

FLASH FLOOD
FACES OF VEGAS

DANGER!
POISONOUS
CRITTERS







Luxury and comfort combined with exceptional 4-wheel drive performance. You'll find them all in the 1980 Jeep Wagoneer Limited. With all these most wanted options, standard!

Rich leather seats, extra-thick carpeting, woodgrain trim — you're surrounded in comfort. And brand new for 1980, conveniences like power windows, power door locks, and a quartz digital clock. Plus a

stereo AM/FM radio with your choice of 8 track or CB.

Superior performance is the Jeep trademark! Features like automatic transmission, power steering and power front disc brakes



We wrote the book on 4-wheel drive

plus Quadra-Trac, Jeep's exclusive, automatic 4-wheel drive system all work together to provide unsurpassed traction and superb towing capabilities. On-road or off—in good weather or bad.

We invite you to test drive the 1980 Jeep Wagoneer Limited. You'll quickly understand why it is the ultimate wagon and the ultimate in 4-wheel drive.

Jeep Corporation, a subsidiary of American Motors Corp.



Volume 43 Number 4 He covers the heavens with clouds, sends down the showers and makes green grass grow in mountain pastures —Psalms 147:4

May, 1980 USPS 154-940 ISSN 0194-3405

Editorial Staff

Donald MacDonald, Editor Gary E. Squier, Senior Editor/Design Director Mary Eileen Twyman, Managing Editor Pat J. Williams, Assistant Managing Editor Phillip E. Squier, Art Director

Contributing Editors

Karen Sausman, Natural Sciences Wayne P. Armstrong, Natural Sciences Russ Leadabrand, Field Trips Jerry and Luisa Klink, Baja California

> Lithographed by World Color Press

Available in Microfilm by Xerox University Microfilms

5 THE MANY FACES OF VEGAS Donald MacDonald

- · SAM'S TOWN: A Need Recognized
- OLD VEGAS: Trading on the Past
- GOODSPRINGS: Silently Fading Away
- POP'S OASIS: Right Side of the Road
- ST. JUDE'S: Haven for Children
- 15 OREGON'S HARNEY COUNTY Billie Durfee
- 19 NEWS FROM THE LIVING DESERT
- 20 KITT'S PEAK: Our Link with Space Jenny Gray
- 22 SELDOM SEEN SLIM Drawn by Arnold Roth
- 23 BOULDER CITY: That Dam Town Gary E. Squier
- 30 FLASH FLOOD! Gene R. Russell
- 35 BOULDER FLAT: A Mystery Ghost Buddy Noonan
- 38 Desert ROCKHOUND Rick Mitchell
- 39 THE CACTUS CITY CLARION Edited by Mary E. Twyman
- 41 Desert CALENDAR
- 42 TOMBSTONE RISES AGAIN Wayne Winters
- 45 OUR VENEMOUS NEIGHBORS Dennis McFarland
- 52 WHAT'S COOKING ON THE DESERT? Stella Hughes
- 53 COYDOGS: Can They Be Tamed? Karen Sausman
- 57 PHOTO CONTEST WINNER



Nevada has many shades of color, many faces. David Muench's particular talent reveals the obvious but also subtle nature of the Silver State in his cover photo, Fremont Pyramid Silhouette, Pyramid Lake, Nevada.

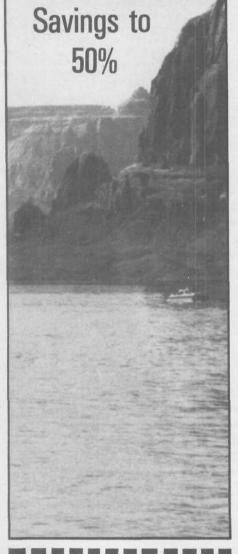
Desert Magazine is published monthly by Cactus Paperworks, Inc. Officers: R.C. Packer, President; Chester M. Ross, Vice-President; Donald MacDonald, Vice-President; Gary E. Squier, Vice-President; Marjorie Moline, Secretary. EDITORIAL, CIRCULATION, AND ADVERTISING OFFICES: 74-425 Highway 111, P.O.Box 1318, Palm Desert, CA. 92261. Telephone: (714) 568-2781. SUBSCRIPTION RATES: U.S. and its possessions, Canada, and Mexico: 1-year, \$9.00; 2-years, \$17.00; 3-years, \$25.00. All other countries add \$2.00 U.S. currency for each year. See

subscription order form in this issue. Please allow five weeks for change of address and send both new and old addresses with zip codes. Second class postage paid at Palm Desert, CA., and at additional mailing offices under Act of March 3, 1879. Contents copyrighted 1980 by Desert Magazine and permission to reproduce any or all contents must be secured in writing. Unsolicited manuscripts and photographs will not be returned unless accompanied by a self-addressed, stamped envelope or international exchange coupons.

LAKE POWELL OFF-SERSON IS JUST AS BEAUTIFUL

It's the greatest for summer family fun. Wahweap, Bullfrog and Hite resorts/marinas are open year around, but you really should try us in the spring, fall and winter...

Not only for moderate temperatures, better fishing and less crowded conditions, but for



Send	color and rate brochures on
	Bullfron and Hite resorts/marinas

Name	
Address	

Mail to:

Lake Powell Resorts & Marinas DM

Box 29040, Phoenix, AZ 85038 New central reservations system: West of Mississippi call toll-free 1-800-528-6154. In Arizona, call (602) 264-8466.

OUR READERS WRITE

DESERT USERS CATEGORIZED

Wendell Berry in the Unsettling of America said that, in terms of land use, Americans fall into two categories: the exploiters and the nurturers. The exploiters are those who would destroy the long-term productivity of the land for short-term economic gain. The exploiters, acting in the profiteering lifestyle so popular in our times, would use up our desert lands and leave nothing but wastelands for succeeding generations. The nurturers are those who would use our lands but sacrifice some amount of short-term profit for the sake of long-term productivity. They would not take more than the desert can give. They would allow the desert legacy to remain for our children and our children's children. Steven Singer

SUGAR IS SUGAR IS SUGAR

Santa Cruz, Calif.

Los Alamitos, Calif.

Your article "Dateline: Indio, Calif." [Desert, Mar. '801 may have inadvertently done a disservice. You state dates contain invert sugar (monosaccharides) which is non-acidic and may be taken by diabetics with no adverse effects. This is mystifying, much as statements I hear that white sugar is harmful and that brown sugar, molasses or honey are "more beneficial" or "more natural." Sugar is sugar as far as the human body is concerned, regardless of source. All sugars are exactly the same for equal weight consumed. All are converted when eaten into glucose, the major body metabolic substance. Therefore the diabetic must count the calories from all sugars, and starches too for they are polysaccharides. Frank W. Ellis, M.D.

Dr. Ellis's informative letter was edited by us for space reasons. Readers, particularly diabetics and others who must control their sugar intake, will be sent the complete text upon request. Please enclose a stamped self-addressed envelope. The information that ''diabetics may consume invert sugars with no adverse effects'' is contained in literature distributed by most of the major date

terature distributed by most of the major date growers, and author Lee Kirk and the editors of Desert saw no reason to question what was stated as a fact by those who should know.

READING FOR EVERYBODY

Hey, I like that down-home Cactus City Clarion you're printing in Desert nowadays. Lots of stuff about mines, mining, and some bull thrown in for flavoring. Now there's reading for everybody — college professor or student, nature lovers, miners, rockhounds, treasure hunters — and even for an ol' desert rat like me. You done throwed a clod in the butter-churn this time.

40 Mile Al Reno, Nevada

A LETTER TO SUBSCRIBERS

We've been fighting the battle of inflation here at Desert and frankly, we're losing. The supplies we use in our typesetting machines, for example, went up 40-60 per cent as of Feb. 1, 1980, due to comparable increases in the silver and petroleum used as ingredients in these materials. We're sorry but effective with all subscriptions that expire with our June, 1980 issue, we're forced to raise our renewal rates to \$10 for one year or \$19 for two years. Three year subscriptions will be discontinued. So. Renew or Extend Your Present Subscription Now to Beat the Price Increase. And it's a good time to think about sending Desert to a friend. Gift subscriptions will go up with the June issue, too.

Regretfully,
The Publishers of Desert

Desert

BUSINESS STAFF

Publisher
Donald MacDonald
Co-Publisher
Gary E. Squier
Advertising Sales
Nancy McCreary
Marketing Director
George E. Sector
Subscription Fulfillment
Pat J. Williams
Business Manager
Marjorie Moline
Counsel
Chester M. Ross

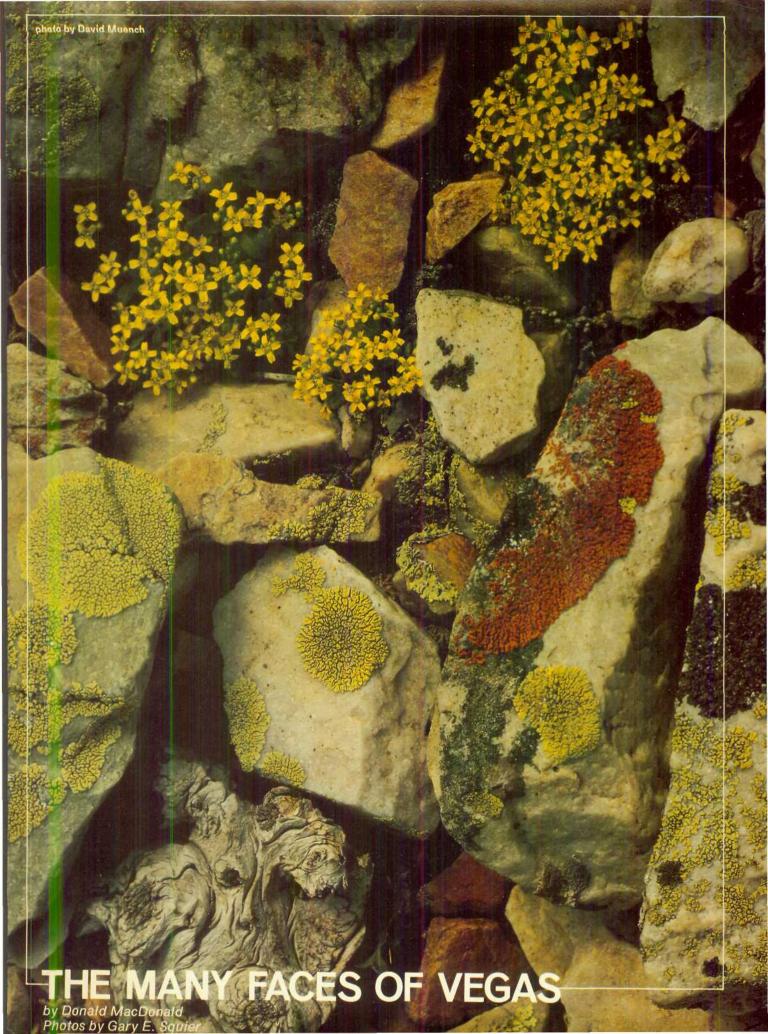
Represented by National Advertising Sales, Inc.

Robert E. Leyburn, Pres. Mike Cerik, Nat'l. Sls. Mgr. Louis T. Zito, Reg. Mgr. 750 Third Avenue, 29th Floor New York, NY 10017 (212) 682-7483

Philip E. Holmes, Reg. Mgr. 435 N. Michigan Ave., Suite 1314 Chicago, II 60611 (312) 644 8270

Lou Pagluighi, Reg. Mgr. 1680 Vine St., Suite 909 Los Angeles, CA 90028 (213) 466-7717

Desert is published monthly by Cactus Paperworks, Inc. Copyright 1980. Editorial and Advertising Sales Offices: 74-425 Highway 111, Palm Desert, CA 92260. Please address all mail to Desert: P.O. Box 1318, Palm Desert, CA 92261; Tel. (714) 568-2781. Desert is distributed nationally by Dell Distributing C., Inc., 1 Dag Hammarskjold Plaza, New York, NY 10017; John Gaffney, Acc't. Exec., Tel. (212) 832-7300.





SAM'S TOWN

as Vegas is as much a part of our desert as Tombstone, Zzyzx or Santa Fe except that it is a little newer. 461,000 people live in or near the city and in 1979, there were 56,957 marriages and only 7,588 divorces. There are 200 churches and 111 elementary and seconday schools. To further qualify, the average rainfall is 3.76 inches which is arid by any definition.

As you come down off the Clark Mtn. grade headed north on I-15 from Las Angeles, the neon brilliance of this strange place greets you 30 miles out. Closer, its buildings sprout like giant concrete and glass cacti from the desert floor. In it, one must search to find proof in the form of homes for the statistics quoted above.

The homes are there, stretched out along the boulevards that run eastward toward Boulder Highway, and it is this orientation of local population that caused Sam and Bill Boyd to locate their new Sam's Town Hotel & Gambling Hall way

far from the center of tourist activities. The Boyds felt, and they have proved to be right, that the locals wanted to get away from the Strip and Downtown Casino Center when it came their turn to play.

It was a \$15,000,000 gamble for that's what it cost to build Sam's Town, first opened a year ago last March, and it has already paid off in four clovers. The reason is that Vegas locals are treated like second-class citizens in their own casinos, even when they work there as the majority of residents do. They can't even get a \$100 marker, their jargon for credit.

Sam's Town employees, from managers to car jockeys, are first of all courteous. They'd better be because their customers think the place belongs to them. And, of course, once a visitor is registered, he can't usually, with an important exception, be told from a local so the same courtesies are extended to him.

The exception is the horsemen (or women) who make Sam's Town

their headquarters, at first only because it was convenient to Horseman's Park, but eventually for the same reasons that draw everyone. Sam Boyd shakes his head at why these people were treated so shabbily on the Strip. They've just got to have money, he notes with considerable logic.

So plans are afoot for Sam's Town to sponsor a major rodeo this May or June. The two best in each of the eight established specialties from all over the country will be invited. The stakes will be high and paid, too, which is sometimes not the case in rodeos.

