebulous clues to his identity rest with a cache of French coins found near the mill and a morsel of gossip about a French miner who gained renown by harnessing his wife to an arrastre after his mule died. Whether that ingenious solution indicates the vision necessary to evolve the Chilean Mill is debatable. Another clever Frenchman is sometimes given credit for the mill,

but it is doubtful that his contribution to local lore was of the same vintage as the Chilean Mill. This latter Frenchman devised an ore crusher that worked on the principle of a windmill. A heavy weight hung suspended from its blades and when the wind blew, the weight crushed the rock fine enough to be worked for gold.

This is strong, quiet country and it fostered individuality. Although abandoned mines and stone ruins lie buried under masses of oak and cedar, the only visible hint of the area's former 20,000 inhabitants is seen in a tangle of trails. Two of these carry stories worth recording.

One is called Convict Road. It starts in mid-nowhere and ends in mid-nowhere. Arizona once had a governor who desired a shorter route between Prescott, the capital, and Phoenix, so he ordered that convicts from the Yuma Territorial prison be put to work constructing such a highway. For some unknown reason, it was deemed advisable to start from the most inaccessible place, in the middle, and work toward both ends. Before the middle reached its ends, however, the governor's term concluded and his successor abandoned the project. So there the road hangs—a nowhere road.

The other important attempt at roadbuilding was also aborted before it reached its goal. During the great mining era of the early 1900s, Phoenix merchants cooperated in the construction of a toll road from the Bradshaws in an attempt to lure trade from Prescott. This wagon road succeeded in reaching its destination, but the mines went out of business before it achieved anticipated profit.

The entire district is rich with lore. On our return to Wickenburg, we stopped at the old Button Mine to

Dana Burden and George Boyd examine a primitive arrastre.



Local prospector shows Jack Pepper old crucible which, he believes, indicates early Spaniards mined this area.

talk to its current owners, Bill and Mary Bledsoe. Living in a white frame cottage with an expansive view, this happy couple raise their own vegetables and work their own mine.

Bill has an "obsolete equipment" yard that would drive a junk dealer crazy. One of his treasures is a Spanish iron crucible, which he considers evidence that the Spaniards mined here before the Americans. Actually, this is the second one he has found. The first one was larger, but when he acquired the necessary heavy equipment to "borry" it from the old Dutchman's mine where he'd found it, a neighbor had already "borried" it, he explained.

The old Dutchman was another creative character who contributed to the region's lore. He manufactured silver dollars. This fascinating career transpired around 1915 when the value of silver dropped to practically

nothing. When the Dutchman could not get dollars for his ore, he proceeded to make his own, using the old crucible in which to melt the ore. All went well until the day he clanked a dollar on a merchant's counter in Wickenburg and the darned thing wouldn't stop ringing. As his crime was in putting too much silver in his dollars, the law was lenient, but this put an end to the silver dollar industry of the Bradshaws.

A bit further down the road Dana stopped to show us a pair of posts beside the road, each post heading its own separate fence. This is a "spite fence" *par excellence* as the rival ranchers didn't trust each other enough to even share a fence. It runs for four miles and to follow the right-of-way road, it used to be necessary to open one gate, drive 10 feet and then open a second gate maintained by the other rancher—such was the intensity of early range wars!

Our next stop was at the pastoral cottage of Johnny and Thelma Cooper. We'd checked in with them on our way up so they'd know to send help if we failed to return. At a 6000-foot elevation winter ruts can be sticklers and canyon drops dangerously deep. Thelma is a slender, attractive blonde who spends her winters on the ranch getting university degrees by means of television. Last year she earned one from the University of Arizona and is now working on another. The three little Coopers attend the country school at Wagoner and the family lives a full, stimulating life in an area so isolated it would bore less resourceful people to death.



The horses were the best we've ever ridden—and it was nice not to have to cook

There's an artificial pond in their front yard which they use for swimming, but at one time it was a puddle at the edge of a large lake. This is a story of a dam that was damned. Some time ago it seemed a good idea to dam the Hassayampa River that runs through a valley adjacent to the present Cooper ranch, so a temporary dam was installed to hold back the water while a permanent one was constructed. As water collected behind it a lovely lake shimmered in the sun, but it didn't remain lovely very long. One day a storm brought water rushing over its side. When it appeared the levee might break, a rider was dispatched to Wickenburg to arouse help. En route, he stopped at a bar to steady his nerves and became so thoroughly tranquilized that he forgot the object of his mission. As a result, the flood broke the dam and vullied down the valley killing 40 Chinese laborers and drowning 51 residents as far distant as Wickenburg.

One of the interesting facets of dude ranch life is the people it brings together. This was the first trip West for Val and George Boyd. George is an atomic scientist and his special project at Oak Ridge is in the desalinization of sea water by atomic energy—a system that will be an accomplished reality before the turn of

the century. In picking his brain, we learned about cetyl alcohol, a waxy crystalline solid that is sprayed over bodies of water to prevent evaporation. Economical, invisible and harmless, we became interested in it as a deterrent to evaporation occurring from large desert lakes such as Lake Mead and Lake Powell. There is no reason, from what we learned in this conversation, why it wouldn't solve a problem currently plaguing conservationists.

