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Desert

THE MAGAZINE OF THE WEST

FEBRUARY, 1964

50c



**WINTER BOATING
DESERT GARDENING
A CHEMIST LOOKS AT BUGS**



FEBRUARY PHOTO CONTEST WINNERS

First Prize

DESERT TREE

Ron Moon
Saugus, California

An aged tree holds its head high in the San Francisquito Canyon in California. Data: Leica M3, 50mm Summar lens, f4 at 1/250. Kodak Plus-X. No filter.

Second Prize

GRAND CANYON

Charles Bodenstein
Santa Monica, California

Looking across the Grand Canyon near Navajo Point with the Vermillion Cliffs in the distance. Data: Leica IIIg, Summar lens, f2 lens, Kodak Plus-X, 1/500 at f11, yellow filter, summer morning.

The Southwest is a land of changing moods . . . a land where contrast is the keynote and where the blazing desert in the afternoon turns into pastel shades in the evening . . . where rugged mountains change their shapes from dawn to dusk and where wildlife just for a fleeting instant can be captured on film.

In many of these instances Desert Magazine readers are there . . . at the right place at the right second. In order to bring Desert readers these captured moods and moments we are resuming the Photo Contest started years ago by Randall Henderson, founder of Desert Magazine.

FIRST PRIZE will be \$15; SECOND PRIZE, \$8. For non-winning pictures accepted for publication \$3 each will be paid. Although not part of the contest, Desert is also interested in viewing 4x5 color transparencies for possible front cover use. We pay \$25 per transparency. Both black-and-white and color are for first publication rights only.

PHOTO CONTEST RULES

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

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

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

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

5—Contests are open to both amateur and professional photographers. Desert Magazine requires first publication rights only of prize winning pictures.



Desert

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DOWN A 200-FOOT STEEP CLIFF BELOW THIS SITE PROSPECTORS MINED FOR GOLD IN 1863. OTHERS FOLLOWED WITH BURROS AND TRUCKS UNTIL THE VEIN WAS EXHAUSTED. ROYCE ROLLINS TELLS OF THE SILVER PEAK AREA IN THIS MONTH'S TRIP OF THE MONTH.

THE WEST IN FEBRUARY By JACK PEPPER

DEFACED DESERT DEMISE. Starting with February, DESERT Magazine's 22,000-plus subscribers will receive their issues in envelopes. We are pleased to report the days of having an address label defacing our cover and frayed and torn pages are gone. We are now using Uncle Sam's new Zip Code system to expedite mailing DESERT. So when renewing your subscription or ordering a new subscription as a gift to a friend, please send the Zip Code number if possible.

MAGAZINE MAPS. Although we appreciate favorable comments from DESERT readers, we are also vitally interested in constructive suggestions and criticisms. We use three adjective to guide our editorial policy: enrichment, enlightenment and entertainment. At the same time our "Three Es" must be based on facts, and, as far as possible, details, so DESERT readers may find their way. In this issue there is a letter criticizing us for using maps as a guide to those who "will deface the desert." The reply by DESERT's editor states our policy.

TWENTY-SEVEN YEARS OLD. Desert Magazine is 27 years and 4 months old. There have been 328 issues published since Randall Hen-

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derson, founder, wrote an editorial "There Are Two Deserts" in the first edition, November, 1937. We feel the following excerpts from his editorial remains true today:

"This is the last great frontier of the United States. It will be the purpose of DESERT Magazine to entertain and serve the people whom desire or circumstance have brought to this desert frontier. But also, the magazine will carry as accurately as possible in word and picture, the spirit of the real desert to those countless men and women who have been intrigued by the charm of the desert, but whose homes are elsewhere.

"This is to be a friendly, personal magazine, written for the people of the desert and their friends—and insofar as possible, by desert people. Preference will be given to those writers and artists—yes, and poets—whose inspiration comes from close association with the scented greasewood, the shifting sand dunes, the coloring of desert landscapes, from precipitous canyons and gorgeous sunsets.

"The desert has its own traditions—art—literature—industry and commerce. It will be the purpose of DESERT Magazine to crystallize and preserve these phases of desert life as a culture distinctive of arid but virile America.

"It is an idealistic goal, to be sure, but without vision the desert would still be a forbidding wasteland—uninhabited and shunned. The staff of DESERT Magazine has undertaken its task with the same unbounded confidence which has brought a million people to a land which once was regarded as unfit for human habitation.

"We want to give to the folks who live on the desert—and to those who are interested in the desert—something that will make their lives a little happier and a little finer—something worthwhile. In the accomplishment of this purpose we ask for the cooperation and help of all friends of the desert everywhere."

FEBRUARY CALENDAR. 2—San Diego to Acapulco Yacht Race, San Diego. Best viewing from Cabrillo National Monument. 5-6—Harlem Globetrotters, San Diego. 7-9—Gold Rush Days, Wickenburg; Rodeo, Yuma; Mardi Gras, Apache Junction, Arizona. 7-8-9—Pacific Coast Soaring Championship, Torrey Pines Park, San Diego. 8-10—Tomato Festival, Niland, Calif. 13-16—Imperial Valley Carrot Carnival, Holtville, Calif. 14-23—National Date Festival, Indio, Calif. 20-23—Whiskey Flat Days, Kernville, Calif. 23-March 1—Cactus Show, Phoenix. 27-March 1—All Arabian Horse Show, Phoenix. 28-March 8—California Mid-Winter Fair, Imperial.

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New Books For Desert Readers



TREASURE HILL

By W. Turrentine Jackson

Much has been written about the great bonanzas of Nevada—the Comstock Lode, Pioche, Tonopah and Goldfield, but little is remembered of the mines that failed. And yet, their short-lived history was equally colorful, their consumption of money and human effort equally dear, and their emotional impact perhaps more dramatic.

It was in line with these thoughts that Mr. Jackson wrote his story of **TREASURE HILL**, a rich silver discovery of 1868 in eastern Nevada that raised the curtain on a drama of human energy and closed in a setting of ghost towns 20 years later.

He writes of community problems which deal with intoxicated fellows riding horseback hellbent through the center of town with no regard for life afoot, or pranksters shooting guns through saloon doors just to see who'd get hit, and of the constant danger from irresponsible blasting operations conducted to level ground for buildings and streets in a new town. He writes of human relation problems incurred in a predominantly male society, of disagreements between mining partners, violent competition for prostitutes, devastating poker games, and murder. He writes of social problems, of ore thievery, salted mines, crooked politics, and stock promotions. And, he writes of tenderness, loyalty, selfless suffering and honor. He writes with excitement and vitality of daring people living in an adventurous time.

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MONUMENTS IN CEDAR

By Edward L. Keithahn

With excellent photographs, many previously unpublished, author Keithahn traces totem poles from the Stone Age to their Golden Age. For the most part, however, this art expression executed by Washington, British Columbia and Alaskan Indians is of fairly recent origin, possibly not over 150 years old.

Originating in the Haida and Langara Islands, the earliest totem poles were used as mortuary poles and had only one symbol perched on the top which represented the phratry or most important clan of the deceased. Later, with more profuse carving, totems were used for interior house poles or as status symbols on the exteriors.

During his years of living among northwest Indians, Mr. Keithahn traced many all-but-forgotten myths, customs and legends. Much of the mystery that surrounds totem pole history is due to local ignorance of present generations and a reluctance of older ones to talk freely with strangers. Unlike most myths, those of the northwest Indians were considered private property and only one who had inherited or acquired the right had the privilege to tell his exclusive story. As progeny declined, so did many legends. In addition, the damp climate caused historic totems to rot into oblivion.

There is little physical difference among tribes of this linguistic group today, but this has not always been true. The original people who occupied this area were fair skinned. It wasn't until after mixing with Europeans and Polynesians that they grew dark.

Where they came from is unknown. Even their clan crests sometimes strayed from local phratry or known tribes. Mr. Keithahn cites an example wherein a Haida clan claims a mountain goat totem, although the mountain goat is found nowhere in Haida territory.

Anyone interested in prehistory will be fascinated with this large, 160 page, brilliantly illustrated book, and for readers with a special northwest interest, it covers an area of thought rarely touched. Published by Superior Publishing Company of Seattle, it may be purchased at your bookstore for \$12.50.

WESTERN GEM HUNTERS

By J. Cyril Johnson

A revised fourth edition of this guide for rock hounds is fresh off the press. Covering California, New Mexico, Nevada, Arizona, Utah, Colorado, Oregon, Washington and British Columbia, detailed state maps indicate the best gem areas and what may be found in them, mines and claims, where mineral specimens have been found, areas where permission must be obtained to hunt and seasons when weather permits. Rock shops in each area are marked with a star.

Convinced that publicity of gem fields assures good hunting whereas secrecy causes depletion of an area by a few, expert gem collectors Cy and Virginia Johnson have dedicated themselves to recording every available published gem field plus little known ones they've discovered themselves. While many of the localities shown on the maps have been worked over too thoroughly to be worthwhile, it is their conviction that where old finds lurked, new ones are nearby—or simply down deeper.

Information regarding camping and gem and mineral incidents of historic interest, such as California's largest 7½ carat diamond found in 1867 near Grass Valley, make this handy glove-compartment-size, 92-page paper back book a good traveler. It may be ordered from the publisher, Scenic Guides, Susanville, California, or purchased for \$2.50 at most western bookstores.

TAPESTRIES IN SAND

By David V. Villasenor

The art of sandpainting as perfected by the Navajos is believed to have originated with Zuni and Hopi tribes, although considering the transient quality of pollen, grains of sand and mineral dust used to create the

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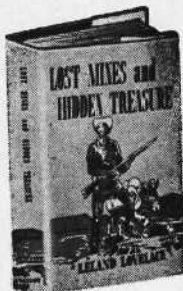


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pended upon visual symbols to per-
petuate their spiritual heritage.

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monies chiefly for healing purposes.
In Monument Valley such "sings" re-
main an important aspect of modern
life. Because an integral part of the
visual prayer is final destruction of
the sand painting and its distribution
to the "six different directions," few
white men are privileged to witness
this great art. And, it is great indeed.
The late French modernist Paul Klee's
whimsical figures could well have
been inspired by Navajo sandpaint-
ings.

In his TAPESTRIES IN SAND,
Indian author Villasenor has illustrat-
ed many of the ancient sandpaint-
ings and interpreted their esoteric
symbolisms. He recounts Indian myths
of Father Sky and Mother Earth and
he sometimes draws rather freely
upon Dr. Rhine's parapsychology and
Jung's Psychology of the Unconscious
to prove a vague point.

With whatever degree the reader
chooses to accept or reject Villasenor's
Indian magic (and he indulges a fair
amount of proselytizing), he does
emphasize some thought provoking
points. One, "It is good for man to
have his head in the clouds and let
his thoughts dwell among the eagles,
but he must remember also that the
higher the trees grow into the sky, the
deeper the roots must penetrate into
the heart of Mother Earth." The
point, in this age of outer space, may
be somewhat ambiguous, but like the
rest of the book, if you probe the
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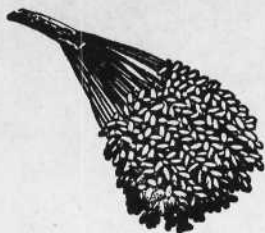
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A cast of 150 performers will present "The Tale of the Silent Bell," an original Arabian Night's story, on a stage reproduced to scale from an authentic Arabian palace. Harem quarters, a minaret from which Mohammedan priests chant prayers, and a beggar's gate leading to the market place are also faithfully reproduced. Turbanned concessionaires will camp under gay striped tents (be sure to visit DESERT's booth) and at night dramatic lighting will transport visitors to the distant land which spawned our original dates.

Although 95% of all dates raised in this country grow in or around Indio and the festival is scheduled to celebrate their harvest, other desert produce and activities will also be represented. Horticulture, floriculture, home and fine arts, gem and mineral exhibits, photography, handicrafts, livestock, industrial arts, and commerce and youth displays are only a few of the attractions scheduled for this 11-day event.

A national horseshow, an Arabian street parade in downtown Indio, and a midway with 20 major mechanical rides at the exhibition grounds will attract crowds with varied interests, but possibly no other events will vie in popularity with the festival's exciting annual camel and ostrich races!

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Selected List of SOUTHWESTERN BOOKS

NAVAJO RUGS—PAST, PRESENT AND FUTURE by Gil Maxwell. A historical background to modern Navajo rugs, a description of various types and areas. Map of trading posts on the Navajo Reservation. 20 four-color photos plus many black-and-white pictures. The author is one of America's top Navajo rug authorities. Extensive bibliography. Paper cover. \$2.00.

★ ★ ★

CRUISING THE SEA OF CORTEZ by Spencer Murray. Modern-day adventure in a 25-foot power cruiser along the gulf shore of Lower California and across the Sea of Cortez. 76 photos by Ralph Poole. 240 pages, hard cover, four-color dust jacket. Maps and charts. \$6.75.

★ ★ ★

GEM CUTTING by John Sinkankas. This standard text for lapidarists by one of the nation's top authorities in gem work is now available in a revised second edition. Some of the chapter headings: Gemstones—The Raw Material of the Lapidary; How to Get Started; Sawing; Grinding; Lapping; Sanding; Polishing; Drilling; How to Cut Cabochons; Faceted Gems; Tumbling; and Carving. 297 pages. Hard cover. 8½ by 11 inches. \$11.75.

★ ★ ★

TREASURE HILL by W. Turrentine Jackson. This is the story of a Nevada silver boom town of the 1860s that struggled to stay alive. Most of the money that went into promotion and development of the White Pine District was British. This story tells of the persistence of the British to prove the mines and recover their ever-increasing investment. The author quotes widely from mining camp newspapers. This portrait of a silver mining camp is one of the best pictures of Nevada's boom days. 254 pages. Hard cover. Four maps and diagrams. \$5.

★ ★ ★

BOOK OF THE AMERICAN WEST prepared by Jay Monaghan. This massive 610 page book was "arranged" into ten parts, each section prepared by an authority in the field. The contents: Explorers and Mountain Men; Transportation in the West; Treasures of the American West; Indians and Soldiers of the West; the Law of the West; Cowboys and Their Horses; Guns of the West; Western Wild Life; Western Folklore and Songs; and a Gallery of Western Art. The latter section has 20 color plates by such artists as Catlin, Bodmer, Bierstadt, Schreyvogel, Leigh, Remington, Stanley, and Russell. Richly illustrated throughout, the book is a western library under one cover. Quality press work. \$22.50.

LOST DESERT BONANZAS by Eugene Conrotto, former editor-publisher of the Desert Magazine. Known facts about more than 100 lost mines and hidden treasure troves are compiled in this brand-new 270 page book. No other book has ever gathered together as many facts about southwestern bonanzas. It was taken from a quarter century of earlier Desert Magazine articles plus correspondence from treasure hunters throughout the West. 91 excellent maps by Norton Allen. Hard cover. Four-color dust jacket. \$6.50.

★ ★ ★

ON THE BORDER WITH CROOK by John Gregory Bourke. First published in 1891, this classic of Army life on the western frontier has been recently reprinted. Starting with life at Camp Grant in Apache territory, the author tells of Apache customs, the streets of Old Tucson, Prescott, campaigning along the Platte, meeting with Crazy Horse and Sitting Bull, how Deadwood looked in 1876, etc. A highly quoted manuscript of frontier life. Reprinted from the original type faces. 491 pages. Hard cover. \$6.75.

★ ★ ★

MOUNTAIN MEADOWS MASSACRE by Juanita Brooks. First published in 1950, the book was long out of print. Demand for it brought it out again last year. It tells of the events leading up to the massacre of some 120 California-bound emigrants in the fall of 1857 in southern Utah. The massacre itself is detailed, and subsequent investigations, leading to the execution of John D. Lee, are told. The 316 page book has an extensive bibliography and a few illustrations. \$5.95.

