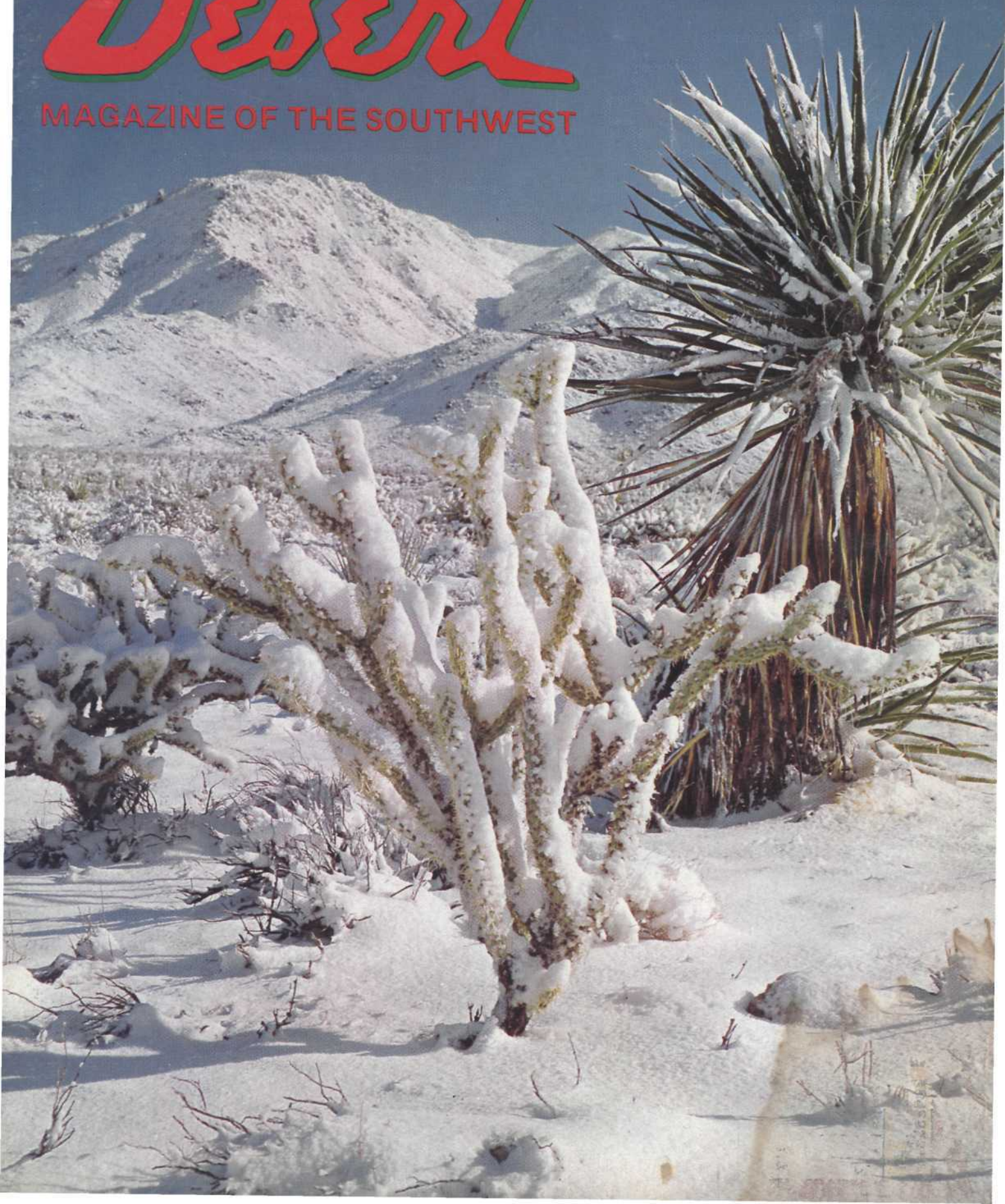


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THE COVER:
A winter entourage. Snow
mantles cholla and yucca in
Detrital Valley-Cerbat
Mountains above Kingman
vicinity, Arizona. Photo by
David Muench, Santa Bar-
bara, California.

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A Peek in the Publisher's Poke

AS 1976 draws to a close, may we at DESERT once again thank our wonderful readers and advertisers for their encouragement and continued support. We have welcomed many new readers to our family this year and it is gratifying to see both families and individuals seek the solitude and beauty of the desert, each in their own way.

We have planned some new features for 1977 that we hope will be of interest and will lead you to new desert adventures. Among those projected will be a series on the Palm Oases of Southern California by noted Dick Bloomquist, and he will be taking you to remote washes and canyons among the borderlands of the Coachella Valley, Salton Sea and the Anza-Borrego Country. These will be excellent one-day or weekend trips for all of you Southern Californians.

Another feature that we have had so many requests for will be on the native food of the Indians, and Lucile Weight, an authority on this subject, will be bringing us her "tips from the Indians."

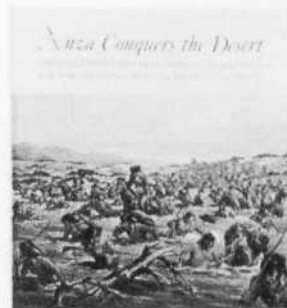
Popular Bill Jennings will continue to challenge you with his out-of-the-way places for both four-wheel-drive enthusiasts and passenger cars, as well as bring you up-to-date on the new campground facilities, etc. Bill, long-time newspaper journalist and historian, and a real desert buff, stands ready to handle any queries you may have on his favorite subject.

We would also like to take this opportunity to thank the many free-lance writers, photographers and artists who have contributed so much to DESERT. It has been a privilege to work with these fine, dedicated people.

Our best wishes to everyone for a joyous Holiday Season and a prosperous 1977.

Anza Conquers the Desert

Commissioned by James S. Copley
Written by Richard F. Pourade



The colonization of California in the 1770's received its greatest impetus with the opening of an overland route from northern Mexico. The man who opened it was Juan Bautista de Anza. This book is the story of his conquest of the Great Desert which for two hundred years had impeded the northern advance of the Spanish Empire. The colonists who were led into California by Anza founded the presidio of San Francisco; other colonists who came over the road opened by Anza helped found the city of Los Angeles.

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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. 58 towns are included as examples of the vigorous struggle for existence in the mining camps of the West. 239 pages, illustrated, end sheet map, hardcover, \$7.95.

OUR HISTORIC DESERT, The Story of the Anza-Borrego State Park. Text by Diana Lindsay, Edited by Richard Pourade. The largest state park in the United States, this book presents a concise and cogent history of the things which have made this desert unique. The author details the geologic beginning and traces the history from Juan Bautista de Anza and early-day settlers, through to the existence today of the huge park. Hardcover, 144 pages, beautifully illustrated, \$9.50.

THE DESERT by Russell D. Butcher. Superb photography and excellent text make us fully aware of the richness of Mr. Butcher's desert experience. Informative guides to the parks, wildernesses, desert gardens and museums also included. Large format, hard cover, \$17.50.

THE OREGON DESERT by E. R. Jackman and R. A. Long. Filled with both facts and anecdotes, this is the only book on the little but fascinating deserts of Oregon. Anyone who reads this book will want to visit the areas—or wish they could. Hardcover, illustrated, 407 pages, \$8.95.



JESSE JAMES WAS ONE OF HIS NAMES by Del Schrader [with Jesse James III]. According to the author, Jesse James did not die as recorded in history, but lived to a ripe old age. This book details the lively escapades Jesse was supposed to be involved in following his attendance at "his own funeral." Interesting and exciting reading based on information supplied by Jesse James III, executor of his grandfather's will. Hardcover, illustrated with old photos, 296 pages, index, \$8.95.

ARIZONA PLACE NAMES by Will C. Barnes, Revised and enlarged by Byrd H. Granger. Excellent reference book with maps, Biographical Information and Index. Large format, hardcover, 519 pages, \$11.50.

LOST MINES OF ARIZONA by Harold Weight. Covers the Lost Jabonero, lost mines of the Trigos, Buried Gold of Bicuner and others of southwestern Arizona. Paperback, \$2.00.

REPTILES AND AMPHIBIANS OF THE AMERICAN SOUTHWEST by M. M. Heymann. Features 68 species, all in beautiful four-color photographs. Descriptions are stated in simple, non-technical terms. Extensive text tells of their origins and life-styles today. Extremely useful book for all who enjoy watching and learning about wildlife. Paperback, 77 pages, \$4.95.

NEW BAJA HANDBOOK for the Off-Pavement Motorist in Lower California by James T. Crow. Discover the real Baja that lies beyond the edge of the paved road, the unspoiled, out-of-the-way places unknown to the credit-card tourist. The author, drawing from his extensive travels in these parts, tells where to go, what to take along, the common sense of getting ready. Illustrated, paperback, 95 pages, \$3.95.

LOST LEGENDS OF THE WEST by Brad Williams and Choral Pepper. The authors examine the "lore, legends, characters and myths that grew out of the Old West." Included among the more than 20 "lost legends" are such intriguing subjects as lost bones, lost ladies, lost towns and lost diamonds. Hardcover, illustrated, 192 pages, \$5.95.

DICTIONARY OF PREHISTORIC INDIAN ARTIFACTS OF THE AMERICAN SOUTHWEST by Franklin Barnett. A highly informative book that both illustrates and describes Indian artifacts of the Southwest, it is a valuable guide for the person interested in archaeology and anthropology. Includes 250 major types of artifacts. Each item has a photo and definition. Paperback, 130 pages, beautifully illustrated, \$7.95.

WHAT KINDA CACTUS IS THAT? by Reg Manning. A friendly introduction to all the principal thorny inhabitants of the Cactus Belt along the Mexican Border. This book not only calls a cactus a cactus, but more important, it points out what NOT to call a "cactus." Paperback, cleverly illustrated, 107 pages, \$2.25.

BACKPACKING DEATH VALLEY by Chuck Gebhardt. This 4x5 inch guide fits pocket or pack and provides temperature, terrain, equipment and survival information on hiking Death Valley. 22 easy-to-read maps accompany 18 day hikes and 28 backpack treks. \$2.50.

DESERT GEM TRAILS by Mary Frances Strong. The "bible" for both amateur and veteran rockhounds and backcountry explorers, DESERT Magazine's Field Trip Editor has brought up-to-date her popular field guide. Areas have been deleted which are now closed to the public, and maps updated. Heavy paperback, 80 pages, \$2.00.

ADVENTURES IN THE REDWOODS by Harriett E. Weaver. Miss Weaver, California's first woman park ranger, tells the fascinating history of the giant redwood, and in addition, gives a detailed guide to all major redwood groves in both the coastal and Sierra regions. Beautifully illustrated, paperback, 160 pages, \$2.95.

FORKED TONGUES AND BROKEN TREATIES Edited by Donald E. Worcester. This book gives us a better understanding of the unequal struggle of native against immigrant while our nation was being explored and settled. Profusely illustrated with excellent photos, a "must" reference for historians, students, librarians. Hardcover, 494 pages, \$9.95.

WHERE TO FIND GOLD IN THE MOTHER LOBE by James Klein. As in his *Where to Find Gold in the Desert* and *Where to Find Gold in Southern California*, author Klein guides you to the areas in which people are doing the best now. He includes history, tips on equipment needed, how to pan, how to stake claims, etc. Paperback, 121 pages, illustrated with photos and maps, \$4.95 each.

CAMPING AND CLIMBING IN BAJA by John Robinson. Contains excellent maps and photos. A guidebook to the Sierra San Pedro Martir and the Sierra Juarez of Upper Baja Calif. Much of this land is unexplored and unmapped still. Car routes to famous ranches and camping spots in palm-studded canyons with trout streams tempt weekend tourists who aren't up to hiking. Paperback, 96 pages, \$2.95.

GUIDE FOR INSULATOR COLLECTORS by John C. Tibbitts. This is the third and final book on insulators by veteran bottle collector John Tibbitts. This third book has a revised price list and index to insulators described in the previous two volumes. However, each volume describes insulators not shown in the other books, so for a complete roundup of all insulators, all three volumes are needed. Books are paperback, averaging 120 pages, illus., \$3.00 EACH. Please state WHICH VOLUME when ordering.

SOUTHWESTERN INDIAN TRIBES by Tom Bahti. An excellent description, history and current status of the Indians of the Southwest, including dates of their ceremonies and celebrations. Profusely illustrated with 4-color photographs of the Indian Country and the arts and crafts of the many tribes. Large format, heavy paperback, 72 pages, \$2.50.



HISTORICAL ATLAS OF NEW MEXICO by Warren A. Beck and Ynez D. Haase. Geographical data, sites of prehistoric civilizations, events of history, first towns, stagecoach lines, historic trails, etc., are included in this comprehensive atlas. Excellent maps, index. Hardcover, highly recommended, \$5.95.

HISTORICAL ATLAS OF CALIFORNIA by Warren A. Beck and Ynez D. Haase. Extensive documentation and pertinent detail make this atlas a valuable aid to the student, scholar and everyone interested in the Golden State. 101 excellent maps present information on the major faults, early Spanish explorations, Mexican land grants, routes to gold fields, the Butterfield and Pony Express routes, CCC camps, World War II Installations, etc. Hardcover, extensive index, highly recommended, \$9.95.

THE CREATIVE OJO BOOK by Diane Thomas. Instructions for making the colorful yarn talismans originally made by Pueblo and Mexican Indians. Included are directions for wall-hung ojos, necklaces, mobiles and gift-wrap tie-ons. Well illustrated with 4-color photographs, 52 pages, paperback, \$2.95.

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LOST MINES AND HIDDEN TREASURES by Leland Lovelace. Authoritative and exact accounts give locations and fascinating data about a lost lake of gold in California, buried Aztec ingots in Arizona, kegs of coins, and all sorts of exciting booty for treasure seekers. Hardcover, \$5.95.

ON DESERT TRAILS by Randall Henderson, founder and publisher of *Desert Magazine* for 23 years. One of the first good writers to reveal the beauty of the mysterious desert areas. Henderson's experiences, combined with his comments on the desert of yesterday and today, make this a MUST for those who really want to understand the desert. 375 pages, illustrated. Hardcover, \$7.50.



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A HISTORY OF THE COMSTOCK SILVER LODE AND MINES, Nevada and the Great Basin Region, Lake Tahoe and the High Sierras, by Don De Quille [William Wright]. Gives an excellent description of Nevada mining, particularly in the period of its greatest productivity. Also includes history of the region, its geography and development. Hardcover, one of the "America's Pioneer Heritage" Series, 158 pages, originally published at \$6.95, now priced at \$2.95.

THE WESTERNERS by Dee Brown. The author follows the frontiersman into his heroic world—tells the story of early explorers, trappers, fur traders, Forty-niners, builders and operators of stagecoach and mail services, telegraphs and railroads—through the experience of a few influential, representative Westerners—white men, white women and Indians. Hardcover, beautifully illustrated with color and black and white photos, 288 pages, originally published at \$17.95, now priced at \$7.98.

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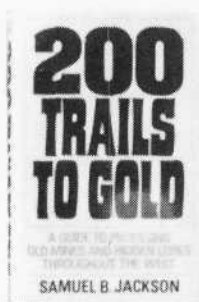
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200 TRAILS TO GOLD
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By Samuel B. Jackson

Rated by the pros as "one of the best," this comprehensive and authoritative guidebook is jam-packed with detailed descriptions of hundreds of gold-prospecting opportunities, the histories of past bonanzas, and stories of the still-to-be-located "lost mines." It is a colorful book that unfolds a fabulous wealth of opportunities for the modern pick-and-shovel prospector and the "armchair" adventurer alike.

Samuel B. Jackson has been involved in mining for over 20 years as prospector, grubstaker and mine owner. He has developed numerous mining properties, and, at the moment, owns two inactive mines in Yuba County, California, one of which he is putting back in production.

Starting with the Outer Deserts of Southern California, the author moves from region to region and state to state, covering every gold-bearing section of the United States. He personally scouted nearly half the localities mentioned, and documented the rest in his own unique

collection of mining lore, maps and records.

Following his detailed chapters on "California's Outer Desert," "West of the Orocopias," "California's Mother Lode," and "The Lonely Trans-Sierra," the author moves to "Around Nevada's Rim," "Through Central Nevada," on to "Western Arizona," "The Spanish Mines" and "Eastward in Arizona."

Jackson then covers New Mexico and Texas, the Pacific Northwest, Idaho, Wyoming, Utah and Colorado, followed by a short look at Alaska.

The Index, containing all mines, mountains, area, etc., mentioned in the book, will be of exceptional value to the reader.

Hardcover, 348 pages of thoroughly research material, illustrated, \$8.95.



THE CHEMEHUEVIS

By Carobeth Laird

Must reading for desert buffs is Carobeth Laird's *The Chemehuevis*, a landmark work on the life, language and lore of one of Southern California's least known Indian tribes. Homeland of the Chemehuevis stretched along the Colorado River, but the nomadic people wandered into Arizona, Nevada and Mexico, and as far west as the Pacific Coast.

Already, only weeks after publication, the critical kudos are coming in for *The Chemehuevis*, from laymen and scholars alike: "A masterpiece . . ." "One of the finest ethnographies ever written . . ." "The best piece of anthropological writing I've ever read."

The author, now 81, had to wait until late in life for recognition as a writer and scholar. Her first book, *Encounter With an Angry God*, published only last year, won rave reviews from coast to coast and established her as an exciting "new" literary talent.

The Chemehuevis is one of those rare discoveries: a piece of brilliant scholarship which is equally brilliant taken as a piece of prose writing. Mrs. Laird not only provides us with massive chunks of data on the linguistics of Chemehuevi language, on kinship systems, on place names and demography, but she retells the old myths of the people with the skill of a born Scheherazade.

The book is dedicated to the author's husband, George Laird, a Chemehuevi tribesman, who died in 1940 at the age of 69, and whose "life had spanned a thousand years and more of human development, from the end of the Stone Age to the beginning of the Atomic."

The author acknowledges her debt to her husband, who furnished nearly all of the information in the book. The material was gathered from 1919—when George became a language informant to the then Carobeth Tucker Harrington, a field assistant to her first husband, the eccentric linguist-ethnographer John Peabody Harrington—until George's death 21 years later.

The story of Carobeth, Harrington and George has been told movingly and wittily in the author's memoir, *Encounter With an Angry God*, reviewed in *Desert* in January, 1976. Carobeth left Harrington to marry George, but although the Laird couple continued their scholarly collaboration, Mrs. Laird was never able to find a publisher for their material until it fell into the hands of Malki Museum Press.

Working entirely with volunteer labor, Malki Museum Press of the Morongo Indian Reservation has put together a stunning book which is a fitting vehicle for Mrs. Laird's classic work. The design and topography by Melanie Fisch is outstanding. Maps by a cartographic team headed by Herta Caylor not only place Chemehuevi sites within modern context but trace ancient and mythological trails. Lynn Mathews-Clark has recreated the handsome decorations from Chemehuevi basket designs.

A glossary, index, place-name index and appendix to the maps, plus a forward by Harry Lawton, complete the value of the work as a reference tool. Malki Museum Press is to be congratulated on this outstanding achievement. Hardcover at \$15.00, paperbound at \$8.95, 349 pages.

Reviewed by Anne B. Jennings

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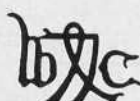
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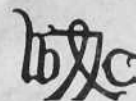
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ANZA-BORREGO'S CALCITE CANYON

by DAVID TILLERSON



THAR'S CALCITE in them thar hills" and near the eastern border of the Anza-Borrego Desert State Park "them thar hills" are known as the Calcite Canyon Scenic Area. This is a region of the park that contains immense mineral wealth, a wealth that is measured by the impressive quantity of Iceland

Spar calcite present under nearly every footstep. Rarely found elsewhere, this form of calcite is equally as beautiful as it is scarce. The Indians, who once populated the Borrego Desert some time ago, reportedly used calcite crystals as beads for necklaces.

Iceland Spar calcite is also known as

optical calcite due to its use in World War II in the optics of ring gun sights. It was the crystal's property of double refraction, the bending of light in two directions, that made it so valuable as an optical component. During World War II, Calcite Canyon became the primary source of optical calcite for the entire western hemisphere. Now deserted, the only evidence left of the calcite workings is a single mining structure, many old boards and the deep cuts left in the canyon's slopes by the equipment of the miners.