The unique flora and scape of the desert fascinated both Boyds, but Val was astonished at the desert's sophistication. She had recently read John Gunther's new biography of the late financier-philanthropist Albert Lasker and the last thing she expected to find in Arizona's rugged back country was a house owned by his widow, Mary. This sprawling pink stucco ranch house is locally called "The Castle" because of a watch tower on its gate house and its gardens spiked with Italian cypress. In spite of a formal setting and 19 bedrooms, each with private sitting room and bath, however, the house is unpretentious and sunny. It was originally built by Count James Minotti, once our Ambassador to Italy, for his former wife, a daughter of the Swifts of meat packing fame. A caretaker and his wife

now live in a cozy wing that overlooks the picturesque stable and hundreds of rolling acres and the estate is available for lease.

Wagoner is the name of the town that serves the people in this area, although these days it is a town in name only. At one time its school house boasted of 59 students and the sagging remains of frame houses and wall-less foundations indicate a sizeable population. Its post office is believed to be the oldest still in existence in Arizona. Established in June, 1893, it was given the name of the town's founder, Ed Wagoner, and its first postmistress was his wife, Minerva. Stamp collectors get a kick out of cancellations from this post office and visitors enjoy poking among relics contained in the frame building.

This 4-wheel drive trip with Dana and Sophie Burden was a new experience for us. Usually we fight our back country way alone. But, we must admit, it was nice to have someone else to do the driving, pack the lunch, and assume responsibility for our well-being. The next time the "rugged life" begins to pall, we intend to return to the Remuda Ranch and do it again. In addition to 4-wheel drive trips, the ranch sponsors daily horse-

(Continued on Page 37)

this survival system and do not tamper with the bottles unless they need the water desperately themselves. It has saved the lives of more than one visitor to the back country who was caught unprepared!

At Middle Warm Springs we experienced the same shock we had the first time we came upon date palms growing in this isolated region. We wondered who had first planted them? The pool waters are mirror-clear; some a pleasant 85° and 115° in temperature, others too hot for comfort, and they are not insuffer-

alongside the hearthstone circles lay a piece of ancient matting woven of tule and trimmed with a braided fiber rope. "Maybe there's a basket in those caves!" he hinted, but nothing could tempt me into those brittle lava caverns.

"Leave the ancients their secrets!" I shuddered.

The sky grew salmon-pink as it edged over the distant Inyo crests and we returned to camp and a bath! The beauty of exploring this volcanic ash country is that no matter how dusty

you get, you can always take a dip in the hot pools and emerge clean and refreshed. Later, around our campfire, we shivered with atavistic delight in the coyotes' shrill hunting song. The night wind rustled through mesquite and palm; unseen choristers chirred in the salt grass. Somewhere a small animal screamed and an owl's wings swept through the purple-blue of the star-hung sky. At last, beside the glowing embers, we went to bed.

At dawn we were up with the coyotes and cooking breakfast in our camper. After the chores, which we keep whittled to a minimum with paper plates that can be burned, we set out to explore the hogan, a two-mile hike west and north from the Springs.

Solid and squat, it stands at the base of a hill and is constructed of solid slabs of volcanic stone chinked with earth. The roof is a stout, double trunk of mesquite; the roof itself, interlaced with mesquite limbs and rock slabs. A pile of mesquite firewood lay, untouched, by the open doorway. How many years?

Allan crouched in the doorway. He is 6'5" tall and could go inside only on his knees. How tiny those Indians must have been!

We climbed the low hill above the hogan and found a primitive workshop paved with chalcedony, jasper, chert, obsidian and agate chips with a few intermingled fragments of worked points. I could imagine the



Above: Eerie caves tempted us. Below: Abandoned hogan still stands.

ably smelly, although the sulphur odor is strong. After a family of robins scolded us for intruding upon their privacy and three mallards quacked their disgust, we decided to move our camper to a wash a mile or so from the springs where we had noted some interesting cave shelters on our last visit.

As we climbed the high bank up to them, our boots echoed a strange, clinking sound. Soon we realized that the hill was hollow—great masses of fallen slabs had blocked the entrance of the wash leaving gaping holes, cracks and caverns in the bowels of the volcanic earth. Allan wanted to investigate them, but I balked, as we weren't carrying flashlights.

One wall of the scooped out bank was smoked by ancient hearthfires and a few metates and rubbing stones lay close to fire-blackened hearthstones. Allan found some charred bones mixed among the ashes and



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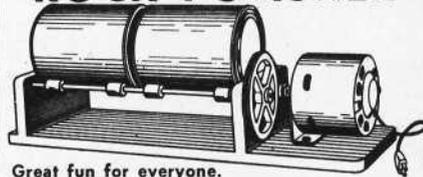
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ancient scene: blue waters lapping the shoreline below, busy Indians grinding seeds and nuts, hunters crouching in their blinds, children snaring rabbits with looped sticks. The atmosphere is filled with this old life that vanished so many centuries ago.