★ ★ ★

CALIFORNIA DESERT WILDFLOWERS by Philip A. Munz. One of the outstanding western botanists, Philip Munz has prepared an affective guide to the desert flowers. 172 sketches plus dozens of color plates help the flower lover identify the desert plants and shrubs. Descriptions are brief and non-technical. 224 pages. Hardbound, \$4.95. Paper-cover, \$2.95.

★ ★ ★

PAINTERS OF THE DESERT by Ed Ainsworth. Biographies of 13 artists who found their inspiration in the desert southwest. Chapters devoted to Maynard Dixon, Clyde Forsythe, Jimmy Swinerton, Nicolai Fechin, Carl Eytel, Paul Lauritz, Conrad Buff, Don Perceval, John Hilton, Orpha Klinker, Burt Procter, Brownell McGrew, and Bill Bender. 110 pages, 14 four-color reproductions. Many black-and-whites. Beautiful cover and dust jacket \$11.00.

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Desert CAMERA

Edited By Frank Jensen



THE ART of "unsharpness" (placing part or all of the picture out of sharp focus) is a technique as difficult to master as any in photography. A beginner might get fuzzy pictures because he doesn't understand how to properly focus or hold his camera, but the professional will deliberately use soft focus to emphasize a mood or feeling.

A photograph needn't always be sharp to be good. Expert photographers today must interpret as well as record. A simple technique, as demonstrated by the photograph of the cowboy about to lasso a recalcitrant calf, is one of panning, or moving the camera with the action. For this particular shot I used a 250 mm telephoto lens on a Hassleblad to accentuate the blur, and a shutter speed of about a 30th of a second. Had a faster shutter speed been used, the horse and rider would have been in sharper

focus while objects in the background would still have been blurred, although not as much. There is nothing new about panning with action. Motion pictures have been doing it for years. However, it is also a valuable tool in still photography.

Another technique for soft focus is the use of a blurred foreground to delineate part of the picture. An old cabin, for instance, with flowers in the foreground, takes on added interest when those flowers are mere blobs of color. Again, a telephoto lens to narrow the depth of field is the best choice.

Soft focus may also be acquired with a device known as a diffusion disk which, I believe, is made for cameras such as the Rollieflex and, perhaps 35mm cameras as well. However, a piece of plastic taped over the front of the lens often serves as well.

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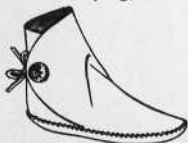
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The Saga of the SACK

THAT PAPER bags found their way into the United States via a distant primitive desert land may sound paradoxical, but it's even more curious than that.

In the early 1880s, enterprising-but-ghoulish Egyptian rag pickers were stripping mummies and selling the high grade linen wrappings to American paper manufacturers. The manufacturers, in turn, sold the paper made from these rags for wrapping food.

As the Egyptians claimed an inexhaustible supply of mummies, this seemed a fine idea until cholera swept through Boston and the epidemic was traced to food wrappings made from mummy rags. This unpleasant fact instituted research which today makes the manufacture of paper bags so inexpensive that they may be discarded after a single use.

Long before modern man put wood pulp "in the bag," however, wasps and bees were already in production. These insects, by secreting a paper-like substance from their bodies, make bags of this substance and line them with the paper honeycombs in which they live, lay eggs, and deposit honey. Naturalists regard these as the first paper bags made.

Man's large scale manufacture of the item occurred much later. Up until 751 A.D., paper was produced in China by a formula unknown to the rest of the world. About that time, however, a dispute arose between the Chinese and the Arabs which changed the world.

Samarkand, an Arab stronghold,

was attacked by the Chinese, who greatly coveted it as a stronghold of their own. Arab soldiers rallied and the Chinese troops fled, but not before losing two of their expert paper makers to the victors. Forced by the Arabs to reveal their secrets, these two captives fathered the paper industry which soon spread throughout Europe and the Middle East.

Although machine-made paper bags have only been in existence little more than a century, there isn't a single civilization in which men didn't make use of some kind of sack or bag. Shepherds in places as distant from one another as Jordan and Tierra del Fuego carried wine in animal skins sewn tightly together. Lightweight, flexible and nearly unbreakable, these leakproof bags were more practical (and still are) for outdoor living than glass or earthenware containers. From ancient Egypt to Outer Mongolia, similar animal skin bags were employed to store seeds, grain and even money.

In deserts of the New World, prehistoric inhabitants wove baskets of grass and reed so finely executed that they, too, were virtually leakproof. Some tribes, possibly less skilled, sealed the interiors of their baskets with pine pitch to render them water resistant. These woven jugs, borne on the backs of Indians, and suspended from forehead bands, or tump straps, were carried great distances between desert water holes. Bags to carry dry articles were woven of yucca fibre and some, possibly thousands of years old, have been found in burial caves alongside other stone age artifacts.

During the 16th century in civilized England, coins were often carried in woolen knit bags, although this represented the demise of a long established tradition, as Englishmen of the 13th century believed that only beggars should be seen with bags.

"It's a beggar's right to bear a bag upon his back and for burghers to bear purses," an English poet wrote in 1240.

Sacks have so much in common that the word "sack" is pronounced almost the same way in at least 16 different modern and ancient languages, among them English, Greek, Phoenician, Hebrew, French, German, Syriac, Anglo-Saxon, Arabic and Aramaic.

Not all the facts about sacks are pleasant. Take, for instance, the expression, "I got the sack," which means, "I was fired."

The origin of this expression is even more unpleasant. Getting the sack originally was a form of execution. Under ancient Roman law, anyone who murdered his parents was sewn up in a cloth sack and dropped in a river to drown.

Despite its sometimes unprincipled past, however, the bag today enjoys a place of dignity. For special items it is tailored, insulated, reinforced, printed upon and impregnated with wax or chemicals. And it isn't always constructed of paper, either—maybe nothing quite as exotic as mummy wrappings, but plastic frequently presents an attractive and sanitary substitute. ///

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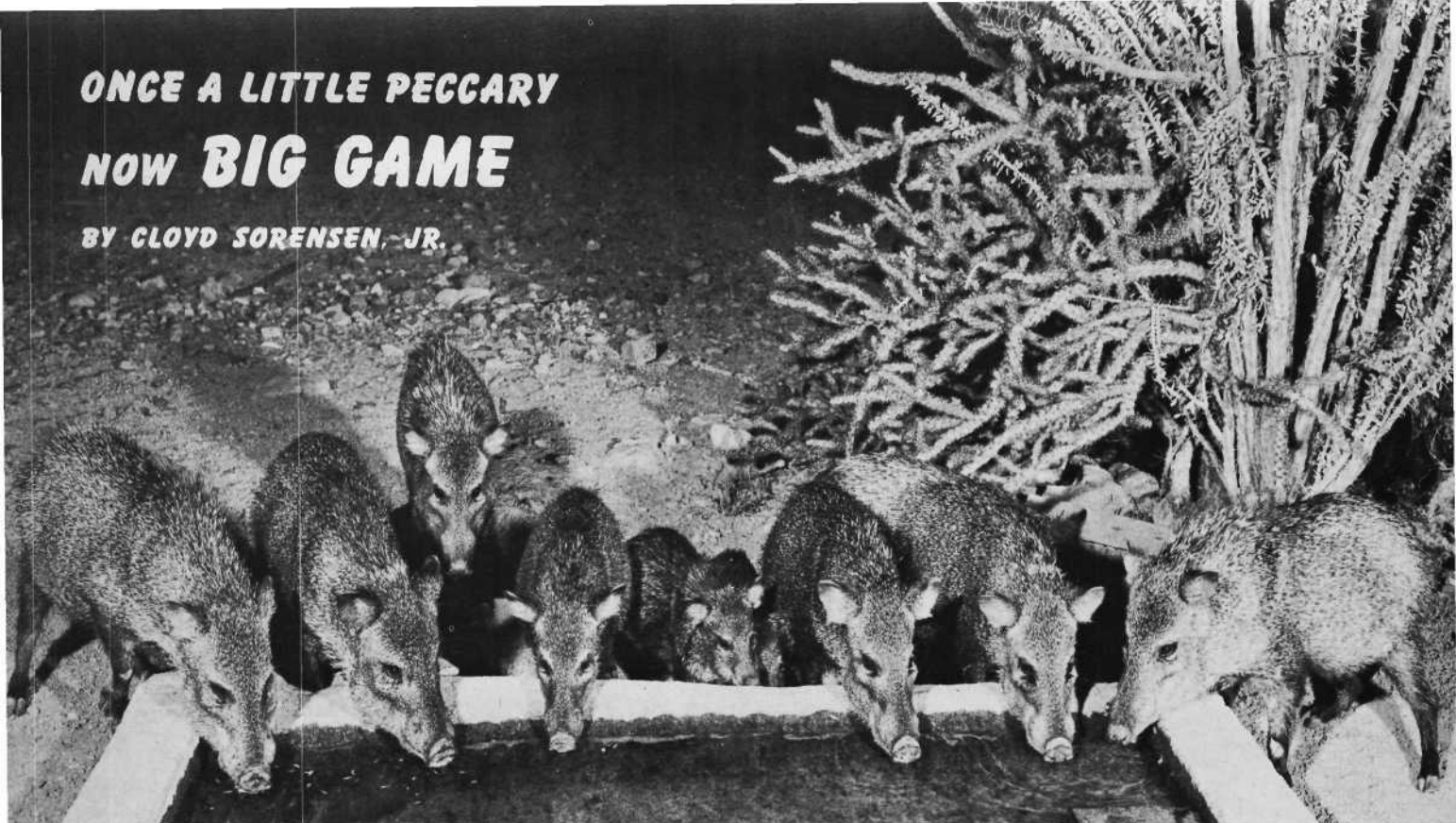
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ONCE A LITTLE PECCARY NOW BIG GAME

BY CLOYD SORENSEN, JR.



NO ROAST BEEF FOR THESE LITTLE PIGGIES. THEY'RE VEGETARIANS.

STANDING IN a sporting goods store, I was staring at the mounted head of the most ferocious beast I had ever seen. It's head appeared to be at least the size of a timber wolf, with narrow beady eyes and long bristles raised on the back of its neck. This wicked looking animal also possessed the most complete set of dentures I'd ever seen, set off by curling lips and two pairs of two-inch tusks.

"What's that?" I asked the manager.

"Young man," he replied, "that is a javelina. One of the meanest, nastiest critters on the face of the earth."

Examining its head, I was not a bit surprised to hear how this monstrous beast had charged the storekeeper at close range, within seconds of tearing him to ribbons with its razor-sharp tusks when the brave man stopped him with a well-placed bullet.

At that time I was a greenhorn to the Southwest and one more ferocious tale about the poor, little misunderstood javelina was born to be repeated, exaggerated and multiplied a hundred times.

My adventures on the Arizona desert each February searching for these desert pigs have been exciting and educational . . . as well as a tangible excuse to smell steaks sizzling over ironwood coals, to listen to

old-timers yarns, or just to dream under thousands of bright stars glittering like crystals in the clear sky.

Anatomically, the javelina is about one-third head, which accounts for the impressive size of his mounted trophy. Nevertheless, he has a vicious set of choppers, although he's more apt to turn tail and run in the face of danger than to put up a fight, unless he's trapped. Then, beware! We've referred to the javelina as a pig and he does belong to that group of mammals, although he's quite different from his wild European cousins or even domesticated hogs. The European wild boar has an efficient fighting weapon in his upper canine teeth which grow up and out, instead of down. The javelina's canine teeth grow down instead of up.

Three times I've had close calls with a javelina. Twice I foolishly asked for it by approaching a wounded animal. The other time a boar and I, face to face, found ourselves backed up in a tight box canyon. He didn't charge, but I had the impression, as I listened to his gnashing tusks and saw his bristling mane, that he might. I have never been charged and the only reliable story I've heard of anyone being charged by a javelina came from a licensed guide who has hunted the desert in Arizona and Mexico for over 30 years. When he came between a javelina sow and her baby, she charged. This was surprising. Usually a javelina

sow will abandon her young in face of danger. As the poor mothers of the animal kingdom, they're notorious.

The javelina, more correctly known as the collared peccary (*Tayassu tajacu*), is found in desert regions of southern Arizona, Texas and Mexico, with a few scattered herds in New Mexico. Twelve subspecies are known, including the white-lipped peccary of Central and South America. However, in the U.S., subspecies are limited to the Sonora peccary (*T.t. sonoriensis*) in Arizona and overlapping into southwest New Mexico and the Texas collared peccary (*T.t. angulatus*), found in southern Texas and southwest New Mexico. The Texas peccary is slightly darker and a bit smaller than his Arizona cousin. Both subspecies have dark gray collars. The white-lipped subspecies is larger and considered to be more aggressive which, by association, perhaps accounts for the legendary viciousness of the collared peccary.

The javelina was the only pig in North America when white men arrived. Scientists inform us that javelina lived in competition with the five-toed horse, the primitive rhinoceros and huge carrion-eaters of the early Eocene where his fossil bones have turned up in Wyoming and Utah. Next he lived in competition with the three-toed horse, the small camel, the primitive dog and early

sabre-toothed cat of the Oligocene, where his bones are found in the Oligocene badlands of Nebraska, Wyoming and South Dakota. Down through the Miocene, Pliocene and Pleistocene, the Peccary existed, competing with a variety of mammalian forms, all now extinct. There are those who credit his continued survival to the unpleasant odor of a musk sack located mid-dorsally, slightly above and forward of his tail.

This musk gland functions as a warning system. When alarmed, the javelina expels a pungent, heavy skunk-like odor that is hard to forget. It also seems to serve a purpose in keeping the gregarious pigs, who travel in herds, together and regrouping them when they're scattered. This unpleasant odor extends throughout their entire systems, rendering the meat of a poorly killed javelina impossible to eat. If killed quickly, however, the meat is said to be white and tasty, although somewhat dry.

Roaming desert washes, arroyos and cienegas in its search for food, the javelina herd is constantly woofing, grunting and squealing. With their long snouts they root the soft soil, tearing up the terrain like a plow. Dainty tracks will be everywhere. When desert explorers discover these signs, there's a good chance that little pigs are snoozing under a mesquite nearby or chewing on a pad of prickly pear.

Eighty percent of the javelina's diet is prickly pear leaves or its fruit. He also eats mesquite beans, roots and bulbs. In higher elevations, where he is becoming more frequently seen, he dines on pinon nuts and acorns. He seldom browses and eats very little grass. Once, after a winter rain, I saw some rooting and eating tiny wild onions in a desert mountain. It has been reported that they occasionally eat meat and carrion, but this is dis-



"These beans could use a touch of pork."

puted by field biologists. Another legend is that the peccary kills and eats rattlesnakes. During a controlled experiment with a rattler tethered at a water hole, the javelina walked around to the other side of the hole to drink, avoiding any possible contact with the snake.

There does appear to be evidence in the complex structure of his stomach that sometime during his existence there was a question as to what foods he'd eat. Perhaps those he preferred were so bulky and fibrous that he had to spend more time chewing than gathering, as he is able to store food and chew it at leisure, a characteristic found among ruminants. However, he didn't quite become a "cud chewing" pig, for although his stomach is partitioned off, the complex idea was not carried to completion. Another perplexing condition exists with his feet. He has four toes on front, but only three behind.

On cold stormy days, javelina often seek warmth in caves, as their bristles

offer little protection from cold. Although their eyesight is exceedingly poor and their hearing barely average, they possess a keen sense of smell.

Peccary mate at almost any time of year, producing litters of less than four and usually less than two. Predators such as the coyote, bobcat and sometimes the jaguar and cougar account for the mortality rate of young peccaries and, considering the small number born, it's lucky if a sow manages to raise a single youngster a year. These facts, coupled with her poor maternal instinct, are gradually rendering the javelina extinct.