In addition to the interest of these mined areas, the surrounding landscape of Calcite Canyon is an equal attraction. Receiving almost negligible rainfall, the area is nearly devoid of vegetation. Deep ravines wind and twist their way through the local sandstone, products of the violent action of flash floods. These sunken



Calcite crystals found in the area display rhombohedral cleavage when fractured.

Calcite Canyon lies two miles up the Calcite Mine Road, off the Borrego Salton Seaway.

sidewalks offer vertical walls that reach skyward to 50 feet or more in places. If you crave that tranquilizing silence of nature, you've got it; and for the adventurous, you never know what's around that next turn in these winding barrancas. This is what makes Calcite Canyon such an attractive place to visit. It is an area that remains uncrowded, and seemingly forgotten.

The calcite crystals found in the canyon are a transparent form which display perfect rhombohedral cleavage. Calcite veins in this location occur in sandstone fissures with some of these reaching lengths of 300 feet and widths up to two feet. Although calcite literally covers some of the slopes in the region, these crystals were useless for optical needs because they were often discolored or too small. The trench-like cuts that scar the canyon, 78 altogether, were necessary to discover underground pockets of calcite. These pockets contained the larger and cleaner forms of optical calcite and could be found only at the intersections of calcite veins.

John Hilton, the desert writer and artist, along with a partner, Ralph Willard, were the first miners to extract calcite from the canyon in 1942. Lacking heavy equipment and discouraged by the effects of the desert heat and isolation, Hilton and a Mr. Heather, another claim owner, sold their mining rights to a large company, Calcite Operators, Inc., in late 1942. This marked the beginning of big time operations in Calcite Canyon. Heavy equipment was brought in and a Marine Corps water truck, along with a cook house, electricity and other comforts were provided. In April of 1943, construction of a two-mile dirt road was completed to the central mining area from the Truckhaven Trail. (In 1968, the Truckhaven Trail was paved and renamed the Borrego-Salton Sea Way.) About this time, a synthetic crystal was devel-

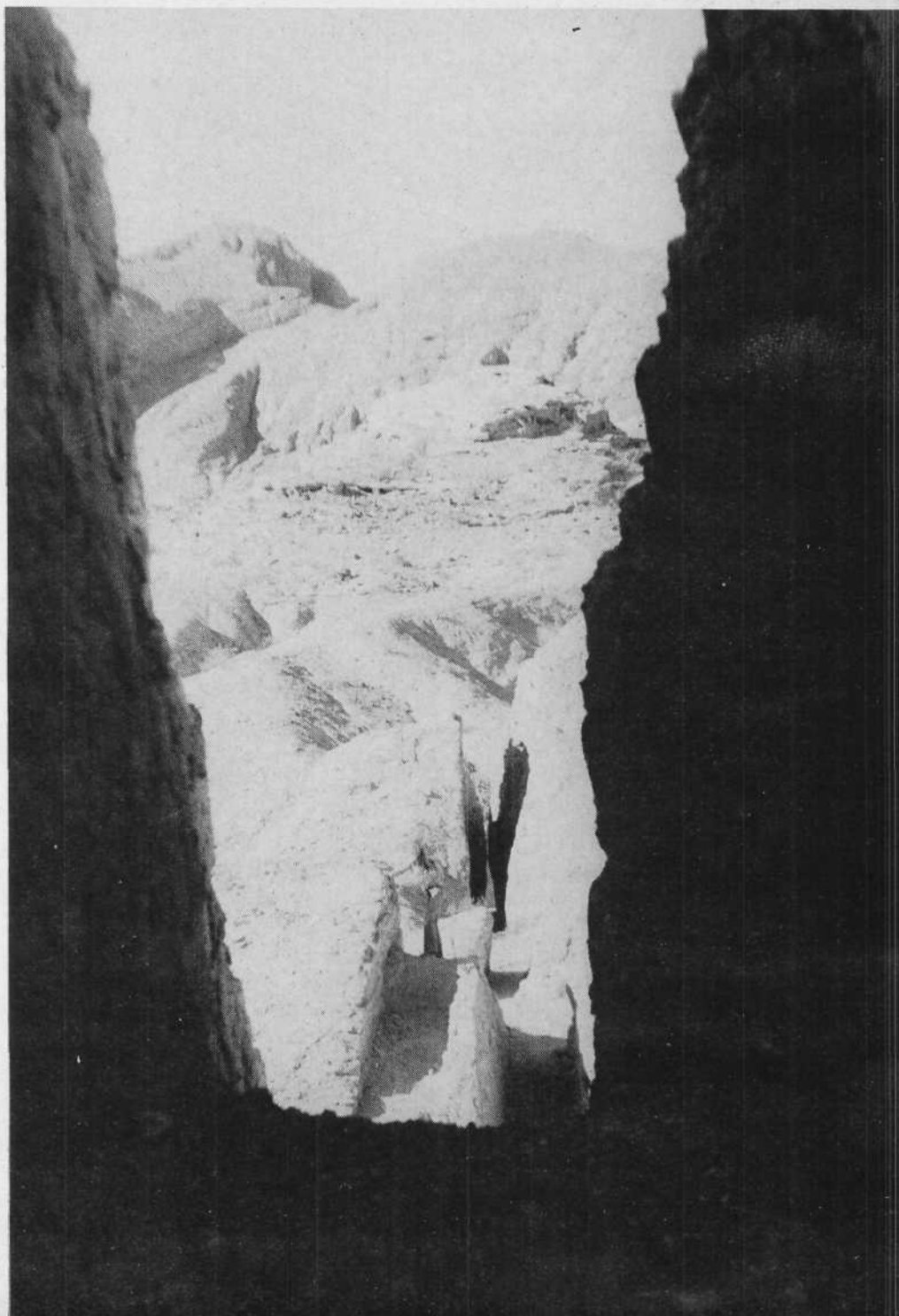
oped by Polaroid Corporation, manufacturer of optical gun sight components, and extensive mining in Calcite Canyon ended in October, 1943.

Calcite Operators moved to Montana, but in November of 1943, two of the corporation's employees, C. J. Frost and Robert Dye, after buying the claim rights, returned and continued mining on a small scale. The claim rights expired shortly thereafter, and the workings were abandoned. During the period of heavy mining by Calcite Operators, Inc., gasoline jackhammers were used to make the narrow cuts in the canyon's

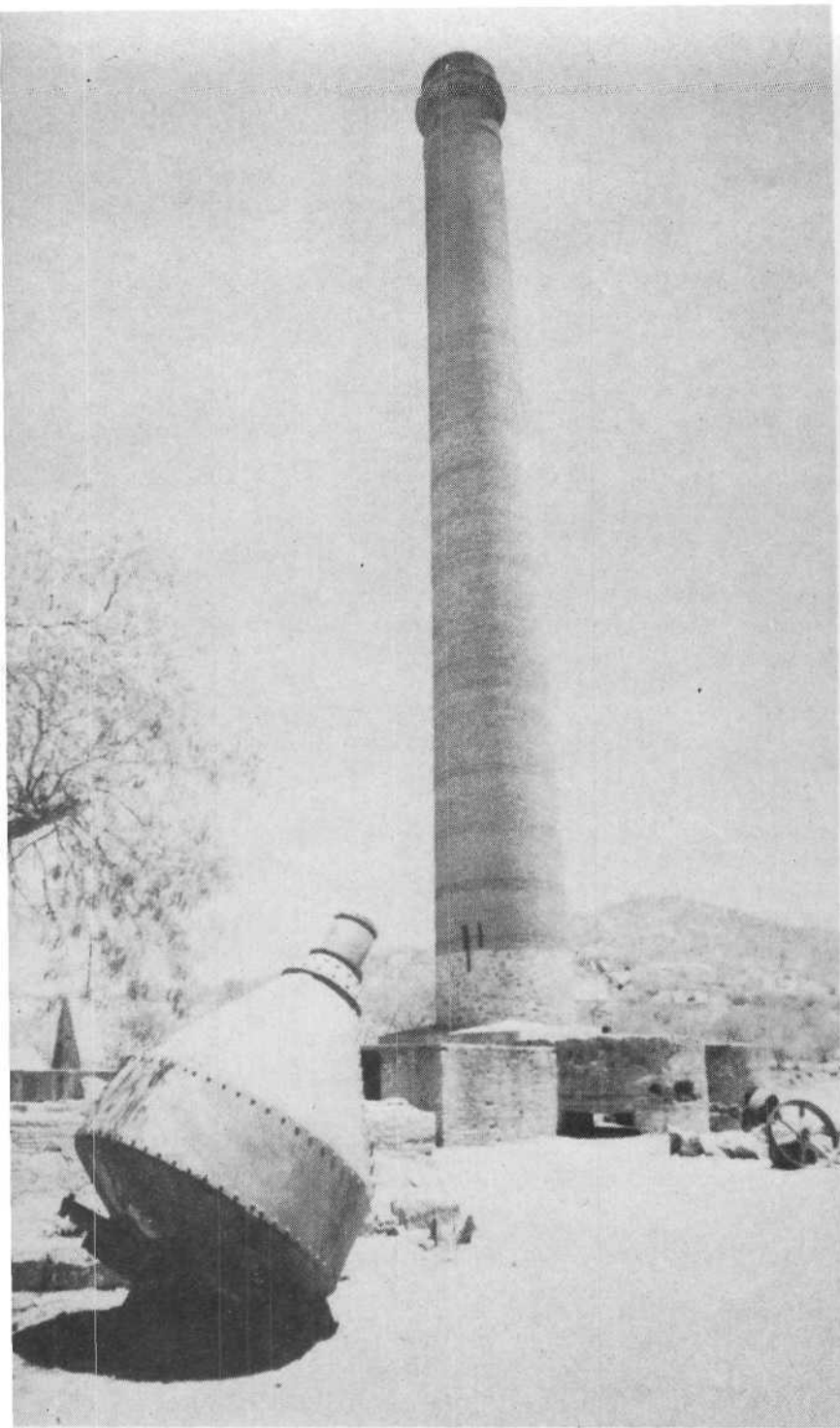
slopes. Due to a need for ventilation, operations never exceeded 50 feet in depth. For the last few months of mining, air hammers and explosives were used instead of gasoline jackhammers.

To reach these calcite workings and observe all this first hand requires that you find and conquer the old Calcite Mine Road. The Borrego-Salton Sea Way provides the access to the Calcite Mine Road turn-off, marked by a park sign that reads "Calcite Canyon." This obscure little sign is located 12.3 miles

Continued on Page 46



The trench-like cuts, 78 altogether, were made by explosives and by both gas and air hammers.



Boom Camps of Baja's Southern Cape

by STEPHEN VAN WORMER

photos by Jerry Klink

*Abandoned equipment lies
rusting at the base of the large
chimney, at the old mill site.*

**Baja California
has been the scene
of mining ventures
since 1740.
Here is a brief history
of two early day
boom camps.**

PEARLS, GOLD and silver—the three words have been almost synonymous with Lower California since that poor desolate peninsula was discovered early in the 16th Century. Although many dared to dream of making their fortunes in this barren wasteland, most met with failure. The harsh environment and hostile natives were too much even for the hearty and adventurous Spaniards.

One of the few men to succeed in amassing a large fortune on the peninsula where so many others had failed was Don Manuel de Ocio. He originally came to Lower California as a soldier during the time the Jesuits were in con-

trol of the peninsula. He married the daughter of Don Estevan Rodriquez, the captain of the presidio at Loreto, and thereby got into the favor of the Jesuit authorities.

In the early 1740s, he obtained permission to resign from the army and fish for pearls. Luck was with the ambitious ex-soldier and he soon became quite wealthy.

Not being satisfied with his success, Manuel's ambition soon prompted him to seek other opportunities, and in 1744 he began silver mining at Santa Ana in the mountains of the Cape Region.

The venture met with only moderate



success compared to his pearl fishing. However, others soon followed him into the hills and in 1756 a mine was opened at San Antonio a few miles northeast of Santa Ana.

A small town soon grew up in the bottom of the wide arroyo. Although mining continued, no real boom came and most of the people were poor. By the end of the 1760s the population of the district was estimated at around 600.

In 1768, the Jesuits were forced to leave Lower California by order of the Spanish Crown and with them went their unique form of government. The Jesuits had entered Lower California on the condition that all civil and military, as well as church matters, would be under their control. After they left, the Franciscan Order was asked to take over the missions, but military and civil matters became the affair of the Spanish Government.

The man who was to take control of the civil authority for the crown of Spain was Jose de Galavez. He arrived in Loreto on July 5, 1768 with special orders from the king to organize an expedition into Upper California. In order to obtain available missionaries for the expedition, he discontinued the Mission of Santiago

and in its place created two curacies, one in San Jose del Cabo and the other at San Antonio. San Antonio was put in the charge of Father Ibrazabal and the church that was built there during this period still stands today.

Galavez's next action, however, was a step backwards. He undertook mining for the Royal Treasury and so destroyed the initiative of private enterprise responsible for the small progress that had been made. Mining came almost to a standstill, and even though Indians from the Mexican mainland were brought over to work in the mines, little was accomplished.

During the next few years the winds of change began to blow across Mexico and the whole Southwest. The Spanish Empire pushed its colonization efforts further northward, establishing settlements in Upper California, Arizona, New Mexico and Texas. Then, in 1810, Mexico declared its independence from Spain and after years of bitter fighting finally cast off the Spanish flag in 1821.

Mexico's glory was short-lived, however. In 1836 she lost Texas, then in 1846 engaged in a war with her rapidly-expanding northern neighbor and lost almost half of her remaining territory.

Crumbled buildings along one of Triumfo's main streets.

Except for the occupation of her towns by enemy troops during the war with the United States, Lower California remained almost unchanged during this period. The missionaries were long gone, but the mining in the San Antonio district continued on a small scale despite the setbacks of Galavez. It was reported that by 1860 just under a million dollars had been taken out of the area.

In the early 1860s, 20 San Francisco mining companies were incorporated to exploit the mines of San Antonio and the El Triumfo mine lay just across the mountain to the north of San Antonio near the village of Las Casitas.

The El Triumfo Mining Company began work in 1862. The mines at San Antonio had limited success while the Triumfo mines, on the other hand, were quite successful and a boom era soon followed. The small town of Las Casitas prospered and became known as El Triumfo after the mines. For the processing of the ores, a 24-stamp mill was brought in from the States and erected at El Triumfo, while at San Antonio a

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smaller five-stamp mill was put into operation.

By the turn of the Century, the El Triumfo Mining Company had gone, and the El Progreso Mining Company, still backed by American capital, was running the mines. El Triumfo had grown to a town of some 3,000 people, with the mines employing around 700 men. A very large mill was in operation and a narrow gauge railroad brought ore from across the mountain at San Antonio to El Triumfo to be processed. Prosperity continued for the small community even during the decade of 1910 to 1920 when Mexico was once again torn open by revolution, although some fighting did take place at El Triumfo.

In the mid-1920s, El Boleo, the French company that had developed the copper mines farther north at Santa Rosalia, took over the mines. They eventually left, however, and in later years Mexican corporations moved in to the area. The last company to work the mines was the La Perla Mining Company which closed down in the mid-1950s bringing to a close over 200 years of mining activity in



*Scattered rubble
and old
slag piles
almost hide
the old church
[right]
from view.*

the district.

El Triunfo today is an almost deserted town about an hour's drive south of La Paz on the highway to Cabo San Lucas. Most of the buildings are still standing, including the town hall and the church. Among the unique features of some of the buildings are wooden floors of tongue and groove planks and roofs of redwood shingles. Both the flooring and the shingles are nailed with square nails.

Besides the town there are the extensive ruins of the milling operation. Although the actual mill is gone, the large furnaces and the towering brick smoke stacks are still standing and the rusted remains of an old steam engine and other equipment are strewn around.

Continuing on over the mountain to San Antonio the old narrow gauge railroad bed can be seen where, in many places, it parallels the modern highway. One of the curiosities of the old railroad course are the arched trestles, constructed entirely of brick, where the tracks were forced to cross the narrow gorges. They can be seen from the highway in several places.

San Antonio, although the older of the two towns by a hundred years, still has a fair-sized population. The old stone church on the plaza is the one that was built by the orders of Galavez and its founding date precedes that of the oldest of the Upper California Missions by a few months. Although most of the buildings look as though they were built during the boom times of the El Triunfo and Progreso companies, some of the older ones off the plaza appear to be from the colonial era.

Both towns are on a paved, well-traveled highway, but they are seldom visited by tourists. For the ghost town and mining camp buff, they are well worth the time it takes to stop and look around.

The towns are picturesque, both in setting and construction. The thick-walled, straight-faced Mexican buildings are unique for anyone who is used to the false front and brick structures of areas like the Mother Lode country, or the few tumbled-down shacks and bare foundations that unfortunately are all the remain of so many of our Southwestern ghost towns.

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Backpacking Down The Virgin River

by RUTH CAROL CUSHMAN

MY HEAD dangled backwards into the river. One leg remained looped over a fallen tree. My backpack prevented any useful movement. How, I wondered, did a middle-aged woman ever get into such a situation?

The situation was a backpacking trip down the Virgin River from the headwaters through the spectacular canyon called "The Narrows" to the Temple of Sinawava. I was soon rescued from the above ignominious position by my husband Glenn, and we continued on our way.

Hiking the river is not really an arduous trip by the standards of the experts, but it is somewhat strenuous, and it does take some advance planning. Good hikers can "do" the upper part of the river in a day. However, we wanted to savor the experience and to absorb the atmosphere and that takes time.

We first started thinking about the trip when we visited Zion National Park in

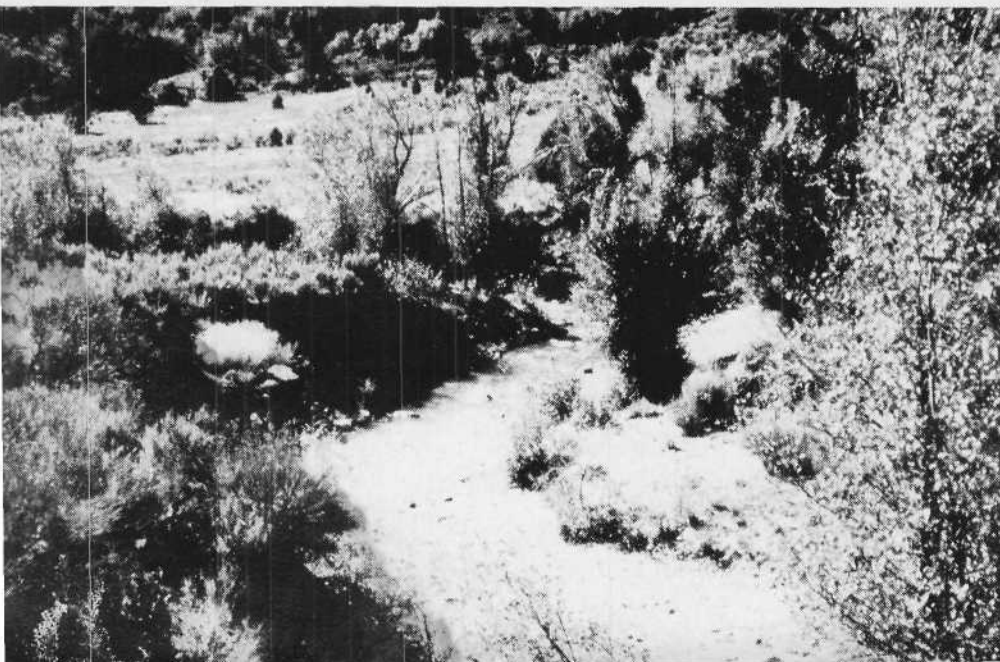
1970. We had taken all the day hikes to the east and west rims, to Angel's Landing, to Weeping Rocks, to the Emerald Pools, to the waterfalls, and finally to the end of the trail at the beginning of the Narrows of the Virgin River. There we stopped. It was May, the waters were too high, and we were not prepared for a backpacking trip. But we vowed to come back.

In September, 1973, we were back. According to the brochures September is the ideal month to hike the Virgin River as the danger of flash flooding is past. This is a very real danger in July and August, and at that time of year the park officials discourage hikes in the canyon. September is our favorite month for a vacation, anyway, because of the splendor of the fall foliage, the crispness of the weather and the lack of crowds. So for months we had been looking forward to exploring the upper regions of the Virgin River.

The day before we arrived it started to rain. We hopefully donned ponchos and splashed into the park headquarters. "Well," said the ranger, "I won't forbid you to go, but I don't advise it either." Being a timid soul and afraid of things like flash floods, I prevailed on Glenn to delay the trip for a few days until we could see what the weather would do. We took a detour to the North Rim of Grand Canyon, hiked down to Roaring Springs and Ribbon Falls, and when we returned to Zion a week later, the weather was perfect.