The hills once covered with trees are bare and brown today, but they hold treasures in gold, silver, lead and copper. And turquoise, too, if you can find it. Cerro Gordo silver-lead mine, active at the turn of the century, is close as the crow flies. Prospectors once swarmed in this country of Inyo and its old-timers still believe. But why not?

"Why, even we might uncover a fabulous vein!" I told Allan. It happened in Winnemucca, Nevada, only recently. So why not in Inyo? How I would love to base-camp beside a nice warm pool and spend my days out prowling ore-rich hills, prospecting!
///

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SHAKESPEARE, NEW MEXICO

BY LAMBERT FLORIN

A monthly feature by the author of *Ghost Town Album*, *Ghost Town Trails*, *Western Ghost Towns* and *Western Ghost Town Shadows*

FOR A ROWDY mining camp in the desert, a more unlikely name than Shakespeare would be hard to find. There is a simple explanation. During a financially uncertain period, the "city fathers" of a camp known as Ralston City sensed tentative feelers by prospective backers in England and hoped that by renaming their camp they could clinch the deal. Whether the maneuver was responsible is not known, but the British did take over the ailing municipality and mines.

While the camp has been called by the Bard's name for many years, and isn't likely to change now, it has a long history of aliases. First, it was Mexican Springs. That was about the time the first immigrants crossed this part of the desert. Apaches, of course, made first use of vital waters two miles up the canyon. Then wagon

trains, such as Cook's in 1846, sank barrels in the sand to accumulate a larger supply and it became an important watering place for travelers to the gold fields of California.

About 1856 a mail route was established that designated Mexican Springs as a regular stop and several permanent adobe buildings were built. Still later, the place furnished relief for the newly established Butterfield Stage line. The old mail station (which still stands) was used for a depot where the passengers ate their meals in a hurry, always in danger of attack by Apaches. The Civil War and Texas Confederates put an end to this phase.

After the Civil War, California investors inaugurated a new stage line over the old Butterfield route, dispatching a Norwegian emigrant named John Evensen to man the

stage station. In admiration for General Grant, they renamed the group of adobe structures and called the community Grant.

Then prospectors discovered rich veins of silver! Unlike placer gold, which can be gathered with a simple tin pan, silver requires a hard rock technique. This costs money and Grant's silver discoverers didn't have any. So they called on a California banker, William Ralston, to remedy the situation. He did, and in gratitude the boys renamed the camp Ralston City. Headed by Ralston, the company arrived in New Mexico in the Spring of 1870 and immediately began to broadcast inflationary rumors of silver wealth in surrounding hills. There *was* silver, quite a lot of it, but not nearly enough to justify the amounts of stock the company sold. What happened next has several versions, but it is best known as the "Great Diamond Hoax."

Rumors circulated that diamonds were found at Shakespeare—and sapphires and rubies as well. Excited stock holders arrived on the scene, along with prospective buyers who still held doubts. All had a field day at the company's invitation, roaming the hills around the camp. They were especially attentive to a peak then called Mount Aera where real diamonds were plainly exposed on ant hills. One was said to be already faceted—a fact which didn't seem to faze its discoverer.

When the bubble burst, after no more gems were found, the perpetrators were far away. Ralston, a short time later, drowned in San Francisco Bay. Although he swam there regularly, many considered his death a suicide. Mount Aera, now called Lee's Peak and the scene of the salting episode, may be seen against the horizon in the above photo of Shakespeare's old cemetery.

Two of Shakespeare's most celebrated outlaws were Russian Bill and Sandy King. In the 1880s they finally became acquainted, but it was too late to cook up any deviltry as both were already incarcerated in Shakespeare's new calaboose. Russian Bill was there because of a horse he had inadvertently stolen; Sandy King for shooting a clerk when asked to pay for a handkerchief. During one notorious night both were removed from their cells by a "committee" and strung up from a ceiling beam in the local hotel dining room. Left hanging to celebrate the arrival of the morning stage, the two bodies provided an edifying spectacle for the newly arrived breakfast guests!

LOST LODE

(Continued from Page 18)

plumbing with his own lead! Early next morning he carried an axe—they had no pick—to the ledge and brought back “20 or 30 pounds” in saddlebags improvised from a canvas tarp. He hurried home—and his disappointment can be imagined — when he found the stuff wouldn’t melt down under his torch. Like so many people, he didn’t realize that ore smelting is a science in itself.

His veteran friend died shortly thereafter. Andy never returned to the “worthless” ledge; and the incident lay forgotten for more than 12 years until I started needling him. When quizzed as to why he had not had the mineral analyzed he retorted, “Because I am a *plumber*, not a ——— prospector, that’s why!”