In Arizona the javelina is classified as big game and perhaps this is good, for his own welfare. Before the peccary came under the watchful eyes and management of the Arizona Game and Fish Department, he was hunted almost to extinction for his prized hide. Now, as a big game animal, he enjoys all the protection, surveys, scientific research and planning possible to preserve his species. ///



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Suddenly it was still. The bellows had stopped. The earth no longer rumbled with an echo of dull thumps. Mrs. Pithecanthropus, startled by the heavy stillness, went to the entrance of her cave and looked over the landscape. In the distant haze a pterodactyl glided over a thick growth of cycads, determinedly heading south, as had all the others. Things would never be the same, now that Man had succeeded in draining the great swamps. Secretly Mrs. Pithecanthropus was pleased. Slimy wrigglers and monstrous dragonflies would no longer plague her. But she did worry about that last brontosaurus. Trapped in muck and raging with frustration and hunger, it had taken a long time to die. The quiet after the din grew oppressive. Turning back into the cave to tend her fire, she felt disturbed and very much alone in the world. She wondered if men ought to meddle with Nature...

So it has been, through endless corridors of time since man first populated the earth. In his effort to compete and survive, man seems to constantly interfere with nature. At regular intervals there are those who raise complaints. In earlier ages, Myrmidons of the gods tossed beautiful young virgins into volcanoes to propitiate Mother Nature—always beautiful virgins, never any old hags. In our civilization it appears more fashionable to immolate segments of industry for intruding upon the Natural Order of Things—not that vir-

gins have lost status, but rather because it is more profitable to feed the fires of confusion with denunciatory books and editorials.

A generation ago a tome entitled *100 Million Guinea Pigs* asserted that we were all poisoning ourselves by using popular brand name products of the time. Oddly enough, this glum prediction fell far from its target. Instead of becoming extinct, we became faced with a population explosion! More currently, the nation's hysterical attention is fixed upon Miss Rachel Carson's *Silent Spring*.

For those who need an introduction, Miss Carson is a biologist-turned-author who achieved international prominence with her worthy book, *The Sea Around Us*, which wove a vast body of information about oceans into an eminently enjoyable exposition. *Silent Spring*, however, is not the same dish of tea. A moral preachment indicting and damning pesticides, their manufacturers and uses, the book generated a splendid whirl of controversy which is only now beginning to dim in the flicker of public interest. Perhaps this is the time to consider it a little more coldly.

In a recitation of the evils of pesticides, Miss Carson devotes considerable attention to the balance-of-nature philosophy. This eighteenth century concept has a catchy kind of ring, but it is a siren song that ought to be given its due in the chronology of the ideas of mankind and put aside. It tends to reinforce the not necessarily correct notion that what is natural is good, and all else is not. More importantly, the balance of nature is not a static situation, but a dynamically changing one. A visit to the fossils department of any natural history museum will amply dem-

onstrate this truth. Moreover, since man is not supernatural, he cannot, in fact, commit an un-natural act. Man is bound by natural laws and can in no way act to circumvent them, alter them or defy them.

If man is to survive in numbers, and our U.S. population is now a pretty dandy number, he is unequivocally an un-balancer of nature. His appetite, his need for clothing, shelter, recreation, newsprint, and sewage disposal just raise hell with nature wherever he exists in large numbers. To complicate the balancing act, man is adding to his numbers at the rate of 7,000 per minute on a world-wide basis. The amount of foodstuffs consumed by man is a number large enough to be meaningless. In the U.S.A., Americans used 37.2 billion board feet of lumber in 1962, a factor that surely tipped the balance a bit. Statistics from LIFE Magazine state that it takes 85 carloads of paper to produce only one issue of the magazine. To make this amount of paper, weekly, 5000 acres of forest are culled for pulp producing timber. In 1962, 19.4 million people in the 50 states bought one or more sport fishing licenses, and probably did more damage to fish populations and wild areas than ever did insecticide. The inescapable fact is that man ravages nature to survive: if he doesn't, his dominance ends and he will join the dinosaurs.

The cheering thought is that man has also learned to conserve, and having come to benefit therefrom, is continuing efforts in conservation. The LIFE Magazine people, through a subsidiary company, plant 20 million trees annually. The lumbering industry maintains a constant reforestation program and constantly seeks means of improving harvesting

and US

by

FRANK
QUINTANA



methods to conserve their ranges. As our nation matures, and coincidentally, since it is no longer possible to plunder an area and move on, conservation of natural resources is given greater and greater coinage.

Conservation is not only a matter of replacing what is taken for use; it also requires protection of that which already exists. For all his vaunted ingenuity, man is utterly and abjectly dependent for his survival upon the green plant. In this context, he is not much better off than his antecedents, Mr. and Mrs. Pithecanthropus. It remains imperative that he control and dominate those insects which compete with him for the yields derived from the green plant world. Natural predators simply cannot cope with the job: if they were as efficient as is claimed, severe insect infestations would be virtually impossible. Unfavorable weather can slow the activities of natural predators and parasites until late in a season when plant damage has already occurred. There is no question that natural agencies have value and utility, but at best, they can perform only a partial job. Until other means come to be readily and economically available, insecticide spraying programs must be utilized.

It is no surprise that insecticides cause destruction of animate beings other than insects. This is inherent in their nature. Fishing hooks gouge eyes and cause tetanus; unloaded guns kill friends and neighbors children; automobiles are among the most efficient tools for causing death, damage and injury. Little, if any, hue and cry is raised against these items. It is probably a unifying human trait to lay blame to inanimate things because they are abused by unthinking humans. In this manner, the gambler reviles the "stupid" dice for leaving

him penniless. If a benefit is to be derived from the negative diatribe of Miss Carson, it is that insecticides should be used with wisdom and caution. The application of a few common sense rules for the householder relative to storing and handling insecticides will do much to prevent accident. Timing in the application of insecticides can render them more efficient against the pests in question, and even act to avoid damage to beneficial insects. Bees, for example, are primarily interested in blossoms: spraying prior to blooming periods, or afterwards, will go far toward preventing injury to bees and other pollinating insects.

Miss Carson gave particular attention to the possibility of cancer and a variety of other dread problems, being directly traceable to the use of insecticides. Years ago, an article in the now defunct CORONET magazine, presented a statistical case in which milk was given the same blame. As far as insecticides are concerned, no evidence exists that proves insecticides cause any other disease except poisoning. Dr. Mitchell Zaven, Assistant Health Commissioner of Cincinnati, states "There is no evidence that long-term subtle effects exist. None has appeared in the 20 years we have been looking for them."

Silent Spring emphasized an ability of insects to develop resistance to insecticides. At the risk of oversimplification, an explanation may be that changes in the cellular chemistry produced enzymes capable of de-toxifying the insecticidal chemicals. Experiments are presently being carried on with volunteer human subjects which suggest that the body's marvelous defense mechanisms perform in this similar manner. It is encouraging (to me at least) that we humans are not

going to be outdone on this score by the bugs.

The key to control of insect pests may lie in one of their special advantages: their reproductive capabilities. In part, the sheer numbers of the bug's offspring account for their survival against the attack of natural enemies and insecticides. If links in the reproductive cycle can be broken, man may indeed succeed in real control and eradication programs. To this end, entomologists are now studying mating habits and sex-life of pests, while chemists evaluate substances for use as male sterilants. Concurrently the chemistry of insect-sex-attractants is being explored. This tripartite study may spell doom for some insect pest species.

In the meantime, reliance must be placed upon careful use of pesticides. Dangerous as they admittedly are, their abandonment could be enjoyed only at a most serious risk to present day humanity. If insecticides are dangerous to have around the house, so also are electricity, laxatives, matches, bathtubs, and cooking stoves. Carelessness with any of these commonplace things brings pain and the threat of death. But, in terms of hazard, the lowly housefly makes these items pale by comparison. As many as 33 million micro-organisms flourish in its guts, and the housefly has the disgusting habit of vomiting briefly on anything it chooses to sample. As many as 500 million micro organisms may swarm over its filthy body and legs. Spray can, anyone? ///

Frank Quintana is a graduate chemist with 25 years of professional experience in research and development in the Essential Oils and Flavors Industry. A resident of La Jolla, California, he is an avid amateur gardener and for ten years has been Science Editor for "California Garden Magazine".



THE RUTHLESS ROAD TO BAJA

By L. Burr Belden

ABOVE: ENROUTE TO SAN DIEGO, FATHER SERRA PAUSED TO FOUND MISSION SAN FERNANDO VELICATA IN 1769. ABANDONED IN 1818, ITS RUINS ARE NO LONGER IMPRESSIVE. BELOW: LORETO, FIRST PERMANENT SETTLEMENT IN BAJA HAS HAD ITS MISSION RESTORED WITH FUNDS WON BY ITS PRIEST IN THE NATIONAL LOTTERY.



TWO hundred years ago Franciscan leader Junipero Serra established the first route traversing the length of Baja California. Today this route is known as Mexico's Highway Number 1.

Starting bravely south from Tijuana as a well paved highway, it becomes a roughly graded one 130 miles later, then peters out into a crude, narrow, twisting primitive trail for the last 550 of its 750 miles between Loreto and San Diego.

While Highway No. 1 is said to follow a path originally cut by pious feet, certain sections actually bypass many of Baja California's historic missions. This came about not because the good Padres' routes were unnecessarily circuitous, but because economic needs displaced prayer as a goal for travel. Whereas earlier feet cut routes to missions, wheels later cut routes to mines. Certain canyon trails suitable for mule and foot travel could not be converted without heavy equipment into roads; equipment that Mexican road workers in Baja didn't, and still don't have.

With 4-wheel drive or 4-speed transmission, travelers exploring Baja today may visit these ruins and primitive settlements by following side roads short distances from Highway No. 1. Delores Del Norte, Santa Gertrudis, San Borja and even San Fer-

nando may be reached by such roads. Santa Maria is accessible only by foot trail while other *asistencias*, or visiting stations, within hiking distance of the main road are not even marked by trails.

The 200-year old trail from El Rosario, where the first Baja California Dominican mission arose in 1774, to Loreto, where the first Jesuit mission was established in 1697, is largely parallel to the 1963 road, taking a course some 10 to 22 miles further west as far south as the oasis at San Ignacio. Remnant stretches of the old mission trails are yet in use as burro paths, but the long, empty sector between the San Borja and Santa Maria missions has been entirely lost in parts. A water hole slightly north of the ruined mining town of Desengaño is recognizable as the onetime *asistencia* of Yubay. Farther north, in a wash east of today's Laguna Chapala, are faintly discernable adobe foundations which once marked the Mission de Calamajue. North of these ruins is a water hole known as Las Arrastras.

Beyond that point the trail ascends and descends totally uninhabited country, but there is evidence that it was different two centuries ago, for the former *asistencia* of Alamajuet was recently rediscovered by Erle Stanley Gardner in the course of an exploratory helicopter flight, later re-

corded in his book *Hovering Over Baja*.

Between this point and Santa Gertrudis there once existed two trails; one steep path through the mountains and a longer one describing a gulfside arc. A few adventurous 4-wheelers claim to have traversed this gulfside trail in recent years, but only at a snail's pace. Other than those tracks, only burro hoofs have left a mark.

In spite of the route's infrequent use today, it once achieved the comparative status of a bustling thoroughfare for Spanish Conquistadores. Generations before the first feeble Spanish settlement was planted in the present State of California's San Diego in 1769, a chain of missions had been established by devout Jesuit

the Pacific. Far up on the west coast of Vancouver Island, at a spot known as Nootka Sound, a bay still all but uninhabited, Capt. James Cook planted the flag of England. Spanish men of war arrived and destroyed a tiny English redoubt which had been named Fort Pitt, and erected in its place a bigger redoubt, or fort.

At the same time, thousands of miles away in Texas, hordes of Comanche Indians raided an outpost Spanish mission named San Saba and then compounded the defeat by thrashing an army sent to relieve the outpost and a nearby presidio. As Spain turned back from the Texas frontiers, she lost her allied Apache tribes.

Junipero Serra, a Franciscan leader slated to take over the Texas frontier



missionaries throughout the southern two-thirds of the adjoining Baja California peninsula.

These oases of Christianity, sustained with great difficulty in the arid finger of land inhabited with some of the world's most primitive people, began at a gulfside spot named Loreto in 1697 and extended both south and north, culminating with the founding of Santa Maria in 1767, some 320 miles south of San Diego.

Let it not be supposed that Loreto's founding in 1697 by Fr. Juan Maria Salvatierra by any means marked the initial attempt of Spain to extend her rule of fused sword and cross to the older of the Californias. None other than Hernan Cortes had begun a short lived colony at La Paz in 1535, a date yet observed in that territorial capital as the one of its founding. Following Cortes came the great explorer-priest Eusebio Kino in 1683, who remained for five years before dedicating himself to his greater and better known labors in Sonora and Arizona.

The 1760s and 1770s were eventful years on Spain's frontiers. The Jesuit order was expelled from Spain and all of its possessions. Russians began to plant tiny outposts in the far northwest. England and France challenged Spain's all-inclusive claim to

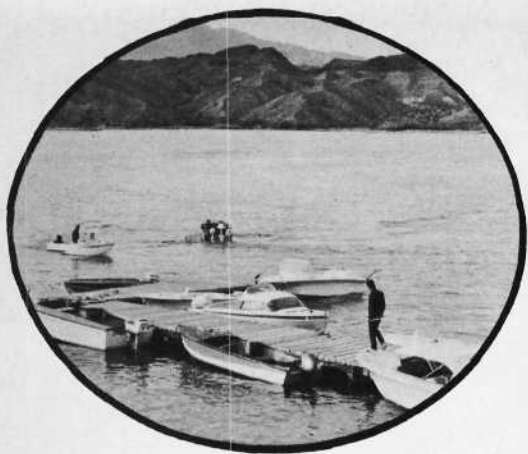
from the expelled Jesuits, was shifted to the California field instead and landed at Loreto to head the former Jesuit missions and press on to occupy Alta, California.

Russia's Bering Sea challenge caused Madrid to demand immediate settlement of the long claimed, but unoccupied, California mainland. After hurried visits to the Baja California missions where cattle, altar ornaments and other supplies were requisitioned, an expedition moved north toward San Diego by land and sea. En route, Father Serra paused to found one mission, San Fernando Velicata, the only one planted on the peninsula by that order. The Baja California field was turned over to the Dominican order in 1773 and Franciscan energies turned to the planting of the Alta California mission chain.

The long, rugged path the physically weak but spiritually strong Serra followed in traversing the 750 miles between Loreto and San Diego is approximated today by dust-covered motorists negotiating Mexico Highway No. 1. By light truck or 4-wheeler, it's a hard week's drive, involving seemingly endless hours of travel in low and compound gears. Only the hardy should contemplate voyaging into this land uninhabited by professional medical men, as well as Conrad Hilton. ///



SOLID LINE SHOWS TODAY'S ROAD FROM SAN DIEGO TO LORETO. DOTTED ONE APPROXIMATES MISSION TRAILS TRAVELED BY FR. JUNIPERO SERRA ON HIS MEMORABLE TREK TO SETTLE ALTA CALIFORNIA.



WINTER

BOATING



THE RUSH of winter curtails boating in most parts of the country, but not in our desert Southwest. Snow and ice, driving sleet, flooded boat ramps—these obstacles to fun are rare as moon dust in the Far West. Boating hardly pauses for a change in seasons. True, there is the need for a coat when blustery winds roar down from high peaks to rake the desert lakes. Mornings along Lake Mead and Colorado River shores can be chilly and brisk, yet they seldom stop the boat owner from the many waterway pursuits popular in the West.