Logistics for the trip were not difficult to arrange. We had studied the USGS map before leaving Boulder and had all the necessary gear (packs, tent, sleeping bags, extra clothing and food) with us. We checked in with the ranger who gave us fire permits and estimated the distance to be about 12 miles. Next we stopped at the lodge in the park to arrange for transportation to the headwaters at Chamberlain's Ranch as we planned to leave our car at the parking lot where we would eventually emerge. At the lodge the distance down the river increased to 17 miles. As we bumped over the pot-holed road leading to our jumping-off point, our driver emphatically declared the distance was at least 21 miles. Naturally, at the end of the trip we agreed with the latter estimate. Although the maps show that the park estimate is more nearly correct, the map-makers do not allow for the hundreds of times you criss-cross the river instead of hiking straight down the center or for the excursions into intriguing side canyons.

The trail down the Virgin River begins in a peaceful cow pasture.



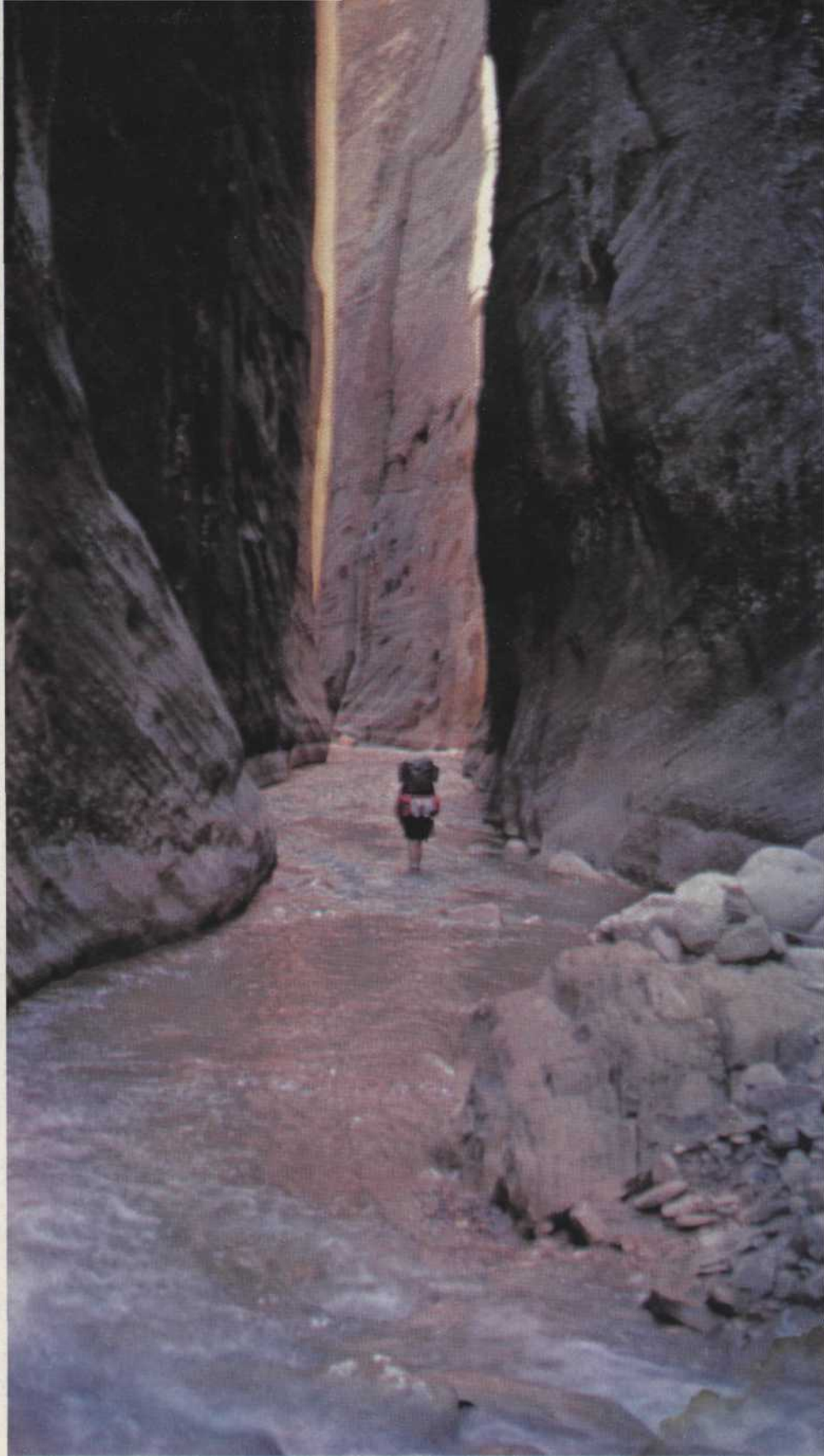
"The Narrows" become narrower and narrower as the author hikes her way down the Virgin River.

The hike started in an open pasture, and the river was no more than a mild-mannered stream meandering through flat grassy meadows. It was a pastoral scene with cows grazing along gentle stream banks covered with golden tamarisk and scarlet service-berry. For a while we followed an old road which dwindled to a trail and finally disappeared into the bed of the river. Occasionally a portion of the trail would appear along the riverside or over a hummock, but most of the time we simply hiked in the river itself.

At first the water barely came over our boot tops and we wasted a lot of time jumping from rock to rock trying to keep our feet dry. Soon we resigned ourselves to wet feet and took the line of least resistance, splashing down the middle of the river. Usually the water level varied from boot-top to hip depth and was cold — so cold that I wore painful blisters the second day out without realizing it. Fortunately, the cold anaesthetized my feet the following day also so I could continue to hike (with the help of mole skin) in spite of blisters.

Blisters bring us to the subject of foot wear. We are firm believers in good boots for all kinds of hiking. Some people hike the river in tennis shoes, but it sounds like a grim trip. We needed not only the support of a boot above the ankle, but we also needed stout walking sticks to keep from slipping on the slime-covered rocks in some parts of the river. Boots also help make the weight of a pack easier to bear and are useful in boulder hopping. For this type of hiking old, dilapidated boots are ideal; after three days immersed in water they are no longer fit for much except gardening duty.

Altogether we spent three nights and three and one-half days along that short stretch of river and found it both more challenging and more awesomely beautiful than we had ever imagined. The gentle creek banks soon gave way to towering, blue-black canyon walls that shut out the sun all but an hour or so a day. In the "Heart of the Narrows" these magnificent walls often rise to heights of two thousand feet and are so narrow that



when we held hands in the middle, we could touch the walls on either side. There are two segments of the canyon which are called "The Narrows." We had seen photographs of them and thought the walls exaggerated both in

height and color by good camera angles and filters. They were not.

Both stretches of the Narrows last for about two miles before opening up again into a more conventional type of canyon with orange or beige walls of Navajo

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Tapestry adorns the canyon walls: a bit of Venice in Utah.

sandstone decorated with the "tapestry" typical of most canyons in the Southwest.

This tapestry of varnish is actually a black mineral deposit of intricate design left behind by water streaming down the walls. The danger of flash flooding is acute in the Narrows during the rainy season. The canyon walls are sheer and there is no place to escape the wall of water that comes without warning. So we were thankful for blue skies even though we caught only rare glimpses of sunshine from the canyon depths.

Rivaling the beauty of the canyon itself were the brilliant crimson maples edging the river. Every bit as vivid as New England's display, the maples stunned us by their unexpectedness. We were prepared for the yellow glory of the aspen and for the softer yellow of the mountain maple, but we were not prepared for the Utah maple. As I rested in one glowing grove I felt as though I were inside a rare gem surrounded by translucent ruby light. As we dropped lower into the canyon the reds gave way to yellows and eventually to greens at the lowest altitude. Throughout the canyon the vegetation was lush and contrasted against the stark walls of the canyon.

During our brief sojourn along the river we met only three other people until we approached the paved trail in the park where we found a scattering of other hikers. One of our warmest wilderness memories occurred the second day out when we met a couple hiking up the

canyon. In knee-deep water we stopped to chat about our experiences. I lamented that we had brought along only the very slowest film since we were accustomed to the bright light and general brilliance usually found in the canyons of the Southwest. In the dimness of the over-shadowing Narrows we were forced to take photographs at a 15th of a second, and even at that slow speed, the light meter sometimes registered no light. Upon hearing our plight the young man presented us with a roll of extrafast film that he had rolled himself. Every time we see the slides from that trip we remember that couple and are grateful for the lasting pleasure they gave us.

Slowly we made our way down the river. We spent one morning investigating one of the side canyons, Deep Creek, and were struck by the contrast between the pure green water of Deep Creek and the anything but virginal appearance of the water in the Virgin River. We detoured around a thundering waterfall. We passed more side canyons: Kolob Creek and Goose Creek. We rested in "The Grotto." We refreshed ourselves with sparkling water at Big Springs. (The normal procedure is to forget about germs and drink the river water or to catch water from the seeps in the rock so the fresh water from Big Springs was a genuine treat.) We camped in a pine forest, on a sandy bank, and on a cozy ledge high above the river. And finally we came to the spot I had been dreading.

About a half mile before the junction with Orderville Canyon there is a channel where the water is quite deep. The young man who gave us the film had warned us about it but added, "It's only chest high." Since I was only chest high to him, I was not reassured. As the water deepened I tried crawling out on a fallen tree to reach a more shallow spot and in my nervousness fell over backwards. And that was how I landed upside down in the river.

My next achievement was to step out into water over my head. Feeling like a turtle with the pack riding firmly atop, I managed to dog paddle back to where I started. Glenn finally found the chest-high channel and carried both packs held high overhead while I swam alongside. The third person we encountered during the trip appeared at this point. He looked decidedly bemused as I swam past.

Our bodies, our clothes and our packs were dampened by the experience, but not our enthusiasm. We explored Orderville Canyon and enjoyed the relative warmth and shallow depth of Orderville Creek. By now we were out of the true Narrows but the remaining few miles were not anticlimatic. The vegetation—especially the fern—became even more luxuriant; the seepage on the walls transformed them into shimmering silver and gold in the late afternoon light, and the "tapestries" became ever more sumptuous and ornate.

As we emerged dripping onto the paved path leading back to the Temple of Sinawava, we were greeted by an elderly man who made us feel like brave and adventuresome souls. We enjoyed the feeling, but of course it isn't true at all. It doesn't take bravery or derring-do or great physical strength or prowess to make a trip like this. All it takes is a trusty pair of boots, a little equipment, a moderate amount of stamina, some common sense, and most of all, a desire to experience with all your senses a truly awesome work of nature. □

Note: Topographic maps of the Virgin River within the park boundaries and the area three miles north are available from the Zion Natural History Association, Zion National Park, Utah for \$1.50 plus 25c postage, or they may be purchased at the park visitor center.

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McMillen's Centennial

by SHAWN DENNIS

NORTH OF Globe, Arizona, just nine miles, within sight of U.S. 60, McMillen is celebrating its Centennial, yet many pass by not seeing the ghost town.

Travelers pull into the roadside rest with its large concrete table, roofed with palm fronds and read the historical marker which tells of Charles McMillen, veteran prospector, and his tenderfoot partner, Theodore Harris, who discovered the silver ledge, the richest in the country, on this eastern slope of the Apache Mountains. Looking westward the brown hills, cloaked in chaparral and mesquite, with splashes of wild flowers, stretch on to the purple serrated peaks, but there's no sign of a ghost town.

The reason is two-fold. Several years ago, U.S. 60 was moved eastward in this area due to washouts. In addition, The Marker should be .3 mile farther north. Just south of the bridge spanning Seven Mile Wash is McMillen's Main Street. A

road to the east, about 40 feet long, leads to a gate beyond which stands a large tree sheltering a concrete-covered grave. The grave was robbed of its sandstone marker, the wooden fence fell to ruin. The name of the miner's six-year-old daughter has been lost, and old-timers can't agree if she died of diphtheria or snake bite.

Directly opposite, on the west side of U.S. 60, Main Street continues, and .1 mile west a portion of the old adobe assay building is visible from the highway. Mountain brush, prickly pear cactus and wild flowers usurp part of the road, once Main Street, where freight wagons rumbled. To the left is the assay building, its tin roof blown off. One wall has fallen, leaving the fireplace standing as if to warm the world. From the front door are visible other windowless adobes. Just beyond, a remnant of the crusher lies by the stone wall. On the hillside are mounds of adobe attesting to

houses leveled by onslaught of wind and rain. Up the road to the left is the shaft of the fabulous Stonewall Jackson Mine, protected by a gate lest visitors meet with disaster.

Cottontails frisk by as old-timers pay a last farewell, or an eagle-eyed mining engineer scans the terrain, for it's believed that the main vein has never been touched. There might even be a ghost or two from that long ago.

A hundred years ago, in late February, the hills were silent as Charles McMillen and his young partner, Dore Harris, rode from new Globe City toward the Mogollon country to prospect for gold. They had a handsome outfit of two well-laden burros and saddle horses. There was just one problem. Charlie had imbued too much tarantula juice in new Globe City the night before. Now the afternoon sun beaming down made him sag in the saddle.

"Dory, gotta stop. Gotta take a nap,"



he mumbled as he slid from his saddle.

"Gosh, no!" protested young Dore.

"Come on! You can sleep when we get to our camping spot. It's only a couple miles to the spring."

Charlie just sank in the middle of a little stand of cedars and a snore was the only answer.

Harris, who didn't drink, muttered a few epithets about booze as he took care of the horses and burros, then walked a ways. Seeing little of interest mineral-wise, he sat down on the ledge, green with moss. The sun was hedging toward the serrated peaks. Disgustedly, he struck an outcropping with his pick and it stuck. That didn't make him feel any better. Trying to get it out a chunk of rock broke off. Dore was about to fling it away in sheer irritation when he realized it felt heavy. It was laced with some kind of ore. Lead perhaps. Charlie would know.

Charlie was just turning to a more comfortable position when Dore proffered his find. He gave it a bare glance, muttered something and turned to go back to sleep, then suddenly sat up. "Let's see that sample again."

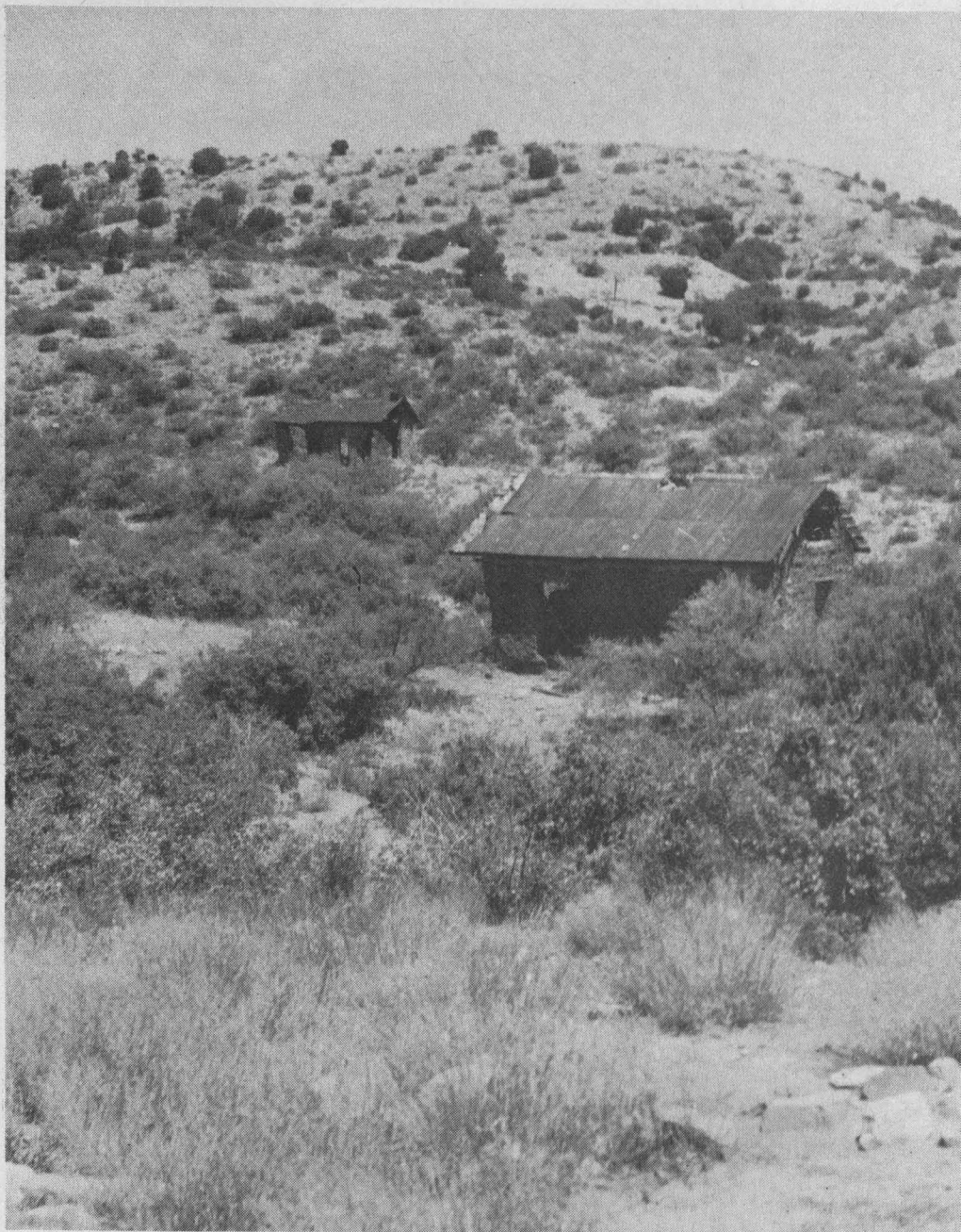
Dore handed him the rock, and Charlie looked up thunderstruck. "Dory!" he bellowed. "We've hit it! It's native silver. Whar in hell did you find it?"

They staked out their claim, and in Phoenix filed it on March 6, 1876, naming it The Stonewall Jackson, which was to become one of the richest silver mines in the country. (The Historical Marker erroneously lists it 1874.)

Arizona was a hard land scourged by Apache, yet as news of the strike spread, men began flocking to the new camp. On the heels of miners came tradesmen with families. Then came the gunmen and gamblers. A town was born, and named McMillenville, for the grizzled prospector.

In six weeks a wagon road was made through Seven Mile Wash by way of Rice, linking McMillenville with the Likewise new camp of Globe City, 18 miles southwest. The Indian Trail, much of which U.S. 60 follows, was a horseback route not possible for freighters.

Dozens of sturdy adobes were built, some to serve as stores, gambling halls and saloons, whose doors would never be locked. Frame and adobe houses dotted the hillsides and both sides of Main Street which followed The Wash.



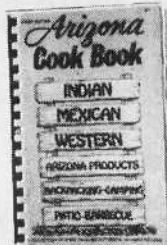
Opposite page: The Assay Building of the McMillen Mining District. Above: Double-walled adobes stand on the juniper-dotted hills of the Apache Mountains.

New mines were being developed in the surrounding hills, but none as rich as the Stonewall with a ledge of silver traceable for 10 miles. According to *The Arizona Citizen* of July 7, 1877, the shaft of the Stonewall was down 52 feet, and a drift was being run each way along the vein which boasted a streak of almost pure silver. Some almost pure silver, one and one-half to two inches thick, and three to four inches wide, was chiseled from a pay streak. Slabs usually adhered lightly to the compact greenish syenite, and were easily removed with a chisel. Deeper, high-grade chloride ore accompanied the pure silver.

According to the foreman, every sack of ore was worth from \$1000 to \$1200. From 10 tons of average ore mined that summer, 6800 pounds, hand-sorted for exhibition in San Francisco, assayed over \$19,000 per a ton, averaging \$9.50 for each pound of material.

In August, after McMillen and Harris had taken out about \$60,000 of silver, they sold the Stonewall to mining men from Santa Rosa, California for \$120,000. Soon after the sale, a friend told McMillen that a certain mining company would have paid \$250,000. McMillen stroked his handle-bar moustache, his penetrating eyes looking into space. Perhaps he

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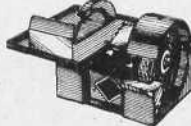
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reflected \$60,000 in his pocket was better than the mine in case Uncle Sam stepped in. The entire ledge was on the San Carlos Indian Reservation. The operation was illegal. However, he replied that money had no real value, only a comparative one. "I was dead broke when we made the strike. Couldn't be trusted for a slice of bacon, and had to sit in the shade while the one shirt I possessed was drying. I wanted the money to develop my other claims. Now I have it."