He told me the deposit lies in a nearly horizontal plane, and as well as he could judge, truncated the base of a small knobbish hill. The ore showed in three or four widely separated spots, and he estimated it averaged about 14” in thickness. He repeatedly stressed that the ledge “doesn’t look like anything but plain old, slick, dark grey, dirty rock—just rock!”—until you cut into it.

So, somewhere within an easy half day by horseback from Beecher Spring—probably northward—is a shadowy fortune in bismuthinite. Andy’s description, and the confirmed amount of ore he brought in, rules out the likelihood he picked up a piece of chance float. The ledge *has* to be there somewhere—but where?

To assist the mineral-minded serious readers, just prior to writing this I knocked some chunks off the sample and again sought the help of Dr. Dana. He generously gave me the run of the University lab; and put the finger on a couple of good natured geology major seniors, Dave Hill and Bill Purves, who did most of the work and saved me much time. “Our” analysis gave the following results. Color: steel-grey. Streak: lead-grey. Fusibility: 1½. Hardness: just above

2. Specific Gravity: 6.47. The shadow bands on the screen of the emission spectroscope said “bismuth and sulphur”—bismuthinite.

Whether you find the ledge or not, a trip to the area is no loss. There is much to do and see. The nearby Caverns deserve a visit; there are old mine sites to explore, including the old Bonanza King ghost camp. The search area borders an obsidium belt, and I’ve seen Apache tears, arrowheads, scrapers and potsherds.

If you have one, don’t forget your metal detector. Besides being helpful on this sort of ore search, there is something else. About four or five miles west of Essex, you will notice the remains of neatly laid out roads branching right and left. This was a World War II army tent camp; and when the division was ordered overseas they took only field equipment, and buried much other stuff. At least so I was told. I *heard* that “like new” portable generators, some beautiful hemp rope, rigging gear, etc. had been “liberated” in the area—and I know for a fact that a certain canned ham was quite as delicious as the day it was locked in the pantry of the dry desert sand!

And now you know as much as I do about the “Lost Quail Perch” lode. Because this deposit is in easy country, and because the look of the ledge makes the whack of a hand pick about on a par with a geology course, this is one project that gives the novice an even break with the old timer—but DON’T get stars in your eyes, nor say I didn’t warn you of the odds.

I have to admit, however, that “beginner’s luck” is an awesome, unpredictable thing—and when there is competition, it gives “the hairy-ears” the shivering whammies! ///

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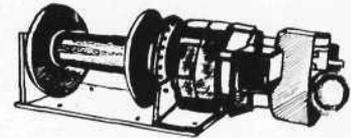
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No picture of a desert miner would be complete without a gold-pan. Less familiar is the finish-panning receptacle. The demijohn was blown in Scotland and shipped around the Horn to China where the wickerwork was done. Left: Wooden gold-pan was used by an Indian in Southern California before 1900.



THE EXPEDIENT TOOL

by Arthur Rouleau

EARLY IN THE afternoon on Monday, January 24, 1848, John Marshall lifted his eyes from the shiny particles he'd found in the tailrace of Sutter's Mill and called to an Indian helper.

"Go get a tin plate from James Brown," he ordered.

Brown was working on top of the saw pit. After the Indian boy relayed the message, he leaped down and brought the tin plate to Marshall, with a surprised query, "What in the devil do you want with a tin plate?"

Marshall promptly panned enough placer gold to cover a small coin. The tin plate was the expedient tool.

Events that transpired following that initial discovery have been set forth in minute detail—too well known to be repeated here. But the ingenuity of the miners in producing or using anything available for panning the elusive yellow metal is largely forgotten. Pans, boxes, baskets—anything with a corner or curve that could catch the heavy dust and nuggets was pressed into use.

However, to the Indian, so often characterized as lazy, must be given credit for outstanding industry in fashioning his own expedient tool for panning gold. Selecting a suitable piece of wood, he patiently carved a shallow bowl and with his wooden gold-pan, competed with the hordes of white men seeking fortunes in gold. Some of these wooden goldpans still exist in valuable collections. Others

have probably been discarded by finders who didn't know what they were.

In at least one instance a miner hired Indians and equipped them with aprons. While they held the ends of the aprons with their hands, he poured pay dirt into the fold. Then the Indians heaved the dirt into the air and blew with all their strength; the theory being that only heavy gold dust and nuggets would fall back into the aprons.

Bigler, who departed from the northern California diggings in the exodus of the Mormons, indicates that he and another miner tried what they called "bed-sheet mining." From a fellow miner they learned how to lay a sheet on gently sloping ground and spread a layer of dirt on it. Then water was splashed over it until the dirt washed away and only gold remained.

Some miners, on a windy day, would employ sheets and blankets to winnow the gold. To achieve this, the dirt was tossed into the air so that wind carried away the lighter materials and only the heavy gold clung to the bedding.

Many of these expedient tools and methods were discarded in favor of modern equipment, but to the adventurous trophy seeker who covets relics of the West's glamorous gold rush days, there are still countless troves in the desert awaiting shrewd discoverers.