A good neoprene ski-suit provides winter comfort for water skiers. And there is duck hunting, fishing, cruising the back country, even rock hunting by boat. Winter and early spring months are the most enjoyable seasons with crackling driftwood fires along the beach and entire days for soaking up sun and fishing. Consider yourself lucky if you live in an area adjacent to our great deserts—especially if your family enjoys boating. Now is the time to hit the water!

From among several score possibilities, I've selected those which seem to me to offer the greatest opportunity for fun afloat.

SALTON SEA: This area is per-

haps the most convenient waterway for winter boating within reach of millions of Southern California boat-owners. Roughly 360 square miles of water surface, mild water temperatures, and a sub-tropical climate make this bleak shoreline a favorite for veteran skippers. Water skiing here is excellent, the best spots lying along the northern half of the lake from Salton City north on the west shore and from Bombay Beach northward along the east shore. Southern areas of the Salton Sea are too shallow to allow safe and comfortable skiing. Fishing continues as a strong lure. Corvina and sargo are present in untold millions and any time is the best time. Cruising and sight seeing at this time of year is most interesting in southern areas of the Salton Sea, around Mullet Island, near the Obsidian Buttes, Pumice Butte, and Red Hill region. Wear coats and carry your own water for camping in all but resort and state parks. Salton Sea is about 150 miles south of Los Angeles between highways 111 and 99.

LAKE MEAD: Winter is the time for cruising, fishing, and sight seeing. Water skiing in winter requires the use of rubber ski suits, since mornings are often chilly. Best bets for fishing are Temple Bar, Overton Landing, and points north and east. Best skiing areas are along shoreline

SANDY BEACHES LURE BOATERS SUMMER AND WINTER

COLORADO WATERWAYS IDEAL FOR SKIING

LAKE HAVASU'S SHORELINE ADDS TO BOATING FUN.



IN THE DESERT

By V. Lee Oertle



of Boulder Basin. Days are warm and nights cold in winter, tempering quickly in February and March. Take along warm clothing for boating, since winter winds strike without warning. Lake Mead is 26 miles east of Las Vegas, Nevada, and lies about 235 miles northeast of Los Angeles, off Highways 91 and 41. It's the biggest fresh water lake in the West, with a 550-mile shoreline, fantastic and colorful scenery, and some of the best fishing in the country. Campgrounds exist at Boulder Beach, Overton, Temple Bar, and at various isolated spots along the shoreline.

Winding over 300 miles from Hoover Dam to Mexico, the Colorado River forms several tremendous lakes while passing through canyons and broad, sprawling valleys. Once considered the world's most turbulent river, it's now as tame as your local reservoir, although in spots the country remains as wild as it looked to the Spaniards. Topography ranges through a fantastic variety of terrain with a number of distinctively different waterways.

LAKE MOHAVE: This 67-mile stretch of river between Hoover Dam and Davis Dam lies between Boulder City, Nevada and Bullhead City, Arizona. Fishing here offers great variety. In the northern reaches of the lake, near Willow Beach, the angler will

find trout, but further south between Cottonwood Cove and Lake Mohave Resort, it's bass and catfish. The shoreline is predominantly rocky with the exception of ski beaches scattered through the southern half of the lake. The water is usually a little cold for enjoyable skiing in winter, but it is colorful for scenic cruising all year.

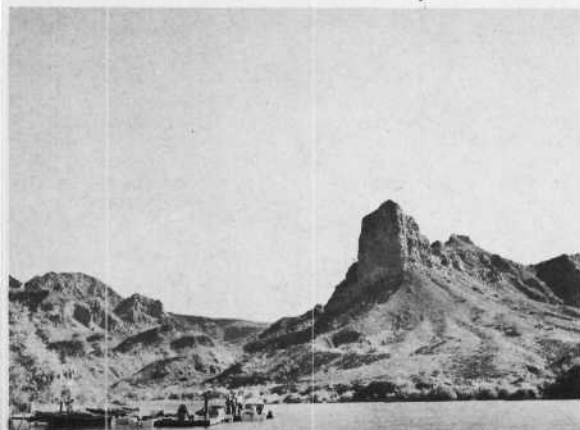
DAVIS DAM TO NEEDLES: This region of the Colorado River has a top reputation for trout fishing and skiing. From Bullhead City, Arizona, south to Needles, California, the river winds through a long hilly valley. Temperatures may be mild, days sunny, but nights are chilly. Coats are in order winter and early spring.

TOPOCK AREA: From the intersection of the river at Route 66 at Needles, the Colorado River sweeps through about ten miles of the most beautiful canyons in the entire drainage system. Devil's Elbow, Blankenship Bend, Mohave Rock—these brilliant red cliffs with slashes of green reeds provide wonderful color for photography. The water is cool, the river hemmed in by towering rock escarpments, but the scattering of clean sand bars makes excellent skiing and cruising.

LAKE HAVASU: This huge lake is actually a wide spot in the river between the Needles area and Parker



RUGGED BUTTES AND CLEAR SKIES NEAR PARKER DAM



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Dam, on the south. Bass fishing here is so good it needs no exaggeration. Cruising through 40 miles of open water and winding canyons is well worth the trip. Lake Havasu is one of the most popular sites in the entire length of the river. Major landings include Black Meadows, Havasu Palms (formerly Road's End Camp), Havasu Landing on the California shore, Havasu Springs and McCulloch Marina on the Arizona shore. There are plenty of open camping areas, but bring warm clothing for winter and spring. Water skiing in designated areas is good here the year around.

BIG BEND AREA: South of Parker Dam for about 14 miles is a section of the Colorado River that many skippers call the prettiest spot in the West. Huge red-rock bluffs, green trees, and a brilliant blue-green river make this a popular spot with water skiers and campers.

BLYTHE AREA: Broad, flat farmlands surround the Colorado River in this district. The meandering river is laced with sandy beaches and bordered by trees almost the entire distance to Imperial Dam, 88 miles to the south. During October, this stretch of the river is the scene of the annual

Colorado River Cruise, when over 500 outboard boats make a weekend exploration and camping trip. The country changes gradually from farmlands to primitive canyons, virtually untouched by civilization. Only a few landings touch the river in this region — Walt's Camp, Picacho, Martinez Lake Marina, Fisher's Camp. The cruising is excellent and fishing is legendary for bass, catfish, bluegill, crappie, and newer species like striped bass. This is the spot for the adventurous who want to escape crowds. Coats are called for in winter, but the water is seldom cold. From Los Angeles, the Lower River is reached off Highways 60 and 70.

Wherever you haul your boat in winter, there is no place like the desert for maximum fun and minimum crowds. Skies are inevitably brighter, waters cooler and cleaner and nights a wonderful blend of countless stars in a blackness found only above desert terrain. ///

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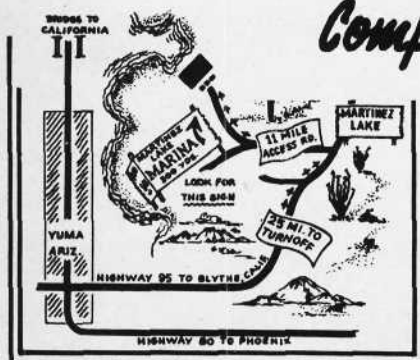
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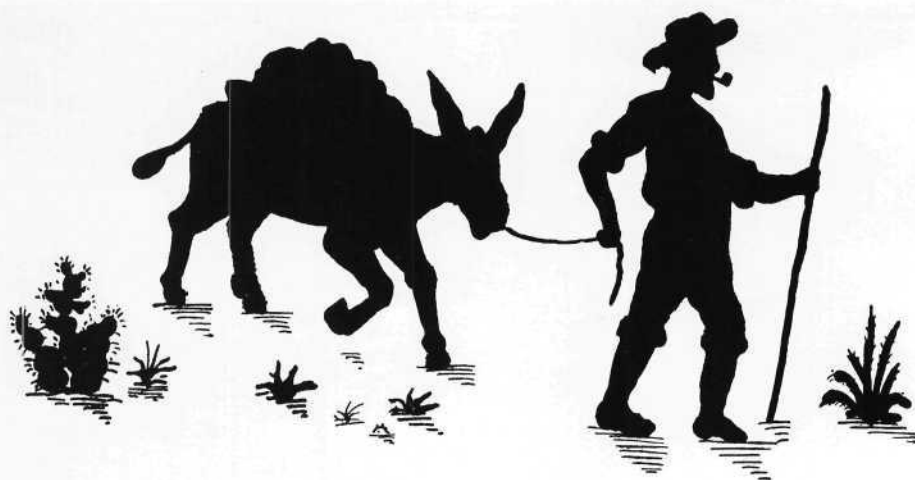
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Today's Prospector FACT or FARCE?

By Sydney Phillips

That grizzled, frizzled nobleman of yesterday, that glorious rough and ready denizen the late Will Rogers described as "one of those outdoor fellows who can't tell a putter from a branding iron and stands as tall as the tales he tells," still plods the desert. Due to the encroachment of date malt stands and fancy spas, however, he's getting hard to find.

Making it harder still are his illegitimate counterparts—the poseurs with boots of clay and ceramic burros; bearded barflies wearing gold nugget rings; bums who look the part but got their suntans thumbing rides.

So how is the greenhorn going to know a true desert rat when he sees one? How's he going to evaluate the real thing?

Well, one sure way is to gauge the desert rat's proximity to a dilapidated burro. They go together like Haig and Haig. If they're further apart than Damon and Pythias, your desert rat isn't real. But don't be fooled if the mule kicks his master and the human retaliates with profanity. That's merely a gag to ease monotony as they trudge along in drowsy unison.

Unfailingly, the duo is seeking a mine, be it the Lost Dutchman, the Hole in the Wall Mine, or the old Desert Queen. No matter. Whatever the mine's name, it's so glowingly rich that all a prospector has to do is break off chunks of pure gold.

Equally unfailingly, the true desert rat will have in his keeping a crinkled map scrawled onto a piece of sheepskin. This valuable map, that only a seasoned prospector could decode, is the key to an invaluable mine, although to any outsider it resembles a diagram of Shanghai executed by Picasso.

So, accompanied by his faithful burro, armed with his ubiquitous map, and fortified with canned beans, jerky, flapjack flour and corn liquor

(in case of snakes), the desert rat happily starts for the spot on the map marked X.

He passes through Varmint Gulch, goes on to the Badlands, then to the Goodlands, past Scalpin' Bend and up to Pizen Butte. Here he camps to eat something inedible and sleep through a star-twinkling night, feeling sorry for those who have to watch television.

The burro eats cacti as though it were Caesar Salad and the sidewinders shudder, grateful they're not burros or human rats (*deserti ratum*). The old desert rat takes a reading from the stars and discovers that he's somewhere in the enveloping desert—which is exact enough to suit him. Then he rolls up whatever he has to roll us, tucks it under his head, and in forty seconds is sleeping a limpid sleep that many a millionaire might envy. A direct hit from an atomic bomb wouldn't awaken him.

In the morning, he gnaws seven inches of jerky and two inches of plug tobacco, unrolls his roll, rolls it up again, and trudges onward toward Thirsty Hill.

En route he consumes his water sparingly, drinking from a thimble. Got to be careful in the desert; water holes have a habit of drying up or turning alkali. There's one famous story about an old desert rat who sweated a hundred and eight miles across Death Valley to get to the Colorado River—only to find it had jumped its banks and gone across country to fill up Salton Sea so some upstarts could water ski. This, the desert rats blame on the administration.

Then it happens, as to all horny prospectors it must. A rattlesnake coils on the trail, gaping its jaws and flicking its tail. The burro brays a warning and the desert rat, who can neither read nor write, understands the animal's lingo and pulls up.

These mortal enemies, the desert rat and the rattlesnake, confront each other. Neither gives an inch.

Then the desert rat strikes. Without warning, a spat of tobacco hits the left eye (the vulnerable one) of the rattler. The snake cringes, shudders, and follows his destiny to the nearest jar of alcohol.

"Good shootin'," acknowledges the burro, in his vernacular. The desert rat shrugs; it's all in a day's work.

So the man and burro resume their erratic quest, passing Old Baldy and hastening their pace as they approach Very Dry Gulch where X marks the spot. Unfortunately, it lives up to its name and their canteen is low. Also, the map and contouring of the land fail to jibe. The lost mine remains immutably lost.

The prospector hammers around a bit, finds enough gold to fill a tooth and then returns to Victorville to replenish his supplies.

There he visits his sweetheart of 53 years, Longhorn Lou, while his burro plays footsie with a matron named Jenny. More romance flourishes in these desert denizens than the public suspects.

After the love tryst, the old desert rat goes to the nearest saloon to tell the tenderfeet his harrowing tales of desert perils. Five writers filch the details and put them on paper. Later they're shown on TV. Somehow, the desert rat escapes with a nine dollar grubstake.

Then, with replenished supplies, he and his faithful burro once again trudge into the dawn on the greatest, most futile quest known to man. But both are happy as few men and burros are happy. Who cares that the best laid plans go astray? There's always another map, another mine. Old desert rats and burros never die; they just fade into desert hills and become legends of the land. ///

AMERICAN HERITAGE IN WAX

By Elizabeth Dunwoody

How would you feel if upon entering a room you were confronted with a famous group of people which included Washington, Monroe, Geronimo, Edison, and Will Rogers?

Are they socially compatible, you'd wonder, this conglomeration of famous and infamous? What do they talk about in the dimly lit room? Sports? The two "Babes," Ruth and Didrickson would have a lot in common. Show business? Will Rogers and Mark Twain would. Government? Ask the presidents.

How about inventors, writers, explorers? Would jealousy rage among them? Would generals argue over rank? How about murderers, rogues and heroes? "Why did you do it?" you could ask Mr. Wilkes Booth.

Yes, you could ask all sorts of questions, but you'd receive no answers. This room exists, but a hand dipped in wax has pledged it to silence. The figures, of which there are more than seventy, are in the American Heritage Wax Museum located in Scottsdale, eight miles east of Phoenix, Arizona.

As all pasts must have a beginning, and one of our more colorful beginnings was the opening of the great Southwest, the tour begins with some of our earliest pioneers. In those days new land waited around every bend. Two who turned this bend were Francisco Vasquez Coronado and Fray Marcos de Nizo. While Coronado, resplendent in armor and plumed helmet, brandishes his sword, grave De Nizo stands by in rough monk's garb, buckles on his shoes a meager luxury. They didn't find the riches, of which they'd been told, but they did discover the Grand Canyon.

To settle the West, it had first to be won from parched deserts, sheer canyons, rugged mountains, and savage Indians. Sitting Bull, Geronimo, and Red Cloud represent the Redman in the Museum.





They were strong, brave warriors, with sharp eyes trained to seek the enemy. The artificial eyes used in museum figures are imported from Germany; so realistic that in them you sense Geronimo's hatred for the white man before you realize this loinclothed savage who terrorized the west has long gone to his "Happy Hunting Ground." Today his name is an American paratrooper's cry. Instinctively you move closer to the other visitors and even steal a look behind you. There, unperturbed, sits a young information clerk at her desk.

"Doesn't all this frighten you?" someone asks her. She doesn't answer. She doesn't even turn the page of her book. The questioner looks a little silly as he realizes she, too, is wax, and he hurries on to the next exhibit.

All figures in the Scottsdale Wax Museum were supplied by Josephine Tussaud, a descendant of Madame Marie Tussaud, Swiss founder of the famous Waxwork Exhibition in London. When the London exhibit was started, our Southwest was still in the process of being settled. The art of making wax figures wasn't new even then, however. Alexander the Great had his own sculptor and every fair in medieval Europe exhibited a collection of figures.