There's no record of his opening any mines. Shortly after he left for San Francisco, where in a few months he drank himself to death.

Meanwhile young Harris, a well-educated Easterner, went to San Francisco, and bought a seat on the Stock Market. In 90 days he lost his entire fortune and returned to Globe where he took a job washing dishes in a cheap hash house. He got religion, joined the Salvation army, and married a lassie. Eventually he moved to Miami and had a little plot of ground he farmed.

McMillenville boomed. A post office was established November 12, 1877. The following year the town became plain McMillen. Work at the mines went on at a feverish pace to get out as much silver as possible before Uncle Sam got around to protecting his Indian brothers.

By 1878 the population had swelled to 1500, and McMillen was a supplier for all nearby mines. The Hannibal, Robert E. Lee and Washington were all on the Stonewall ledge. The Democrat and Little Mack were on another spur which entered the main vein. North, east and west of town was a network of veins of medium grade ore, some of which couldn't be worked due to cost of material. Not only was machinery costly, but lumber hauled from the Pinal Mountains was \$100 a 1000 feet, flour and beans \$15 a hundred pounds.

There were no smelters in the area. Ore had to be freighted 100 miles over rough mountain roads to Casa Grande, then shipped to San Francisco. Then in 1879 Superintendent Tidwell's five-stamp mill arrived and things hummed. In 1880 it was succeeded by a 20-stamp mill and a steam hoist. In addition, the Southern Pacific Railroad came through Arizona Territory. Freight wagons, laden with silver bullion instead of ore, rumbled on to Casa Grande. Other



freighters hauled wood for boilers and salt for amalgamation from the Cox Brothers who evaporated it from a saline spring.

McMillen soon rivaled Globe. At the head of Main Street stood Pete Tompkins' two-story adobe hotel. "Patrons will always find a table supplied with every delicacy of the season," he advertised. In two months the trade outgrew the building, so he enlarged his diggings, changed the name to Hannibal Hotel, and added a "First Class Corral" and "Grocery Store."

Next door was Kellner's Merchandise, then the Hannibal Saloon, the largest in Arizona. There were other thirst parlors, stores and bawdy houses. The three Blacksmith Shops did a thriving business, as well as the Carpenter Shop, Bakery, Barber Shop, Pat Shanley's Freighting and Ah Moon's Washee House.

McMillen had everything except a school or church. Children were taught in homes. Church services likewise were held in homes when an itinerant minister came through town.

In 1880 mining operations came to a sudden halt by Uncle Sam's order. It was San Carlos land. Consternation and anger rumbled instead of freight wagons, but not for long. The 12-mile-strip was cut off from the reservation by Congressional Enactment. Once more blasting



*Irene Hastings examines
a remnant of the stamp mill.*

echoed from the mines, bullwhips cracked and mules brayed to the tune of freighter's curses.

McMillen, in spite of its look of permanence, was a man's town. On Christmas night, 1880, a pine tree was laden with gifts for men only, chiefly dynamite, fuse caps, whiskey and tobacco.

McMillen had its share of excitement. There was quite a stir after Munson stopped to rest on the McMillen-Richmond Basin Trail and carelessly struck his pick into a boulder which turned out to be silver. The Munson Chunk yielded \$3500.

Even late as 1893, a 31-pound nugget was found by Leroy Ikenberry, and some Indians molded bullets of silver to battle the white man. As one old-timer put it, "Poetic justice. The silver's on Indian land. We wanted it, so they're givin' it to us."

In early 1881, McMillen was buzzing again, but this time with the anticipation of being the county seat of Gila County, newly-formed from a slice of Maricopa and Pinal counties. However, George Hunt lived in Globe and he had political aspirations. There were speeches, stories of advantages—pressures. Globe became the county seat, and Hunt later became the first governor of Arizona.

Ironically, the first years of Gila County saw McMillen's decline. The post office closed its door October 12, 1882. By

1885, after over \$3,000,000 of silver was taken from the McMillen District, the silver was exhausted. Only seven of McMillen's claims were registered and in operation by 1887. Businessmen pulled up stakes and went to Globe. Frame buildings and homes were moved to Globe where two still stand. Globe's Old Dominion Mine, too, lies idle, filled with water, but the town of over 24,000 has ample motels and trailer courts for travelers.

McMillen, by 1890, had only a handful of families waiting for a revival. The men worked little claims making a day's wages.

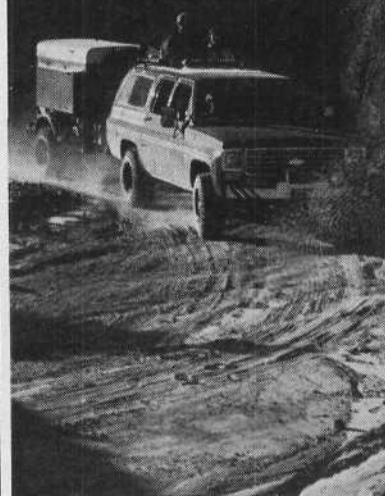
In 1908, when teen-age John Mercer went along with Pat Shanley and his sons to get horses from the big Shanley spread north of McMillen, there were only half a dozen places occupied. Weather was taking its toll. Sage and mesquite were covering the ore dumps. The lonely cry of coyotes replaced the jangling piano and laughter from the saloons.

In 1912, a new spark ignited hope. A favorable report was made on the McMillen Mine property by R. B. Wayne. Then, in 1914, the property was bonded to G. N. Hayes and explored by diamond drilling. However, due to the broken nature of the terrain, this proved unsatisfactory. The mines lie idle, the vein still waiting to be found.

Uncle Charlie Newton, last resident of McMillen, never gave up hope. The walls of his house were papered with editions of *The Arizona Silver Belt* of the early 1880s. Forty-six years, weather permitting, he sat on his porch, smoked his pipe and waited for McMillen to come back. In January, 1929, he crossed that last ridge to find his bonanza in *The Beyond*.

McMillen is drifting rapidly now into the arms of Mother Earth. This is its Centennial—its last stand. You might find a square-cut nail from someone's house, or a piece of green syenite with a trace of silver, a reminder of that long ago. There will be no rumble of freight wagons, only the wind sighing in the junipers while the birds and cicadas sing the requiem. □

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THE NEW OLD MORMON

UST A few years ago Iron Mountain Road was little more than a dusty, single-lane trail through the Eldorado National Forest. Now, to commemorate its past, it has a new name—the Mormon-Emigrant Trail—and a new look.

For almost 25 miles, from its beginning at Sly Park, a popular El Dorado County camping and recreation spot, to its junction with California State Route 88 in the scenic Silver Lake area, the new alignment cuts a wide, straight swath through the pines. At present, all but the last four miles have been paved.

Historically, the route is significant because it was blazed by the first wagon train to cross the formidable Sierra Nevada Mountains from west to east. That's right—west to east—out of California!

While in the east thousands with gold fever hastily outfitted for the long journey westward, not far from the gold discovery site a small group, less than a dozen men, gathered to calmly discuss plans of another nature, plans for leaving California. All the men were former members of the U.S. Mormon Battalion. Their destination was the Great Salt Lake Valley.

The Mormon Battalion had served as a peace-time occupational force in California following the Mexican War. Some of the Mormons had returned to Salt Lake in 1847 just after their discharge, but others stayed on, finding work in various enterprises of Captain John A. Sutter's growing empire. Seven of the ex-soldiers assisted in the building of Sutter's sawmill at Coloma and were on hand when gold was discovered in the millrace on January 24, 1848.

But by the spring of 1848, almost two years had passed since the remaining former Battalion members had last seen their families and friends, and although they had met with moderate success panning along the banks of the American River, they also were anxious to return to Utah.

Word of the planned exodus was sent out to other Mormons in California. A fertile valley in the Sierra foothills, about seven miles southwest of the



present day town of Placerville, was chosen as the assembling point. That rendezvous site still bears the name bestowed upon it by the Mormons, Pleasant Valley.

The trek's organizers had decided to try to find a shorter route across the Sierras than the already established and more northerly Truckee route. June had been set as the departure time, but an advance exploration company of eight men starting out on May 1st found deep snow in the mountains and decided to postpone the journey for another month.

On June 24th, three of these men,

Captain Daniel Browett, Ezra Allen, and Henderson Cox, again set out to find a route over the Sierras. A week later the scouts had not returned, but the group was ready and determined to get underway. By now the full company numbered 45 men and at least one very plucky woman, Melissa Coray, the wife of a sergeant who, with her husband, had marched all the way to California from Council Bluffs, Iowa. The caravan, consisting of 22 wagons drawn by oxen, followed by some cows and calves, and a band of horses, pulled out of Pleasant Valley on July 2nd.

ON-EMIGRANT TRAIL



by
**BETTY
SHANNON**

Editor's Note:
This road is a fair weather highway and is not cleared during snow season. Readers anticipating travel during inclement weather must check with nearest highway patrol.

*Sly Park
[Jenkinson Lake]
in the winter.*

The Fourth of July was celebrated by firing a small cannon, one of a pair which John Sutter had given the Mormons as partial payment for their services. Sutter had obtained the cannons when he purchased Fort Ross, on the California coast, from the Russians.

By this time the wagon train had reached a lush meadow through which a sparkling stream flowed. Since there was abundant grass for their livestock the group decided to camp here while a search party attempted to find the three missing scouts. The site of the encampment was named Sly Park, after ex-Pri-

vate James C. Sly, one of the members of the first exploration party.

The searchers returned nine days later, having discovered no trace of the three men. However, they did have some good news. They had located a reasonably good pass, but it would require extensive road building to accommodate the wagons.

From Sly Park the wagon train climbed the heavily-timbered mountain side to Iron Mountain Ridge. The company's captain had decided to follow the contours of the ridge, the divide between the South Fork of the American River

and the Consumnes River, but even so traveling was laboriously slow. The country was rough, the forest was dense, the brush and rocks gave the wagons a dreadful beating.

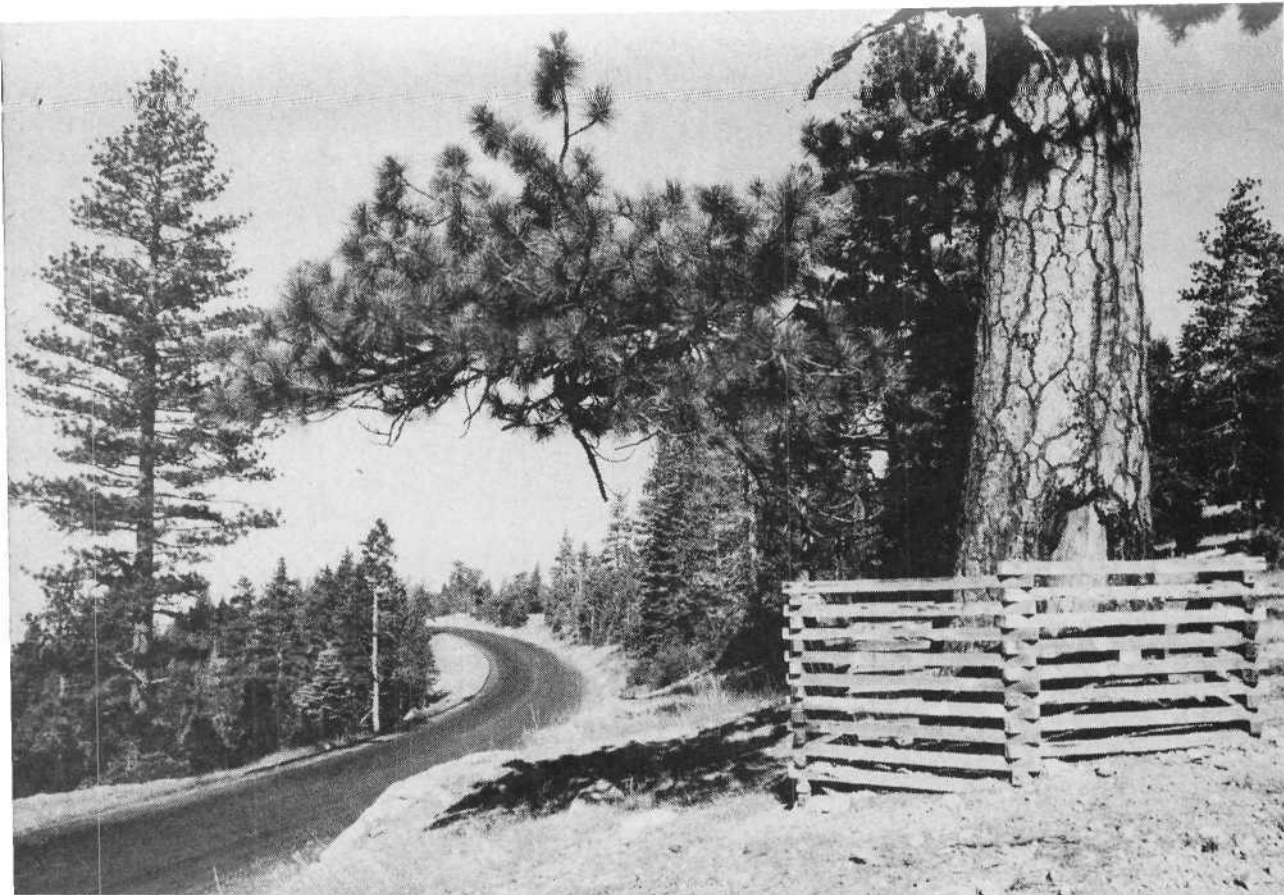
By July 20th, the Mormon wagon train had covered a distance of about 39 miles. They had reached a bubbling, mountain spring where, curiously, there was evidence of a recent campfire and a freshly-made mound. While camped there members of the group looked around and found a double pouch of gold flakes. It was identified as one that had been carried by one of the missing scouts, Ezra Allen. Fearing the worst, the pioneers opened the mound and discovered the naked, mutilated bodies of their missing companions.

The site was solemnly dubbed Tragedy Spring. They reburied the bodies in a common grave, piling stones around and over it. A granite boulder was moved in place to serve as a headstone. On a nearby fir tree one of the grief-stricken trail blazers carved the words: "To the memory of Daniel Browett, Ezra H. Allen, Henderson Cox, Who was supposed to have been Murdered and Buried by Indians on the Night of the 27 June 1848."

Today, the Daughters of the Utah Pioneers, in cooperation with the U.S. Forest Service, have made Tragedy Spring into a pleasant roadside park. There are picnic tables, a drinking fountain, trails, historical markers and, of course, the grave. The memorial tree toppled during a storm in 1929, but that portion of the stump bearing the inscription was preserved and can now be seen in the Gold Discovery State Park Museum at Coloma.

From Tragedy Spring the Mormons' route crossed present-day State Route 88 and skirted around the east side of scenic Silver Lake Basin. This is high country; it is still the domain of hikers and off-road vehicle enthusiasts. At one point the trail reached an elevation of 9,640 feet.

Seven days after leaving Tragedy Spring an advance crew completed the last stretch of road needed to carry the wagons across the mountains. The descent from what is now known as Carson



The '49er tree, a 200-foot-tall Ponderosa Pine, and the new Mormon-Emigrant Trail.

Pass was steep and slow, but the men knew that the worst was over. They had challenged the Sierra Nevadas and won!

The feasibility of the new route was further demonstrated when, on August 3rd, a month and a day after its departure from Pleasant Valley, the wagon train was overtaken by a party of 13 more Mormons with pack animals. The late-arriving group had left the mines a mere five days before.

The wagon train continued in a northeasterly direction, intercepting the old Truckee Trail in the vicinity of Nevada's Humboldt Sink. They then followed the established route the remainder of the way to Salt Lake Valley, arriving September 29, 1848. However, while the Mormons were camped along the Humboldt River, a party of 18 westward-bound wagons rolled into their camp. The next day on the trail they met an even longer train of Argonauts heading for the gold fields. Road information was exchanged with the two groups, and it is believed both wagon trains followed the new trail into California.

From that modest beginning, the flow of emigrant traffic via the Mormon or Carson Road, as it became known, continued to grow. The register of immigration for the summer season of 1854 tallied 808 wagons, 30,015 head of cattle, 1,903 horses and mules, and 8,550 sheep

passing that way. Guide books traced and recommended the route. A directory of stations for the year 1854 listed 40 ranches and businesses between Mormon Station (Genoa, Nevada) and Placerville catering to the needs of the emigrant travelers. Among them, Walgamot and French advertised "accommodations for all" at their Red Lake House, 40 miles west of Mormon Station, and Shipley and Dupont offered lodging and supplies at Tragedy Spring.

For another decade emigrants bound for the golden state continued to travel the Carson Road, but each year their numbers dwindled. As early as 1855 a survey had been taken to find a better and lower route over the Sierras. Much of the Mormon-Carson Trail was at elevations over 7,000 feet, the highest point was above 9,000 feet. Deep snow made the road utterly impassable for many months each year.

By 1857, a spine-jarring, but passable wagon road had been built over the Johnson Cutoff Route (present-day U.S. Highway 50), then over Luther Pass to the Carson Valley in Nevada. The highest pass on the new route was more than 2,000 feet lower than the summit on the Carson Road. As the Johnson Road was improved, it diverted more and more traffic from the old Mormon Trail. With the passage of time, parts of the old trail

were widened, straightened, and eventually incorporated into the state highway system, but other stretches were abandoned and almost forgotten.

The new Mormon-Emigrant Trail begins approximately five miles south of U.S. 50 at Sly Park. (At Pollock Pines take the Sly Park Road exit to Sly Park.)

The Sly Park of today bears little resemblance to the site the Mormons selected to await word of their missing scouts. The lush mountain meadow is no more. It has been replaced by the blue waters of Jenkinson Lake. But as a place to camp, Sly Park is more popular than ever. Some 250 campsites blend into the forested shoreline, while the placid lake is a favorite with boaters, water skiers and fishermen. Sly Park is operated by the El Dorado Irrigation District and is open as long as the weather is good, usually from late February to late November. Fees are \$1.50 for day use, \$3.00 for camping and \$1.00 for boat launching.

Although the new road zips along the crest of Iron Mountain Ridge, it passes within a stone's throw of two historic points of interest. The first is Stump Spring, located approximately 10 miles east of Sly Park. The spring is easy to miss. Look for a large graded area north of the road. This was cleared to accommodate parking for the formal dedication

of the trail in 1974. The spring is about 100 feet south of the road. A portion of the original trail leads from the new road through the forest past the spring. The Mormon wagon train stopped to camp at Stump Spring. Later it was the site of Peter Peters' trading post on the emigrant trail. The water from the spring still flows through a hollowed-out cedar log which once served as a watering trough for livestock.

On the north side of the road one mile east of Stump Spring is the '49er tree, a towering 200-foot Ponderosa pine. Years ago, an unknown emigrant blazed the tree with his axe, then gouged out "49 Road" and an arrow to indicate the direction of the trail. The antiquity of the scar is confirmed by the fact that the heavy bark has grown over a portion of the crude lettering. A rail fence now rings the tree.

A number of dirt roads, some of which lead to sparkling trout streams, intersect the Mormon-Emigrant Trail. If you are serious about exploring the area, pick up an Eldorado National Forest map at the Forest Supervisor's office in Placerville or at any of the District Ranger Stations.

The new Mormon-Emigrant Trail ends at State Route 88. However, there is one additional note for anyone who might choose to follow the trail from east to west. The sign at the junction with 88 has not yet been changed to reflect the new name. As of this writing, it still reads "Iron Mountain Road."

Tragedy Spring is approximately four

Close-up of the inscription carved on the '49er tree by an unknown emigrant. The antiquity of the scar is confirmed by the fact that the heavy bark has grown back over the last letter of the word "road."



miles further east on State Route 88. It is at this point that a rough trail, much of it requiring four-wheel-drive, takes off and follows a portion of the old emigrant route around the east side of Silver Lake, ending at the edge of what is now the Mokelumne Wilderness. Look for the

"Mud Lake" sign.

The new Mormon-Emigrant Trail was not built to replace any of the existing trans-Sierra highways. But it does open up a lot of scenic backcountry to recreationists and at the same time preserves a bit of our heritage. □

Stump Spring on the Mormon-Emigrant Trail.