///

BAJA (Continued from Page 21)

driver spoke no English, hurried over the rough, dusty roads and delivered us at lunch time to San Pedrito Beach. We had come through Todos Santos and the driver promised we would return and explore it. We ate the sandwiches and fruit which our hotel had packed while the driver fixed a flat. We regretted that we hadn't examined his tires before we bargained. For this we paid \$16.

"Little St. Peter" is a jewel; its bone-white sands sparkle with fool's gold and shiny black crabs stud its huge rocks. We had the whole beach to ourselves, but soon a lavish hotel will rise above it, adding to the necklace of luxury hotels which line the Cabo. Rates at these resorts run considerably higher—\$25 to \$30 per person per day, American plan—the view, beaches and fishing reason enough for the rates.

At the Todos Santos sugar factory we watched sugar being made from cane. Donkeys pulled carts loaded with cane to a chopper where it was dumped, ground and fed into huge cauldrons. Steam rose in clouds, the sugar turned brown and was then dipped into wooden plates of hollowed cones. We tasted the cooled cones . . . delicious.

We kept meeting people with names like Davis, Green, Cunningham, etc. A native of Loretto explained that his grandfather, named Green, was a trader who settled here and raised a family. Whalers and freighters put in here regularly in the early days because of the fine harbors and pirates also found them convenient headquarters.

One colorful Mexican with an English name was Carmen Fisher, a lady with a heart as big as her girth. The lobby wall of her Casa de Fisher is embellished with a framed certificate testifying to the service of her grandfather, Admiral Fisher of the U.S.

Navy during the 1800s. We had flown our repaired plane around the Cabo, over the splendid hotels built for the Norte-Americano, and settled down at the old town of San Jose del Cabo. This is no tourist center—when we signed the guest register, we were the first to arrive in two months.

The *camarista* took us to a balconied room on the second floor. When we asked for ice, she brought a tray with limes, salt and five glasses. We were only four, and it took a minute to comprehend. This simple gesture exemplified the charm of Baja's kindly, friendly people. She might be low on the social ladder, but she was proud and the extra glass was a gentle reminder to the *tourista*. Delightedly, we asked her to join us, and politely, she deprecated, "Hay mucho trabajo" (there is much work). Her sad eyes lit up when we assured her the work would go much faster after a tiny "marguerita" . . .

We believe Baja, with its forbidding terrain, is neither forgotten nor God-forsaken. It grows the biggest, rarest cacti and the daintiest flowers; it breeds an easy-going, friendly people who contrive to make a vacation here something to remember.

Another fact of the maligned story

about Baja is an exaggeration about the roads. It is true they are not free-ways, but when traversed at reasonable speeds, they are adequate. You can't find a taxi driver in La Paz who hasn't driven to Ensenada and jeep and truck-trailers arrive from the States daily. From the air, it's difficult to trace a road from north to south, but there is a new paved 100-mile road from the Santo Domingo Valley to La Paz.

The auto traveler who is not in a hurry will find exploration of this land a never-to-be-forgotten adventure. He may enter the land though Mexicali, driving south over a paved highway as far as San Felipe, at the northern end of the Gulf of California, or, if he's more adventuresome, he may follow Mexico's Highway No. 1 across the peninsula, through Rosario, and down to the Santo Domingo Valley road . . . always remembering that there are long stretches where no provisions, water nor gasoline are available.

The visitor who "searches for adventure" is lucky Baja still possesses its "maligned" reputation. The myth will dissipate all too soon and with freeways, its wonderful, empty beaches will become as crowded as their Alta California counterparts. ///

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- 1½ cups diced unpeeled red apples
- ½ cup slivered toasted almonds
- ½ cup mayonnaise
- 1/3 cup dairy sour cream
- 3 to 4 large avocados
- 1 can crab meat
- ½ cup finely chopped celery

Flake crab meat and combine with apples and almonds. Combine mayonnaise and sour cream and add to first mixture. Toss gently to mix. Halve avocados, remove stones and fill heaping with crab meat mixture. 6 to 8 servings.

AVOCADO and ARTICHOKE SALAD

Peel and halve avocados. Sprinkle with lemon juice. Marinate artichoke hearts, one for each avocado half, in french dressing. When ready to serve, place an artichoke heart in each avocado half. Place on a bed of lettuce. This makes a very pretty buffet tray, and an easy-to-serve salad.

DEAN'S AVOCADO SOUP

- 1 avocado mashed or put through blender
- 1 can cream of mushroom soup
- 1 can water or milk
- 1 teaspoon lemon juice
- ½ teaspoon Lawry's seasoning salt
- ¼ teaspoon onion salt
- 1 teaspoon sherry

Heat soup with milk and seasoning. Add avocado and sherry and heat but do not boil. Serve with a dollop of sour cream.