The Boyds are pushing the "westernization" of Sam's Town. Ground-breaking is scheduled soon for an adjacent 200-room hotel to be called the Pioneer which will augment the existing 200 rooms. There'll be a rustic steakhouse and an open-pit barbeque every night weather permits.

It hurts to expand now because Sam's Town is nowhere close to returning its investment. However,



escalating costs demand commitment. While the Boyds may not even play their own slot machines, they're gamblers and have been all their lives.

Sam himself is one of the few old-timers in Vegas who has survived the three major transitions in the casino hierarchy. Nothing much happened until after World War II but then there was a brief period when anyone with the money could get into the business. That, of course, attracted the 'mob' who established the Strip, leaving the pioneers downtown pretty much alone. Sam says he could live with them and that most of his contemporaries did.

It was the corporations who came next, after the mob was kicked out, that made it hard. He remembers Howard Hughes moving in and buying the Sands, Desert Inn, Silver Slipper, Castaway, and Frontier within weeks of each other. There was no communication between the old and the new and the separation became permanent.

Sam, who started out working the gambling ships off San Pedro on the California coast, speculates from experience that the little guy used to come to Vegas once a month or once a year to rub shoulders with the big shots. It was image and security and now, all that is lost. The little guy doesn't care if the odds are a little better today, and that there's very little if any fixing of games, because he knows he's going to lose anyway. It just takes a little longer and while he's losing, he gets kicked around by nobodies which is hard to take. In short, the little guy doesn't feel at home anymore.

Except at Sam's Town. Your room is ready when you get there. The genial Nell presides in Diamond Lil's, one of the best restaurants in Las Vegas, and not only asks your name when you come in but remembers it when you leave. The waitresses even smile for you at 3 a.m. in the coffee shop which, incidentally, is ventilated by a system of belt-driven tans intricate enough to puzzle an astronaut.

Is Sam's Town a vacation spot for families with kids? Not quite, anymore than is Circus Circus or the MGM Grand with its elaborate nursery and youth hostel. Vegas is for grown-ups unless you make it a base to see the desert heritage and beauty that abounds within a day's drive or less everywhere around the city. You'll find some of that on the pages that follow.





OLD VEGAS

n 1830 a 16-year-old outrider named Rafael Rivera broke away from a 60-man trading party headed by Antonio Armijo to investigate a forbidding-looking desert valley that had always been by-passed by travelers between Santa Fe and California. As he drew closer, he could see a lush, marshy green strip. Once there, he saw the marsh was fed by three powerfully flowing springs. Rivera was standing on land that is now the street separating the Four Queens from the Fremont Hotel in downtown Las Vegas's Casino Center.

Rivera is the first known non-Indian to cross the Las Vegas Valley, 14 years ahead of Capt. John C. Fremont and 24 years ahead of the peripatetic Mormons spreading out from Salt Lake City to California in their attempt to establish a fortified mission chain. Rivera didn't stay but the Mormons did, thus ironically founding a city whose way of life today is not ex-

actly what these early apostles had in mind.

However, those disparate philosophies have given Vegas two adobe forts. One, long gone, is now an historical site marked only by a plaque. The other, still undergoing expansion, is designed to attract visitors, not defend against them.

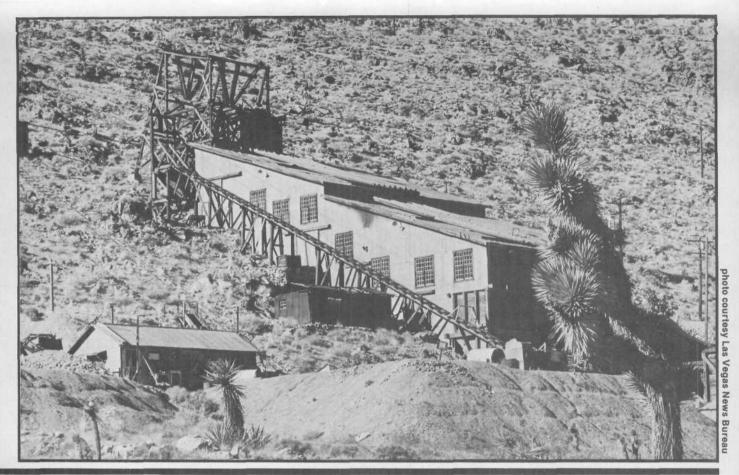
Today's "Fort" Vegas is actually in nearby Henderson, located there because 125 acres happened to be available at the right price and also because Boulder Blvd. (U.S. 95) is the most heavly traveled thoroughfare in urban Nevada. And that is because it leads to and from Boulder Dam.

Some people might think that the new fort, or "Old Vegas" as it is called by its owners, reminds them of "Old Tucson." It should because amusement park magnate Bob Shelton created them both. You'll be surrounded by audio and visual history when you enter, served up Disney-style by no less than 15 multi-media projectors.

Shelton has spent \$3 million so far and talks of another \$15 million before he's through. Already in being is the two-level Hondo Cantina, a restaurant good enough to be on the intinerary of tours originating on the Strip. A "Sutler's Store," misnamed because it sells arts and crafts to the tourist and not supplies to the military, vies with 21 and slots for your extra dollars, but one admission ticket per person covers everything else.

A considerable chunk of Shelton's opening money went to the purchase of Smith's Row, a model town of the old west originally assembled from genuine artifacts and structures by a private California collector. Piece by piece, it is being transported and placed on exhibit at Old Vegas.

Shelton says he is just starting on "phase two" in which future visitors may anticipate a "western park true to history" complete with everything except a roller coaster. That exception is a promise.



GOODSPRINGS

as Vegas was still 20 years away from being a place when the Clark County mining town of Goodsprings, 34 miles southwest, was founded. There was a spring but the quality of the water, for better or worse, had nothing to do with the name. That came from a prospector and cattleman named Joe Good who stayed on after initial attempts to find enough silver values in the lead deposits failed.

The Keystone gold mine was discovered in 1892 and within a year, there were 200 people in the Goodsprings area. From then until 1952, what is still known as the Yellow Pine mining district earned over \$31 million from lead, gold, and most importantly during two separate wars, 85 million pounds of zinc.

There were maybe 50 fewer people in Goodsprings during the 1920s, but they lived better. The town's luxurious, 20-room Gayle Hotel was better than anything Las Vegas yet had to offer, so folks drove out to Goodsprings on a

summer Sunday afternoon both to dine in the Gayle's sumptuous restaurant and to watch and sometimes enter the car races staged on the nearby dry lakes.

For other tastes, Goodsprings offered its Pioneer Saloon & Poker Parlor, a favorite of locals even today, and what was called a "restricted" district. And a man named Sam Yount staged minstrel shows at his general store.

Today maybe half of Goodspring's standing buildings are occupied, mostly be escapees who commute daily to their work in Las Vegas. Cora Bateman, about 82, and Terry Cowart, maybe 85, will reminisce with you about the old days. Ms. Cowart is the town's longtime postmistress.

Genial Joe Anthony, a relative newcomer from California, gave up mining to manage the Pioneer and keeps it much like it always has been since 1913 when it was built — dusty, rowdy, and fun. But Joe's future is uncertain. Owner Don Hedrick has just sold the Pioneer to Peter Simon of Pop's Oasis in Jean

(see next page).

The Fayle Hotel burned down in 1966 and the many weed-grown foundations elsewhere indicate the town has shrunk considerably. Local historians are vague as to specifics, perhaps because firewood for the remaining stoves is scarce and expensive. There are simply too many people still around for vandals to have done much damage, so one must conclude it was an inside job.

Visitors to Goodsprings should also explore the remains of nearby Sandy, Platina, and Kingston, the latter being just over the border in California. Boss and Ripley, towns sometimes mentioned in guidebooks, never were.

To reach Goodsprings and its neighboring ghosts, you drive south on I-15 to the Jean-Goodsprings off-ramp, turn right, and follow paved N-53 for seven miles. Then inquire locally to find the right graded dirt road called the Sandy Loop that takes you into the Sandy Valley and back again 25 miles later to Goodsprings.



POP'S OASIS

Above: \$25 is the limit on craps at Pop's Oasis. Below: 28-year-old Peter Simon inherited the Oasis from Pop, his dad.



oe Good of Goodsprings and Jean Dale of Goodsprings Junction may never have met for they lived seven miles apart and their generations just barely overlapped. But had they met, Joe might not have spoken because his Junction was now known as Jean. The lucky lady had married that railroad center's leading citizen, George Dale, and he had high-handedly renamed the place after her.

Jean, Nevada, has always had a reason for being whereas Goodsprings had thrived for only as long as its mines. By the time those mines had petered out and the trains sped by Jean without stopping, a highway had been built and

a man named Shorty Smith opened a Standard gas station with a seven-stool lunch counter.

Shorty sold to Pop, who called it his "Oasis," and by 1947 the square footage devoted to gambling rivaled the newly-opened Flamingo in Las Vegas. That race, of course, was not an even one but nevertheless, Peter A. "Pop" Simon prospered from those who couldn't wait for The Strip, another 23 miles away, to wager their money. He also picked up those who had a little left on their way home.

Pop's gone now but his son, 28year-old Peter II, has not changed the family home and business one bit except to refurbish for normal wear and tear. Plain folk from everywhere, overawed by the baroque grandeur of Las Vegas, like Pop's place the way it is. Some, in fact, never do get to Vegas.

Peter II is somewhat of a mystery to the big operators in the nearby city, a fact he finds amusing. They think Peter is some kind of junior recluse or fresh-air nut from New York or someplace who picked Jean to get away from it all but as we know, he was born and raised there.

Peter is a big young man, given to horn-rimmed glasses, long cigars, expensive suits, and the manners of one who can get whatever he wants. He looks very unlike the picture of Pop which hangs on his office wall.

But while he may seem out of place in one, Peter has a thing for small western towns, the more ghostly and arid, the better. It is he who for a year or so owned Death Valley Junction in its entirety. And just recently, as we've said, he bought the old Pioneer Saloon at Goodsprings.

He denies nostalgia and for proof, he points to the tour buses unloading one after the other at his Oasis. Put your place on the right-hand side of a busy highway miles from nowhere and you can't go wrong, he says, watching to see if we can figure that one out.

We can't. We suspect the success of Pop's Oasis has more to do with the relieving of customers' kidneys than the filling of them, no matter which way you're driving.

In any case, young Mr. Simon has it made. While he doesn't own everything in Jean, he had enough to donate 350 acres to the state for a minimum security prison. Asked why that choice for a neighbor and his answer was one word — stability. We had guessed strategically placed off-ramps.

A roadhouse, however remote, filled with people pumping slot machines and playing \$25 limit craps can't exactly be called isolation but at least Peter II. doesn't have to worry about how bright his neighbor's new neon sign will be or what big-name star he should book for his next show. He gets a cross-section of the highway anyway, as many Caddies as VWs. He has independence which is what always has brought people to settle in places like Jean.







Finest Quality Sun-Dried Fruits and Nuts

- California Dates
- Health Foods
- 3 Locations
- Cabazon
- Carlsbad
- Tustin



WE SHIP WORLD WIDE SEND FOR OUR FREE CATALOG P.O. Box 495, Cabazon, CA. 92230 SAVE

SAVE

HADLEY'S

BANANA CHIPS \$1.19

reg. \$1.49 Good thru 5/30/80 limit 6 lb

SAVE

SAVE



[714] 346-8113

75-188 Highway 111, Indian Wells, California 92260



First Phase of Our Remodeling Program Now Completed

THE DESERT'S
MOST FAMOUS BISTRO
[714] 346-2314



GIVE Desert

Subscriptions as Gifts

ST. JUDE'S:

Haven for Children

by Mary Eileen Twyman

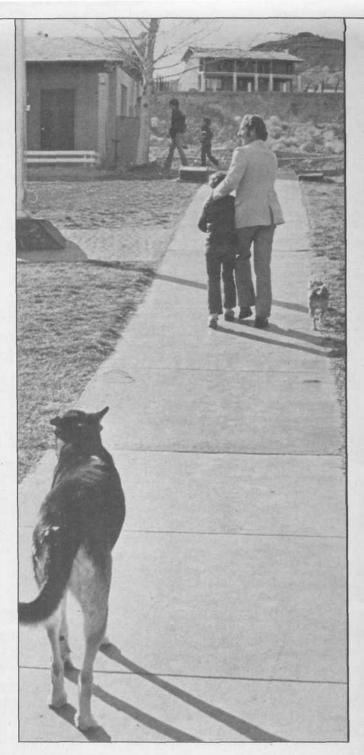
he reasons people have for moving to the desert are always varied and sometimes complex. Some risk small fortunes in search of larger ones at the bottoms of lost or abandoned mines. Others are searching for a place so quiet one can hear a star fall. and then there are those compelled to pit skill and machine against treacherous terrain, but whatever their reasons, most people who live in the desert moved there voluntarily from a less harsh environment.

Forty-two year old Father Herbert A. Ward of St. Jude's Ranch for Children in Boulder City, Nevada, doesn't fit into any of these categories. Fr. Ward, when asked how he came to be here, looks heavenward and tells you most likely he was "summoned."

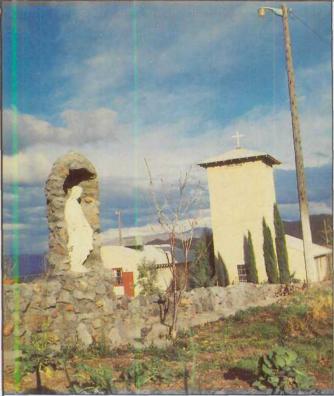
In 1967, another Episcopal priest named Fr. Jack Adams was working with a parish in Las Vegas when it came to his attention that the state didn't have even a single facility to care for battered children, the term used by social workers to describe those who have been psychologically and physically abused by their parents. At his urging, Boulder City donated a 40-acre bluff overlooking Lake Mead. A Las Vegas manufacturer donated the cement block, and with the brick layers union donating the manpower and Colonel Sanders the food, St. Jude's Ranch for Children became a somewhat precariously perched reality.