The cool water of Stump Spring refreshed the Mormon Trail blazers on their long trek eastward. Later Peter Peters operated a trading post on this site. The hollowed out cedar log once served as a watering trough for livestock.



Crystals at Indian Summit

by MARY FRANCES STRONG

photos by Jerry Strong

HERE IS an indescribable feeling when a rock collector comes upon a virgin mineral deposit. In its own, more modest way, the feeling compares to that enjoyed when making a gold strike, since the chances are almost as slim. We recently experienced this euphoria after finding a field of quartz crystals at Indian Summit, north of Aguila, Arizona.

We had come to Arizona for the purpose of locating several areas Jerry thought might be of interest to *Desert's* readers. In 1952, after three years in the production laboratory of Shell Oil Company, "being inside" was not for this young man who had spent all of his early years working outdoors. With a background in geology and chemistry, plus deep interest in mining, he decided to quit his job and try his luck prospecting.

His trusty, rebuilt, 1936 Ford pickup was loaded with gear and he headed for Arizona. Happily unencumbered, Jerry enjoyed the free and easy life of desert

prospecting. He didn't find a fortune, but did learn the outdoors would be his way of life. Eventually, he engaged in beekeeping—an enterprise he really enjoys.

Jerry mentioned the Aguila area to me on several occasions after we were married. We planned to look over his "secret spots" but always seemed to head north instead of east. Thirteen years were to pass before we were Aguila-bound. Had I known what we would find—it would have been our honeymoon trip!

We entered Arizona at Boulder Dam and leisurely traveled south making numerous side trips along the way. At Aguila, we parked our trailer in the local facility, since we planned to explore in several directions. The owners, Julia Powell and Bonnie Wilson, were most cordial and helpful. As longtime residents, they had familiarity with the region and suggested several sites we might find of interest.

A day was spent roaming around trying to locate Jerry's "spots." Time had changed even little Aguila. Cottonfields spread over a large acreage north of town and new roads were numerous. The road Jerry had followed from Aguila was now obliterated by cotton plantings.

"There has really been some changes made," Jerry commented, as we searched for the old road. Eventually, through trial and error, we located the northern section of the road he had traveled. Happily, we headed toward the mountains. The landscape began to seem familiar to Jerry so we rambled slowly along, hoping to bring back the memories. Our search was not for a mine, but a "lost outcrop of copper-stained rock."

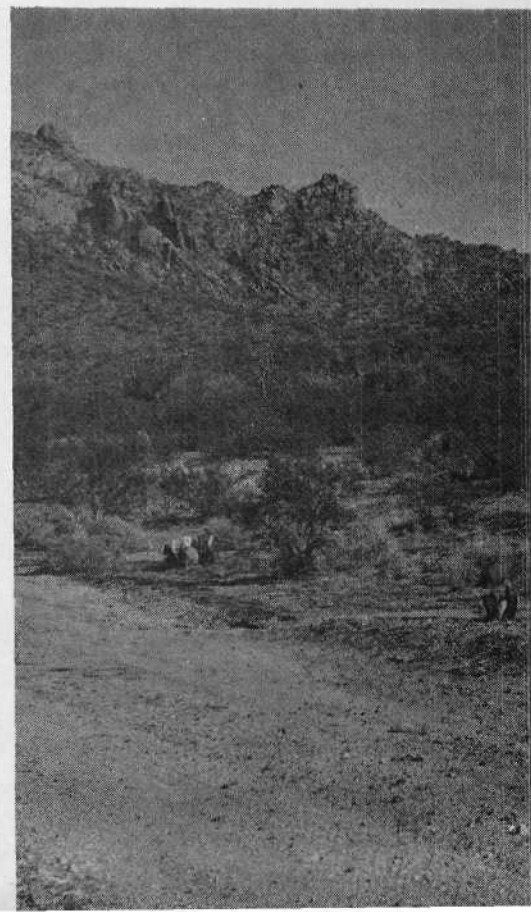
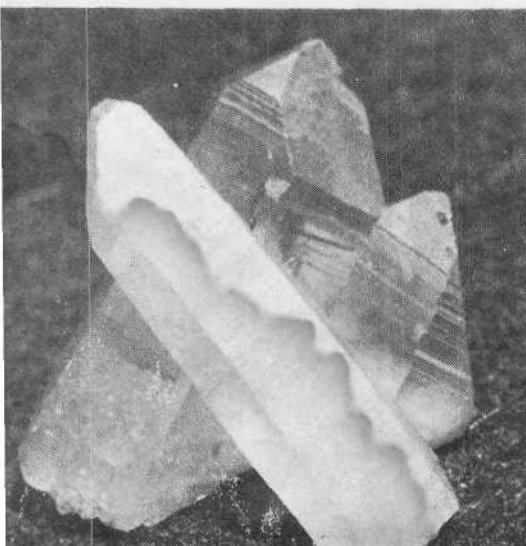
Our first attempt led us to an Indian campsite among the rocks at the base of

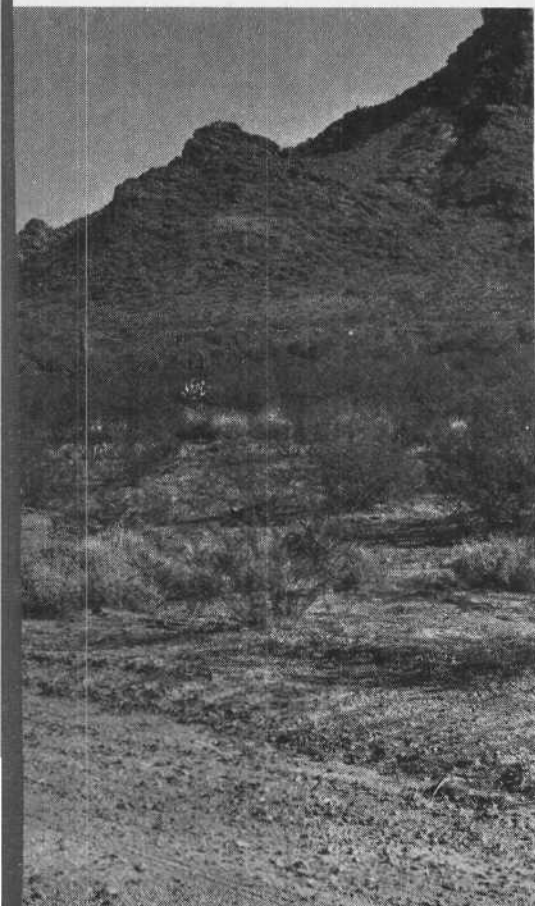
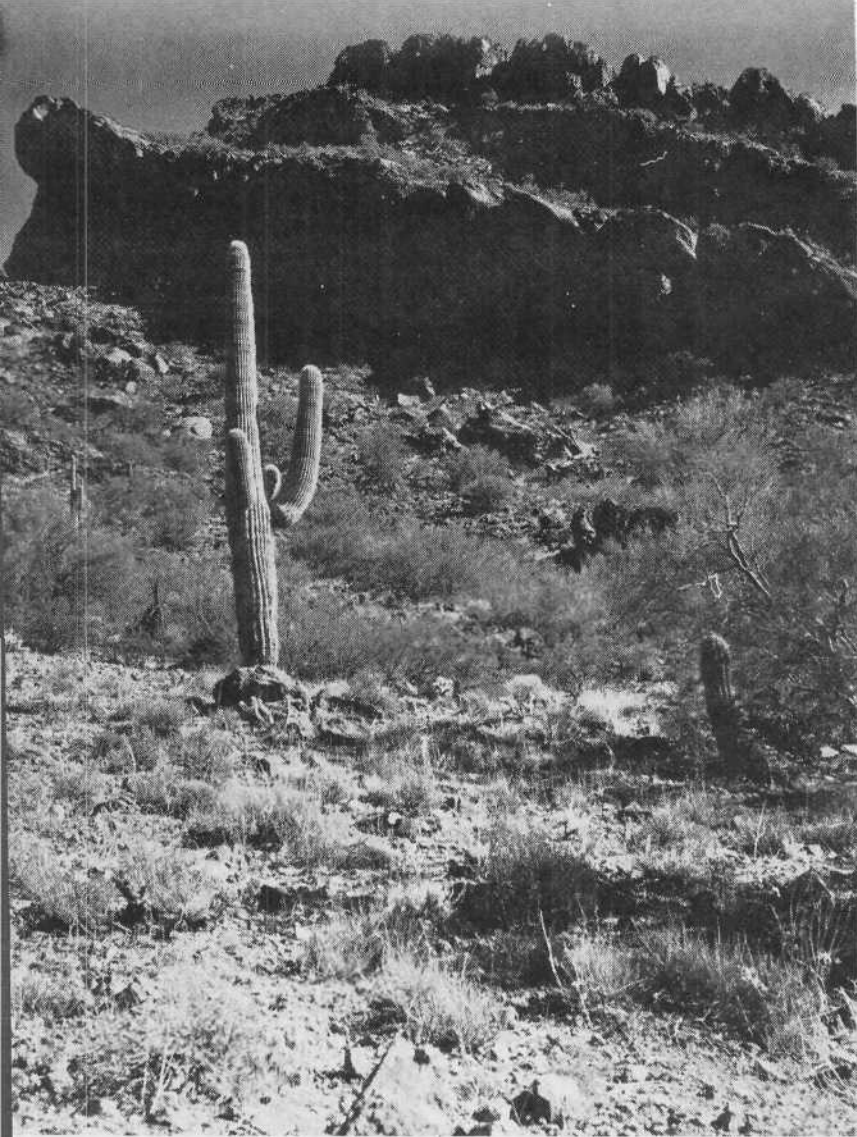
the Harcuvar Mountains. There were scattered chips, signs of ancient campfires and a few faint petroglyphs.

A little backtracking resulted in our following a road leading to a pass in the mountains. We parked at the summit and browsed around a former mining camp. At this point, dirt tracks fanned out in all directions. "Let's take the tracks going east along the hills," Jerry suggested.

In about a mile, we turned right onto dirt tracks which led to a ridge between two peaks. Spread out below was a narrow canyon with picturesque outcroppings and the variety of flora which gives beauty to the Arizona Desert—stately

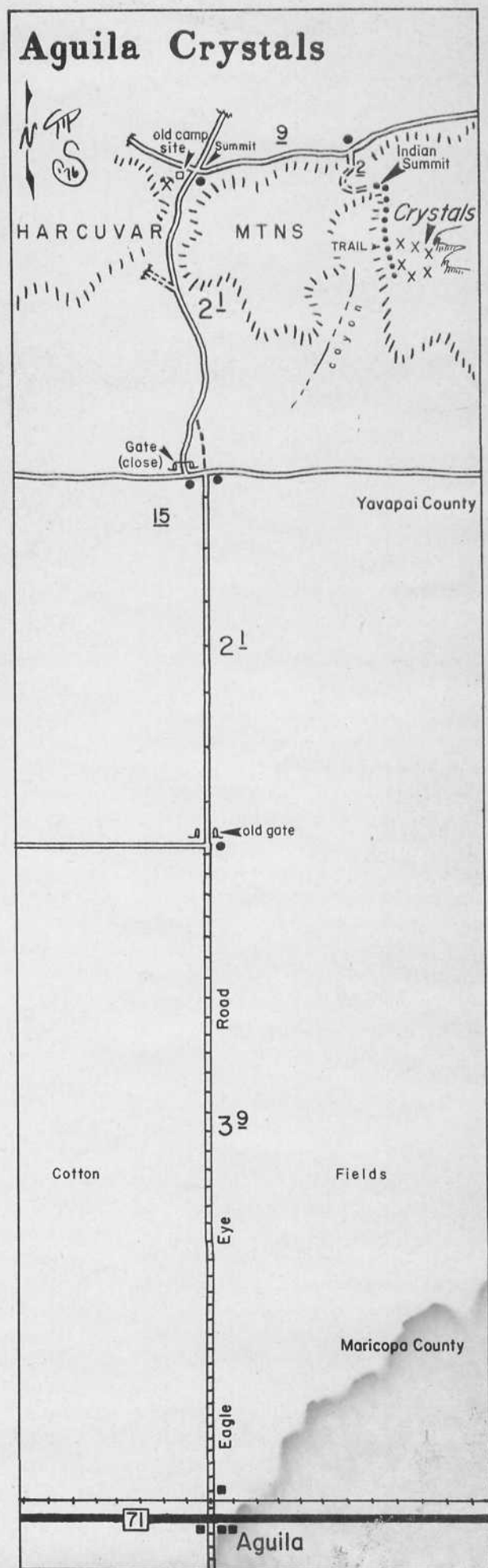
This small crystal cluster from Indian Summit is particularly beautiful due to its "pink" color.





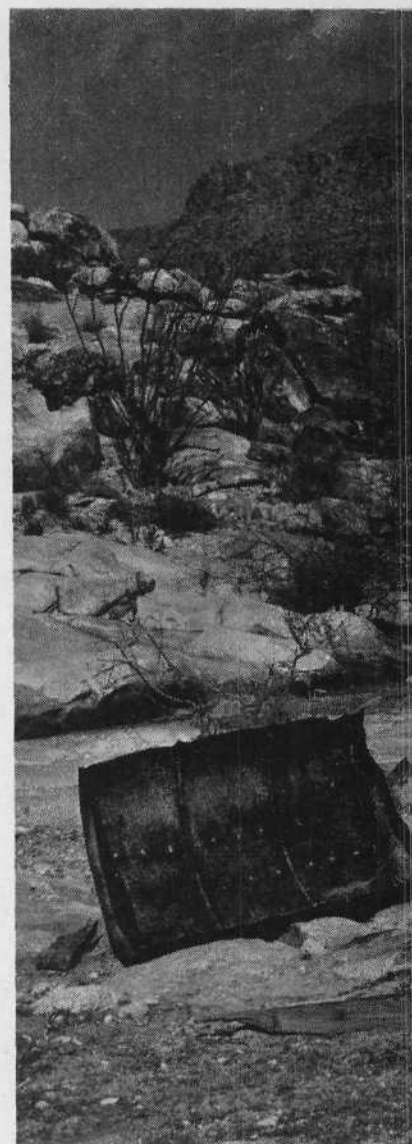
Above: A picturesque outcrop, on the east slope of the canyon, acts as a landmark for the crystal collecting locale. The area in the foreground is covered with quartz crystals.

Left: A good desert road leads into the eastern end of Arizona's Harcuvar Mountains, north of Aguila. The arrow points to Indian Summit, reached via a pass adjacent to the hill on the left.





Campsites, chippings, points and petroglyphs provide visual evidence of Indian habitation. The glyph [right center] suggests a man following a travois.



saguaros, barrel and cholla cactus, iron-wood trees, etc. Alongside our four-wheeler stood a 10-foot ocotillo, ablaze with red blossoms. Though it was late November, a few wildflowers were blooming. The southern desert country's response to fall rain—"a winter spring"—never ceases to amaze me. All the flora seemed to be greening-up and the various cacti were lush and plump.

After a bite of lunch, Jerry headed out on the eastern slopes above the canyon. I wandered around looking for any signs of cutting material or Indian chippings. Before too long, a voice echoed across the canyon, "Come out here—wait until you see what I have found." There was a slight note of excitement in Jerry's usually calm, quiet voice. I hustled along the narrow cattle trail knowing he must have located something special.

I was not disappointed. There he stood on a slope covered with quartz crystals! Veins of quartz outcropped everywhere and the crystals had eroded from them. Our search for the "lost green outcrop" ended. It could wait for another time. We had a "ball," as they say today, and didn't quit collecting until our backs (really mine) gave out and it was getting dark.

We spent the evening washing and sorting crystals which ranged from mi-

cromount size up to two inches in length. There were clear, perfect crystals and milky ones. A large number were covered with a rusty-red coating, more red than rusty. Crystals having a light coating were very attractive. A few clear ones were tinted pink—really beautiful. Our personal pride and joy was a small, clear, perfectly formed scepter crystal! We still have quite a few to be cleaned—so there may be other "goodies."

Like all such deposits, a large number of crystals at Indian Summit are not perfect specimens. You must dig and search through great numbers in order to obtain fine specimens. Many nice, single crystals have weathered out of the veins, but most of them have been chipped. In some of the veins the crystals are so entwined it is difficult to obtain a group without ruining them. Use care and lots of patience when collecting.

Personally, I have a thing for quartz crystals. They are beautiful to behold and I always get excited when digging them out of a vein or finding a "beauty" weathered out. There is something intriguing about quartz crystals—almost a mystical quality. Perhaps this is ingrained from an association with the cult of "crystal ball and fortune telling." It matters not, I am just a quartz crystal nut!

All the same, it is good to know that I am not alone in my feelings. Early Indians utilized quartz crystals in their tools. They, too, felt the crystals had magical qualities and often used them as tips on sacred wands, as well as for good luck charms.

Several years ago, Jerry found half of a clear, quartz point. It is about one-inch in length and the flaking was well done. He hunted for several hours but was unable to find the other half. It now rests comfortably in our collection.

Stone Age Man fashioned tools and weapons from "stronger-than-steel" crystals over 100,000 years ago. Arche-

ologists feel they did not actually mine quartz, but picked up specimens suitable for their needs. Quartz crystals can be readily chipped to make a good cutting edge for a spear or point. In addition, their hardness (7) made them very effec-

tive as a flaking tool.

Elaborate carving techniques were developed in the Grecian and Roman periods which reached a peak during the Italian Renaissance. Magnificent bowls, cups and other vessel-like objects were carved from large quartz crystals. Many were engraved and decorated with gold and silver. Exhibited in the United States National Museum in Washington, D.C., is a flawless, polished sphere about 13 inches in diameter and weighing 107 pounds. It was cut in China from material probably obtained from Sankanga, Katha District in Burma. At this locale, transparent crystals weighing over 1500 pounds are found in a pegmatite.

I think it is safe to say you probably will not find crystals of such size at Indian Summit. However, I can guarantee you will see interesting country, have a good time and add a few nice crystals to your collection—if you work at it and are one of the first in the area.

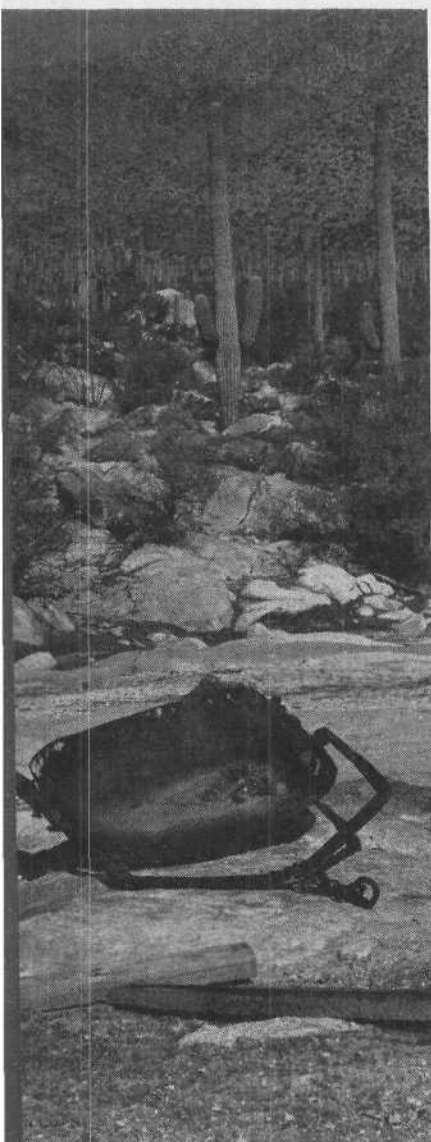
To reach the locale, turn north from Highway 71 onto Eagle Eye Road in the center of Aguila. Travel north 3.9 miles. Keep ahead (the road narrows), go through an open gate and enter Yavapai County. Another 2.1 miles will bring you to a fence line road. Turn left a short distance (1.5 mile), and go through a gate on the right (north). Close gate. Follow the main road 2.1 miles up the pass to a

summit in the Harcuvar Mountains. At this point the road forks, turn right and travel east .9 of a mile. Turn right onto dirt tracks and in .2 miles you will be at Indian Summit—between two peaks with a deep canyon opening south below you.

From the parking area, staying at the same elevation, hike southeasterly and pick up a cattle trail leading out on the slopes. In about a tenth-of-a-mile, you should begin to see crystals. Watch for the formation shown in the accompanying photo of the collecting area and you cannot miss them. Just remember, they will be on the east slope of the canyon from the parking area.