AVOCADO CRAB BAKE

- 2 cups frozen or canned crab meat
- 2 tablespoons butter
- 2 tablespoons flour
- 1 cup chicken stock
- ¼ teaspoon salt
- Dash of cayenne pepper
- ½ teaspoon Lawry's seasoning salt
- 1/3 cup table cream
- Juice of ½ lemon
- 2 avocados
- Slivered almonds

Melt butter and blend in flour. Add chicken stock. Cook and stir until thickened. Stir in seasonings, lemon juice and crab meat broken into pieces. Peel and slice avocados. Sprinkle with salt and lemon juice. Layer avocado pieces in shallow buttered baking dish. Cover with crab sauce. Sprinkle sliced almonds on top. Place under broiler until very hot and flecked with brown. 6 to 8 servings.

AVOCADO SOUFFLE SALAD

- 1 package lemon jello
- 1 cup boiling water
- ½ cup IMO or commercial sour cream
- ½ cup mayonnaise or similar salad dressing
- ¼ teaspoon curry powder
- 1 avocado
- 1 small can grapefruit sections, drained and cut in small pieces

Dissolve Jello in boiling water. Add IMO and salad dressing and beat in with rotary beater. Take 1 cup of this mixture, add the avocado which has been cut into small pieces. Put in blender and blend until smooth. When this mixture has begun to thicken, add the drained grapefruit pieces. This may be put into a ring mold, the ring to be filled with grapefruit and tangerine sections for serving, or it may be put into individual molds and served on lettuce with a dab of mayonnaise on top of mold.

DEVILLED CRAB IN AVOCADO HALVES

- ¼ cup slivered toasted almonds
- 2 tablespoons butter
- 2 tablespoons flour
- ½ teaspoon salt
- 1 cup milk
- 1 teaspoon prepared mustard
- ½ teaspoon Worcestershire sauce
- 2 teaspoons lemon juice
- 2 cups cooked crab meat (or canned)
- 4 medium avocado halves

Melt butter and blend in flour and milk. Cook stirring, until mixture is thick and smooth. Add mustard, Worcestershire sauce and lemon juice. Add crab and half of almonds. Heat but do not boil. Cut avocados in half, remove seed and sprinkle with lemon juice. The avocados should be at room temperature, not chilled. Spoon hot crab mixture into avocado halves, sprinkle with remaining almonds, and serve at once.

AVOCADO and EGG SALAD SANDWICH

Hard boil eggs, chop and mix with mayonnaise. Spread generously on slices of whole wheat bread. Place thin slices of avocado over egg mixture. Sprinkle a little lemon juice over avocado. Top with lettuce and another slice of bread.

SWISS AVOCADO SOUP

- 2 tablespoons grated Swiss cheese
 - 3 cups boiling consomme
 - 2 avocados, grated or thinly sliced
- Place 1 teaspoon Swiss cheese in each consomme cup. Pour boiling consomme which has been mixed with avocado over cheese. Serve immediately.

THE CHILEAN MILL

(Continued from Page 28)

back rides and overnight pack trips. Their horses are the best dude horses we've ever ridden anywhere and the hundreds upon hundreds of rugged acres belonging to the ranch were purchased by Sophie's father for the express purpose of providing beautiful and interesting terrain for horsemen.

Several innovations have taken place in modern dude ranching that take the onus off it, as far as we're concerned—at least this is true of the Remuda Ranch. There are no dawn-breaking gongs commanding guests to arise with the hale heartiness of a gym teacher. At the Remuda Ranch breakfast is served about 9:00 a.m., unless you choose to take the early morning horseback ride and eat beside a campfire on the desert. If you don't, there's an afternoon ride too. Then, even though rates are computed on the American plan, five of Wickenburg's dude ranches have cooperated in an exchange arrangement which permits guests to dine at any of the five without paying extra for the meal. Dress is always informal.

But best of all is the little red



Sophie Burden, Val Boyd and Betty Collins examine Mill.

schoolhouse on the hill and the private dining room for children. Billie Fletcher is the highly qualified instructor who provides private tutoring for guests with school-age children. Without exception, her tutored students have returned to their home schools ahead of their classes—even those who were behind before they came to Remuda Ranch. There's a wonderful program for pre-school

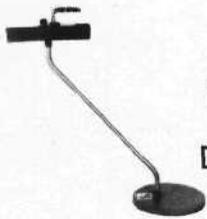
children, too, which keeps them busy and away from premises reserved for adults.

All in all, this Trip of the Month is one we recommend from beginning to end. After all, where else can you visit country that fostered silver-dollar manufacturers, wife-powered arrastres, windmills that pumped gold, and a road as confined as the convicts who built it. ///