After six months of balancing the Ranch on that fine line between just barely making it and not, Fr. Adams had to leave because of ill health. Preceded by four priests in rapid succession, Fr. Ward came to a buckling St. Jude's in August of 1970.

He had been happily and prosperously situated as senior curate and headmaster of the day school at St.



While the staff has many other duties at St Jude's, being surrogate parents is all-important. Here, not knowing his picture was being taken, Fr. Neil deRijk displays the love lavished on each child, far more, perhaps, than that which exists in most families.







Top left: While nominally Episcopalian, St. Jude's grants haven to any child regardless of creed. Center: Sports aid the transition from total withdrawal to vibrant participation. Above: The children are encouraged to create, however much it might strain the Ranch's finances. Top right: Antique bells donated by the Bishop of Bristol, England, await construction of a tower to house them.



George's Episcopal Church in New Orleans when he received his first phone call from Judge Alvin Wartman of St. Jude's Board of Trustees in May, 1970. Fr. Ward's immediate reply was a firm "No!" But, the Board's persistence, daily Scripture readings, his own prayerful soul searching, and Fr. Richardson's, the Rector of St. George's, advice "Don't ever close the door on the Holy Spirit" brought a very reluctant, "shaking my fist at the heavens" for the "can of worms" being opened before him, Fr. Ward to the Ranch to "try it for one year." Before that year was ended he was convinced of, and willing to follow through with. God's plan for him.

It hasn't been easy for Fr. Ward, either. He laughingly claims the right to every gray hair on his head. He is more than merely a priest and director of this ranch. He is very much "Dad" and protector of his family. The numbers vary and the faces change,

but they are all his children.

They attend public schools, bring their friends home to visit, and they in turn visit their friends' homes. The children have several pets. This is essential because they will often respond to a pet before they will respond to the staff. One, a German shepherd named "Missy," was a special reward for a young boy who wanted a dog. Fr. Ward gave him \$5.00 and told him to save another \$5.00 from his allowance; it was a proud, happy boy who brought Missy home from the pound as a puppy.

The children have their assigned jobs, and some of them are presently involved with installing their own water system for the new sports field. They help with the vegetable garden, and one boy planted a rose garden along with a grapevine which yielded 19

pounds of grapes last year.

Each child gets an allowance until he or she reaches 16. The staff, which includes three very lively and loving Anglican Sisters of Charity of St. Vincent de Paul named Sr. Angela, Sr. Colette, and Sr. Rosamond, will then help the young person find a job. At the age of 17 they are expected to pay \$2.50 a week to St. Jude's for room and board, perhaps a token sum but it's a start toward assuming responsibility for their own support and preparing them for graduation the following year.

The children were all in school when we visited the Ranch. Walking through the cottages with Fr. Ward was just like being with any proud parent. He would comment on one child's hobby, another's special talent, an ingenuous prank here or there, a funny thing



Right: Fr. Ward acknowledged his 'call'' to direct St. Jude's. Below: 'Missy'' was the first attachment ever formed by her child owner. Below, right: Sr. Angela is one of three surrogate mothers at St. Jude's.





one of the girl's had said, and how hard it was to get the kids to do their chores on Saturday mornings. Had we not been briefed on the sad beginnings of these children, he could have been just any father discussing his family.

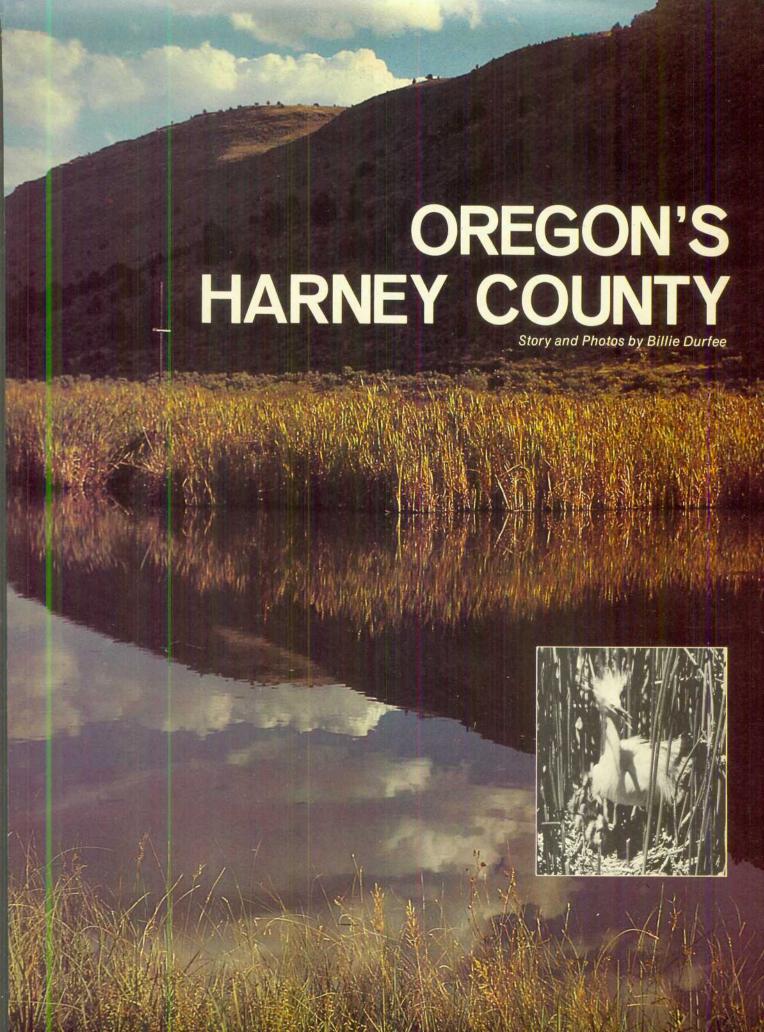
Previously we had been sitting in his office, where pictures of kids take up every inch of spare wall, shelf, and desk space. Fr. Ward had touched on how the children were always wondering why they were at St. Judes, or why Mother didn't call or, sadly, blaming themselves for their parent's breaking up. And, how to many of them, with so much to worry about, studies just weren't important. Fr. Ward told of the day they received the large statue of the Holy Family, carved of wood from Korea, which was donated to the chapel: "All of the kids have the dream of going home. They stroked the baby, and some of the children were so moved at seeing a permanently carved family, they cried."

St. Jude's is mostly supported by private gifts. Nevada's welfare funds provide a small portion of the annual budget. Another, surer source is the "Night of Stars Benefit" in Las Vegas. November, 1980 will be the 14th annual gathering of top entertainers (Frank Sinatra is a regular) who donate their

talents for the sole purpose of aiding these children.

The sky had been pouring everything but sunshine on the desert the day we talked with Fr. Ward. And, as we left the Ranch, the earth seemed still to be trembling from the lightning and thunder that had, just minutes before our departure, split the sky and dumped a layer of hail on the already saturated ground. The heavens were caught up in playing ocean and cascading waves of clouds over the tops of the surrounding mountains, splashing them down the ravines, curling them around protrusions and ridges, and disguising them as islands and reefs. The whole environment crackled and sparkled like a child's eyes, like the eyes of a child who had been caught playing hookey by a parent or teacher who understood that sometimes it's just fun and all right to be not the way, or where, you're supposed to be like rain and hail on a desert that's supposed to be arid and hot.

Understanding and unquestioning love, meeting these children individually and right where they're at, drafted and directed by God and with the help of a few friends, Fr. Ward and his staff are the family these children never had, carving the home they always dreamed of, from out of a desert hillside.



outheastern Oregon is deep in history, large in area, and high in altitude; it's also short on people, but long on wildfowl, game, and fish. This happy combination makes the Steens Mountain area of Harney County attractive to birdwatchers, naturalists, geologists, photographers, historians, and conservationists.

More and more people explore it each year, despite its distance from "civilization." Burns, the county seat with a population of 3,293, is nearly 300 miles from Portland, Oregon; over 200 from Alturas, California; and nearly 300 from Winnemucca,

Nevada.

However, more people doesn't mean a crowd. Except in Burns and south on State Highway 205, you are unlikely to see more than five or six cars in a whole day.

Where to stay? The historic and central place to spend a few nights is 58 miles south of Burns at the Frenchglen Hotel in the hamlet (population 11) of Frenchglen. The hostelry was built in 1916 as a stopover for teamsters bound south over the Jackass Mountains which rise directly behind the hotel; the wagons then continued through the Catlow Valley carrying supplies to the Roaring Springs, Alvord, and Whitehorse ranches. The hotel's eight rooms are spartan but pleasing with beds covered with handmade quilts. Breakfast and dinner are served family style around two oval tables.

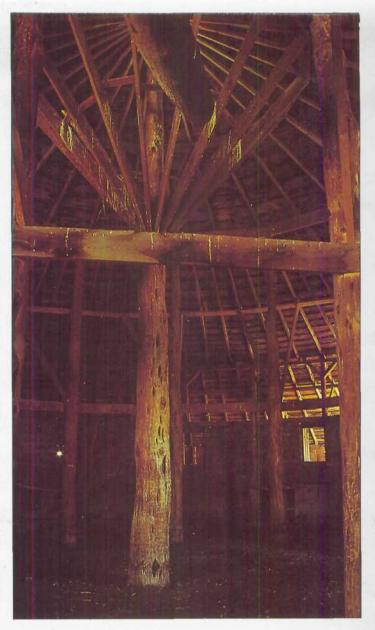
Most people drive the Steens Mountain Loop the first day. The trip is around 52 miles on a graded dirt road. Because of snow, the road is usually closed from late October until July. Allow a minimum of five hours to be sure of enough time for off-road exploring. The road, however, can be negotiated

safely by passenger cars.

Unlike most of Oregon's mountains which are either volcanic cones and/or part of a range, Steens is a fault block mountain. Millions of years ago a 30-mile-long rent in the earth's surface allowed the basaltic crust to be pushed up along the fault line. It

looks like a tipped over book end.

There are no foothills; instead, the mountain rises gradually on the west side. The approach to the summit is 23 miles as the crow flies but not as the road winds. The ascent passes through four distinct zones: The sageline belt, the juniper belt, the aspen belt, and above 8,000 feet, the bunchgrass belt. The summit is 9,354 feet or 9,773, depending on which expert opinion you choose.



The exterior of the unique round barn is shown opposite. Inside, the maze of supporting posts undoubtedly complicated the job of training and breaking.

The southern approach to the rim is more dramatic than the northern one. Drive 10 miles south of Frenchglen and turn east. Observe the sign which says that the weather on Steens can change suddenly with lightning, violent rain storms, snow storms, and high winds. Avoid high points, canyon rims, and creek bottoms during extreme weather conditions.

First come the Blitzen River crossing and Little Indian Creek and gorge. After these is Big Indian Gorge which is definitely worth a side trip. The area just beyond looks like an infantile Icelandic lava bed. Look for coyotes on the lower elevations and antelope

and mule deer higher up.

The summit has two wildly different views. The east rim has a vertical drop of over 5,000 feet to the Alvord Desert which is still over 4,000 feet above sea level. The desert, 15 miles long and eight miles wide, is a glistening expanse of desolation surrounded by acres of greasewood and some bunchgrass.

The northern rim looks down into the Kiger Gorge.



The round barn on Pete French's Barton Lake substation is the sole survivor of three. They were used for breaking and exercising horses during winter months.

It is the largest of the many valleys. Unlike the other gorges, which were cut by streams, Kiger was cut by a glacier. You can see the western swing the glacier took as it carved this half-mile deep valley. Deer feed on the valley floor as do Herefords. Part of the valley is privately owned and part is leased by the BLM for grazing.

The Loop Road continues past Fish Lake, over 7,000 feet high and stocked with trout, to Lily Lake. The northern exit crosses the entrance to Pete French's famous "P" Ranch, but save the ranch for a whole Pete French day.

Steens was unimaginatively named by Major Enoch Steen who in 1860 left his fort at the The Dalles on the Columbia River to explore for a wagon road to Salt Lake City. He simply named it after himself with no apostrophe.

A later military man of higher rank, Colonel George B. Currey, was more dramatically inclined. While crossing a river during a thunder and lightning storm, he named it the Donner und Blitzen River. The "und" is still on the maps, but most of the locals refer to it as the Blitzen River.

The Blitzen, which receives many of the streams that melt off the mountain, flows north into Malheur Lake and together they create the marshes which attract the abundant animal life that first brought the region to President Theodore Roosevelt's attention. He created the Malheur National Wildlife Refuge.

The Refuge headquarters turn-off is 35 miles north of Frenchglen. A dike road, higher than State Highway 205, runs parallel to it. Signs are posted to tell which portions of the dike road are open since some parts are closed during various nesting seasons. Take the dike road whenever possible.

The Refuge was established in 1908 primarily as a nesting place for migrating birds. It is also a gathering place for waterfowl migrating between southern wintering grounds and northern breeding areas on the Pacific flyway.

At the top of the "T" shaped refuge are the Double 00 Ranch, Harney Lake, the Refuge head-quarters, and Malheur Lake; the vertical part is the Blitzen River Valley that extends past Frenchglen.

In wet seasons Malheur Lake overflows into Mud and Harney Lakes, and it is this extensive freshwater

expanse in the midst of an immense arid region which has attracted 264 species of birds and 52 species of mammals.

History buffs will enjoy an entire day of Pete French's ranch buildings. But first a very short account of early 19th century Harney County pioneers:

he first white men arrived in Harney County Basin in 1826. They were French-Canadian fur trappers under the command of Peter Skene Ogden who explored for the Hudson's Bay Company. He recorded seeing large numbers of Indians around Malheur Lake. Indeed, the Paiutes had an ideal location. Summers they could migrate a few miles up the mountain to enjoy the cooler air, and still hunt fish and fowl in the marshes below. At the same time they could eat game from the slopes of the Steens. The Paiutes lived in small family groups, and until stirred up by the Bannocks in 1878 were a peaceful, loosely knit tribe.