Unfortunately, the last section of road to the first summit is not advisable for trailers or motorhomes. Good campsites are scarce, but something suitable might be found within the area a mile from the last gate. October through April is the ideal time to visit the region. Gasoline and supplies are available at Aguila.

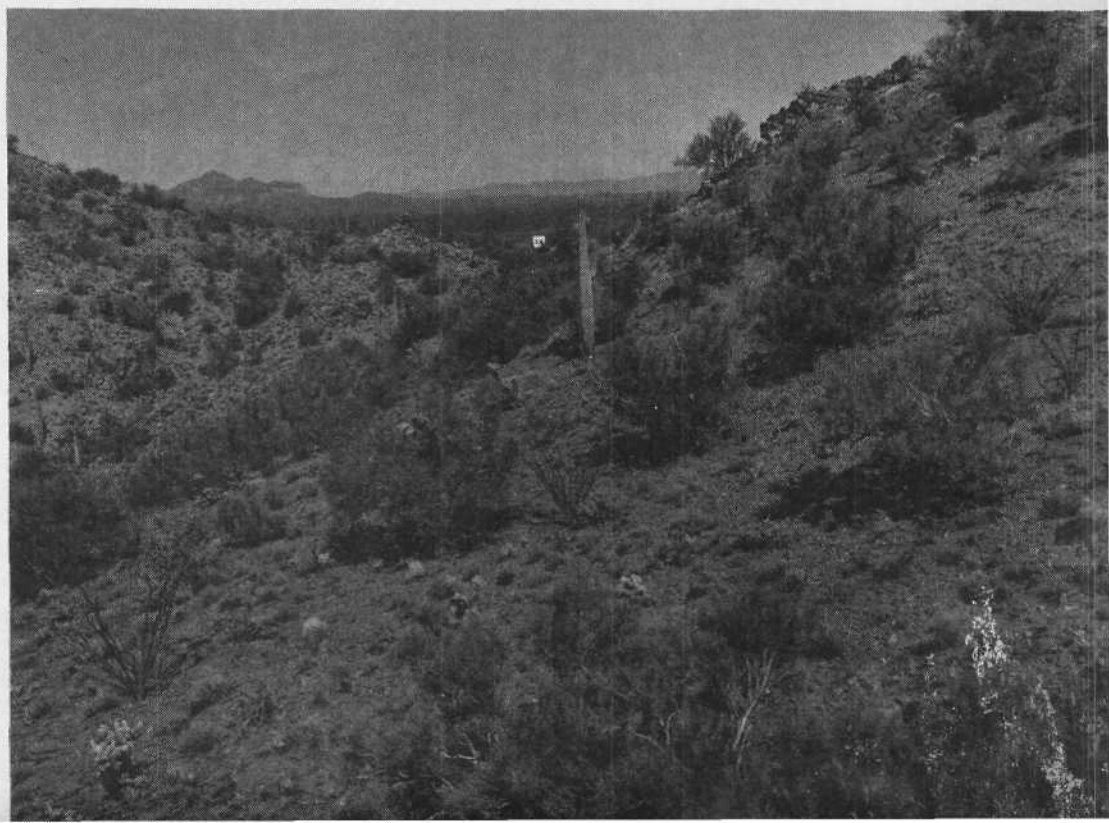
The Arizona Desert is at its best in winter. We also found the people at Aguila to be at their best. Kind and helpful, they were anxious to make our stay in their region a pleasant one. It was nice to enjoy the friendliness of a small town where everyone you met said "howdy." We had come to find Jerry's green rocks. Instead, we found a virgin field of quartz crystals and a friendly little town. It is a trip we will long remember. □



Above: Prospectors have long explored the Aguila region in search of our earth's treasure. When dreams didn't pan out—they wandered on—leaving behind "mementos" such as this half-drum rocker and small Fresno.

Right: Looking back [north] from the crystal locale towards Indian Summit where vehicles must be parked.

It is an easy, short hike to where crystals litter the ground between the clumps of brush.



Desert Wanderer

by K. L. BOYNTON

© 1976

Editor's Note:

The Department of the Interior's list of endangered species includes our "Desert Wanderer," the Jaguar. In trying to obtain illustrations for this article, it became apparent that pictures are rare also. The San Diego Zoological Society came to the rescue, but the species depicted are the Brazilian type, not the Mexican brand. The main difference is size and as the author states "150 pounds is a lot of cat."

If one of these spotted cats should wander into your desert camp, it would give good cause to wonder just who was endangered.

HANDSOME in his richly, golden-hued coat, spotted with its black rosettes, the mighty jaguar is by rights a resident of the tropical forests. Yet, this big South and Central American cat is so highly adaptable he can make an excellent living in dry, thornybush country, and even in harsher desert lands.

Indeed, not many years ago, these great cats were hunting the wild and arid stretches of Texas and up into Arizona as far north as the Grand Canyon, even on into northern New Mexico. True enough, those haunting the wild regions of these more northern climes were not the nine-foot-long, 300-pound denizens of Brazil's Matto Grosso, but smaller editions of around some 150 pounds, which is a lot of cat, anyhow.

What with plenty of game—peccaries,

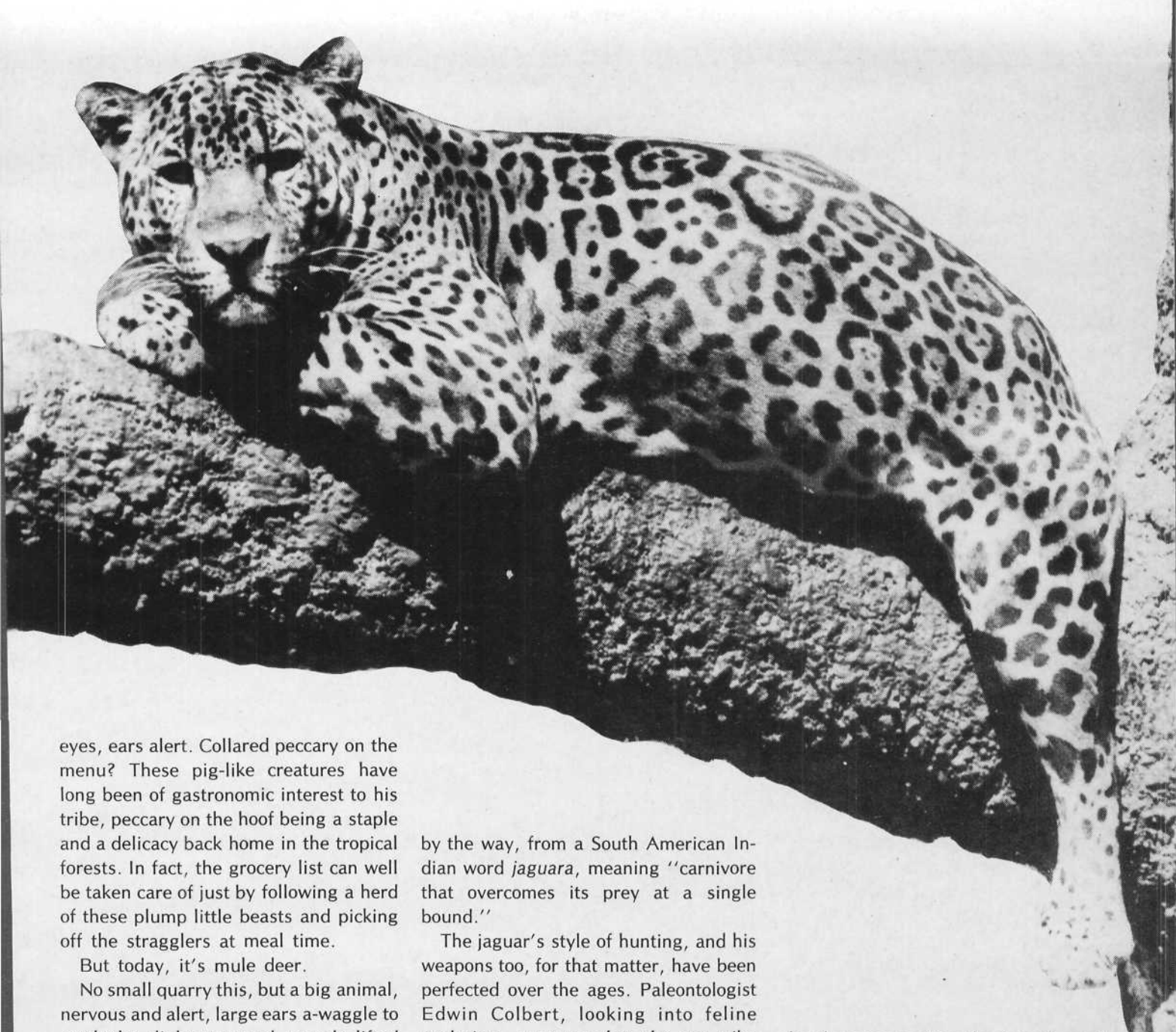
mule deer, white tails, pronghorn—to be had and ideal spots remote and protected for family raising, the jaguars stood a good chance of becoming well established in the U.S. Southwest. But the heavy human encroachment into regions suitable or not for habitation that has occurred so rapidly during the last few years has taken its toll. Less and less wild territory remains, and so the jaguars occasionally seen now are probably not entrenched residents, but drifters from down Mexico way.

The thing is, that inside this big spotted cat is the good old wander-urge based mainly on the arrogant confidence that comes of being so big and powerful and in the possession of a killing know-how that makes eating regularly a certainty.

With this combination of pluses, there is no need to stay put in a given place no matter how attractive, and the roaming jaguar, jogging along on his padded feet, can cover a lot of territory. What to him international boundary borders? So the chances are good that in the xerophilic forests of New Mexico, in the wild and arid thorn bush country of Texas, and in remote canyons of Arizona, the deep-throated cough of these big cats might well be heard even today. Clad in his camouflage coat, the jaguar, stretched out loafing on a tree limb, is almost impossible to see, with the sun shining through the leaves making dancing spots of light and dark, too much like the rosettes of his design. Easy to be passed by not seen, but seeing, only his big yellow eyes moving, watching.

Come dinner time, the jaguar backs down the tree trunk, his sure-grip claws making his descent easy and safe. Once on the ground he starts his prow, nose,





eyes, ears alert. Collared peccary on the menu? These pig-like creatures have long been of gastronomic interest to his tribe, peccary on the hoof being a staple and a delicacy back home in the tropical forests. In fact, the grocery list can well be taken care of just by following a herd of these plump little beasts and picking off the stragglers at meal time.

But today, it's mule deer.

No small quarry this, but a big animal, nervous and alert, large ears a-waggle to catch the slightest sound, muzzle lifted for scents. Feeding, the deer is wary and ready for an instant speedy get-away. But the jaguar is an old hand at this game. He approaches from down wind, moving silently as a shadow, each padded foot placed carefully, every muscle under control. Belly low, he creeps closer and closer to the quarry until—a rush of great speed, a long bounding spring, and he's on the deer's back. The force of his heavy body knocks it sprawling, his heavy front limbs striking his curved claws in deep to hold his prey just the few seconds needed for that killing bite delivered by his long sharp canines at the base of the skull. This is the jaguar-style hunting—a ferocious bounding attack of great power that earned him his name which comes,

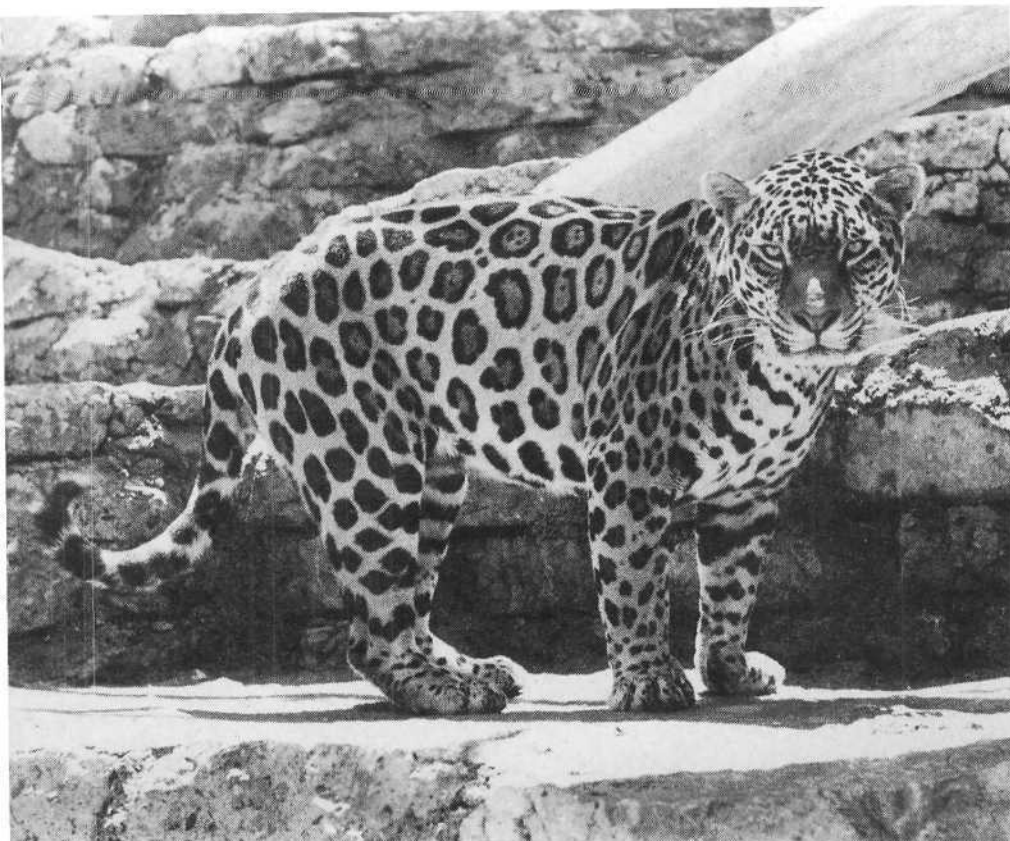
by the way, from a South American Indian word *jaguar*, meaning "carnivore that overcomes its prey at a single bound."

The jaguar's style of hunting, and his weapons too, for that matter, have been perfected over the ages. Paleontologist Edwin Colbert, looking into feline evolution, suggests that the cat tribe split off early from the ancient viverrid beginnings and quickly evolved into highly specialized animals. In fact, as early as 40 million years ago, two styles of cats were current. Both were about medium size. The first was represented by one *Dinictis* by name, the second by *Hoplophoneus*. But the most important difference between the two was in their teeth, and this was to play a very major role in what happened to their descendants later on.

True, both these old characters had cheek teeth that worked like cutting shears. It was the design of their upper canine teeth that was so different. *Dinictis*' were big, sharp and pointed, first class for piercing and holding prey. These stabbing and cutting canine teeth,

plus the scissor-action cheek teeth, made a very efficient tooth pattern to be handed down with minor changes to his descendants those big and little cats that grace the scene today.

Old *Hoplophoneus*, on the other hand, had to go and overdo a good thing. His upper canines were enormous—long, down-pointing swords protected when he closed his mouth by a flange on his lower jaw. His descendants, the saber-toothed cats, inherited his dentures, which were destined to become obsolete, unfortunately, because the items on the grocery list changed so radically over the time. As long as the large slow prey were around, the fearsome saber-toothed cats (as large by then as today's lion and with teeth in proportion) were highly successful with their might face weapons. But



when these large prey gradually became extinct, and only smaller and harder to catch animals were around to eat, the heavy saber-toothed cats, with their cumbersome swords, were in trouble. They could not compete with the faster and more agile felines for this new type of food, and in time passed from the scene themselves. Old *Dinictis*' line, on the other hand, still flourishes today, and thus the jaguar, having picked the right ancestor, dines in style, rejoicing in that highly efficient tooth set-up bequeathed him by his venerable forebear.

The jaguar is quite a fisherman, and hence haunts impenetrable thickets along river bottoms where the fishing is good. Crouching along a bank, or stretched out on a low hanging limb, he puts his mind on his work. But what with his face hung out over the water, and what with a drool of anticipation now and then and an occasional nervous twitch of his tail end, the fishing jaguar has been the subject of many a fanciful tale. He's credited with spitting into the water to attract the fish, of moving his whiskers on its surface like flies alighting, and even enlisting the aid of his tail as a moving lure. The fact of the matter is that all it takes is patience, of which he has an endless supply, a careless fish cruising by, and a lightning swift flick of one of his front paws, and the jaguar has landed his fish dinner.

The mating season has its highlights in December and January, and is wont with members of the cat tribe, is accompanied by loud and long sound effects. Fighting, clawing and biting are also on the program, all evidence, apparently, of feline tender passion. Small wonder that, after all this energy expenditure, the pair settles for at least one season of domesticity. gestation takes some 93 to 110 days, and the favorite nursery den

sites are rocky caves or dense thorny thickets. The two to four kittens arriving in April or May are well clad in long wooly fur, heavily spotted, and they weigh about two pounds. Dining first on milk, they are ready ere long for more vigorous stuff, and both parents work the fresh meat detail. By the time the kittens are about six weeks old and have doubled their weight, they can follow the adults, albeit somewhat clumsily. The family is maintained until the kittens are at least a year old when, as teen-agers, they weigh around 100 pounds or so. They may remain with their mother then up to two years since, while they have inherited hunting know-how, they actually require considerable training and need lots of practice. Also, they are slow growers, and can't bring down big game until they have the weight and power that comes with maturity.

And power they do get, these largest of American cats. Bigger than a puma, the jaguar has a much heavier and stronger body, its limbs are shorter and so is its tail. Interesting enough, throughout sections of the jaguar's range, the puma is also there, a situation with explosive possibilities. Yet, there is seldom trouble mainly because of their way of sharing the scenery. The puma likes high places and rocks ledges, the open terrain for him. The jaguar, on the contrary, is no hand for altitudes, preferring the canyon bottoms, the dense,





Fang, a male Black Jaguar, is a San Diego Zoo favorite.

chaparral thickets and forests, even those of pinyon and juniper doing very well. Chance encounters are probably few, since both animals seem carefully to avoid them.

Interesting, too, is that the New World jaguar looks so very much like his spotted counterpart of the Old World, the leopard, yet if the two were seen together the difference between them would be immediately obvious. The jaguar is a much stockier beast, heavily muscled, his shoulders and chest thicker, his head more massive. Even their spots are different, the leopard's blacker and smaller, the jaguar sporting large rosettes of black with a light middle and yellow center.

Both the ladies and gentlemen among the jaguars are colored the same. They also both have very long stiff white whiskers, which to the human eye tends

to confuse matters. True enough, the gentlemen are larger and heavier, yet equally agile and graceful in movement. Maybe there's a voice difference in those deep throaty grunts, "uh uh uh uh," of a jaguar on the prowl, or in the hair-raising coughing roar so deep, so powerful, that it carries far. Or maybe just that subtle something that escapes the human observer. Anyhow, he can tell and so can she.

Shy and secretive, the jaguar is by nature a solitary animal. During his some 15- or 20-year life span, he does his share of wandering, covering a lot of territory and appearing quite unexpectedly.