Due largely to television, interest has revived in the early heroes, heroines, villains, and landmarks of the Old West. In the Scottsdale Wax Museum, a genuine bar from Arizona's old Tombstone provides a meeting place for Wyatt Earp, Doc Holliday, Bat Masterson, Jessie James, Bill Hickock, Annie Oakley and Calamity Jane, whose long brown skirt sweeps the saloon floor. These people, good and bad, colored our history and left their mark.

As the pioneers reached out, it was inevitable that they would one day reach up. The Wright Brothers, pioneers to space travel, take their place wearing goggles while Alan Shepard, dressed in a space suit, stands beside a replica of the rocket that fired him 115 miles into space. Regarding them with a twinkle in his eye, he seems to say, "What do you think of that Orville?"

Other men who opened doors are represented too. Presidents who shaped our destiny. Jefferson, tall, straightbodied and smiling, who molded the American spirit when he said, "I have sworn upon the altar of God eternal hostility against every form of tyranny over the mind of man." There's Jackson, Madison and Theodore Roosevelt, who advocated "Walk

softly and carry a big stick." How familiar are his blackribboned spectacles and bushy mustache! Franklin Roosevelt is here and so is Dwight Eisenhower, one of our most powerful generals who realized that the greatest force in world affairs is moral force. The late John Kennedy is not in the Museum, but a rocking chair is reserved where he will take his place as the man who said, "Think not what your country can do for you, but what you can do for it."

Lee and Grant are chosen by the Museum as examples of men who lived their lives to provide a heritage for future generations. Lee is dressed proudly in Confederate gray, sword at his side, his handsome head erect. Grant, in his Union blue with its gold buttons and scarlet belt, faces Lee, of whom he said, "There was not a



man in the Confederacy whose influence with the people was as great as his." Both generals were gallant soldiers and great Americans. They showed their nobility when they met at Appomattox and ended the Civil War. This is the scene depicted.

More than two years of careful research and expert craftsmanship went into the making of the historically accurate settings and figures in the Museum. A guessing-game goes on between the visitors, very much like the "Scotsman and his kilt," but Mr. Steele, manager of the Museum, will tell you that under the clothing, the bodies of these famous people are made of fiber glass, since wax used for the exposed parts would be too fragile.

He explains, "They are as fully jointed as a living human being." It's no wonder you are there with Lee and Grant, the blue and gray, divided now only by a small mahogany table on which Lee rests his hand. His

words, "Now put hatred from your hearts and bring up your sons Americans," still set an example for us.

The Civil War caused the greatest hurt in our country's growing pains. A tragedy that came out of it was the assassination of Abraham Lincoln. In the Museum, Lincoln sits quietly in his velvet-draped box, his eyes intent on the stage, his face showing the troubled times he's been through. Beside him Mary Todd Lincoln sits quietly too, unaware of the coming tragedy. On her dark curls is a little wreath of flowers, very much like the flower clips women wear today. A pink corsage is fastened at her right shoulder and another at her tiny waist. Her dress is white. Whatever has been said, whether she was cold and conniving, a shrew, or a patient loving wife, here she is a pretty woman enjoying a show. Suddenly your eyes discern the shadow of a man behind the President. His gun, holding the fatal bullet, is raised, pointed at the back of Lincoln's head. "Look out, Mr. Lincoln!" you want to shout. But you can't turn back the clock.

In another exhibit are gathered other figures who have given us enjoyment, comfort, initiative, and culture: Stephen Foster, for his American folk songs, forerunner of the Hootenanny; Mark Twain for his All American boys, Tom Sawyer and Huck Finn. It was once said that travelers arriving in America wished to see two things, Niagara Falls and Mark Twain. That was, of course, before Disneyland, although even there most visitors want to travel on Tom Sawyer's raft. Alongside Mark Twain are Nathaniel Hawthorne, Harriet Beecher Stowe, who awakened Americans to the evils of slavery with Uncle Tom's Cabin, and Thomas Edison who took our country out of the smoky glow of gaslight into the electrical age; whose basic invention initiated our television. With Edison is Alexander Bell, Eli Whitney and his friend Henry Ford who put America on wheels, and Benjamin Franklin wearing his funny square eye-glasses. There is good reason why these people interest our generation—their vigorous spirit, their industry and initiative, their belief in freedom of the individual and their ability to face the future with faith and resolution.

An ability to get along with one another is tested strongly in sports competition, an important part of American citizenship. In the Museum is "Babe" George Herman Ruth, greatest of them all. An orphan and almost a delinquent in his early days,

(Continued on Page 33)

Lazy Landscaper's Friend

by George C. Jordan

IT IS NO wonder that more and more southern and central Californians are working cacti and succulents into their landscaping plans. Mother Nature has blessed most of this section of the world with climatic and soil conditions which make it easy to grow these beautiful and exotic plants which are the envy of some of Europe's finest gardens.

Nevertheless, there are some disputed points about the growing of cacti around which there is unnecessarily heated partisanship. They remind me of the old story of the soldier, heading into an Arctic station, who was given a survival kit contain-

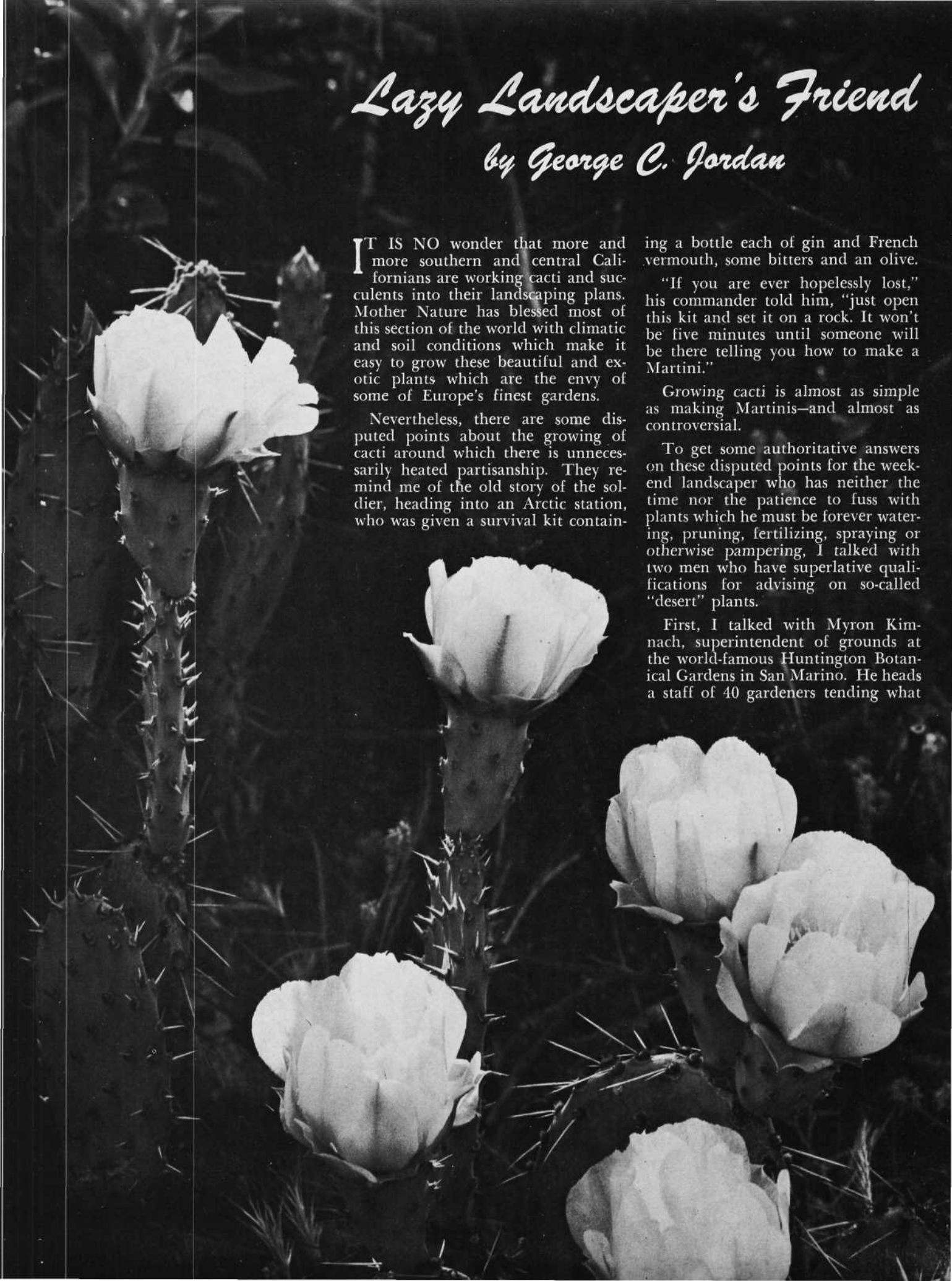
ing a bottle each of gin and French vermouth, some bitters and an olive.

"If you are ever hopelessly lost," his commander told him, "just open this kit and set it on a rock. It won't be five minutes until someone will be there telling you how to make a Martini."

Growing cacti is almost as simple as making Martinis—and almost as controversial.

To get some authoritative answers on these disputed points for the weekend landscaper who has neither the time nor the patience to fuss with plants which he must be forever watering, pruning, fertilizing, spraying or otherwise pampering, I talked with two men who have superlative qualifications for advising on so-called "desert" plants.

First, I talked with Myron Kimnach, superintendent of grounds at the world-famous Huntington Botanical Gardens in San Marino. He heads a staff of 40 gardeners tending what



is probably the world's largest cactus garden. His work includes directing a cactus research program and entertaining cactus students from all over the world. Furthermore, his own off-hours hobby is a cactus collection. He considers himself a "cactus nut." I consider him an expert's expert.

Then, to double check some of Kimnach's answers and for some additional observations of value to small, private growers, I went to see one of the world's largest commercial cactus growers. Since 1929, Hal Johnson of Paramount, California, and his father and brother have been growing desert plants for sale all over the country.

Here are the questions I asked these men and their answers.

What is the best time of year to plant cacti outdoors?

KIMNACH: As soon as the rainy season and frost period is over so the roots will not rot. In Southern California this probably means March or April.

Is it better to start with adult plants or seedlings?

KIMNACH: That depends upon your degree of interest in cacti. Most cacti are slow growers. If you want an artistic landscaping effect in a hurry, start with good-sized plants.

JOHNSON: If one has the patience and time, it is often wiser to start with small plants, or at least with locally grown ones. In either case, the plant can adapt itself more readily to your specific conditions, or has already done so. Remember that "small" plants are often three years old!

What should a novice watch out for in starting a cactus garden?

KIMNACH: Besides checking on the health of the plants, make sure you know their mature appearance. I know a man who saw a tall, thick-stemmed trichocereus in a nursery and placed it among smaller specimens in his garden. But this particular variety turned out to be a creeper. The large stalks gradually sought the ground and ran all over his yard!

JOHNSON: Ask your nurseryman what to expect a plant to do. He should know how much ground it will cover, what kind of blossoms to expect and how often it will flower. Then you will not be disappointed.

Can anyone dig up desert cacti?

KIMNACH: It is against California law to dig up plants on public lands. But many wild plants can be obtained from privately owned

land by getting permission from the owner.

Does geographic location limit the varieties of cacti which may be grown in the open in Southern California?

KIMNACH: Not very much, if you stick to varieties which are native to California and northern Mexico. Homeowners on the desert, however, will have to give their plants more water and more protection from the sun than those living near the ocean, for instance.

Can the same cacti be grown in both the high and low deserts?

KIMNACH: In general, yes. In the high desert, however, you will do well to choose plants which are more resistant to cold or else you will have to provide some artificial protection during the winter months. The same caution holds true for the coast areas and non-desert regions of the interior. Cold, not soil, is the limiting factor.

Which plants are native to California?

KIMNACH: There are nearly two dozen kinds of opuntias, including a half dozen or so chollas, the ferocactus acanthodes (Arizona barrel cactus), ferocactus iridescens (San Diego barrel cactus), neomammillaria dioica (strawberry cactus), echinocereus engelmannii (hedgerhog cactus), coryphantha deserti and Phellosperma tetrancistra (pincushion cacti) and the giant cactus, Carnegiea gigantea (saguaro).

Most of these plants are relatively cold resistant. Some of them, like the chollas and prickly pears, will stand both the heat and cold to which they are normally exposed in Southern California. However, even they may need some shading in areas where summer temperatures soar over the 100 mark.

How cold is "too cold" for cacti?

KIMNACH: Lethal cold for cacti varies, but many plants, other than the jungle cacti, will stand temperatures down to around 26 or 25 degrees Fahrenheit. Most cacti will be killed if the temperature drops to 20. Some of the exotic types will be killed at 32.

When the overnight forecast is for near-freezing, a blanket laid over the more delicate plants will probably save them. Try to keep the blanket from direct contact with the plant, since frost may kill the portion of the plant which touches the cover.

JOHNSON: Cover the growing tip of the cactus whenever the temperature is expected to drop to 32 degrees. Do not leave the cover on for more than a day or two.

What difference does the climate make for home-owners near the oceans?

KIMNACH: They have a wider choice because of the less intense heat in summer and more warmth in winter. Unless the temperature drops below 25, they can raise many of the fantastic cacti from southern Mexico and South America, such as the cephalocereus, the mammillarias and at least 50 different kinds of cerei. Some of the rare opuntias from Cuba and Brazil, for instance, do very well in frost-free zones along the coast. Not all coastal areas are frost-free, of course.

JOHNSON: Such growers have a wider choice because some foreign plants will take full sun there whereas they would have to be partially shaded in hotter regions.

What kind of soil is best for cacti in general?

KIMNACH: Tell your readers not to worry too much about the soil. Just be sure that it is loose. A little sand and leaf mold may be added to insure that the plant roots will be drained. The classic formula for cactus soil is 1/3 sand, 1/3 leaf mold, 1/3 top soil.

There is a misconception that cacti grow in sand. They do not, anywhere. They need nourishing soil just as other plants do.

JOHNSON: Cacti, like other plants, need some fertilizing. Almost any ordinary fertilizer will help them, especially if you want them to grow more rapidly. Cacti can be kept alive and healthy without necessarily being encouraged to grow.

An ideal fertilizer contains 10 parts of nitrogen, 10 parts of phosphoric acid and 5 parts of potash. Commercial fertilizers always have the nitrogen-phosphorus-potash ratio printed on the bag or bottle in that order.

Can common manure be used to fertilize cacti?

JOHNSON: Yes, if you can call manure common in southern California any more! But it should be used with caution. It is short of nitrogen and sometimes, when scraped from the bottom of a corral, is loaded with black alkali. Some satisfactory chicken manures are now on the market.

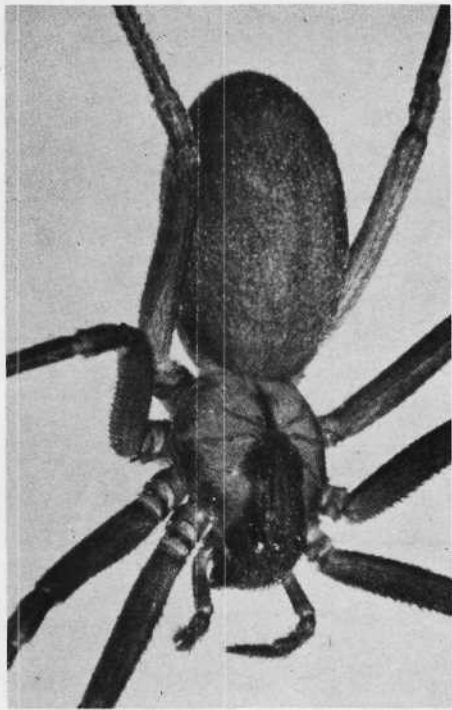
Should cacti be watered?