Nearly 20 years after Ogden's trappers, the famous Meek Cutoff Party which had left the Oregon Trail to avoid the treacherous Blue Mountains, blundered through the region. These were the pioneers whose children threw pretty yellow rocks into a blue bucket as they walked along. It was months later before the much decimated group rejoined the Oregon Trail at the Dalles. It was even later before their parents found out that the rocks were gold. The mythical Blue Bucket Mine has never been found despite diligent searching in half a dozen diaries and much direct application of pick and shovel.

The year 1868 marks the arrival of Oregon's first genuine cattle baron, John Devine, who came from California to establish the Whitehorse Ranch southeast of the Steens.

Four years later Pete French traveled north through the Sacramento Valley. Pete was the best cattleman, the best builder, the most dramatic stockman of them all. He married the boss's daughter and then, one day after Christmas, he was shot in the back. His murderer was acquitted although the killing was witnessed by several cowhands. No wonder that more has been written about him than about Devine, Henry Miller or Bill Harney, all well known in local cattle history.

French arrived with 1,200 head of cattle, 20 saddle

horses, six Mexican vaqueros, and a Chinese cook. He was backed by Dr. Hugh Glenn of Jacinto, California. Pete drove his herd into the Catlow Valley and camped near some springs. Soon he was visited by a man named Porter, a prospector looking for gold, who also ran a few head of cattle. Porter was discouraged; he had decided that he would never find gold in the area. He sold his cattle and his "P" branding iron to French. Porter had run his stock between Roaring Springs and the upper Blitzen River, range that was technically his under the existing laws. The land became French's when he bought the stock and the branding iron.

French was determined to own all the Blitzen River Valley, and ultimately he did. In time, the French-Glenn Livestock Company controlled 100,000 acres (there is some disagreement on the exact number), 30,000 head of cattle, and 3,000 horses and mules.

He built his main ranch, the "P," across from what is now Frenchglen. (The Oregon Historical Society does not know when or why the second "n" disappeared.) Here he built a large white house, a long barn, a beef wheel for hanging cattle to thwart predators and for butchering, a good deal of willow fencing, and assorted farm buildings. Much of it is still there except for the house which burned down in 1947. Of this, only the red brick chimney remains. Legend has it that he built the house for his bride, Dr. Glenn's daughter. However, while the young Frenches were traveling north to Oregon after the wedding, Dr. Glenn was shot and killed by his bookkeeper. His daughter returned home, and a few months later gave birth to a very blond son who looked not remotely like the black-haired, dark-eyed

The "P' Ranch was but one of Pete's many stations. He also built the Sod House Ranch, one of the best preserved, which like the "P" is now within the Malheur Refuge boundaries. Fences, corrals, and 12 of the original structures are maintained. It was here, that Pete French was killed by Ed Oliver on December 26, 1897. He was 48-years old.

French. San Francisco and Portland papers agreed on this. Ella never went to Oregon, and ultimately

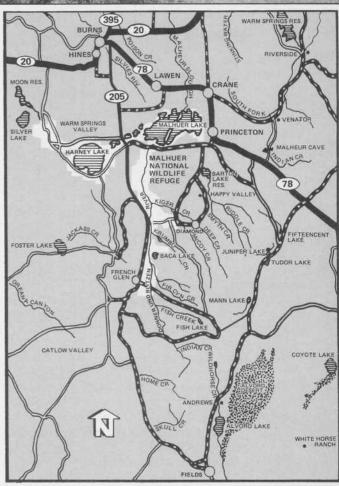
divorced French.

The refuge map shows the road to another of Pete's unusual buildings, the Round Barn, which was part of his Barton Lake substation, It is the sole survivor of three round barns built for breaking horses during the winter months. The barn is 100 feet in diameter, and directly inside is a 60-foot, circular, lava corral. Inside this, 12 juniper posts support the 35-foot-high ceiling. The roof slopes to eight feet on the sides. It is possible to imagine breaking horses in the circular corral. However, it is difficult to see how the stockmen avoided the juniper posts.

Naturally there are ghost towns, and one, of course, is called Blitzen. In the late 1880s a handful of enterprising souls founded a settlement in the Catlow Valley to meet the demand for supplies in this nearly endless desert. Blitzen is marked on Harney County hunting maps. The town had one really fine house, now decrepit but still vertical, a dozen shacks, today mostly listing, two general stores, and one optimist who built his post office with 72 boxes. Hurry, because the wind has already blown down the

This building, one of the few remaining in the ghost town of Blitzen, is believed to have been one of the two general stores.





HARNEY COUNTY

map for Desert drawn by Merle Graffam

school, the saloon, and most of the houses.

As the saying goes in Harney County, "you're a long way out and a long way up." On the next trip I hope to see everything again plus the Malheur Cave, the Andrews Saloon, the Diamond Hotel, and the ghost town of Drewsey. And there'll still be a whole lot left over.

LIVING DESERT RESERVE

The arts and natural sciences share the spotlight at the Living Desert Reserve during April. There is an outstanding watercolor show in McCallum Hall, while newly completed cactus and bird of prey exhibits at the north end of the Reserve should delight plant and animal lovers.

CACTUS GARDEN RESTORED

July 1979 flood waters devastated the Reserve's Opuntia Garden, a 500-square-foot area devoted to a species of cactus common to our southwestern deserts. Now restored, the garden gives visitors an opportunity to compare nine varieties of the opuntia genus.

Familiarly known by names like teddy bear cholla, bunny ears, buckhorn cholla, beavertail, and pancake pear, opuntias are distinguished from other cacti by the presence of tiny hair-like fibers, or glochids, in the aureole from which the spines protrude. Sometimes, as in the beavertail, there are only glochids, which can be as painful embedded in human skin as the spines themselves. Cacti with spines only include the barrel, saguaro, fishhook, and pincushion varieties.

WATERCOLOR SHOW

Even the most familiar subjects can take on exciting dimensions when interpreted by a gifted artist. Jeannette Debonne, whose water-colors will be on exhibit in McCallum throughout April, is such an interpreter of desert landscapes.

These are not majestic vistas, although the desert lends itself to sweeping canvasses. She sees, instead, "the exquisite linear quality of skeletal plants and weeds, subtelty of color, and extraordinary light" which translates into closeup views of quiet, special places. One agave, a weed in the noonday sand, barren rocks, and desert snow are the subjects of her paintings. Mrs. Debonne, a native of the Coachella Valley, earned a degree in art from UCLA in 1959. For the next 12 years she worked in oil and, influenced by the Tamayo murals in Mexico City, produced large, intensely colored works. It was not until she and her family moved to Pinyon Crest, California, in 1972 that she turned to watercolors, a more appropriate media for her new vision.

Debonne watercolors have been shown at the Palm Springs Desert Museum, the Riverside Art Center and Museum, the Riverside Library, and at galleries in Rancho Mirage, Idyllwild, and Palm Desert. Her paintings are in collections in Paris, New York, Mexico City, San Francisco, Dayton, Los Angeles and Vancouver. Those that will be exhibited at the Living Desert Reserve represent the artist's favorite watercolors.



Watercolor by Jeannette Debonne

BIRDS OF PREY ON VIEW

The Living Desert Reserve is permanent home to some 30 injured and orphaned birds, including many large birds of prey which are

now housed in two handsome circular welded wire enclosures in the aviary/oasis area. The two cages, and a third which will be built when a sponsor is found, provide a close-up view of a number of different owls, hawks, and vultures.

Rehabilitation and release is the goal for every bird brought to us. When this is not possible because the animals are too tame or disabled to survive in the wild, they can serve as valuable breeding, educational, and conservation aids.

Some of the raptores to be shown in the bird of prey exhibits are uncommon, such as the prairie falcon. This bird is magnificent despite a gunshot-amputated wing. Other more common birds like redtailed and red-shouldered hawks, kestrels, barn owls, and great-horned owls are housed together for purposes of comparison. Also useful in the Reserve's education programs are a long-eared and short-eared owl, each of which have lost a wing to a man with a gun.

In the spring, the Reserve is deluged with young birds brought in by a concerned public. Injured birds, from hummingbirds to golden eagles, are delivered to animal curator Fred LaRue all year long. Most are kept in the medical ward where they may be viewed through protective fencing. Eye-to-eye contact between these animals and the public is kept to a minimum because the rehabilitation process is retarded when the birds become habituated to people.

When the third and most spacious bird of prey enclosure is built, it will be used to exercise fledgling barn owls and other raptores that have been hand raised. It will also house the largest of the birds in the Reserve's care. A 16' X 20' oval, it is planned for the area behind the oasis.

The Living Desert Reserve, located at 47900 S. Portola Ave., Plam Desert, Calif., is open seven days a week from 9 a.m. to 5 p.m. Admission is \$1.50 for adults, \$.25 for persons under 18 accompanied by an adult.

KITT'S PEAK:

Our Link with Space

by Jenny Gray Photos courtesy Kitt Peak National Observatory

hicken Little can stop worrying about the sky falling. From a mountain top in southern Arizona, a corps of highly-trained astronomers keeps a constant eye on the universe, monitoring and measuring nightly to make certain nothing is amiss.

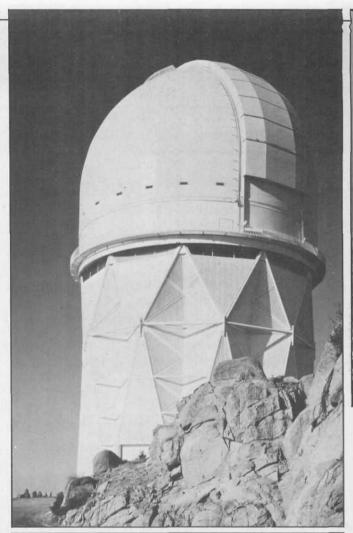
Kitt Peak National Observatory, 50 miles southwest of Tucson, is the world's largest and most sophisticated astronomical laboratory. Located on the Papago Indian Reservation, the peak itself soars 6,882 feet above the surrounding desert. It is open to visitors and picnickers from 10 a.m. to 4 p.m. every day except Christmas. Admission is free.

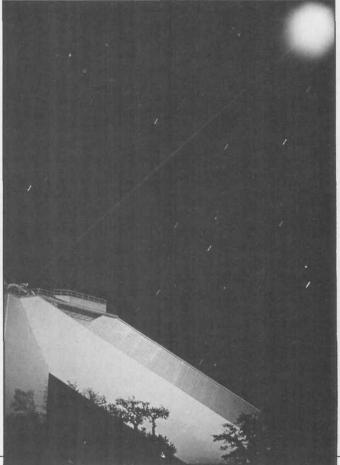
To reach the Observatory from Tucson, drive west on State Highway 86. At the well-marked turnoff, follow the paved 12-mile road to the facility at the crest of the mountain. The startling array of gleaming white domes and towers suggests a "Star Wars" movie set. Inside the Visitor's Genter, however, fiction becomes science as you manipulate the model telescope and view the displays and exhibits.

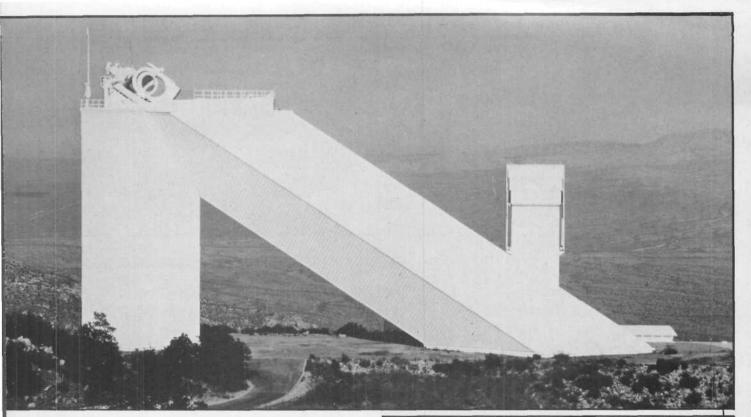
If you arrive on a Saturday or Sunday, wait for a conducted tour leaving the Center at 10:30 a.m. or 1:30 p.m. If a weekday, ask for a printed walking tour guide and proceed on your own. Several of the telescopes are open, with glass-enclosed galleries to allow visitors close-up views of the equipment.

A highlight of your tour will be the long, slanted McMath solar telescope, largest in the world and a spectacle to inspire even the sun-worshiping Pharaoh, Aknaton. Less than half of its 500-foot shaft is visible above ground. A series of mirrors forms a 30-inch image of the sun, which is reflected on a horizontal table in the observation room at ground level, enabling the scientist to select small solar features for detailed study or technological analysis.

The "near-sighted" McMath was designed to







peer at the sun, 8½-light-minutes away, but the ''far-sighted'' Mayall stellar telescope can explore the farthest reaches of our known universe, billions of light-years away. Not long ago, Kitt Peak scientists focused the Mayall's huge 158-inch reflecting mirror on the mystery star Betelquese and obtained the first detailed photographs ever. The news made headlines around the world.

The Observatory was built in the late 1950s by the Association of Universities for Research (AURA) under contract to the National Science Foundation. It occupies a mountain-top site held sacred for generations as the home of the Papago deity, EE-E-Toy. In 1958, after a search team chose the location because of its ideal weather and stable air, the Papagos at first refused permission for use of the land. The frustrated scientists finally invited the tribal leaders to inspect the small Steward Observatory on the University of Arizona campus in nearby Tucson. A glimpse of the moon, magnified many times through the Steward telescope, convinced the Indians, and a lease was granted.