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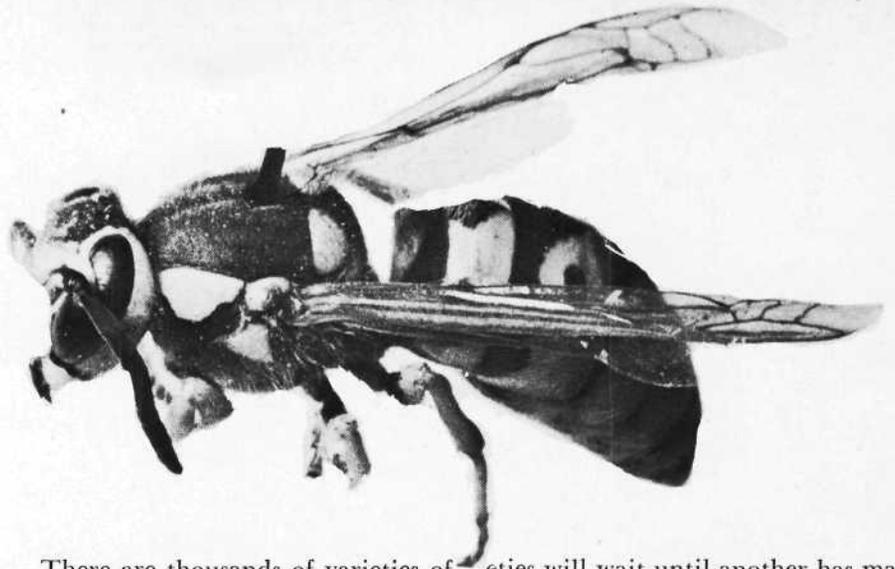
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The Winged Hypodermic

by Tim St. George



THERE'S AT least one case where the phrase "stirring up a hornet's nest" had historical significance. That was when a British vessel sailed up the Patuxent River during the War of 1812, and its officers went ashore to inspect Yankee land. One of them spotted a hornets' nest and not knowing what it was, asked a farmer's boy.

"Tis the nest of a rare humming bird," the boy said. "Just stop up the hole at the bottom; then when you are about 10 miles at sea, unplug it and you will have mascots that will stay with you."

The officers gravely obeyed the boy's instructions and took the nest with them. They sailed a short time later and residents of Maryland watched the vessel as she beat her way toward the sea. The officers must have followed the boy's suggestions because Lower Malboro residents, peering through telescopes, saw Admiral Cockburn and several of his officers precipitously dive overboard, swords and all! The *Calvert Independent* later published a bit of doggerel by Ralph Hinman:

The hornets surely won the day,
And made their foes feel shame;
These insects were American
And lived up to their name!

There are thousands of varieties of hornets and wasps, but they are all members of the same insect order (hymenoptera). Many are called yellow jackets, some cow killers, some stone dress, or invisible arrows, but generally all are considered pests. It is a matter of perspective perhaps.

Though there are some people to whom the sting of the wasp is allergic, and sometimes fatally so, these insects do infinitely more good than harm. They are sudden death to a myriad of insects harmful to man and these victims provide fare for the eggs of the female wasp.

One variety, the *pepsis*, is often called the Tarantula Hawk because of its determination to anesthetize and affix an egg on the carcass of the huge, hairy spider. The body will supply food to the newly-hatched, wasp long enough for it to begin fending for itself. The struggle proceeding this macabre ceremony is one of the most fascinating aspects of insect life.

Wasps are not only capable of quite prodigious feats of strength and endurance but they also represent the highest development of instinct in the animal kingdom. Not only do they have the ability to select victims to stun and feed their young, some vari-

eties will wait until another has made a kill and then take over.

Much of their conduct is not thoroughly understood, hence a good deal of superstition and legend arises. The saying that if a wasp flies into a house, good luck will follow might have evolved from the fact that most anything would seem like good luck after being stung by a wasp. But Ozark girls have been known to carry little paper wasp nests pinned to their underclothes as a good luck charm in attracting a handsome suitor.

Venom from the wasps has been used in treating snake bites, and veterinarians have experimented with its effect in relieving colic in horses. There is no question whatever about its toxicity, but its full effects are not completely understood.

Amazon Indians believe the wasps are invisible arrows capable of bewitching tribesmen and all such poisonous insects are considered to be demons.

The severity of a forthcoming winter is often gauged by the relative position of the wasps' nest: low, the winter will be dry and cold; high, the winter will be warm and wet. Entomologists are somewhat more practical in realizing that some types seek high sites, while other species build lower.

The Northwest Indians are said to successfully cure headaches using a wasp nest. This paper-like substance is mixed with nettle fibres and rolled into a small ball. The ball, held with tongs, is ignited and then applied to the temples, the neck and crown of the head and the headache is gone.

Little wonder: The victim is so concerned with the pains from the burns, he forgets about his headache!

///

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DESERT DISPENSARY

by Sam Hicks

Part of a series of articles relating Sam Hicks' first-hand observations to the uses made by primitive peoples of nature's products.



ELDERBERRY, OR Sauco, trees are almost as much a part of the Southwest as the chollas, mesquite and greasewood. The trees grow along the banks of dry arroyos which carry water perhaps once a year, and sometimes not that often. Intermittently they dot the foothills of the desert, growing on sheltered slopes and in depressions protected from strong winds.

Their pithy branches are weak and they break easily, especially in spring-time while the limbs are heavy with leaves and blossoms. The wood is soft and useless as a fuel and the foliage is not sought as feed by livestock and game animals.