Maybe this very night when the campfire's embers burn low—the brooding silence of the desert will be broken by those deep-throated, "uh uh uh uhs," of some itinerant jaguar on the prowl, muttering to himself. ☐

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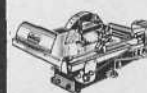
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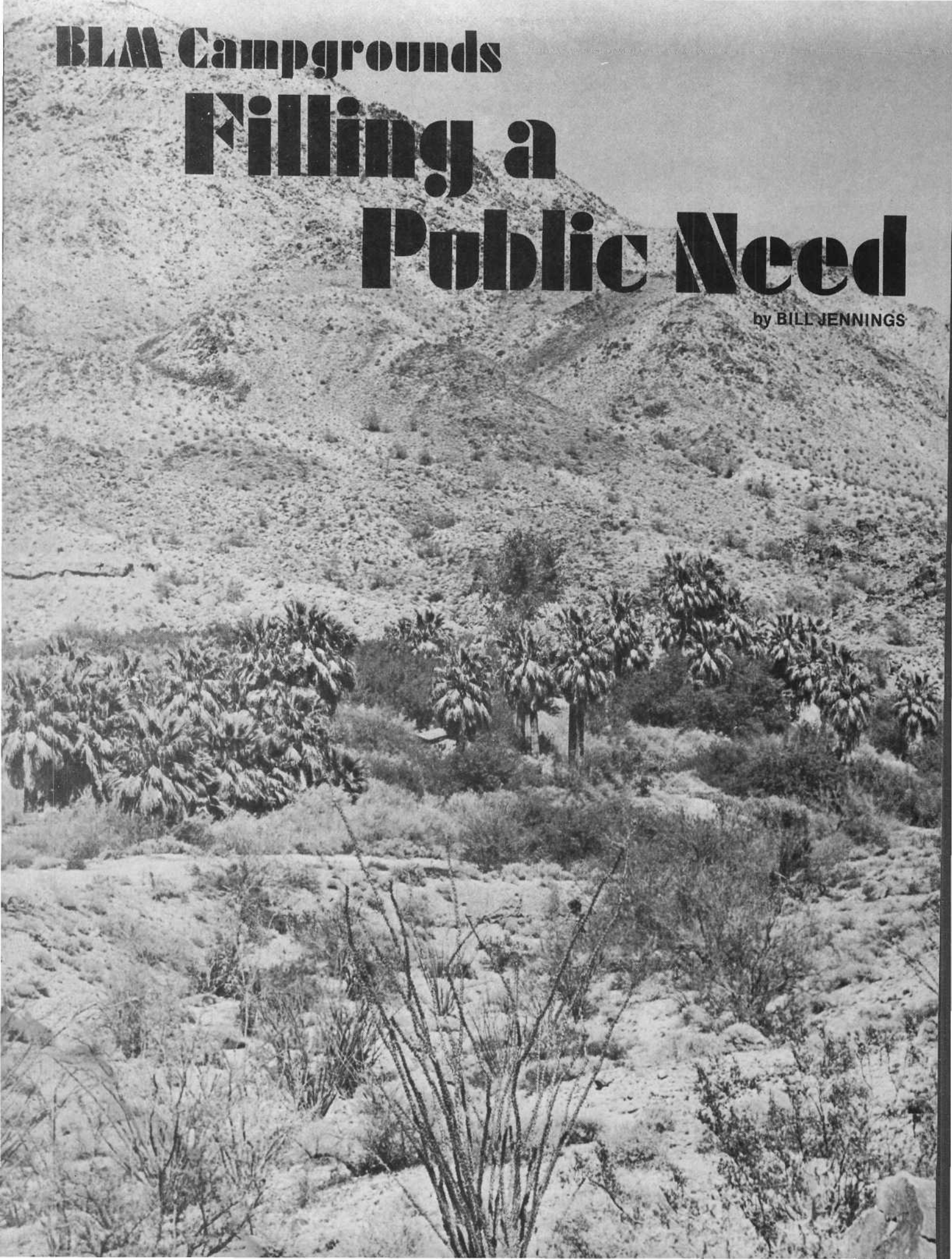
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BLM Campgrounds

Filling a

Public Need

by BILL JENNINGS



To meet the crush of recreationists to enjoy the great outdoors, the BLM has provided a great number of public campgrounds. Depicted here in photos are those bordering the Sierras in the Owens Valley. The text deals mostly with those campgrounds in the Mojave and Colorado Deserts.

UNCLE SAM'S newest desert landlord is the all-purpose Bureau of Land Management, charged with a nearly impossible task, the regulation of competing public uses of some 12 million acres of Southern California desert.

BLM is new at this landlord business—only in the context of serving the general public. Since its birth in 1948 as the child of and successor to the old Grazing Service and the General Land Office, BLM has been concerned with mining, live-stock leases, homesteads and general administration of the vast Public Domain, but its direct service to the recreation public has been a recent addition to its manifold duties.

In 1964 Congress enacted the Classification and Multiple Use Act. Out of that umbrella legislation, the fallout included the California Desert Program, funded beginning in 1972.

The CDP directly spawned a series of studies lumped together as the Interim Critical Management Plan, the ICMP for short. The only short thing about this program is its abbreviated title, in which the words "Interim" and "Critical" are the keys, depending on your point of view.

"Critical" has described the reaction of conservationist and off-roader alike and "Interim" has been the hallmark of the bureau's defense.

The bureau has jumped into the desert with both feet, or rather all four wheels, although it's not clear to many whether those wheels are "all-wheel-drive."

Since 1972, when the bureau received a congressional mandate to manage Nature's Back 40 from Eureka and Saline Valley south to the Mexican border at Jacumba, the Yuha Desert and the Al-



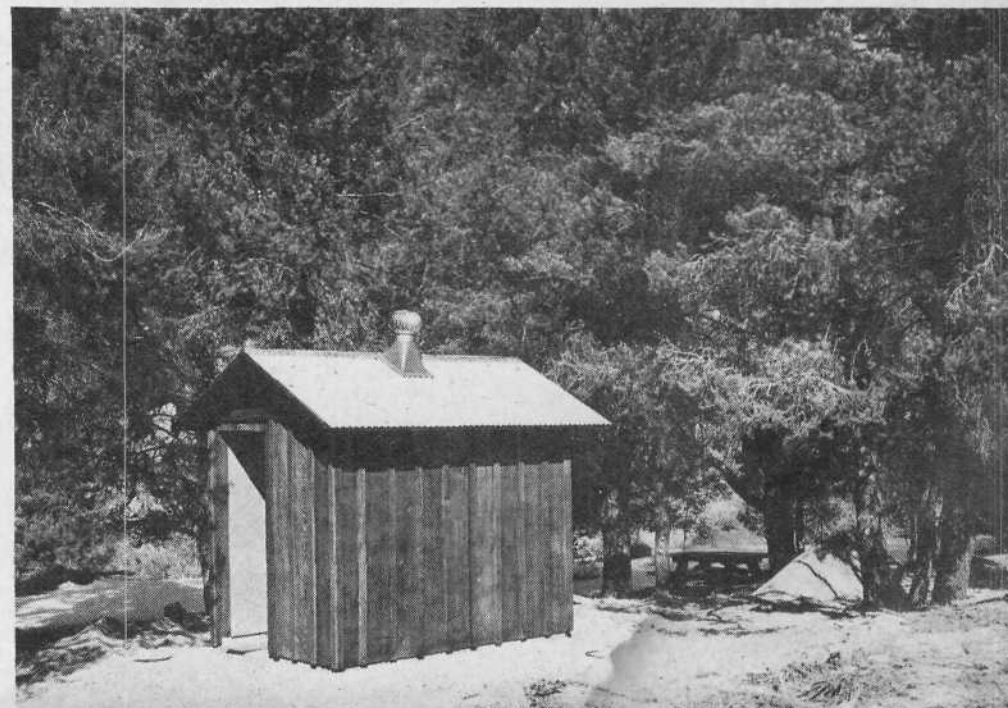
godones Sand Dunes, its specialists have struggled to present a Desert Plan that keeps the conservationists and the off-roaders at least mollified, if not ecstatic. How well the Plan will work cannot be attested. It's too early and the interim is too much with us.

Campgrounds for the off-roaders as well as the drivers of 20,000-pound motor homes have been established in the Owens Valley, the Mojave midregion, near Barstow, in the Colorado Desert and along the escarpment over-looking Anza Borrego Desert State Park. A uniformed ranger force is slowly building and the first ranger station

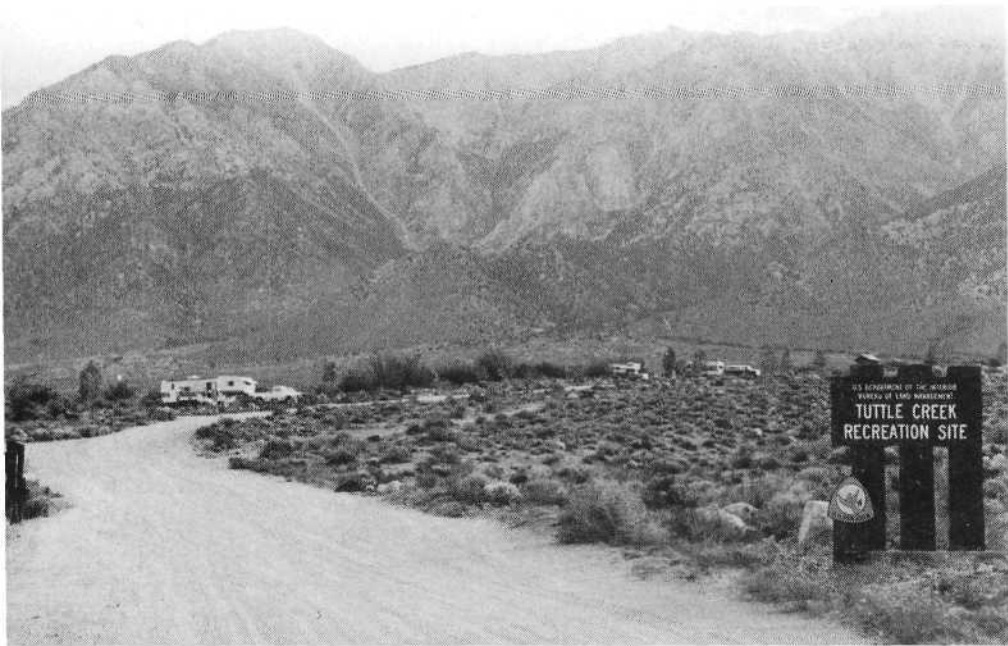
Above: Symmes Creek Campground [55 camping units] near Independence, is located at the base of Kearsarge Pass. The Pass was named after the Northern ship that sunk the Southern warship, Alabama, during the waning days of the Civil War. Below: Chimney Peak Campground [36 camping units] is located above the 6,000 foot elevation mark and affords the visitor to national resource lands a comfortable campsite beneath the pines of the Sierras.

has been established near Glamis.

The symbol of the Desert Plan to date is the new Barstow Way Station, a combination of information center, rest stop and informal museum, just off Interstate 15 near the southwest approach to the desert city. A second way station is in the preliminary planning stage for the



Opposite page: Corn Springs, a popular area for desert campers.



Tuttle Creek Campground [85 camping units], near historic Owens Lake, has as its scenic backdrop the weathered Alabama Hills and the crisply sculptured contours of the Sierras. This campsite is located in the very shadow of Mount Whitney and has proven to be the most popular spot for campers of all BLM sites.

southern desert, near the Imperial Valley gateway community of Ocotillo.

While its services to the desert recreationists are just beginning—in the form of way stations, rangers and maps—BLM's help to the camping public is well-established and generally appreciated.

Desert camping sites are maintained in the Owens Valley, the Mojave, in the Colorado Desert midway between Indio

Crowley Lake Campground [47 camping units] is in a setting near Crowley Lake and is a favorite place for fishermen and their families.

and Blythe, and the almost-new Gecko Campground in the Imperial (Algodones) Sand Hills near the Glamis ranger station.

BLM campgrounds are simple in construction and operation. All fill a crucial gap in public camping facilities in the desert. Before the bureau's campgrounds system, only a handful of state parks and two national monuments, Death Valley and Joshua Tree, offered shade, water and improved camping sites.

The bureau's Mojave Desert sites are located at Owl Canyon, northwest of Barstow, Mid-Hills and Hole-In-The-Wall in the Providence Mountains, and Afton Canyon, along the Mojave River, 30 miles northeast of Barstow. All have tables, drinking water and parking pads.

Overnight use carries a \$1 fee and a 14-day camping limit is imposed. No reservations are required currently.

Owl Canyon is adjacent to a spectacular geological area, the Rainbow Basin. Both are 12 miles from Barstow over paved and improved (graded) dirt roads. The basin is a fossil area dating perhaps to 30 million years ago, with mineralized bones of horse, camel, elephant and many other animals and plants. The name comes from the multiple hues of the predominantly sandstone formations.

Mid-Hills and Hole-In-The-Wall are unusual for desert camps in that their elevation permit year-around use. Mid-Hills is 5,600 feet up in the pinyon pine-clad Providence Range and Hole-In-The-Wall is 5,000 feet high. Both are near the famous Mitchell Caverns in the Providence Mountains State Recreation Area. The two BLM campgrounds provide overflow facilities for the state's tiny campgrounds at the caverns. As the other bureau facilities listed here, both Mid-Hills and Hole-In-The-Wall include tables, water, toilets, a \$1 overnight fee and a 14-day camping limit.

Afton Canyon is perhaps the best known and most heavily used of the BLM Mojave region sites. Located in the gorge of the fascinating Mojave River, the camp is in a rockhound paradise and also adjacent to the mainline of the Union Pacific Railroad. Afton Canyon is unusual among desert gorges in that the river runs the year around. The Mojave rises in the San Bernardino Mountains and flows northeasterly to Soda Lake near Baker but only in the Victorville Narrows and at Afton does the disappearing river generally flow on the surface. At times there is too much water in Afton Canyon to permit visitors to cross into southern canyon branches where favorite rock collecting areas abound.

Colorado Desert campgrounds are at Wiley Well, Coon Hollow and Corn Spring, all in or near the Chuckwalla Mountains midway between Indio and Blythe. Wiley Well camp is on the site of a historic Bradshaw Road stage and freighting wagon route, used since the Civil War. Coon Hollow is just a few miles away toward Milpitas Wash. Both are favorite camping spots for rockhounds. Corn Spring, 10 miles to the northwest, is in one of the few native palm groves east of the Coachella Valley.



It was the longtime home of the late Gus Lederer, early-day prospector and friend of the late Randall Henderson, founder-editor of *Desert Magazine*.

Corn Spring oasis contains a badly damaged petroglyph rock-art panel, the remnants of which are now being protected by the bureau.

Newest of the bureau's campgrounds is Gecko, named for the distinctively hued desert lizard. The campground is adjacent to the Imperial Sand Hills recreation area where BLM and other agencies encounter the largest weekend crowds in the desert, primarily due to the extensive sand hills which stretch southeasterly almost to Yuma. Crowds of more than 60,000 have been reported on long holiday weekends, particularly Thanksgiving. The sand hills are not the only attraction for off-roaders. Nearby is Picacho State Recreation Area along the Colorado River. This is a historic mining district now partially submerged by Martinez Lake.

The sand hills are a test area for the bureau's multiple use problem. One side (south) of State Highway 78 is a public recreation area, joined on the north by a closed area. Only the highway and a line of signs divide the two zones. North of the highway the area has been closed to protect native plant and animal life, including the fringe-toed lizard now nearly extinct.

Thus far, bureau officials feel the closed area is being pretty well respected by the thousands of visitors, although some of the signs are bent double, some tracks can be seen paralleling the two-lane highway and infrequently a motorcycle or a dune buggy can be seen driving in the forbidden region.

Further south in the Colorado Desert, also in Imperial County, the bureau has completed the interim management plan for the Yuha Desert planning unit of the overall Desert Plan. The Yuha covers most of the western sector of Imperial Valley, from the Mexican border near Laguna Salada northward along the San Diego-Imperial county line to Salton City. The west boundary also coincides with the Anza-Borrego Desert State Park. To the east, the Yuha is limited by the Westside main canal of the Imperial Irrigation District. It includes the important early man site near Plaster City, skirts the Navy's bombing range and a



closed area in the Fish Creek Mountains.

To date, there are no BLM campgrounds in this area although there are several just to the west, in the McCain Valley near Jacumba and there are many sites available in the nearby state park.

The McCain Valley Resource Conservation Area, a BLM designation for several camping and scenic sites in a 38,000-acre enclave, includes three campgrounds, Lark Canyon, Whitearrow and Cottonwood. Not strictly a desert area, McCain Valley overlooks the Anza-Borrego Desert State Park and is

Above: Horton Creek Campground [53 camping units], west of Bishop, is situated on a creek that originates at Horton Lake, in the wilderness area above Bishop. Fishing is always good. **Below:** Goodale Creek Campground [62 camping units] is a popular campsite in the Owens Valley because of its close proximity to the Tinemaha Tule Elk Herd. Nature Watchers have a field day when the Elk herd is grazing nearby.

adjacent to one of the largest Desert Bighorn Sheep concentrations in California.

BLM admittedly is just starting out in the recreation business, but it is progressing well. A series of area maps has been started with the High Desert Recreation



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Resources Guide the first to reach the public.

Copies of the maps and current information regarding camping areas, off-road sites and restrictions on public use are available at the bureau's two desert district offices, in Bakersfield and Riverside, also at the El Centro area office and the Gecko-Glamis ranger station. Any of the patrol rangers, driving distinctive vehicles and uniformed, can be stopped for maps, other literature and local information.

The only BLM office in Southern California open on weekends is the Barstow Way Station. The only BLM facilities open on weekends are the Barstow Way Station, the Gecko-Glamis ranger station and, of course, the ranger force is on duty during the peak recreation-use periods.

In general, the bureau is receiving good public acceptance of its new role as desert host to millions, but the Interim Critical Management Program has a long way to go. A series of local planning unit studies is underway. Several are substantially completed, except for the long process of congressional and public approval.

The ranger force is effective, although the bureau feels too many of these field specialists have to spend too much of their time regulating off-road vehicle races and other special events.

Conservationists in general seem to feel the Desert Plan is not restrictive enough, or if it is, is not being carefully implemented. Quite the opposite criticism has come from the off-road fraternity. They seem to feel restrictions are too strict, closed areas too general and the bureau's philosophy is to further restrict their activities.

Smack in the middle, the bureau continues to amass thousands of photographs, tons of special reports and thousands of miles of off-road travel in search of data to expand, bolster or revise their previous findings. In short, the Interim Critical Management Program is at best a blueprint, or rather a preliminary drawing of the projected dream—12 million acres plus in which everyone with a personal interest can find a place to realize his objective, without harming natural resources, existing mining or recreational facilities.