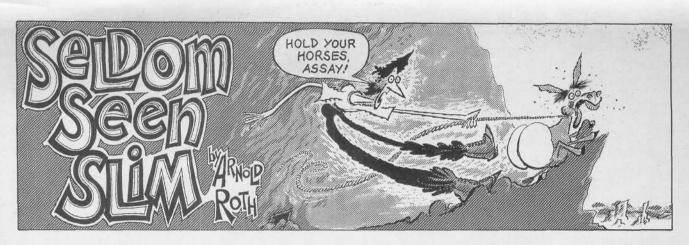
Though Kitt Peak attracts 100,000 daytime visitors a year, the real work is done at night. By sundown, after the visitors have departed, the day-sleeping scientists and technicians are eating "breakfast" and thinking of tasks ahead. They must explore the temperature of heavenly bodies, their direction and velocity, their mass, age, distance, and the composition of their atmospheres and interiors. On such knowledge depends our understanding of our place in the solar system and the universe.

As daylight fades, the revolving domes rumble into position and the giant eyelids open to search the darkened sky. No one worries, like Chicken Little, that the sky might fall. But if it ever does, the vigilant scientists at Kitt Peak will be the first to know and spread the alarm.





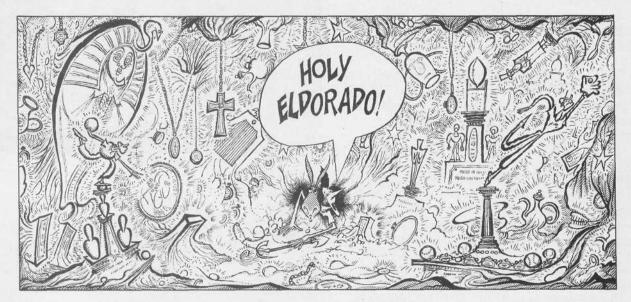
Opposite, top: Mayall's 158-inch [4-meter] telescope was the first to record the mystery star Betelquese. Opposite, bottom: Heliostat on top of McMath Solar Telescope zaps the moon with laser beams. Top: Photo shows only half of the 500-foot shaft of the McMath. Center: The Mayall is operated from this console. Left: Kitt's Peak does not lack for telescopes.







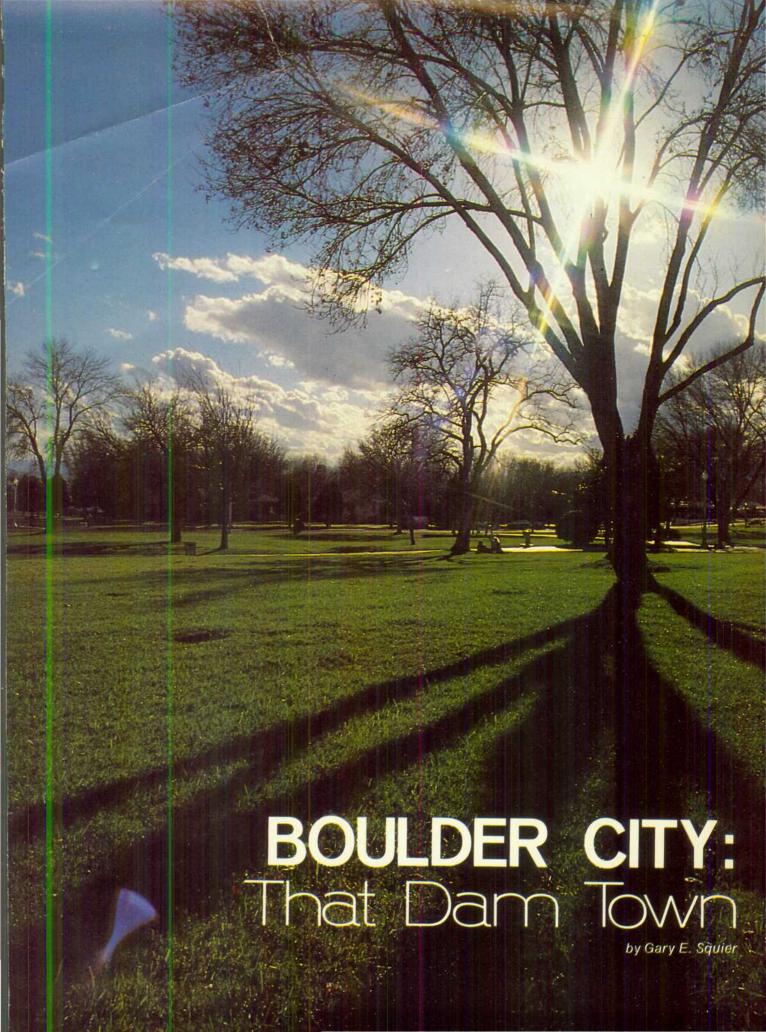


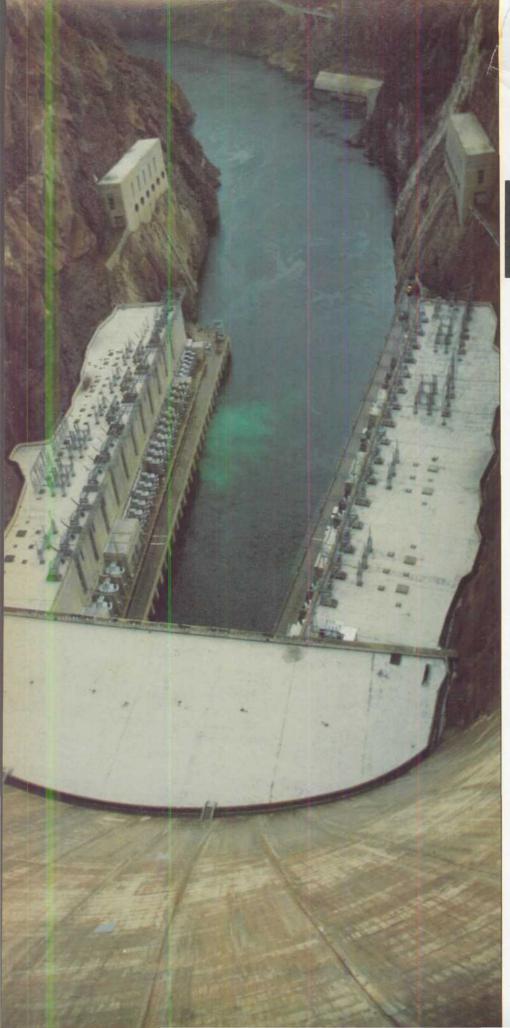












oulder City, Nevada, is a town that has a dam past, a dam present, and a dam future. Some say it's the town that built the dam; others insist that the dam built the town. They're both wrong. The dam and the city were built the same way everything big and strong and lasting gets built — by hard working men and women.

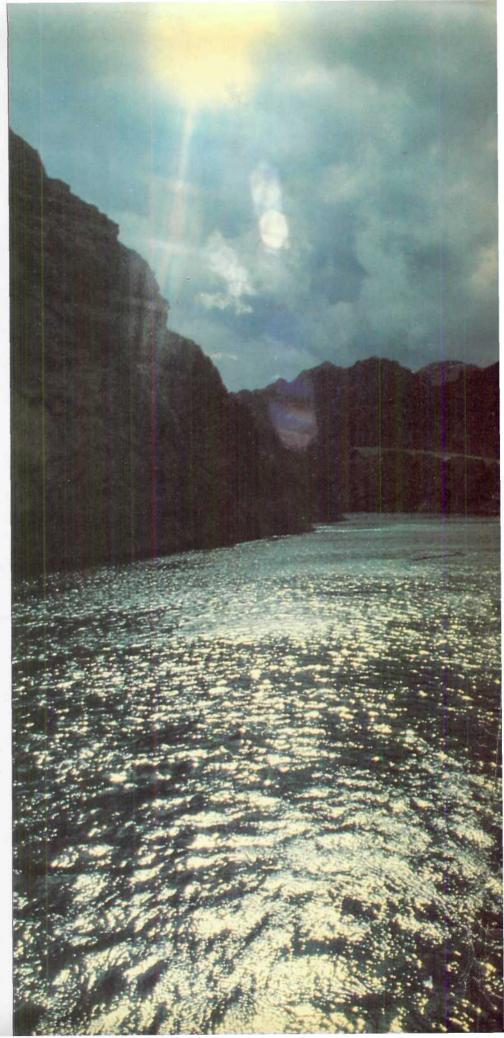
To build the dam, and for many years it was The Dam like the Pyramid of the Sun was The Pyramid, took the best minds and the strongest muscles. It also took great vision, imagination, dedication, and desperation, because both the dam and the city were built during very desperate times, 1931-36. Ten million people were looking for work, looking for hope. The dam had to built, otherwise you could kiss the Imperial Valley of Southern California goodbye because in the winter of 1904-05 the Colorado River went nuts and for 16 months created havoc there, flooding thousands of acres of rich farmland, ripping up highways, threatening lives, and creating the Salton Sea. It took 26 years of planning, testing, and politicking before the first pick struck granite on the Colorado River's Black Canyon walls, and only the federal government could underwrite such an immense project.

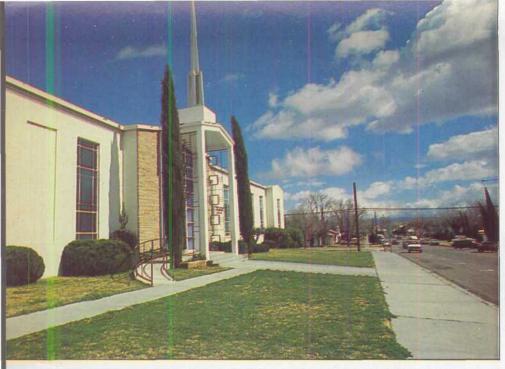
For the dam is monstrous. You can read about it and see pictures of it, but the scope of it is only truly felt when you stand on it, ride the elevator to its bottom, walk down its damp, echoing tunnels to turbine rooms the size of hangars, smell the power, feel its grace.

The back-bending toil of long hours in unbearable heat and constant danger necessary to create this Eighth Wonder of the World was borne by thousands of men who came to Boulder and found work, found a home, found hope.

And they all lived in Boulder City, the government town, the working stiff's town, and one of the first planned towns in the U.S. The major architect for the city was S.R. De Boer who admired the work of Pierre L'Enfant, the designer of Washington, D.C. So De Boer laid Boulder City out in a rough diamond shape for 3,000 people. The Bureau of Reclamation and other government buildings were built of stone high on a hill at the top of the diamond. The chief engineers and administrators of the contractors, the Six Company, lived on stone-walled Denver and Mt. View streets while the workers lived down the hill in flimsy threeroom wooden houses propped up on stilts to keep most of the desert critters out of their homes.

The significant difference between De Boer's town and L'Enfant's city is that in Boulder City everybody worked. They couldn't buy a drink, gamble, curse or spit, but they could work. First they built the town and paved the highway to the dam site, then they built the dam. 99 men lost their lives during the five years of construction and contrary to rumor none are buried in the walls of the dam. Only the dam's mascot, "Nig," is buried near the dedication monument. The dam grew and the city spread out according to plan. Hundreds of problems had to be solved, among them: how to cool five million barrels of cement so that it would harden before the 21st century. The town had problems too. Hundreds who came for work but found none pitched tents outside of town, built shacks of tin cans, and were treated like outsiders until they could get work and move into the town when their time came. At its largest, Boulder City had over 10,000 people living inside the reservation connected to the dam.









The past is very present in Boulder City. Parks and churches were part of the first "planned" city in the U.S., as were wide city streets, city hall, and spittoons.



ut by the time Franklin Roosevelt said at the dam's dedication that "this is an engineering victory of the first order-another great achievement of American resourcefulness, skill, and determination. This is why I congratulate you who have created Boulder Dam and on behalf of the nation say to you, 'Well done','' the town's population had already begun to shrink and went steadily down until World War II, rejuvenating mining and chemical plants in nearby Henderson, big time gambling in Las Vegas, and the construction of large military camps nearby.

Because Boulder City was still a government reservation, you could not buy land or a drink, but it was a pretty little town with tree-lined streets and parks and just about the perfect place to raise a family after the war. And the town had a purpose: the dam. It kept them humming, kept them working.

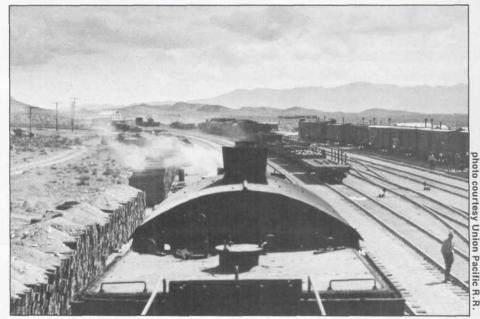
When Congress renamed Boulder Dam to Hoover Dam in 1947, the people of Boulder City had a chance to change their name, too. But they rejected the idea because the association of Hoover's name with Hoovervilles (shanty towns). Hoover hogs (jackrabbits), and Hoover blankets (newspapers) was still too strong. They were proud of their city and their dam, and their quest for independence stirred strongly throughout the 1950s. On January 4, 1960, the home rule they desired was granted. The Bureau of Reclamation turned over 33 square miles of houses, streets, sidewalks, parks and parkways, municipal water, electric, and sewer systems, equipment, and buildings with an estimated value of \$10 million to the newly incorporated city. Boulder City became

like any other town in Nevada except you still couldn't buy a drink (you could by 1969), the edict against gambling was strictly enforced, and they had the dam.

By the 1970s the townspeople had built just about one of everything: a hospital, golf course, schools, a dozen churches, an airport, bank, library, cemetery, a senior citizens center, and a movie theater. They also had a doctor, dentist, shop owners, and a newspaper whose publisher, Morry Zennoff, won the Peter Zenger Award in 1974. There was strong community spirit. If the people wanted a baseball diamond or a bike path, they didn't go to city hall and ask them to do it. The people pitched in and did it themselves.

But as many small towns experience, Boulder City also had a dilemma: should the town capitalize on its tourist attraction (over a million people visit the dam each year) and encourage industry, development and growth or should it stay essentially a clean little town town with definite boundaries? The residents were divided. Strong feelings were expressed by both sides and the lines were bitterly drawn. On July 3, 1979, after heated meetings attended by hundreds of citizens, they voted in a controlled growth ordinance patterned after the one in Petaluma, California. No more building permits would be issued.