While Elderberry is commonly thought of as a shrub, in the Southwestern United States and Mexico it grows indisputably as a tree. Its fruit forms in clusters and is easily picked, or rather stripped, from the branches. Sweet jams, jellies and wines are rarely made any more by people who

live in close proximity to Elderberry, or Sauco, but the medicinal properties contained in the tree's leaves and flowers are still widely used.

Teas of varying strengths cooked from the flowers are taken by expectant mothers for "morning sickness" and given to tiny babies for colic. In Mexico, two glasses of Flor de Sauco tea is still a standard dosage for breaking the fever of children suffering from measles. It is a soothing anti-acid tonic, which, as a matter of custom, is slogged liberally into burning stomachs the morning-after by the participating members of gala Southwestern fiestas. Hot tea is taken as a reliable cold and flu medicine and Flor de Sauco is also boiled in milk to make a medicated cough syrup.

In Mexico, an extract made from crushed Elderberry leaves soaked in alcohol is taken in the proportion of 10 drops to a glass of water for halting diarrhea and tea cooked from its leaves is used to treat dropsy. ///

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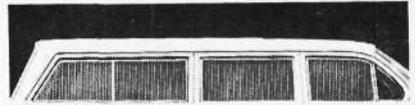
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LETTERS FROM OUR READERS

Letters requesting answers must include stamped self-addressed envelopes

Hank Brandts Mine . . .

To the Editor: Last October's issue had an interesting article about Hank Brandt's Secret Canyon in the Fish Creek Mts. We decided to go into the area, so followed the directions in the article by calling the Commanding Officer of the NAS to ask permission to enter the Fish Creek Mts. via the Aerial Gunnery Range. In order to save your readers a lot of trouble, here's what happened.

The Miramar NAS said they'd had a multitude of letters requesting the same permission. These were referred to the Marine Corps in Yuma, Arizona, which controls the area. In some cases the letters were so general they turned them down flat. In a telephone conversation, I acquired more information.

You must write a letter at least two weeks in advance of your planned trip. Address it to Commanding Officer, MCAS, Yuma, Arizona, c/o Fleet Liaison Officer. In that letter, tell him you want permission to enter the Carrizo Aerial Gunnery Range.. Your purpose of visit, the exact area you wish to cover, exactly where you wish to go, length of stay, and time of departure. They will send you a "Hold Harmless-Free of" agreement which you must sign and return and they will either give you permission, or refuse it. So, is it worth it? You bet it is!

DAN AND IRENE BLISS,
Burbank, California

Interesting Follow-up . . .

To the Editor: A few months ago your magazine carried an article regarding a lost gold mine in the Fish Creek area. As this falls partly within our target areas, we have been besieged with requests from your readers wanting permission to enter. We would appreciate your sending us a copy of the story so we may intelligently know what it's all about.

PHILIP A. KRONENBERG,
Information Services Division,
Marine Corps Air Station,
Yuma, Arizona

Cards on the Table . . .

To the Editor: At last someone has had the guts to come out and lay the cards on the table relative to what the government calls "outdoor recreation." Sure, the parks are fine and I'm all for them, but I like the wide open spaces and there are still plenty of them here in the West if people will get over their fear of being alone. Congratulations to Jack Pepper for his column in the January issue. I hope everyone reads it and then heads for the lonely and healing hills.

JAY CLARK, JR.
Hanford, California

Lee's Lost Lode . . .

To the Editor: The article on Lee's Lost Lode in the January issue gave me a thrill, indeed. Many times I have heard my parents relate the story and the strange part, to me, is that the narrative coincides in so many statements. Such tales, over a long period, usually differ sharply.

VERNON DELAMETER,
Big Bear Lake, California



Quien Sabe? . . .

To the Editor: In the Eagle Tail Mts. about 35 miles southwest of Salome we ran across rock formations that we thought were probably old Indian forts or hunting blinds. They are about four feet high and all but two were completely circular with no opening on the side. They are spaced about 40 feet apart and circle a hill. The desert varnish on the rocks is heavy, which indicates great age. Both Apache and Maricopa Indians roamed here—also, the Hohokam ruins are only about 35 miles south. Would any of your readers be able to tell us anything definite about these rock structures and what they were used for?

KATHLEEN POWERS,
Phoenix, Arizona

Conservation of the Saguaro . . .

To the Editor: Regarding the article by Janice Beaty in the December issue about the seeming inability of the giant saguaro to reproduce under normal conditions, even though each season it produces millions of fertile seeds, it seems apparent that if the desert beauty is to survive, it will need outside help. Last year I received a package of seeds with instructions for planting them in a little plastic planter. About 50% of these sprouted and later I transplanted them. At present, I have nine healthy plants and about an equal number of runty ones. This experiment suggests that they are not too difficult to grow. If the Arizona Forestry Department could be persuaded to gather these seeds it would be easy to get thousands of Arizona and California citizens to pledge themselves to carry on propagation in their own yards and then after several years ship the plants back to the Forestry Service to use in protected areas where saguaro forests could be propagated.

R. N. BUCHWALTER,
Rialto, California

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