(There is a story about the "little old lady in Pasadena" who subscribed to an Arizona newspaper just for its weather reports and watered her lone cactus plant whenever—and only whenever—it rained in Phoenix!)

(Continued on Page 30)

WANTED

The Violin-Shaped SPIDER



By
Marguerite Smelser

COMPARED WITH spiders, man is a Johnny-come-lately on this planet. In a recognizable form, he appeared about one million years ago. But spiders have been in residence on earth some 300 million years.

Persons with little knowledge of ecology, or with no respect for the natural world around them, are prone to question, "What good are spiders?"

When a visitor asked this of Professor Comstock of Cornell University—a noted authority on spiders—he seemed baffled at first, then he exploded, "What good are they? They're damned interesting!"

But spiders, as the professor knows, contribute as much to man's survival

as they do to his amusement. They rid the world of billions of crop-destroying bugs; they do not compete with man for food.

There are some 2,500 species of spiders in North America; 100,000 species in the world. Very few have venom dangerous to man. We now know that the famous black widow's bite is not so serious as once thought to be; and our largest spider, the Western tarantula, we now know is as harmless as a canary bird.

Currently the spider scare spotlight is focused on a "little brown spider with a dark spot resembling a violin on its head." It occurs in southern Missouri, Kansas, Arkansas and in Texas. LIFE magazine recently ran a full page warning of its dangers and the Veteran's Administration believes its bite to be "potentially more dangerous than that of *Latrodectus mactans* (the black widow)."

Scientifically, the little brown spider is *Loxosceles reclusus* or *reclusa*. "It does not attack, but bites when molested," states the Veterans Administration. *L. reclusa* is smaller than the black widow, measuring about 3/8 inches long and 3/61 inches wide with a brown oval body and long, dark brown legs. It has only six eyes; most spiders have eight. Although it lives in open fields and rocky bluffs, it also flourishes indoors.

The Veterans Administration warns that *L. reclusa's* bite "can cause death." However, my request for the number of deaths, ages of the victims, and when and where they occurred brought no reply, other than a reprint from the Journal of Arkansas Medical Society. Regarding the brown spider's bite, this article stated "There are, to our knowledge, two examples of the fatal reaction in the medical literature." No details. And, apparently, no details are available.

Nevertheless, I persisted in my efforts to thoroughly comprehend the fatal reputation earned by this new Public Enemy Number 1 by contacting Dr. William J. Baerg, professor of Entomology of the University of Arkansas and an authority on North American spiders as well as spiders in other parts of the world. In his bulletin on venomous spiders, published in 1959 by the Agriculture Experiment Station, University of Arkansas, he wrote, "*L. reclusa* is a poisonous spider. Its bite on man usually causes some severe pain, commonly a rash suggesting scarlet fever, and a sloughing of tissue surrounding the puncture. In some victims this area is very slow to heal."

"The statement 'can cause death'

is much too frequently used," Dr. Baerg wrote to me in a letter dated October 3, 1963. "I did not use it in my Bulletin for the simple reason that I know of no case of death resulting from the bite of *L. reclusa*. There may be some cases of death on record that I do not know.

"Since writing the bulletin I have been able to observe three cases of spider bite involving *L. reclusa*. In two of these there was practically no sloughing of tissue. In the third case—a physician in the local Veteran's Hospital—there was some sloughing over a small area. The doctor made no effort to promote healing. Result: the little raw area healed over completely, even though the process was slow."

Werner O. Nagel, technical editor, Fish and Game Division, Missouri Conservation Commission, writes me of his bout with *L. reclusa*. He was bitten through his shirt while carrying wood, when, he says, he probably mashed the spider. "It was a tedious experience rather than painful," he writes, "The wound was about three months healing."

But as a true conservationist would, he adds, "If I find *L. reclusa* indoors or in a yard where many children play, I swat them; but in the woods or fields I leave them alone on the same principle that I leave snakes and wasps and hornets alone: *they belong there*, and unless I'm attacked by them, they can go their ways as I expect to go mine."

Spider's webs are everywhere—they figuratively carpet the earth. It was estimated a few years ago that in a rough grassy field the spider population was in excess of nine million. Imagine nine million spiders eating insects day and night!

This estimate was probably fairly accurate until man, now over-producing his own kind, began spraying poisons on millions of acres of land in his thoughtlessness, know-it-all use of pesticides, insecticides, weedicides, fungicides—all of which may one day end in suicide for man himself.

Dr. Henry C. McCook, the American arachnologist, stated many years ago that if spiders were exterminated, man might follow—being wiped from the face of the earth except in ice-bound places.

That's an amazing theory. I asked an authoritative California entomologist's opinion. He replied. "There may be truth in the possibility; we do not know. But what we do know is that spiders are very important in the intricate web of life, and thoughtful entomologists recognize that fact."

Desert's TRIP OF THE MONTH

BY ROYCE ROLLINS



This vast tract of unexplored territory was worthless—a barren and unknown waste . . .

Although this description of Nevada's Silver Peak country is from a book published 83 years ago, current maps still show it as a vast area unexplored and unknown. That's why, when Bert MacDonald of El Monte, California invited us to join his group on a trek to Silver Peak, my husband and son characteristically packed our 4-wheeler with a month's supply of gear and we immediately took off for a weekend in Nevada. Empty deserts lure us like Sinbad's seas.

Lone Pine was the appointed rendezvous where we were to meet the MacDonald contingent, which consisted of three MacDonald Campers mounted on pick-ups. Bert, an ardent camper, invented his popular MacDonald Camper Kit as much for his own enjoyment as for its commercial value and almost every weekend may be found in one isolated spot or another. The one he was taking us to in Silver Peak, he had previously explored in the company of a beryllium prospector.

From Lone Pine we followed the camper caravan north on U.S. 395 to Big Pine, where we turned onto Route 3 which led us into an eerie pass



through Black Mountain. Tumbled volcanic rock shown like faceted jet on each side, until the pass drew so tight that moonbeams couldn't squeeze through. Even under a full moon it was the darkest country I'd ever been in.

At a fork marked Oasis Ranch we jogged left onto Route 3A, an easy turn to miss. As we crossed the line from Mono County, California into Esmeralda County, Nevada, Fish Lake Valley stretched before us. A flicker of light from its store-bar-service station was the only sign of civilization, although in the morning we discovered that this is fine ranch country.

The great Circle L Ranch, owned by the Cord family of automobile fame, is about four miles beyond the store and several others spread throughout the valley. Even so, no law exists here. There are no policemen, no jails, no judges. It's wide open country—and at 10 p.m., everyone was asleep in bed!

While the MacDonald contingent camped in a parking area beside the Fish Lake Valley store, we found a trail leading away from the main road. At this secluded spot, we unrolled our sleeping bags and slept under the light of the moon. But, what a cold night! I was beginning



to see some sense in traveling by camper.

When morning came and we looked up at snow covered peaks, we disregarded our month's supply of food and drove back to the store for a warm breakfast. Our hands were too cold to light a fire.

Later, warmed by the sun, we followed Bert's camper through a dry lake to a rugged wash leading into Silver Peak Range. This wash could be dangerous in a flash flood—in fact, it could be fatal. In this country it's advisable to leave word at the Fish Lake Valley Store with Mr. or Mrs. Arthur Koskey before venturing farther.

A passenger car could maneuver the dirt road which twists among mud caked hills and sculptured pinnacles as far as the entrance to the wash at Cave Spring, but beyond this point a 4-wheel drive or 4-speed transmission is essential. The cave had been used fairly recently as a storage bin for hay. To the right of it, where the land drops off, we found the spring and a hut which would have delighted Frank Lloyd Wright. Built partially into the hill, its stone front appeared so much a part of the earth that it might have grown from a seed. Betrayed by the same illusion,

a lone cholla spouted from its roof. Inside, an iron stove and naked brass-headed bed suggested occasional occupancy by cattle herders.

Mustang and mountain sheep some times frequent the water holes along this wash—and also their predators, coyote and mountain lion. At Coyote Hole Spring, a short distance up the wash, we found hundreds of bleached cattle bones which we quickly accredited to the namesake of the spring—too quickly. We were wrong. Later we learned that “greenhorn cowboys” were responsible. They’d branded their cattle too deep and an infection killed the herd.

Others in the party explored around the spring, picking up rocks and looking for arrowheads. Gem quality jasper and quartz crystals have been reported in the Red Mountains which rise to the right of the road. We found some good jasper that may have washed down. Also, one of the men picked up a projectile point which I identified from Dorothy Robertson’s *DESERT* article (December 1963), as a Sandia point, one of the oldest of stone age implements. This spring had doubtlessly provided a campsite through many ages of man. The water was fresh, clear and cold, banked with a heavy growth of watercress. We tucked a few sprigs into our ice chest.

You’d have to make many trips into this country to follow all of its trails, many only faintly discernible. Our old book on Nevada mines mentioned the Red Mountain Mill—initially a three-stamp mill, but later supplemented by a 30-stamp mill—which was erected in 1864 at a spring

a few miles from the mine. Coyote Hole Spring may have been the spring, although two others are said to rise nearby along the ridges of Red Mountain.

A few miles from the Red Mountain District was another ledge where the Silver Peak District was organized at about the same time. Its principal vein was the Red Mountain, and the Crowning Glory its leading mine. In November of 1870, operations were suspended and the mill shut down. It wasn’t until many years later that this district was to become active again.

One after another we passed enthralling panoramas overlooking the bisque-tinted badlands of Clayton Valley. After 83 years, this country remained vast, empty and timeless, but not “worthless.” A scattering of abandoned miner’s shacks, today as much a part of the terrain as the scrubby juniper and pinon pine, testified to that. Sometimes these weathered structures stood in clusters, but more usually alone.

At last we arrived at our destination, a fantastic multitude of shacks alongside the remains of an enormous mill. It was understandable why, when the mine closed, equipment was left to disintegrate. How it had been transported to such an outpost in the first place is incredible!

This, we supposed, was the Drinkwater Mine, as only that name appears on current maps of the district. Heavy equipment, hoists, crushers, cables and furnaces stood in disrepair. Charts lay open on the mill manager’s work table. A pile of ore waited to be assayed. Judging from the

scene, a whistle might have blown one day back in 1936 and immediately everyone vanished.

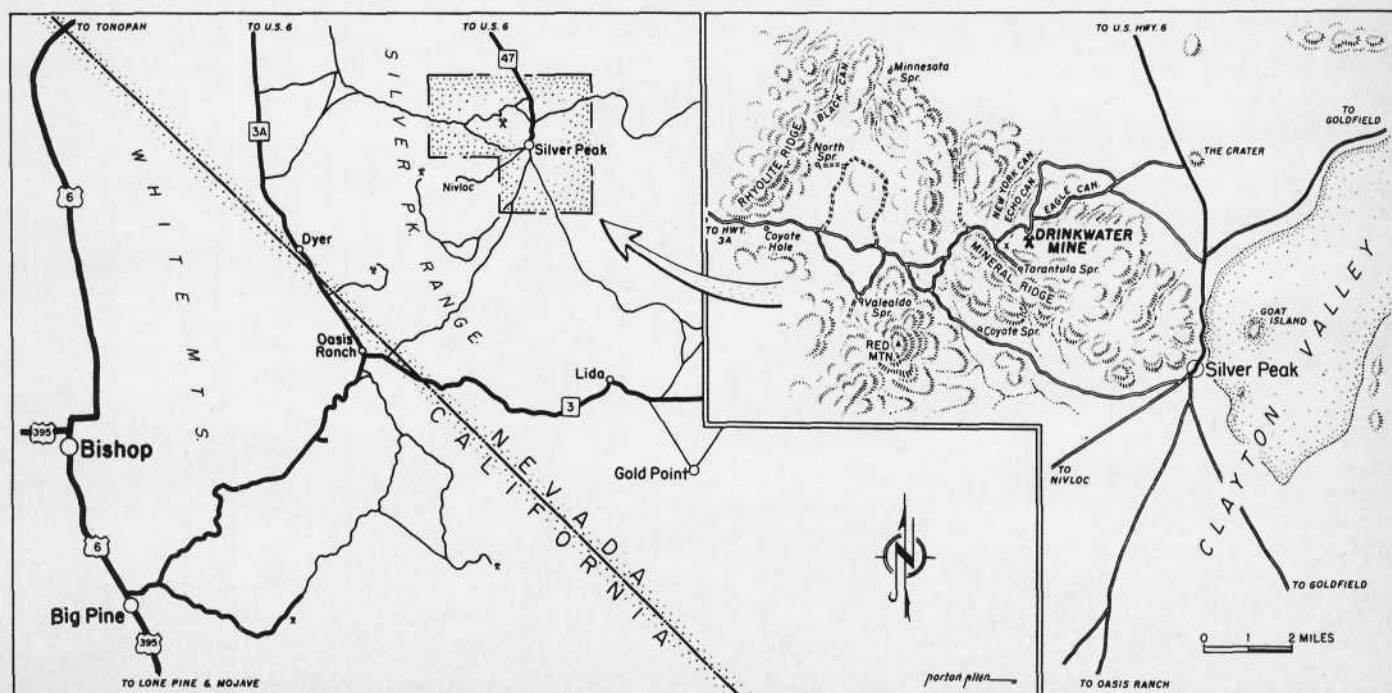
History has not recorded the mine’s demise. It isn’t that old. No one cares about a town too recent to foster a ghost, nor a mine that failed, bottles that don’t turn purple, nor tailings so inaccessible as these.

Nevertheless, as recently as 29 years ago a breed of man lived here fully as colorful as those Nevada miners of earlier years. When approaching the community of ramshackle huts, my husband commented upon how tough they must have been. Shortly afterwards our son yelled, “Look at these!” He’d found a pair of brass knuckles among the mine’s debris!

“At least they were fantastically clean,” Bert remarked, indicating the ‘sweat house’ located beside each shack.

“Or Scandinavians,” we added, investigating one of the stone structures with its steam-room bench sunk into the hill. Apparently we were right, as one of the shacks remained exactly as its occupant had left it, with an issue of *Jorden Runt*, a Swedish publication, dated June, 1935, beside an *American Mercury* on his table. Surely this cultivated man wouldn’t have stooped to brass knuckles!

Since the mines closed, few people seem to have ventured in this rough land. Little was disturbed and all evidence of scavengers absent. We hope that others will leave it as they find it so those who follow may also enjoy this preview of tomorrow’s Nevada history. ///



PAST IS FUTURE IN ISREAL'S DESERT

by Itshak Aizic Sechter

The thing that hath been, it is that which shall be; and that which is done is that which shall be done; and there is no new thing under the sun.

With these words from the book of Ecclesiasticus ringing in his ears, Professor Michael Evenari of the Hebrew University Botany Department went into the desert. He went there to undertake an experiment—to prove that ancient desert farms could teach technology minded farmers of today a lesson or two.

Can agriculture prosper in the desert? "Emphatically, yes!" says Professor Evenari. "As far back as the middle Bronze Age (about 2000 B.C.) the Negev desert was densely populated and inhabitants earned a living from the soil."

But how did they accomplish this? How were they able to grow anything in such arid land? Answers to these questions and many more were what the Hebrew University and its botanist sought. The odds were against them, but the stakes large; 60% of the total area of Israel lies in the Negev desert. With an allocation of \$108,000 granted in 1959 by the Rockefeller Foundation, the experiment began. Since then, in 1963, an equal amount has been issued to subsidize Professor Evenari's experiment for another three years. With the world's exploding population, success here could one day spell the difference between abundance and starvation.