Today there's a movement to have some of the original buildings of the downtown area declared historial sites, and the town is a bit more peaceful although some people still don't talk to each other. But the people are friendly to visitors. They open their houses and their hearts to those who show an interest in its dam history, and the



Top: Tom Bargiel and his family live in Boulder City, but he, like many other residents, works in Las Vegas. Center: The town was a thriving railroad center during construction of the dam. Below: Bill Harbour, editor of Boulder City News, and Teddy Fenton, unofficial town historian, sit in front of Teddy's three-room house on ''D'' St., that was built in 1931. The house has grown in 49 years to 23 rooms and 7 baths.



memories of its past are kept alive by the "31ers" who get together each year and by people like Teddy Fenton who has the town's most complete scrapbook. She came to Boulder City in 1936 and has been collecting memorabilia ever since.

oulder City continues to be a workingman's town. Government is still the largest employer for men like D. Sullivan who works at the dam and others who are employed by the National Park Service or the Bureau of Mines. For many others, who work in Las Vegas or Henderson, Boulder City is a bedroom community. Unemployment is low. So is the crime rate, although the old saying that you never have to lock your doors in Boulder City no longer holds true. There are housing tracts, apartments, condominiums, and townhouses. The schools have broad curriculum and a good sports program. The dropout rate is extremely low, and evening classes for adults are held throughout the year. You still can't place a bet inside the city limits, but it's not morals that keep gambling out. The people just don't want the trouble it could bring.

Since 1963 they've had an outdoor art festival in the fall that becomes more successful each year, and there's expressed hope that the town will eventually have the atmosphere of an art colony. You can get a good cup of coffee at the Beanery, and on certain days the former Navy cook who owns the Coffee Cup down the street serves the best S.O.S. (chipped beef on toast) in the West. There are comfortable accomodations for the traveller and you can get a free drink at Herb's Tavern any day the sun doesn't shine. If the urge to bet your month's salary becomes too strong, you can always race up to the Railroad Cross Casino a couple miles out of town or beyond to Las Vegas.

Like almost every city its size in the U.S., Boulder City's future is uncertain. The dilemma of its direction, although legally resolved for the time being, is very obviously present: a community analysis others. Contracts with the dam expire in 1987 for business and industrial firms has been published by the city manager and the Chamber of







Top and Bottom: Power from the dam's seven turbines supplies electricity to light the states of Nevada, California, and Arizona among and must be renegotiated. Center: Dam construction site store and entrepreneurs. Building the dam gave people work when they needed it badly.



Left: Inn was one of first buildings in Boulder City and has been a meeting place ever since. Below: The town was originally designed in the shape of a diamond. Government offices were built at the top of the rising slope. Bottom: Downton Boulder City, 1980.

Commerce; one of the town's oldest buildings, the Boulder Dam Inn, was recently purchased by a group headed by Senator McCorkle of Nevada with the intention of restoring its unique qualities and attracting the tourist to its charm; the desire for independent growth is openly discussed; and an understanding that this is not the good guys against the bad guys seems to be generally accepted.

In practical terms the town has a lot to do despite all that's been done. They have to move their airport because the pitch of the runway is greater than the FAA will allow for commercial use. They'll also have to renegotiate their power contracts with the dam by 1987 — as will all utility companies like the states of Arizona and Nevada, Southern California Edison, the City of Los Angeles Department of Water and Power, and the cities of Glendale, Burbank, and Pasadena among many others.

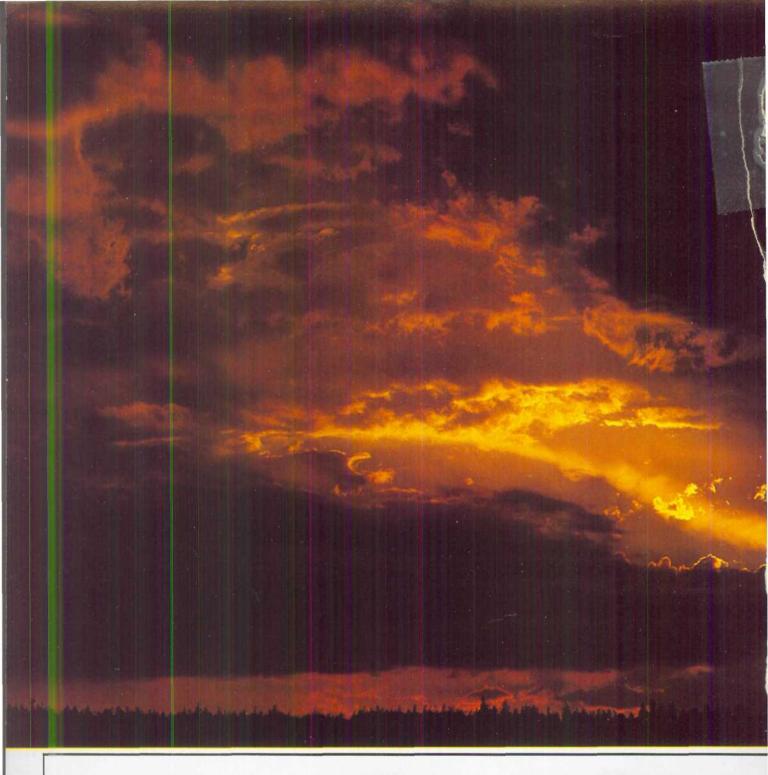
will it be distributed; who will get the biggest jolt?

But the dam is one thing certain about Boulder City's future. It will probably always be plugged into the dam for its lights, its livelihood, its life, and its reason for living. Boulder Dam was built to last by people who knew that they would not. The people of Boulder City are lucky to be hooked up to that kind of energy and should smile proudly when they're called that dam town.

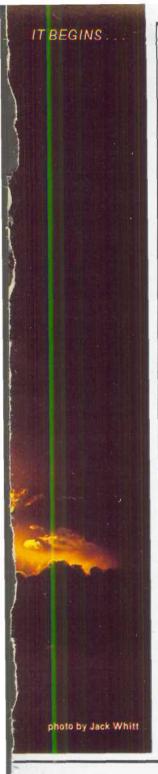
Everybody wants energy, but how







FLASH



overing one-third of San Diego County and parts of Riverside and Imperial Counties in Southern California, the Anza-Borrego Desert is the vacation choice for about 1,000,000 visitors each year. The count runs higher when winter rains arrive at just the right time and in the proper amounts, because then the spring wildflower displays there are among the most spectacular in the world. These winter rains are comparatively gentle and are eagerly absorbed by the thirsty soil. Even at their heaviest, they never match the violently destructive, and potentially lethal downpours that are suddenly dumped onto the desert from summer thunderstorms. These create the flash flood.

Spawned by tropical moisture from the Gulf of California, summer storm clouds towering 20,000 feet or more move inland over the desert, and although small in comparison to their 60,000-foot relatives over the nation's mid-section, pack a localized wallop that is awesome.

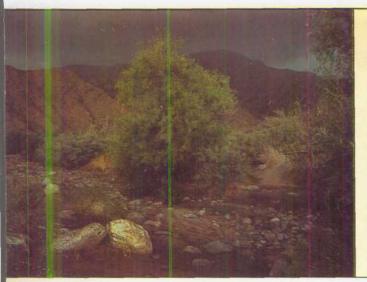
By August towering thunderheads are nudging over the coastal ranges almost every afternoon. Flowing a deep fushia trimmed with highlights of gold, these mountains of condensed water vapor look deceptively peaceful and serene as they billow and grow overhead in the deepening twilight. Not so. Ask the Marine pilot who flew his propellor-driven aircraft into one of them over the southwest about 30 years ago. He knows first-hand about thunderclouds. As the turbulance inside the cloud increased to the point where the plane actually began breaking up around him, the pilot bailed out. But the forces inside the cloud seized this tiny intruder and began buffeting him up and down through freezing rain and hail. When he finally fell out of the sky more dead than alive, he was encased in ice and his parachute was almost torn to shreds. Amazingly, he lived.

The acre-feet of water one of these monsters can drop in the short span of an hour or two is simply unbelievable. Falling on hard-baked soil or steep rocky terrain, the runoff from such a cloudburst (which may be that area's total yearly rainfall) is channeled into washes that only moments before were sleeping, parched, and dry. Suddenly they are awake, angry, and alive with action, running brim-full of churning

FLOOD!

muddy water, tree limbs, uprooted cactus, boulders, and debris.

This runoff roars down canyons and arroyos and out onto the desert lowlands. And at the head of this flow is the strangest collection of sticks and stones you've ever seen. Looking much like a hastily built and rather poorly designed beaver dam, it appears





ITS ONLY WARNING - SOUND . . .

solid enough to walk on. This moving dam of debris is forced downstream by the churning, roaring floodwaters directly behind it.

The flash flood does not "flow" like a rain-swollen stream or river. It seems to have a mind and a heart-beat all its own. Throbbing and surging, great undulating swells raise the level of the flow from a foot or less to three feet or more in a split-second. Such a surge stranded Katherine Foley, an Anza-Borrego Park ranger, when she attempted to cross runoff in Carrizo Wash to aid a motorist. Foley was lucky; her radio call for help brought rescuers after a terrifyingly long wait. Others have not been so fortunate.

On July 20, 1979, a motorist was swept off C-78 west of Ocotillo Wells about 5:30 a.m. His car was found three days later filled with sand a quarter-mile from the highway. A sheriff's helicopter found his drowned body another mile-and-a-half down the wash. The nasty thing about flash floods is not only their unpredictability, but the fact that they can race out of canyons miles from where they were born and strike while you are standing in warm sunshine under clear blue sky. Their speed is second only to their destructiveness.

Asked to explain when "heavy runoff" stopped and a flash flood started, Bud Getty, Manager of the Anza-Borrego Desert State Park, says: "If you're watching from a safe distance, it's runoff. If you're caught in it, it's a flash flood!" But no one should ever be caught in or surprised by a flash flood. Not unless they are stone deaf or riding in a vehicle with the stereo turned up full blast and all the windows closed. A flash flood is, above all else, LOUD!

On September 14, 1974, a light rain began falling on the tiny town of Nelson's Landing along the western shore of Lake Mojave about 40 miles southeast of Las Vegas, Nevada. It was 1:30 in the afternoon. By 2:22 p.m. over two inches of rain had drenched the 22-square-mile watershed above Nelson's Landing and a flash flood had thundered through town killing nine people. A restaurant, five mobile homes, and 23 boats disappeared and in their place was a fresh

deposit of coarse gravel 15 feet deep.

The climate and topography of Nelson's Landing are similar to many other areas in the southwestern deserts, including Borrego Springs—areas that are rapidly being built up by developers who evidently have never heard of or seen a flash flood.

The flood that raced out of Palm Canvon near Borrego Springs the afternoon of August 16, 1979, was a small one as floods go. No one was killed and property damage was minimal. The potential for disaster, though, was very real. That something major was brewing was plainly written in the sky above the San Ysidro Mountains where the clouds had been trying to cook up something for a week but hadn't been quite able to get it together. The deep plum color at the base of the cumulonimbus cloud was one indicator. Another was the ominous rumblings of thunder. Great plumes of water could be seen falling in the headwaters of the canyons west of Borrego Springs. FLASH FLOOD might just as well have been painted on the cloud in big red letter. And I was going to photograph it!

"All photographers are slightly crazy," an editor at the San Diego *Tribune* once said, and I must admit I wanted a series of flash flood photographs so badly that it might well have clouded my judgement. I had actually needed such a series of color slides (not just one snapshot) several months earlier when assembling the multi-image audio-visual show for the new Anze-Borrego Visitor Center. The series was not available and I swore that the next time one was needed, I was going to have it on film. So, off I went with the motor-driven Nikon, a 24mm Nikkor wideangle lens, Kodachrome 64 film, and a great deal of enthusiasm.

It was 4 p.m. The immediate problem was choosing just which canyon "my" flood was going to come down. The cloud was so large that it covered the upper reaches of three canyons—Hellhole, Palm, and Henderson. Henderson Canyon had already been thoroughly clobbered when a similar storm sneaked in ahead of Hurricane Doreen in 1977. Surely a flood





IT'S COMING . . .

wouldn't strike twice in the same place. Once my choice was narrowed to two, it wasn't hard to make a decision. The only way into Hellhole Canyon is to walk and Palm Canyon has a paved road all the way through the State Park campground to the foot of a nature trail. I'm not against walking but time was running out. If the expected flow started much later it would be too dark for photographs, so Palm Canyon it was.

Leaving the car on a rise, I set up the tripod next to the streambed at campsite No. 99. Sure enough, a light rain started falling. Everything was going according to plan. It was 4:20 p.m. when I took the first shot of the dry, sandy streambed of Palm Creek. Large raindrops were falling now but instead of increasing in intensity as expected, the rain stopped just before 5:00 p.m. and the air was deceptively calm. There was still not so much as a trickle of water in the wash. I was disappointed and it seemed to be clearing back in the mountains too. There was not a breath of wind.

I hiked dejectedly up the streambed, leaving the camera equipment in place. I hadn't given up entirely. Not far from campsite 99 the stream makes a turn, wanders across an alluvial fan, and then climbs into the canyon beyond. I rounded the bend and hiked further upwash. It was easy walking in the sandy bed which was still damp from the rain shower. The only sound other than my crunching footsteps was the fading roar of a jet flying so high and so fast that it was already out of sight. Strange, I thought, but that jet sounds a little weird. In fact, instead of getting fainter it was getting louder, but I still could not locate the jet overhead.