An impossible dream? Maybe, but the bureau is working hard to bring it all about. ☐

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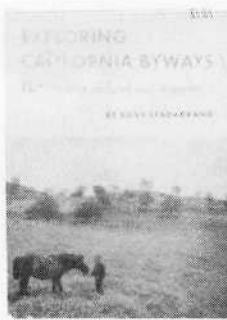
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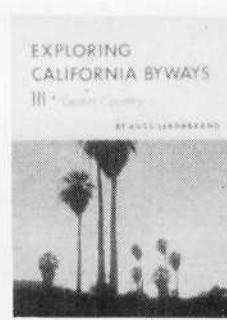
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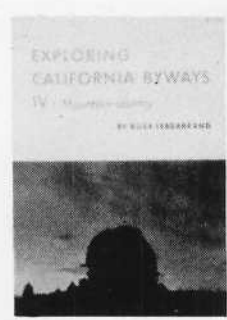
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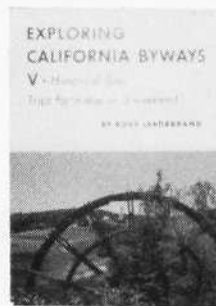
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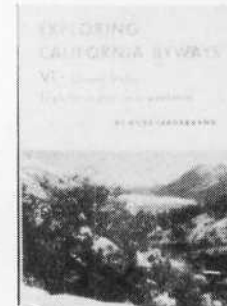
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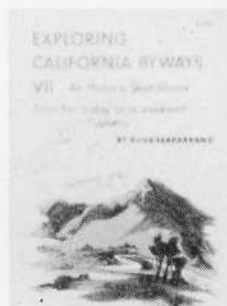
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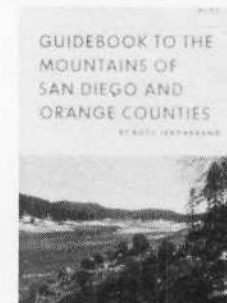
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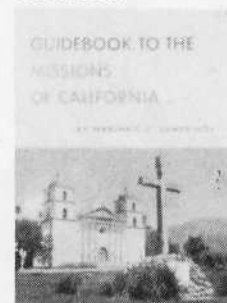
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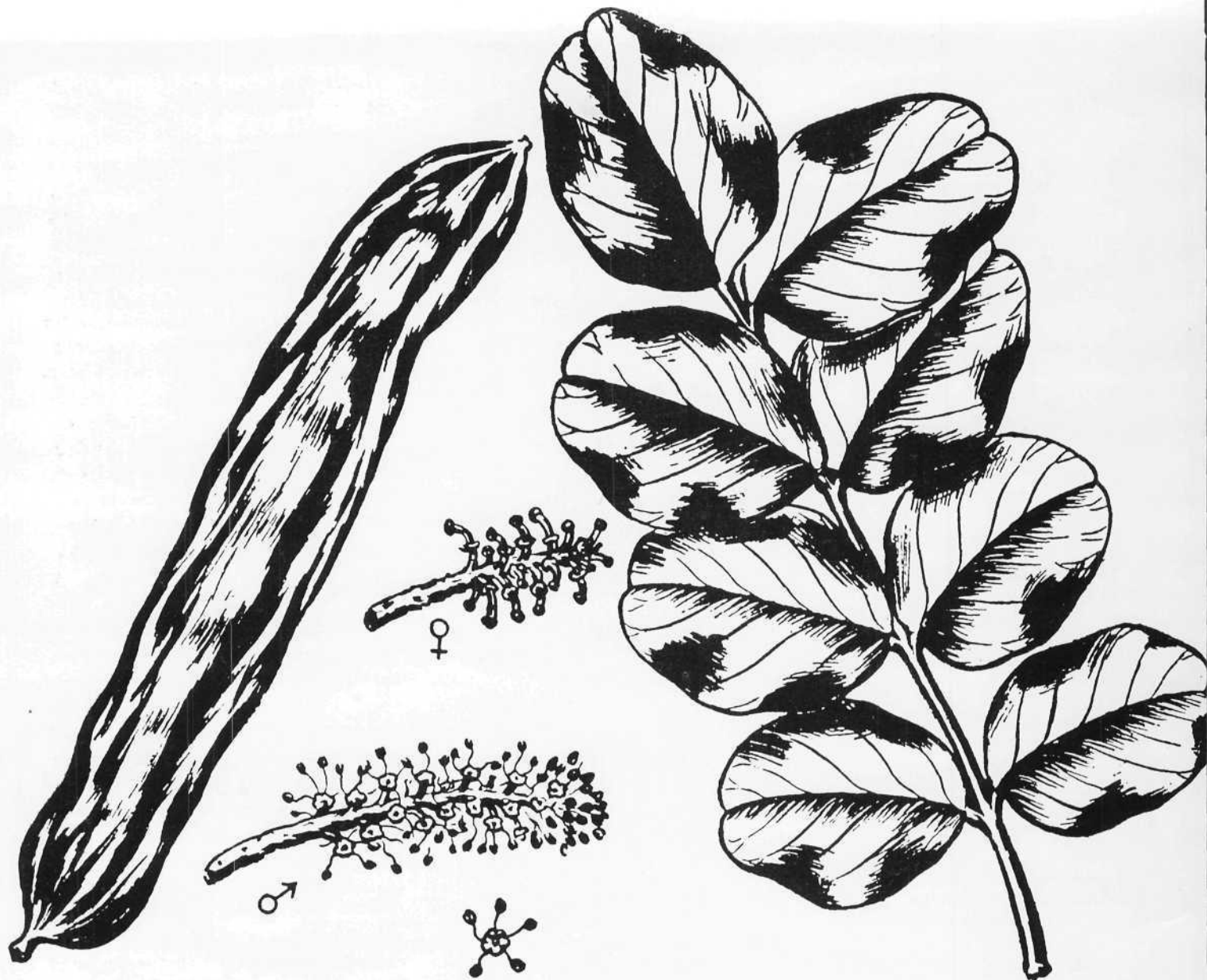
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Carob- The Multi- Purpose Tree

by MARIAN SEDDON

IF THOSE chubby, boulevard trees, with musically clinking brown pods, have strangely twisted branches and dark green paired leaflets, they're probably the little-known and much underrated carob trees. That the trees also grow wild in the semi-arid canyons of Arizona and California doesn't mean they are native to our Southwest. Who brought carob here from the Mediterranean area about a century ago is a mystery. Why few persons recognize carob, and even fewer know of its many uses, is more puzzling.

The three-inch to eight-inch pods, brown when ripe, have a semi-sweet chocolate taste when chewed. Flour, ground from the pods and available in health food stores, can be made into pastries, shakes and candies. These sweet-tooth satisfiers look and taste like chocolate. Yet, they are nutritionally and

chemically so different that persons allergic to chocolate can enjoy them. The brown carob drink, made with milk or water, contains no stimulants so persons wishing to avoid the caffeine in coffee, theobromine in cocoa and tannic acid in tea can drink carob without worry.

Weight watchers appreciate carob's 30 percent less calorie-per-pound, compared to chocolate. Dieticians point out that carob contains no oxalic acid, as does chocolate, thereby allowing greater assimilation of calcium, one of its many minerals.

Carob has a wealth of minerals and vitamins. Besides calcium, its minerals include potassium, sodium, iron and many others. It is rich in B vitamins, having as much thiamine as asparagus and as much of another B vitamin as lima beans. It has more Vitamin A than beets.

Strangely, and somewhat sadly, carob

is much better known in this country as livestock fodder than as food for humans. Farm magazines, such as *Western Dairy Journal*, have long advocated the use of carob as food and shade for horses, pigs, goats, cows (pods must be broken for cows) and poultry. Tests at University of California, Davis, show

CAROB DIP OR SPREAD

½ cup ground sesame seed

½ cup Carob Molasses

Mix small amounts to keep it fresh as needed. Spread on toast, crackers, cookies. Try fresh cucumbers, peeled and cut length-wise, dip and eat with fingers.

CAROB BARBECUE SAUCE

1 cup cooked diced apricots

1 cup orange marmalade

½ cup Carob Molasses

dash of salt and pepper

1½ Tablespoons of oil

2 Tablespoons sherry wine

2 teaspoons Worcestershire sauce

2 Tablespoons apple cider vinegar

Bring to boiling point and simmer for 5 minutes, pour over chicken or spare ribs.

PUMPKIN CAROB SHAKE

1 cup cooked pumpkin

3 Tablespoons Carob Molasses

2 Tablespoons Carob Powder

1 fresh egg

1 cup milk

½ cup brown sugar

1 cup ice cream (vanilla)

¼ teaspoon allspice

Combine all in blender. Serve chilled.

CAROB SAUCE FOR BAKED BEANS

1 cup tomato juice

1 cup tomato hot sauce

1 diced medium onion

1 Tablespoon prepared mustard

3 Tablespoons Carob Molasses

2 Tablespoons brown sugar

1 Tablespoon catsup

Mix, pour over beans, bake for 2-3 hours. Diced ham, bacon or weiners may be added.

CAROB MALT

1 cup fresh milk

3 dips of vanilla ice cream

1 Tablespoon Carob Powder

1 fresh egg

3 Tablespoons Carob Molasses

Blend ingredients and serve.

carob to be equal to barley as livestock food. Carob is also widely known and used as a medicine for the treatment and prevention of scours (diarrhea) in livestock. Only lately have medical journals in North America and Europe begun advocating carob powder for the prevention and cure of human dysentery, especially

in children. The pectin and lignin in carob not only regulate digestion, they combine with harmful elements—even radioactive fallout—in digested foods and carry them safely out of the body.

The tiny, hard-as-nails seeds inside the pods are also valuable, but not as food. When separated from the pod—a process called kibbling—and cooked, the seeds become a thick gum. Commercial uses for this gum tragacanth include sizing for cloth, ingredients in ink, film polishes, cosmetics, tooth pastes, adhesives and ice cream.

Despite its many uses, carob (*Ceratonia siliqua*) trees are grown in our Southwest mainly for shade. Streets in the semi-arid cities of Arizona and California abound in carob. Pasadena has more than 2,000 as boulevard trees. They are a pleasing, rounded tree, some reaching 50 feet with shiny, dark green paired leaves. Their branches twist, some making almost U-turns. Only the female and bisexual trees produce pods. Their flowers are a reddish, string-like raceme.

At present, the commercial value of carob appears slight in this country as carob flour and gum tragacanth can be imported from the Near East at less expense than it can be grown, kibbled and ground here. One large carob grove near Vista, California was planted in 1949 under the supervision of Dr. J. Eliot Coit. Another grove in northern California is owned by Bea Williams of Carob Products. Along the Tijuana-Tecate Highway in Baja California is one of the largest carob groves in the world.

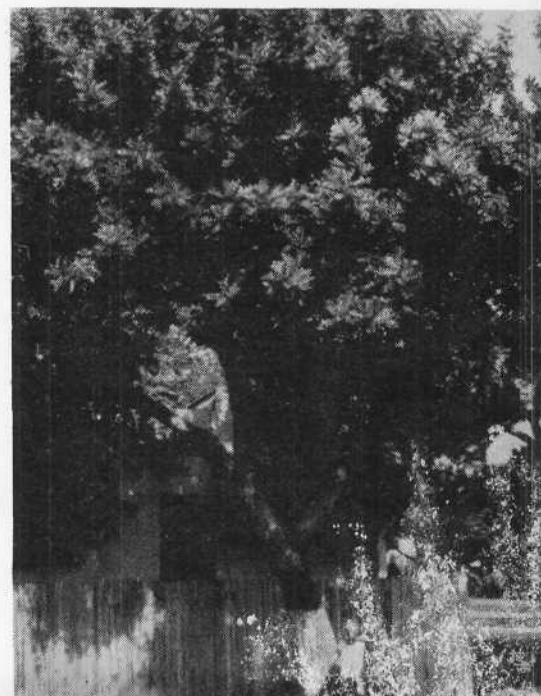
Carob has many varieties, differing in taste, size and bearing age. The Amele, a female, is a very old variety from the Adriatic Coast. The large Sante Fe, a hermaphrodite, originated in Santa Fe Springs, California. The Tylliria, with pods darker than the Sante Fe, is from Cyprus and grows well in the dry climate of Indio, California.

Carob has many links with antiquity. Even the name carob originally meant "carat" and its stone-like seed was the first carat used by goldsmiths as a measurement. It has many Biblical ties. The labels on some boxes of powdered carob state, "Carob, also known as St. John's Bread, Honey Locust and Carobi, is believed to have been the sustaining food of John the Baptist during his sojourn in the Wilderness."

The word "locust" later became confused with the locust insect and with the locust trees, which is a leguminous pod-bearer, but taller and more slender than the carob tree. Another Biblical link is the parable of the Prodigal Son in which the husks he ate may have been carob "husks" or pods. If the Prodigal subsisted on a food not only 73 percent carbohydrate, seven percent protein, but rich in minerals and vitamins, his diet, while monotonous, may have been more nutritious than that of his stay-at-home brother.

Skipping into A.D. and the 1800s, historians state that the horses of the Duke of Wellington were kept alive during the Peninsular Campaign by chewing carob pods. In the 1930s, Spanish Civil War children who chewed carob pods survived disease and malnutrition. Ten years later, when Germany invaded Greece, they confiscated food, but ignorant of carob, left huge stores of pods. Many Greeks credit carob with saving them from starvation.

Besides food, medicine and pleasing shade for man and beast, carob has another value—in its roots. Each tree has thousands of tiny hair roots which, though seemingly lifeless, store tremendous amounts of surface water. Even though carob groves in our Southwest cannot compete commercially with groves in the Mediterranean countries, carob plantings would halt the erosion of our semi-arid lands as they do on the hills around Jerusalem. □



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The calcite diggings, being examined by Susan Tillerson, never exceeded 50 feet in depth due to a need for ventilation.

CALCITE CANYON

Continued from Page 11

from the Pegleg Smith Monument (northeast corner of Borrego Valley). If you drive from the eastern end of the Borrego-Salton Sea Way via Highway 86, the turn-off is .6 mile past that red and white micro-way relay antenna which comes to dominate your view after a few miles. You can't miss it.

At the Calcite Mine Road turn-off, civilization ends and desolation begins. This dirty little road could be described among other things, as rocky, narrow and precipitous. The good news is that there's little sand to contend with, and given reliable tires and brakes, most cars can handle it. For example, I once tackled this road (or vice versa) in a Volkswagen Beetle on two bald tires and carrying no jack.

Actually, there is another practical way to reach the mines which avoids driving the worst part of the Calcite Mine Road. About one-third of the way up (.7 mile for you odometer buffs) is a

junction marked by a post reading "Palm Wash." Park your car nearby and hike to Calcite Canyon by way of the ravines that drain the mine area. Beginning in Palm Wash, hike in a northerly direction while staying to your left as the wash branches into several ravines. After walking about an hour, you'll notice the Calcite Mine Road dip into the wash. Follow the road as it climbs up and out to the right, leading you to Calcite Canyon after approximately half-an-hour's hiking. This is a shady hike which gives you a feel for the region.

The central mining area is at the end of the road and is marked with a sign erected by the park service. The sign carries the written reminder that wild-life, vegetation and geological formations are protected by park rules and should not be disturbed. Standing by the sign, you whip out your compass and using this article to guide you, discover that the majority of mined areas lie 140 degrees to the southeast on either side or that ravine just below you. From this point on, let those pioneer instincts be your guide. □

Letters to the Editor

Letters requesting answers must include stamped self-addressed envelope

Will the Real Chic Sale . . .

In the October, 1976 issue of *Desert*, there is an item titled "Author's Update."

It may be of interest to Mary Frances Strong to know that there actually was a Charles (Chic) Sale and he authored a small book entitled *The Specialist*. Obviously, the "Specialist" specialized in building out-houses, or privys, as he called them.

I'm enclosing copies of the dust jacket and the title pages of the book.

R. R. DELAREULLE,
Walnut Creek, California.

Memories of Catfish Stew . . .

The July article about White's City, New Mexico, reminded me of our first visit there in the summer of 1934. A heavy thunderstorm with multiple lightning strikes had chased us across the rocky plateau road up from El Paso, while the surrounding desert flooded rapidly.

We were happy to reach White's City where there was a small motel, and store-restaurant. On the store counter was a battery-operated rattlesnake tail "rattles," set off by the clerk. The easterners could care less, but the Westerners jumped a mile, and then looked around very sheepishly.

The restaurant featured catfish stew that evening. Those catfish must have swam through 50 miles of mud to reach the stew pot. Whew! After that, the Caverns were almost an anticlimax!

ALLEN C. MITCHELL, M.D.,
Sonora, California.

Easel Come, Easel Go . . .

I'd like to take issue with Mr. Kosty from Orange who boo'ed the western art, favoring photographs. Someone should tell him that desert art is a heavy part of desert culture. In every desert hamlet there are art associations. Many, many retired doctors have put away their scalpels and taken up the palette to capture Joshuas on canvas, working every day except Wednesdays—which is for golf.

And there are many art exhibitions, from the Date Festival at Indio, California to the open air exhibitions in Death Valley. Last year I entered two on easels in one of the open air contests. I took off for a sandwich and when I returned someone had ripped-off my easels. He could have taken one of the oils? Could he have come from Orange?

I know a happy old prospector who pans a bit and paints a bit. He's doing oils of desert johns, which will be extinct as the desert becomes sewerized. I like the one showing two boys painting a dilapidated john which carries a sign reading, "White House West."

He claims he's doing a calendar series for American Can Co. Could be.

GUY GIFFORD,
Los Angeles, California.

Part of Longshot Loot? . . .

The story, "Longshot Loot," about the Hamilton, Nevada area, intrigued me. While I was visiting the White's Electronics factory, in Sweethome, Oregon, in early June, 1975, a couple came into the reception room with a small package. According to them, they had gone to Hamilton to search for artifacts with an older model metal detector. While searching up a slope, the detector indicated the presence of metal. Upon digging a shallow hole, they discovered, to their amazement, a small cache which included two massive gold rings (I don't recall the stones set in them), two gold-colored figurines about the size of a woman's little finger which seemed to be of Chinese origin, over a dozen Chinese, French and American coins and a large lidded front pocket watch in remarkably good condition.

There were also the remaining pieces of a leather pouch which undoubtedly provided protection for the articles for many years.

GEORGE AVILA,
Trona, California.

Needs Info on Lanfair Valley . . .

In your November, 1968 issue of *Desert Magazine*, there is an article entitled "On the Old Fort Road" that is very interesting to me for it includes a map of the Lanfair Valley.

My family homesteaded land in this area, and I am very anxious to know more of its early history. How was it opened up to the people? Was it part of the Piute Fort?

I am also interested in what the weather was like in the years of 1915 to 1920, and is there any record of farming? What about water? And which railroads traveled through this area.

I wonder if any of *Desert's* readers would know of any original homesteaders of that time, and if some of the children are now in contact with the Lanfair Valley.

MRS. PAUL WITHERS,
Los Angeles, California.

Calendar of Events

This column is a public service and there is no charge for listing your event or meeting—so take advantage of the space by sending in your announcement. We must receive the information at least three months prior to the event.

DECEMBER 4 & 5, 7th Annual "Red Carpet" Gem and Mineral Show, Santa Monica Civic Auditorium, 1855 Main St., Santa Monica, Calif. Outstanding professional and amateur displays, working demonstrations. Dealer spaces filled. Show Chairman Bob King, 1826 9th St., Manhattan Beach, Calif. 90266.

FEBRUARY 11-13, Annual Gold Rush Days Show and Sale sponsored by the Wickenburg Gem & Mineral Society, Community Center, Wickenburg, Arizona. Free admission. Special Copper Minerals Exhibit. Chairman: Moulton Smith, P.O. Box 1042, Wickenburg, Arizona 85358.

FEBRUARY 12 & 13, American River Gem & Mineral Society, Inc., will hold their 12th Annual "Fiesta of Gems" show at the Mills Jr. High School, 10439 Coloma Rd., Rancho Cordova, Calif. Chairman: Ralph Darden, P.O. Box 374, Rancho Cordova, Calif. 95670.

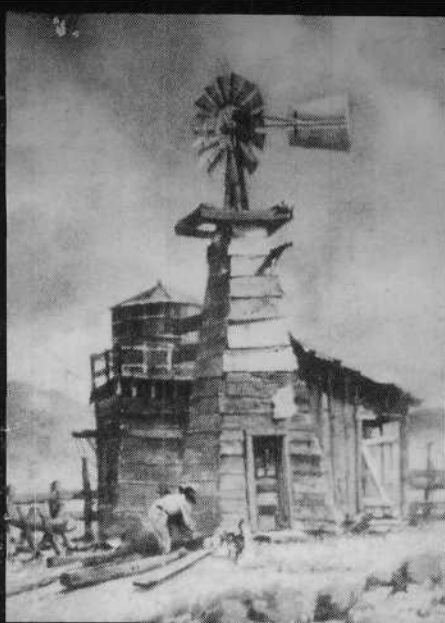
FEBRUARY 19 & 20, Tenth Annual Antique Bottle Show and Sale of San Mateo County, sponsored by the Peninsula Bottle Collectors, San Mateo County Fairgrounds, San Mateo, Calif. Admission and parking free. Beautiful and educational displays of rare old bottles from all over the West.

FEBRUARY 26 & 27, Gem and Mineral Show sponsored by the Santa Clara Valley Gem and Mineral Society, Inc., Santa Clara County Fairgrounds, Pavilion Bldg., 344 Tully Road, San Jose, Calif.

MARCH 4-6, "Rainbow of Gems" Gem Show sponsored by the Maricopa Lapidary Society, State Fairgrounds, Phoenix, Arizona. Overnight camper parking. Field trip. Write Mrs. Myra Irons, 2046 W. Orange, Dr., Phoenix, Arizona 85015.

MARCH 4-13, Imperial Valley Gem and Mineral Society presents their 30th Annual Show as part of the California Midwinter Fair at Imperial, California. Field Trip on March 11. Dealers: Area for trailers and campers (no hookups). Admission to Fairgrounds.

MARCH 18-20, 17th Annual Southwest Gem & Mineral Show, Villita Assembly Hall, 491 Villita St., San Antonio, Texas.



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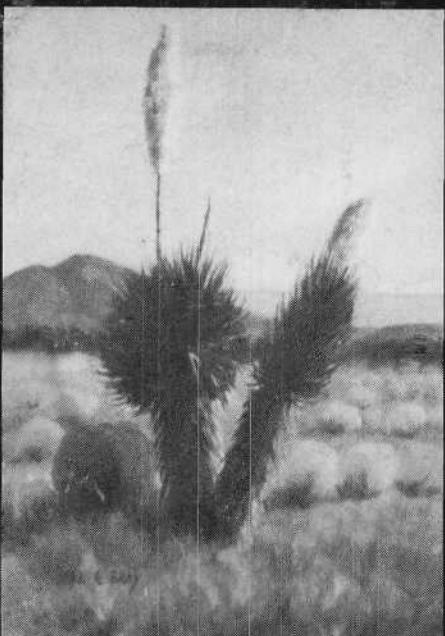


Victorio, Oil, 20"x16" Elbert Cheyno

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Yuccas in Bloom,
Oil, 16"x12"
Carl Bray

Motherly Love, Oil, 18"x24"

Lloyd Mitchell