Professor Evenari chose Avdat as the spot to begin his experiment. Located deep in the heart of the desert, 40 miles south of Beersheba, Avdat is one of the oldest ghost towns in history. Empty walls of its houses still stand, bleached and cremated by desert sun. One needn't be an archeologist to discern that its last inhabitants were Christians. Remains of a Byzantine church with broken crosses at its entrance are well preserved. From a high acropolis within the town, intricate patterns formed by an ancient agriculture may

be seen below. The wadies (dry river courses) are divided into rectangular sections by stone walls. Small mounds and terraces run along hillside slopes. Today Bedouins wretch a small crop from fields that once flourished and were fruitful; a poor testimony to the ambition and industry employed by their ancestors.

Bedouin tribes of ancient years who swept out of the Arabian desert and came to settle here were called Nabataens. The first, arriving about 300 B.C., won their living by assault and plunder. They also developed a side line—piracy on the Red Sea. Like many other wild tribes, however, they eventually succumbed to civilization and proved quite talented and adaptable. After settling into the Palestine desert and on the wild Sinai Peninsula, they turned both areas into fruitful regions, a feat unsurpassed even today.

To accomplish this, they became experts in hydrology. Considering that rainfall in this region averages only five inches per year, barely enough to support even desert vegetation, it was necessary to concentrate what rainwater they had. This was no easy task. The rugged, rocky Negev highlands (400 to 1000 meters above sea level) rise above gravelly slopes barely covered with soil. Only on the flood plains and wadi bottoms below is good loess soil found. With enough water, this soil becomes extremely fertile. But how did they wet thirsty soil with only five inches of sporadic rainfall limited to winter months between November and April?

From aerial surveys over the Negev desert, Professor Evenari learned that ancient agriculture was carried out mainly in the wadies and floodplains, but only where a certain depth of loess soil was available. This observation produced the "break through" in his experimentation.

The Nabateans discovered a special property of loess soil. When moistened, it forms a thin, impermeable crust. This crust, covering the hillsides of the highlands, prevented rain-

fall from penetrating the scant soil, thus forcing a run-off into wadi regions below. Frequently this run-off reached the proportions of a torrential flash flood.

By skillfully controlling and conserving such waters, ancient Nabateans acquired the scientific name of "run-off" farmers. To uncover and lay bare the fertile underlying soil, they raked gravel and stones together to form strips which acted as water conductors over thousands of acres and could be directed wherever desired.

In 106 A.D., when the Nabateans were conquered by Emperor Trajan, development of the desert was continued by the Romans and later by the Byzantines (330-630 A.D.), who carried it to its peak. After the Arab conquest of the towns of Negev, however, it fell into decay and the desert returned.

Near Shivta, about 11 miles from Avdat, Professor Evenari reconstructed a second ancient run-off farm devoted to the collection of exact data on rainfall and run-off and the development of an analytical relationship between them, which he hoped, would prove that crops and fruit trees could be irrigated with the use of run-off water alone. For this purpose all ancient installations were restored—channels, terraces, terrace walls, drop structures and spillways. Rain gauges were installed on the catchment areas and flood gauges wherever a channel or wadi led water into farms.

In Advat, he planted 400 fruit trees during the month of January, 1961. Among these were cherry, apple, apricot, almond, peach and pistachio. In addition, he planted vines and field crops consisting of barley, wheat, seed onion, garlic, chick peas, asparagus and artichoke. Trees were given special care by covering their roots with straw to minimize evaporation.

Current results of these plants are encouraging. Barley and grain, with 1800 and 1300 kilograms per hectare



respectively, have proven most successful. Onions for seed production and artichokes also thrived. Of the trees, almond, apricot, pomegranate and olive did especially well, as did the vines.

"It's too early to draw conclusions," Professor Evenari explains "This sort of agricultural experiment calls for

an immense fund of patience and years of experience, but so far, prospects look promising."

Who knows? Maybe 10 or 20 years from today, when all deserts are green pastures, we'll remember with a nostalgic lump, how dry and wild they used to be!

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UPPER LEFT: A WORKER PLANTING SEEDS AT THE FARM. UPPER RIGHT: REMAINS OF A BYZANTINE CHURCH AT AVDAT. YOU CAN SEE CROSSES AT EACH SIDE OF ENTRANCE. BELOW: REMAINS OF A BYZANTINE DWELLING. AT LEFT IS MODERN HUT USED BY WORKERS AT THE EXPERIMENTAL FARM.



KIMNACH: Definitely yes. The amount of water depends on the degree of heat they must withstand. Oddly, most people seem to under-water cacti. They associate cacti with the desert, perhaps because of the prevalence of giant saguaros on postcards and cartoons, and therefore think that cacti do not need water. This goes along with the idea that they grow in sand. Cacti must have water like other plants, only they need less of it and the soil should dry off in several days.

The trick here is drainage. Cacti should be grown in loose soil and they will do their best growing on a hillside, where excess water not taken up by their roots will run off. We water our Huntington Gardens cacti (which are on a hillside) about once every week or two. As the cool, rainy season sets in we may stop watering altogether.

JOHNSON: Cacti may be watered whenever the soil is dry to a depth of an inch and a half. We recommend watering twice a week during the summer in Southern California. But there is more danger in too much water than in not enough.

How should cacti be watered?

KIMNACH: They may be sprinkled or irrigated. But they should not be sprinkled during the heat of the day. Water standing on them can scald them. I prefer to sprinkle them in the late afternoon or evening.

JOHNSON: Sprinkling is all right if you do not leave water standing in the cups of the plants. We water in the morning. Incidentally, it is better to water thoroughly less often than to sprinkle every day.

How should cacti be planted?

KIMNACH: Most cacti should be set on top of the ground, with just the roots and the base of the stem covered. Tall plants can be temporarily staked. If too much of the stem is buried at planting, it will rot. Also be sure there are no broken roots. These should be cut back to clean, healthy tissue and then watering should be postponed for a week or two. Care should also be taken not to bruise the barrels.

How should cuttings be planted?

KIMNACH: The process here is almost exactly the reverse of that used with other plants. The cutting should dry for a week or more in a cool, dry place with plenty of indirect sunlight. If it does not get some light, the cutting will lose its color and be sickly. Then, when it is planted, it should be propped up so that the

cut surface just touches the ground. Cover the roots only, with loose dirt. If you wish, you may even lift the plant up very gently from time to time to see if it is rooting.

JOHNSON: It is a good idea to dip the cut surface in one of the commercial root hormones. This is like disinfecting a skin cut.

What enemies do cacti have and what do you do about them?

KIMNACH: Cacti do not have many enemies. Chief among those they have are mealy bugs and nematode worms. For mealy bugs, which appear as a white, cottony substance, I use a spray. I have had the best luck with Malathion. Incidentally, this is only for cacti, not for such succulents as echevarias.

But if nematodes get into your plant, there is not much to do but uproot it. Make a cutting and start over, throwing the original plant away. The best defense against nematodes is to check the roots at the time of planting. Look for swellings or beads on the stems.

JOHNSON: The best time to fight nematodes is before starting your garden. The surest way to be free of them is to cover the ground with a plastic cloth and shoot methyl bromide under it from pressure cans. This will kill all weeds in the soil and will kill nematodes down to a depth of 18 inches. The soil should be slightly moistened beforehand. Let the methyl bromide soak overnight under the cloth. To speed up the process, place the can containing the chemical in hot water while spraying.

What surfacing do you recommend for the garden?

KIMNACH: If your soil is right, the surface makes little difference. Either white river sand or a couple of inches of crushed rock will dress it up. Be sure not to use ocean sand, however. The salt and iodine in it will be harmful to cacti. At the Huntington Gardens, of course, we use no artificial surfacing at all, since our plants are packed in much too densely to permit it.

How do you keep down weeds?

KIMNACH: We dig them up!

You can use a general purpose weed killer, however, if you are extremely careful not to touch the plants. If there is any chance that you have sprayed them with it, wash them off promptly with a hose. In the University of California cactus garden at Berkeley, where I was once employed, I found a Dupont product called Telvar, to be quite effective.

Two teaspoonsful in a gallon of water should be applied to just cover 100 square feet of soil. Apply it at the start of the rainy season. Your weeds will come up to perhaps a half inch or so in height, then will disappear. It does not harm cacti, but it would be safer not to apply it within several feet of other succulents.

JOHNSON: Next to cleansing the ground in advance of planting, as I have suggested, the best way to weed is to pull them. Any ordinary weed killer may be used, however, providing it does not touch the cacti.

Will weed killers stay in the soil and harm future plantings?

JOHNSON: As a rule, no, except for those few containing arsenic. Always check the container for specific information about its contents.

Are cacti ever poisonous?

(I asked this question, in part, because I myself have suffered irritating skin burns from the juices of both sharktooth and the common American agave.)

KIMNACH: No, although there is a cactus (*machaecereus*) in Mexico which the Indians throw into the water to poison the fish. I know a man who allowed a euphorbia (a succulent but not a cactus) to drop into his fish pond; it killed all his fish. My rule of thumb is: if a succulent plant has a white juice, do not get it on your skin.

Obviously, any wound caused by a cactus thorn can become infected and this leads some people to believe that the plants themselves contain a poison.

But watch your self around agaves. Some of them have a caustic juice which may cause painful burning if it comes in contact with the skin. Be very careful when pruning them.

JOHNSON: I, myself, have handled and trimmed many agaves—and have never been burned. But some people may be allergic to them.

And now, in case this all sounds a little complicated, let's analyze what Kimnach and Johnson have said. If you are a lazy, week-end gardener, as I am, you can have a desert garden full of a wide variety of opuntias, chollas, tall-stemmed and barrel cacti and lovely little clusters of cactus charmers with a minimum of bother. Just loosen up a spot in your yard or patio, nestle them on it, making sure that their roots can drain easily, give them a little fertilizer once or twice a season and sprinkle them every week or so. The chances are that they will grow and bloom their heads off for you! ///

Chioche

A stylized illustration of a chili pepper with a sombrero on its stem. The pepper is positioned to the right of the word 'Chioche'. Below the pepper is a sombrero with the word 'By' written above it and 'CHORAL PEPPER' written across its band.

A half-true story about an unreal town, but it could be . . .

ONCE upon a time there was a little town in Nevada named Chioche. It grew up to be a nice little town, even though it got off to a lustier start than most other nice little towns in the West.

Chioche was a mining town. Between 1870 and 1876 its rich earth produced over \$40,000,000 worth of gold. That's enough bullion to pave a whole building with plenty left over for gold stepping stones to its door.

In those days six thousand people lived in the frame houses which rambled helter skelter up and down its steep hills. Some of these houses boarded miners, but for the most part they were cozy one-family dwelling with verandas large enough to accomodate a rocking chair and with fancy picket fences to frame each front yard.

Chioche grew to be a nice town, but in the beginning it was a hard, mean mining camp. Seventy-five men died of gunshot within its limits before ever a natural death was recorded. Its Boot Hill cemetery, which stands intact today almost exactly as it did when the last boot-wearing corpse was laid to rest, is haunted with the roughest, toughest brand of spooks in all Nevada.

But as the community's wealth increased, so did its tone. Following a

fire exploded by some celebrating Mexicans which thoroughly destroyed the flimsy camp, a rebuilding program was led by a strong group of public-spirited citizens who in six months resurrected from its ashes a fine substantial town. So confident were these citizens of Chioche's continued importance that in 1872 they raised a quarter of a million dollars to organize a water company equipped to supply a city the present size of Monrovia, California. Unfortunately, this confidence proved over-expansive. Four years later Chioche's principal mines shut down. By 1880 its population had dropped to 800 people.

Bad years followed. An agricultural community can suck something from its fertile soil even during drought, but the rocky beds that produce ore don't produce food; nor when their mines are inactive do they produce money to buy food. Chioche's population dwindled further. Now only a few hundred persons rocked on verandas and reminisced of glories past.

"Mining'll come back," they assured one another. "The big bonanza's down there under that dagganged water level. Someone'll invent a pump . . ." But newfangled pumps cost money. And money Chioche didn't have.

If it hadn't been for Henry Ford,

Chioche might have died right then. But with the auto industry came cross-country roads, and luckily one of them crossed smack through the middle of Chioche. A few sons who'd gone forth in the world to make good sent money home to finance gasoline and tire stations on Chioche's Main Street plots. The town didn't exactly prosper from this advent, but it did stay alive.

Then a phenomenal thing happened. Mining did come back. But instead of the gold buried below Chioche's water level, it was lead, zinc and copper from adjoining districts which brought on the boom.

Once again Chioche bustled. Twenty-three different mining companies spounded twenty-three distinct steam whistles to announce each change of shift. Town sons returned home to open general stores on family property. Widows with empty rooms took in visiting mine officials as paying guests. Some of the old-timers moved to camps established at outlying mines, but their space in town was taken up by traveling merchants. Chioche became a supply center for the great thriving, rich district.

But alas! Again everything fell apart. Copper was especially hard hit by the economic depression of 1930 and other mines soon shut down. Newcomers who had flocked to Chioche drifted away. The miners moved

back to town and rocked in their chairs.

The building of Hoover Dam stimulated new hope. With cheaper power available to operate pumps, the flooded gold mines could be reactivated. Surely someone would come along with the will to go after the untouched bonanza that Chioche miners knew lay under their ground. Even authoritative geologists confirmed this belief. But the country was hungry. No one had money to speculate on gold.

Still, "Mining'll come back," the old-timers said.

And it did. With World War II.

The Chioche district became the richest lead-zinc producer in the nation. A multi-million dollar reduction mill was constructed nearby. During and immediately following the war, every Chioche man and woman of college age had the wherewithal to go away to school. And most of them came back with degrees, bringing wives and husbands with them. The town couldn't boast of a symphony hall nor an art center, but it did have as educated and sophisticated a citizenry as any community of its size anywhere.

Mining officials brought guests from the world over to participate in the area's fine hunting during deer season. A former President of the United States took a personal interest in the mines and visited them often, as much to enjoy moments of solitude in their rugged ore-packed hills as to conduct mining business. Famous writers used the picturesque village with its hair-raising early lore as background material. Consulting engineers, scientists, industrialists and politicians filtered in, developing warm friendships with the local people of Chioche.

And yet, for all its activity, Chioche remained a small town. A grandson of an early miner opened a motel on land where his ancestor had once staked a claim. A great-grandson of the town's first sheriff opened an auto-

mobile agency on a Main Street corner which his family had owned since the day mule trains first kicked up its dust. The District Attorney, the only lawyer residing in Chioche, was married to a descendant of the first white woman to accompany her husband into the area when the great Mormon leader Brigham Young directed an unprecedented and unrepeated—also unsuccessful—early venture into mining. All others came and went. Only natives to the land and those brought to it by marriage stayed.

Which turned out to be a good thing.

In 1952 when rising labor costs and operating expenses forced the mines and mill to shut down, there was hardly enough income in Chioche to support its own. Population fell to 400. But thanks to Mr. Henry Ford, the town maintained a breath of life.

And then that was taken away.

A newly constructed cross-country highway by-passed Chioche—not by a mere turnoff, but by a good three miles.

Nevertheless, "Mining'll come back," muttered the old codgers. But their promises grew dim. Loose boards rattled under the rockers of their chairs and sometimes an armrest worn thin with thumping fell away. Fancy picket fences, once so neat, grew shabby. Abandoned houses slunk under a cover of weeds.

Success breeds success, it's said. But Chioche didn't look alive enough to breed anything—even a ghost of a town.

One spring day a young man named Ken Carpenter appeared with a paint box and easel tucked under his arm. Although Ken had come a long way in search of a fresh outlook in his mixed-up life, Chioche represented nothing more to him than a destination he'd selected by blindly dropping his finger to a Nevada state map.

It was dark when he arrived, but his artist's eye perceived the exciting composition of jagged hills, towering gallows and pointed rooftops

etched against the sky. Everything reached up in Chioche, it occurred to him, and his spirits rose accordingly.