Suddenly a tiny bell went off in my head. That was no jet! The sound wasn't even coming from the sky. It was coming down Palm Canyon and was headed right for me! I began running back downstream towards the camera and safety. As I rounded the bend I slowed enough to risk a quick glance back. The increasing roar left no doubt I was about to be swallowed alive by this monster snapping at my

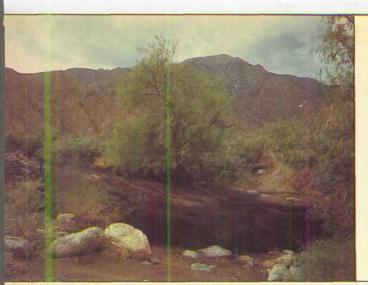
heels, but there was nothing in sight. At that moment if I had had to guess what was coming at me down the tiny creekbed, I would have guessed a runaway freight train with square wheels.

Reaching the camera, dripping with perspiration and out of breath, I had only time to check the light level (which had dropped to one-half its former intensity) and start shooting as the head of the runoff slid into view around the bend. It was 5:20. My heart was pounding and I was thankful that the camera, purring away at 1/8 second at f/8, was held firmly in place by the tripod. My whole body was shaking. The ground was trembling too as if it knew from past experience what was about to happen.

As the runoff moved closer I was not aware of the tremendous mass of water pushing the ugly brush pile downstream. The roar was deafening. Each time the wall of muddy, churning water trapped behind the head of the flow reached a low spot in the bank on either side of the stream, great silt-laden arms of water would shoot out impatiently around and past it with almost soft, "wooshing" sounds. These offshoots weren't deep—less than a foot—but they moved so quickly and so effortlessly around and over every obstacle in their path that the visual effect was almost hypnotic.

When the front edge of the flow reached the tripod legs, some 12 seconds from the time I first sighted it, I knew for certain that this was not "heavy runoff." This was a fullfledged flash flood! For the first time my excitement turned to cold, absolute fear. One of the offshoots raced to my left. In two seconds it cut me off from the car and was rushing right through the campsite and splashing over the picnic table. Brush and debris was piling up against the car's wheels. A few more seconds and it would be washed downstream.

Now was the time to move and move fast. I moved! Tripod in hand and heart in mouth, I stepped into the shallow water. At least it looked like water, but it felt more like liquid sandpaper. Rocks the size of fists pounded my shins. I couldn't keep my footing and I





. . . IT'S HERE!

fell. I had but two thoughts: 1) get the hell out of here and 2) keep the camera and its precious film dry. Neither was easy. I scrambled out like a three-legged dog, somehow holding the tripod clear. Fortunately, I was able to move the car to safety before a surge could carry car, camera, and one rather soggy photographer all downstream at once. Fortunately too, no one else was there to witness the rather battered and sheepish (but happy) photographer who slipped quietly out of Palm Canyon Campground and home to shower, bandage his bleeding legs, and send off one exposed roll of film for processing.

In its upper reaches, Palm Creek normally flows at about two or three cubic-feet per second, creating sparkling waterfalls among the fan palms and boulders before slipping quietly underground and flowing east towards the Borrego Sink. What I had just escaped came charging out of the canyon at a thousand times that—3,000 cubic-feet per second as measured by the U.S. Coast and Geodetic Survey!

Downstream, a rock retaining wall recently completed with U.S. Soil Conservation District funds for \$38,000 simply disappeared, its rocks and steel mesh ripped loose and deposited unceremoniously along with another 30,000 cubic yards of silt and debris in a catch basin just upstream from the plush De Anza Country Club. Palm Creek ran deep and muddy for several days. The huge boulders rolling around beneath the survace like so many marbles made a noise like a giant grinding his teeth. Take a look at some of the boulders the next time you hike up the Palm Canyon Nature Trail. Imagine the force necessary to move one. Look too at the uprooted palm trees. And should it be summertime, keep your ears open.

All the potential for another Nelson's Landing disaster is still present, not only in Southern California but in areas all over the Southwest where more and more developers and individual owners are building on the floors of canyons.

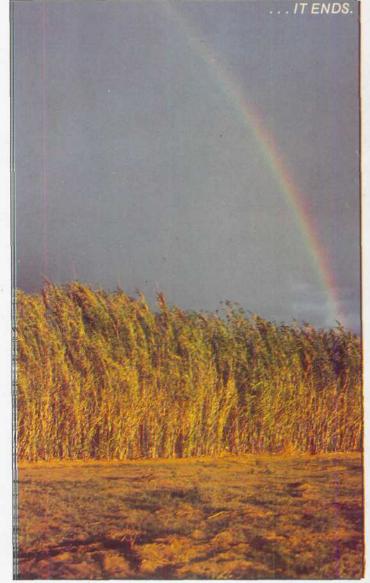
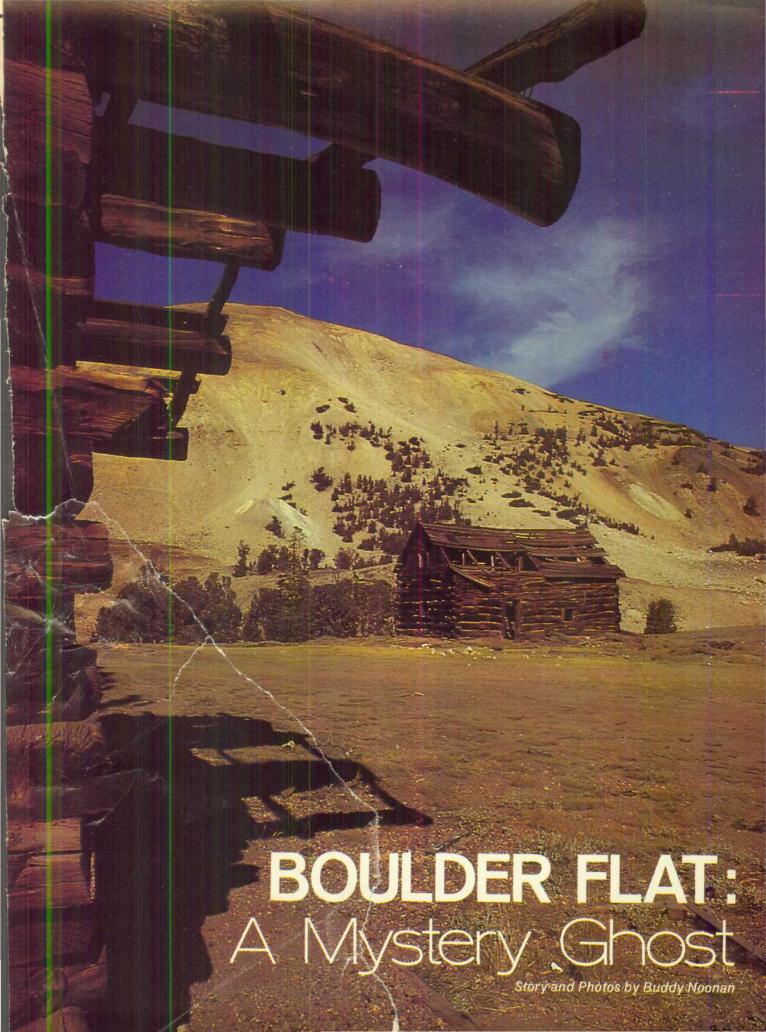
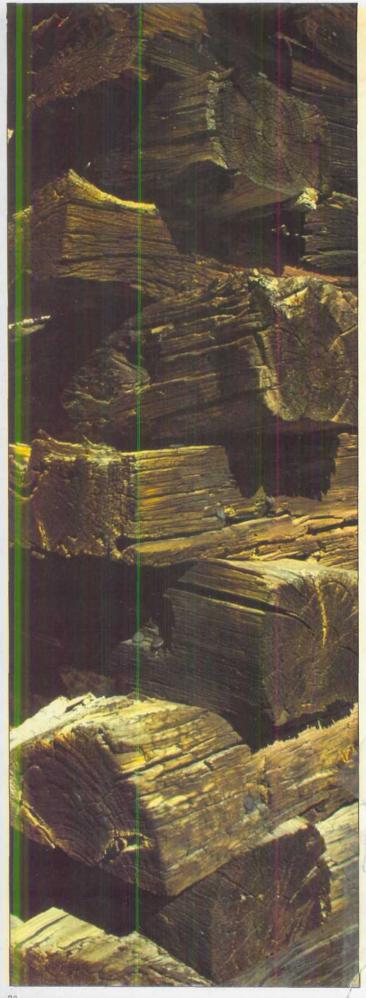


photo by E. J. Tyler





"There's an old ghost town up there," Bridgeport Historical Society president Art Webb said, pointing to Patterson Peak high up in California's Sierra Nevada range. "It took me years to locate but once I did, I couldn't find any solid information on it. It's a place called Boulder Flat, and to my knowledge its history remains a mystery to this day."

Needless to say, we left Bridgeport in Art's four-wheel drive truck the following week. As a note of precaution, this trip should *not* be attempted by any vehicle other than four-wheel drive, nor probably by individuals with cardiac problems. Also, be sure to gas up and take along plenty of film, water, ice, food, and emergency supplies. And too, a CB radio could be essential in the event of a breakdown. Let someone know where you're going and when you expect to return. The sheriff's office in Bridgeport will assist you. Finally, the trip can be completed *only* in summer months after heavy Sierra snows have thawed.

Driving north on C-182 (or Sweetwater Canyon Road as it's known locally) from Bridgeport for 19 miles brought us to the Sweetwater Ranch in Nevada. Turning left here for 1.2 miles led to a junction. Keep to the left for 1.0 miles to the cattle gate. After entering and re-closing it as the sign requests, continue 2.7 miles to another fork. The road to the right will take you to Star City, 1.4 miles distant, but don't plan to stock up on any provisions there because Star City, like all of the other places you'll encounter, is no more than a deserted ghost camp. Now back in California you start up the steep incline, realizing why four-wheel drive is mandatory. Sharp cliffs to the right and sheer drops to the left border the narrow but fortunately, seldom traveled road. Finally, and perhaps to your relief, the road will open onto a level butte. This is the site of Star City, a booming gold town of the 1880s.

The heartbeat of Star City was the Thorobrace Mine, first worked in 1884. However, complications encountered when the miners struck water possibly spelled her doom. All that the state mineralogist (circa 1890) notes in his report is: "At present work on this claim is suspended. This lode is reported to be a strong one, but its width not ascertained." Was the main lode ever exhausted or does it still remain for someone fortunate enough to find it? Whatever, there isn't much left above ground today, just overgrown roads checkerboarding what once was a thriving town. Wild "Mormon Tea" abound everywhere, crewding the few remaining rock foundations. In contrast, a jet stream trails in the skies overhead.

Continuing up the main road for 0.3 miles brings you to another fork. Keep to the right for the final lap to Boulder Flat. Now the road becomes even more narrow and your climb is complicated by shale and rock. Occasional dropouts on the shoulder challenge your judgement. And, as you look down 1,500 feet below, you realize you've passed the point of no return. Then, 1.8 miles later, just about when you've had enough of this, the road widens at 9,000 feet, revealing an oasis. There, framed by lush pines, are

the historic buildings of Boulder Flat.

All history records is that gold was mined here in the 1800s. The details of who discovered it and any record of the boom that followed have all been lost down through the years. It's not even known for sure that the town's name was Boulder Flat. Historians, not the residents, named it that for the rocky meadow in which it is located.

But there they stand, several sturdy structures, an epitaph to another era. Closer inspection doesn't reveal many clues. The largest building was obviously a "chop house" (cafe) and hotel. Inside are the remains of a huge old stove. Nearby, time eroded and twisted stairs lead to an upper floor which has long since collapsed. Outside, many more buildings lie fallen in on their foundations, victims of heavy Sierra blizzards and vandals. In contrast, a forest of the oldest living things on earth, bristlecone pines (Pinus tarriannis, many 4,600 years old), shade the fallen structures. Then nearby, deer hunters have added a more contemporary shack onto one of the town's older homes. A mile further up "Main Street" reveals a miner's cabin next to the road. Built here probably because his claim was nearby or because he wished to reside "out of town," the shack was constructed from the gnarled and ancient bristlecones.

Now, as day ended, fingers of lengthening shadows criss-crossed the town's center, seeming to deepen its mystery. Occasional flurries of evening winds rustled leaves on trees overhead. There was no life except for a few chipmunks who scolded us from their hiding places under the boardwalks. In your imagination you try to people a place like this. What was it like a century ago? Was the main gold strike a big one or just a flash in some promoter's pan? Did anyone take the time to photograph Boulder Flat while it lived or did man's greed preclude bothering with such trivial things? Then, as your imagination reaches out even further, you realize that it has nowhere to go. Those who settled Boulder Flat left too few clues, only the warped shells of buildings they once called home.

As Art manuevered his truck down the steep hairpin turns of the old gold road, the ghost town high above disappeared from view. It had been an extremely rewarding trip but I knew I would never go back. Most travel films end with the narrator saying how much he wants to return one day. It wasn't like that for me and Boulder Flat. Yes, the ghost town was striking and the scenery magnificent. But the journey over hazardous roads to get there? Thrilling. A little too thrilling.

Much is known about most ghost towns even when they've been obliterated down to the last square nail. Boulder Flat isn't like that at all. The core of it still remains standing, but very little is known. Maybe someday, someone will stumble onto an old scrapbook, document or relic which could shed some light. Then, perhaps, we could fill in a lost episode of our rich western history. Until that time she'll remain a mystery...the mystery of Boulder Flat.



Desert ROCKHOUND

Collecting Sites Update: The famous Apache tear caves west of Superior, Arizona, no longer allow collecting inside the caverns, due to the danger of being hit by falling debris. Collectors are, however, allowed to search through the freshly graded areas surrounding the caves. This method is not as exciting as being able to pluck the tears from their place in the walls, but it is far more productive. It is easy to collect a full gallon of top quality Apache tears in about 30 minutes. The fee is only \$1 per person, per gallon, and the sizes range from very small to over three inches in diameter.

Outstanding barite specimens can be found in a little known area just east of Rincon, New Mexico. They are found on the walls of many of the abandoned quarries in the area. I have been able to collect crystals of a quality that is as good or better than any found for sale in

MUSEUM OF THE HORSE, INC.