By daylight he found the fences not so bright and the gallows tottered over their shafts, but still, the gold-tinted composition remained the same. Something about it enticed his brush from a gloom-and-doom palette it had followed in recent years.

So again Chioche achieved resurrection. In Ken's eyes it refused to die. He saw it, fittingly, as an Easter-egg town. Main street glowed from his canvas with yellow, lavender and pink store fronts. A dingy building with a sagging balcony became a fictional Aunt Tamina's Tea Room, painted white with fancy trim outlined in black. A yarn shop, he converted from a former saloon, and his barbershop boasted two candy-striped poles. Up the hill, boy scouts repaired picket fences and sunflowers smiled from each bright cottage rear.

The Chioche that Ken painted wasn't a ghost town—nor even a restored monument to a ghoul. On the contrary, his Chioche identified a unique off-highway resort where families mounted burros and followed old-timers on a guided tour of glory holes; where retired citizens sat high on hills breathing deeply of healthy, dry air and admired the gay little village below; where newlyweds carried box lunches packed at Aunt Tamina's Tea Room to hidden canyons among tiny groves of pine.

A Chioche whose citizens took pride in a heritage of their own; whose children grew secure in the knowledge that to seek a living they wouldn't be forced to leave home. Where land values appreciated and where old miners were so busy educating tourists they didn't have time to wear out their seats waiting for a boom.

That was the Chioche that Ken Carpenter resurrected — with wit, imagination, ambition, and paint.

///

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Wax Museum from Page 22

he rose to become the biggest name in baseball. Can you forget the day he pointed to right field, then smacked a "homer" over it? Who can ever forget Lou Gehrig, "Pride of the Yankees?" Despite an affliction that caused his death, he stood humbly before a packed Yankee Stadium that came to do him honor and, with tears streaming down his face, said, "I consider myself the luckiest man in the world." Or, who will ever forget "Babe" Mildred Didrickson Zaharias, the greatest woman athlete in history? As you look at her, dressed in her simple skirt and blouse and famous cap with the visor, you can almost feel the strength she displayed while facing incurable cancer.

One of America's greatest assets is its ability to laugh. The American Heritage Museum has given space to two Americans with a funny bone. They are Will Rogers and Bob Hope. If America loved Will Rogers and his kind humor, so did he love people. If he knew that the museum sends the shirts and collars of its figures to the laundry each week, he'd thoughtfully chew his gum for a moment, then with a chuckle, remark, "Welsir, it looks like the Democrats and the Republicans are now washing their dirty linen in the same public laundry."

We are fortunate to have Bob Hope with us today in life as well as in wax. Standing there so nonchalant, we know him as a great humanitarian. During the war years he brought cheer to the lonely men overseas no matter where they were stationed. He continues to do this, giving up his own Christmas at home with his family. Recently he received a medal for his unselfish efforts. As he received it from the late President Kennedy, he quipped, "It won't explain why I wasn't in the service but at least it will point out which side I was on." Bob Hope with his ski nose looks so lifelike you almost believe he moves. But no, all the figures are silent.

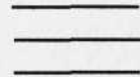
Explorers, leaders, inventors, fighters, men and women of courage, of gentleness and culture—all are figures that make up the American Heritage Wax Museum in Scottsdale, Arizona. These are the personalities who witnessed the chronicle of America unfolding, who assumed a responsibility in the nation's narrative. Some of it was written with the fine script of a quill pen, some with the stub of a pencil, and some in the punch-tape of mechanical computers; but all is written indelibly upon the chapters of American life. This is our American Heritage. ///

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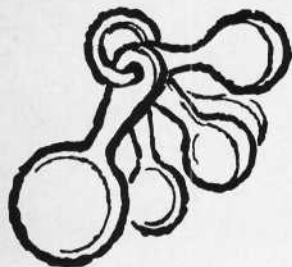
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Desert COOKERY

Food Editor

Lucille Iredale Carleson



This month we have some recipes that are a little different for the Lenten season.

SHRIMP AND CRAB SALAD

- 1 package lemon Jello
- 1 tablespoon Knox gelatin
- 1½ cups water
- 3 tablespoons lemon juice
- 1½ cups salad dressing
- 1 cup crabmeat
- 2 cups shrimp
- 1 small can pimento
- 1 small bottle stuffed olives, sliced
- 1½ cups chopped celery

Dissolve Jello and gelatin in 1 cup boiling water. Add ½ cup cold water. Cool until partially thickened. Beat well and add crab meat and shrimp, gently folding it in. Serves 10.

SCALLOPS SUPREME

- 6 oz. can of mushrooms
- 2 tablespoons butter or margarine
- 3 tablespoons lemon juice
- 1 cup white wine
- ¼ teaspoon thyme
- ½ teaspoon salt

Dash of paprika

- 1 lb. scallops

Heat mushrooms in butter and lemon juice. Put wine and seasonings in sauce pan, add scallops and cook for 10 minutes. Drain, saving 1 cup of the broth they were cooked in. Melt 3 tablespoons butter, stir in 3 tablespoons flour, and gradually add the broth and 1 cup milk. Add scallops and mushrooms. This may be served over rice, waffles or Chow Mein noodles.

DEVILLED CRAB

- 1 can crab meat
- 1 raw egg, beaten
- 1 hard-boiled egg
- 1 lemon, grated rind and juice
- ½ cup bread crumbs
- 1 cup cream
- ½ teaspoon mustard
- 1 small onion, chopped

Butter the size of a walnut

Mix all together and add a dash of red pepper. Place on buttered shells or individual casseroles. Bake 20 minutes in 350-degree oven.

CRABMEAT CASSEROLE

- 1 can crab meat, flaked
- 1 can frozen shrimp soup
- 1 cup grated cheddar cheese
- 1½ cups cooked rice

Mix and place in buttered casserole, top with buttered crumbs. Bake in 350-degree oven for 20 minutes. Serves 4 or 5.

TUNA CHOWDER

- ¼ lb. bacon, diced
- 1 medium onion, chopped
- 1 clove garlic, finely chopped (optional)
- 1 cup chopped celery
- 1 10-oz. can tomato soup
- 1 large can tomatoes
- 1 quart water
- ½ teaspoon celery seed
- ¼ cup ketchup
- 2 cans tuna fish cut in pieces after draining
- ¼ cup cracker crumbs
- ¼ cup Sherry

Salt and pepper to taste

Combine bacon, onion, garlic and celery and cook slowly over low heat, stirring often, until bacon is browned. Add soup, tomatoes, water, celery seed, ketchup, and cover. Cook over low heat for 1 hour, stirring occasionally. Add tuna and cracker crumbs and mix well. Cook over low heat 10 minutes or until thickened. Add Sherry, salt and pepper.

SCALLOP CASSEROLE

- 1 lb. sea scallops, fresh or frozen
- ¼ cup margarine or butter
- 3 tablespoons corn starch
- 2½ cups milk
- ½ cup sliced celery
- ¼ cup diced pimento (optional)
- ¼ teaspoon salt

Dash paprika

- ½ cup fine bread crumbs

- 2 tablespoons margarine or butter, melted

If scallops are frozen, thaw them and wash. Melt ¼ cup margarine in pan and blend in corn starch. Gradually stir in milk, stirring until smooth. Cook over medium heat, stirring constantly until sauce thickens. Mix in scallops, celery, pimento, salt and paprika. Pour into shallow baking dish or 10-inch pie plate. Mix melted margarine and bread crumbs and spoon on top of scallop mixture to form a 1-inch band around the edge. Bake in 350-degree oven about 30 minutes. Makes 3 or 4 portions. If desired it can be served in patty shells or over rice.

HALIBUT WITH SHRIMP SAUCE

Place four servings of halibut in buttered baking dish. Heat 1 can of frozen shrimp soup, (I add a can of small or cut-up shrimp). Add ¼ cup Sherry wine. Pour over halibut and cook in 350-degree oven for about 45 minutes. Serve with lemon wedges.

AVOCADO CONSOMME

- 1 can consommé. I prefer the chicken consommé.
- ½ cup water
- ½ cup clam juice
- ½ teaspoon salt
- 1 teaspoon lemon juice
- 1 large avocado
- Dash cayenne
- Whipped cream

Combine consommé, water, clam juice and salt. Heat to boiling. Put avocado pulp through sieve, or mash in blender. Reserve two slices for garnishing. Blend avocado pulp with hot consommé, heat through. Stir in lemon juice and cayenne. Serve in cups with a puff of whipped cream on top, avocado slice on top of cream. Serves 4.

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with catsclaw beans and a tender rabbit haunch. For dessert he savored beavertail cactus fruit polished off with a stored cache of pinon nuts. In lieu of tobacco, he chewed a creosote twig. Then he turned off the moon and went to bed.

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LETTERS

FROM OUR READERS

Lost Springs . . .

To the Editor: A rancher near Lancaster has a collection of Indian relics which he plowed up on his ranch where ground water stands at about 100 feet from the surface. Ordinarily ancient Indian camps were located near springs, so this was a puzzler. In 40 years of desert exploring I've acquired a good set of original U. S. Government surveys of the high desert, so I pulled one out of the Lancaster area, and there was my answer. In 1853 the cartographer mentioned in his field notes that there were two springs right where this farm is located. Excessive pumping for irrigation has lowered the water tables, which accounts for these "dry camps" found on valley floors. On the slopes they are found where earth faults have shifted, sealing old springs and opening new.

FRANK B. RUTLEDGE,
San Clemente, California

Cookery . . .

To the Editor: Will you ask if a reader will send to your Food Editor a recipe for Manzanita jelly? We love this new feature in DESERT Magazine!

FRANCES HANKEN,
Lucerne Valley, California

Purple Glass . . .

To the Editor: About five years ago DESERT Magazine had an article on glass that would purple in the desert sun. The story mentioned a company that made this type of glass and gave its address. In the interest of your readers, would you reprint that article?

MYRTLE FIKES
Yucca Valley, California

From the Editor. The issue was October, 1959 and back issues are still available. C.P.

Lost Mine . . .

To the Editor: I enjoyed Mr. Gardner's story (December '63) about the Lost Arch Mine very much. I lived in Johannesburg at the time the mine was reported and my information was that the mine was gold alloy, not pure gold. Mexicans worked it until they got a full poke around 1910, and then they departed, leaving their shacks and corrals at the mine.

MILTON NUNEMAKER
Tarzana, California

High Praise . . .

To the Editor: Having been a reader and subscriber of DESERT Magazine for over twenty years I want to tell that the Jan. 1964 issue is the best yet.

The Pancho Villa story was very well written, but it reminded me that according to an article I once read, his right name was Doreteo Arango. The name Pancho Villa was given to him by an American newspaperman who was writing accounts of his raids.

PERRY G. POWERS,
Sunnyvale, California

Maps Too Good . . .

To the Editor: Pyramid Lake lies within an Indian reservation and anyone removing tufa, tuff, plant life, fish, birds, rocks or artifacts is breaking the law.

If you do not find my name on your subscription list any more, it's because DESERT furnishes maps that are so detailed that people can too easily find important land marks to destroy, deface and break. I think that those who are interested enough to search for these places themselves will value them more.

M. L. COVERSTON,
Auburn, California

Open Letter From the Editor . . .

We, too, lament that certain people deface important landmarks and scatter waste about lovely, secluded spots. It is a mission of this publication to educate those who seek such places to the preservation of them.

If you have long been a subscriber to DESERT, you will notice that less and less rock hound features are published and that when they are, they tie in with other aspects of an area—historical and scenic—so they aren't as tempting to greedy scavengers as areas with nothing but rocks. We are not a "rock hound" publication per se. However, we do encourage an understanding of western deserts and all of their treasures. If a little rock hunting is going to institute family activities that are healthful and wholesome, we believe there are enough rocks in this land for everyone. It is better to encourage such activities with an informative approach, rather than to ignore them. Considering the increase in off-highway travel, more people are educated to the necessity for preservation and conservation than ever before. In fact, the desert almost has a "police force" strictly volunteered. We've seen DESERT readers who are rock collectors gather beer cans left by others and lug them home to be destroyed. DESERT may have a few thoughtless readers, but we'll wager that the calibre of reader attracted to this publication does wild areas a great deal more good than harm, as he is the man who truly appreciates them—men like yourself.

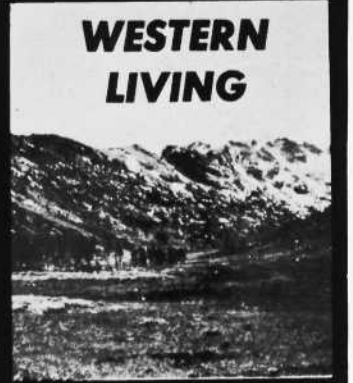
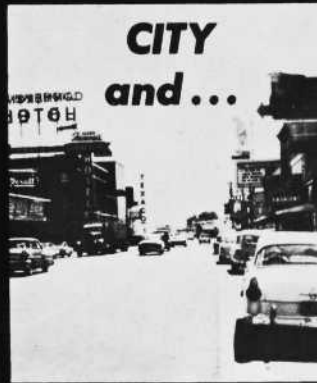
Norton Allen's maps are a great boon to us. Besides, he makes his living that way. Did you know that when he was a healthy young man he experienced a severe accident? The only way he could be saved was by an operation which would permit him to either sit the rest of his life or stand. Norton decided that he'd rather be a stander than a sitter, so he sleeps in an upright position, travels in his car propped erect on a board, and covers all of the areas he charts either afoot (with a cane and at great effort) or with his wife driving their special car. He has never been known to complain at any hardship incurred, and there have been many. He is one of the most efficient cartographers in America and is constantly on the road checking new trails and keeping up to date. DESERT is lucky to have this man on its team.

DESERT is carried in almost every school and university in the country. It is considered the one true guide and history of the desert west. Much of this credit is earned by Norton Allen's maps. C.P.

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... THE WORLD OF CITY CONVENIENCES: The bustling city of Elko with its modern schools, shops, theaters, hospital and airport is only 1 1/2 miles away. New homes, with FHA financing commitments issued, are now under construction... less than 1 mile from the property. The Experienced, Successful Developers of MEADOW VALLEY RANCHOS are not offering remote land where purchasers have to hope for progress and expansion. They offer you the opportunity of a life time, a chance to participate in Nevada's continuing boom... Minutes from the conveniences of hospitable Elko, in the midst of current growth and progress, MEADOW VALLEY RANCHOS has all the necessary ingredients to skyrocket in value!



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HUNTING: Hunters from all corners of the globe come to Elko County to hunt the big game species Mule Deer... Quail, Chukar, and Partridge are found in abundance.



GOLF: A mere one mile from MEADOW VALLEY RANCHOS is the Ruby View Golf Course. No rush for starting times on this city owned and maintained golf course, but golfing as it should be enjoyed. Play a leisurely 9-18 or 36 holes surrounded by breathtaking scenery, minutes from your rancho.

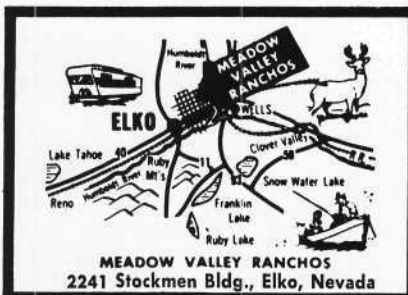
YOUR OWN LAKE... You, and your invited guests will spend many happy hours boating, fishing and picnicking at nearby Lake Osino. There is no charge to Rancho owners for full rights to the use of this private multi-acre lake and park area.



PROVEN OPPORTUNITY: Yes, individuals are taking advantage of Nevada opportunity. But the country's leading corporations are also investing in their Nevada futures. Industrial giants, who erect plants where increasing land values and population demand them, are building or have secured acreage throughout Nevada.

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