Six exhibit halls dedicated to the horse. From early Greek to modern times.

Original Remingtons, Russell bronze, one of four Kachina chess sets in the world, western treasures valued at \$1,000,000.

Fine Indian crafts for sale in gift shop. Just 60 miles south of Tucson on S-83 in historic

Patagonia, Arizona.

Open daily 9 to 5.

Your host: Anne Stradling.

by James R. Mitchell

rock shops. It is exciting to split cracks in the walls of the quarry, often opening cavities filled with perfectly formed barite crystals, some measuring up to an inch across. Be sure to check on the ownership status of any quarry you want to explore. Many of them are abandoned, but some are still privately owned.

Fluorescent Mineral Enthusiasts: Recently I have become fascinated with fluorescent minerals and enjoy being able to hunt rocks, not only in the day but now, also, at night. This adds a completely new dimension to my trips. If you too share this interest, you might be interested to know that there is a Fluorescent Mineral Society based in Pasadena, Calif., with members from around the world. The society puts out a bi-monthly newsletter which is very informative. Annual membership fees are \$7.50 for U.S. and Canada, and \$9.50 for overseas members. For more information, write Paul Morris, Executive Secretary, 713 Kentucky St. #2, Vallejo, CA 94590.

Faceting Classes: I was recently advised that Mr. Earl Montgomery, inventor of the American Facetor, will be moderating classes in beginning, intermediate, and advanced faceting. These programs begin in May, 1980. For more information contact Anthony Geonnotti, Jr., ARG Sales Co., 1550 Bridgewater Road, Cornwells Hts., PA 19020.

Museums: The Fort Worth Museum of Science and History has just added an amazing display to its Rocks and Fossils exhibition. It is a rotating Rand McNally geophysical relief globe, the largest ever made. It is a spectacular exhibit and fascinating to inspect. If you are in the area, I recommend you take the time to see this colossal globe, as well as the rest of the fine displays.

Shows: The South Bay Lapidary and Mineral Society will hold their 31st annual "Nature's Treasures" show on April 19 and 20 at the Torrance Recreation Center in Tor-

rance, California. It will feature the giant, award-winning, 260-pound crystal-filled geode cut and polished by Ron Wood.

Unpatented Mining Claimholders: All unpatented mining claims on public land must be recorded with the BLM. If such recording is not done within 90 days of the date of location, the claim may be invalidated. For more information contact the BLM office nearest you.

Final Thought: In recent months there has been a recorded reduction in the number of people visiting the desert. This, I am sure, is largely due to the skyrocketing costs of gasoline and other supplies. City dwellers are traveling less frequently but, that may not be bad. I, for one, now plan my escapes to the isolated beauty of the desert more carefully, and look forward to them with more enthusiasm, anticipation, and appreciation than ever before.

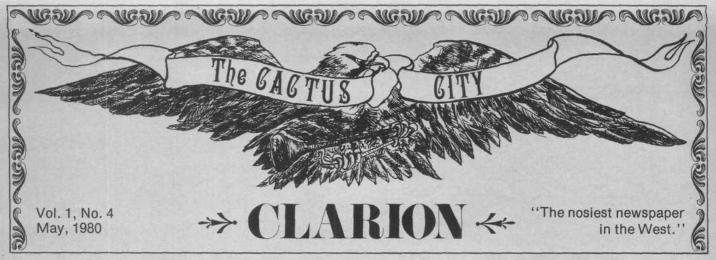
Monthly Photo Contest Rules

Each month *Desert* magazine awards \$25 for the best black and white photograph submitted. Subjects must be desert-related. We want to give each winning photograph enough room so our winner for May is on page 57. Oh yes, to all Hasselblad owners we apologize for the misspelling. Nobody's perfekt.

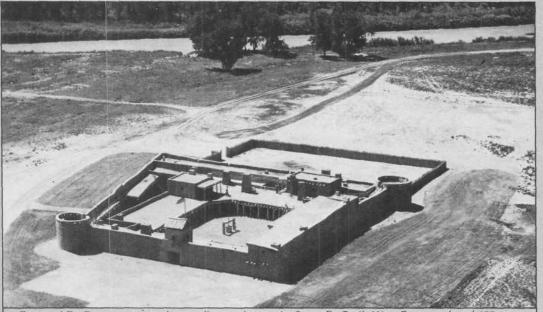
HERE ARE THE RULES

- Prints must be B&W, 8X10, glossy.
- Contest is open to amateur and professional. Desert requires first publication rights.
- Each photograph must be labelled (time, place, shutter speed, film, and camera).
- 4. Judges are from Desert's staff.
- Prints will be returned if selfaddressed stamped envelope is enclosed.

Address all entries to Photo Editor, Desert Magazine, P.O. Box 1318, Palm Desert, CA 92261.



FORT BENT GUARDS AGAIN



Restored Ft. Bent once was a key trading station on the Santa Fe Trail. Wm. Bent employed 100 persons in his business, with members of the Cheyenne tribe being favored customers.

DEER COLLARED WITHOUT DRUGS

NEEDLES, Calif.—The Arizona Game and Fish Department recently completed the radio collaring of 16 mule deer on the Kaibab plateau.

The deer were fixed with radio transmitting location and movement information to Department monitors.

The collars have a unique device which tells the monitor if the animal has died. If the animal is stationary for more than three hours, a mechanism within the collar will begin sending a different signal to the monitor indicating that the animal is dead. Deer are never motionless for this long even when resting.

The collars were affixed without the aid of tranquilizers. The deer were herded into a capture net by means of a helicopter, and Department personnel physically restrained the animals to place the collars on their necks. The animals were then released unharmed after noting the sex and approximate age of each deer.

It is hoped that winter travel routes and patterns can be established by monitoring these and other collared deer. Additional information on winter mortality rates and causes will also be gathered by Department biologists. This information will aid the Department in determining future hunting seasons and enable it to make recommendations on predator control.

Needles DESERT STAR

YOUTHS ALMOST LOSE

GOLDFIELD, Nev. — Fourwheel drive vehicles are a pleasurable and essential machine when used for exploring and/or working the back country, especially here in the state of Nevada.

They will take you into and bring you out of some of the most rugged and beautiful country to be found anywhere if you have respect for the machine and for the country over which you are traveling. However, they were not made for cavorting around the perilous edges of old abandoned mine shafts as was most impressionably demonstrated on the outskirts of Goldfield last week.

Four youngsters with an ap-(Cont'd on page 40)

Only Refurnishing Remains to Complete William Bent's "Mud Castle in Picketwire Country."

LA JUNTA, Colo. — William Bent, pioneer fur trader and friend of the Cheyenne who knew him as "Small White Man" would be proud to see his 150-year-old adobe stronghold today.

The National Park Service has nearly completed a meticulous restoration of the once-decayed structure on the banks of the Picketwire and Arkansas Rivers near here.

In continuous and varied use since it was built between 1828 and 1834 until the mid-1880s, this Bent County landmark passed from the Bent family to the Daughters of the American Revolution in 1920 and then to the Colorado Historical Society in 1954. The latter shifted title to the U.S. government seven years later and it was designated a National Historic Site.

In Bent's time the fort-like structure was actually a thriving trading post on the Santa Fe Trail with Bent and his brothers Charles, Robert, and George plus a partner named Ceran St. Vrain employing and housing as many as 100 people.

A trading license was first issued to the Bents in 1834 but smallpox introduced by the 150 Mexican laborers from Taos and Santa Fe delayed completion of the Fort.

Living and trading quarters plus a large corral made up the interior with construction similar to that used in northern Mexico except for second floors with windows and fireplaces.

(Cont'd on page 40)

HISTORIC FORT SITE FINALLY REGISTERED

NEW HARMONY, Utah—The site of Fort Harmony, one of the first settlements of southern Utah, has been listed in the National Register of Historic Places, the Utah State Historical Society has announced.

Located a short distance from Interstate 15 near New Harmony in Washington County, the site of Fort Harmony contains only a few remains of the original fort. "While little remains of the original fort, the site could produce important archaeological information about early Mormon occupation of the area," said A. Kent Powell, the Historical Society's preservation research coordinator who researched the site for the National Register nomination.

Fort Harmony was constructed of adobe materials in 1854-1855 by John D. Lee, one of the most interesting and controversial figures in Mormon history, Powell explained. Lee was sent by Brigham Young to an area of southern Utah rich in iron resources to establish settlements which would produce food for the anticipated immigration of miners and mill workers.

Lee eventually built Fort Harmony and settled there with his six wives. Other settlers joined Lee, and in 1856 they petitioned the Territorial Assembly to establish an autonomous county government for the area, with Fort Harmony as the county seat. The petition was granted, and John D. Lee was elected probate judge, clerk, and assessor.

Fort Harmony was also used as a stopping place for travelers from Salt Lake City to Southern California. Lee provided lodging and meals for the travelers and their animals, and made a handsome profit from the venture.

"The prosperous business venture at Harmony come to an end after a tremendous series of rain and snow storms melted the adobe walls of the Fort in December 1861 and January 1862," Powell wrote. The settlers were forced to abandon the fort, but not before two of John D. Lee's children were killed when a wall fell while they were sleeping.

After its destruction, the set-

tlement of New Harmony was established four miles to the west of the Fort. After the first site was abandoned, it was acquired as a homestead by Andrew G. Schmutz. It is still in the Schmutz family.

Fort Harmony was an outpost which played a key role in Mormon settlement efforts in southern Utah, and it served as a home for John D. Lee during seven crucial years of his life, including the time when the infamous massacre at Mountain Meadows occurred in 1857. Lee and other Mormon settlers in the area participated in the killing of an immigrant party bound for California that year. He was eventually executed for his participation in the massacre.

Iron County RECORD



DOGS CONTROL FLOCK

BLYTHE, Calif.—It would be next to impossible for shepherds to control a flock of sheep without a dog.

These are the sentiments of all shepherds and they were echoed this week by Carrie Cenarrusa, who acts as camp cook for the sheepherders when they move their animals to Palo Verde Valley from Idaho each year. Almost everywhere that sheep have been raised, a type of dog has been developed to herd and watch the sheep.

The Cenarrusa Sheep Corp. uses border collies, a breed favored by sheep men for generations. "The strange thing about our dogs is that they understand nothing but Basque, the language used by most of the Cenarrusa herders," she said. "If you gave the dog a command in English, it would not know what you were talking about."

by Jeanette Hyduke Palo Verde Valley TIMES

OLD FORT BENT

(Cont'd from page 39

Fort Bent is larger than a football field and was the biggest, most important stronghold in the West with the possible exception of Ft. Laramie.

Within, William Bent ruled supreme while armed guards patrolled the 14-foot walls. Hexagonal bastions stand 30 feet high at two of the corners and a telescope with a seven-mile range was used to spot would-be intruders.

In his quest for the increasingly scarce beaver pelts, Bent employed such famous hunters as "Kit" Carson, "Old Bill" Williams, Lucien Maxwell (Desert, April '80), and Baptiste Charbonneau, Son of Sacajawea.

Survival in the center of a potential battlefield for the Cheyenne and Arapahoe on one side and the Comanche, Kiowa, and Prarie Apache on the other demanded honesty and shrewd dealings.

Carson described the Bents by saying, "their like was never known in the mountains." At the height of the fur-trading era as many as 20,000 Indians camped in the Fort's vicinity.

Business took place through wicket openings between the inner and outer gates but this restriction was often relaxed for the Cheyenne with whom the Fort's staff was particularly friendly.

Charlotte, the Fort's enormously fat mulatto cook, became famous for her flapjacks and pumpkin pies. Archeological findings show that wine and whiskey along with juleps and "hailstorms" flavored with Rocky Mountain mint and cooled with ice from the Fort's storage were served thirsty travelers.

Peacocks along with turkeys and chickens roamed the compound as did goats and cows to provide a welcome relief from a diet of buffalo meat. Remains show that two bald eagles nested in the watchtower at one time.

So many nationalities were represented in the Fort's complement that it was sometimes referred to as "Babel." In 1846 General John Fremont used the Fort as a base for his invasion of Mexico.

All trails eventually led to Old Fort Bent in its heyday and every man of importance eventually made contact with its owners. At one time the partners offered the property to the government for \$16,000 but were refused. Its restoration has cost a hundred times that figure.

Ray Pomplun

YOUTHS ALMOST LOSE

(cont'd from page 39)
parent lack of experience in the
dangerous art of tailing hopping
(horsing around old mine shafts)
in vehicles or on foot, were demonstrating their expertise in
their respective vehicles. One of
them started to drive over the
edge of a tailing dump but after
getting his front wheels over, he
suddenly decided that the descent was a bit too steep for
comfort.

He put on his brakes, stopped, and then attempted to back up but to no avail. The vehicle just dug in. A cable was attached to the rear of the stalled vehicle and then to the front of the free machine that was parked on top of the tailing dump nearby; in fact, too near to the opening of the vertical mine shaft.

When the free vehicle attempted to pull the stalled one out, its wheels dug into the soft tailings, causing the earth around the old shaft to cave in and carry the new four-wheel drive pickup with it. It could very well be said that only by the grace of God and the strength of the steel mining cable tying the two small trucks together, was the second vehicle and its occupants saved from a plunge of unknown depths into this old abandoned mine shaft, and perhaps death.

The two machines hung in what might be described as suspended animation, thanks to the afore mentioned cable; one of them over the edge of the tailing dump and the other one into the maw of the gaping mine shaft. They hung there for a week until a crane was sent to pluck them from their perilous position.

It is wonderful to follow the teachings of the Good Book and "Lift your eyes unto the hills from whence cometh one's strength" but if you see old abandoned mine shafts in them hills, stay away, for they can easily turn out to be a quick and sure way to hell on earth at least.

by F.D. Howard TIMES-BONANZA & NEWS

FI Jeep

"our only business"

SALES - LEASING PARTS - SERVICE We Service What We Sell

JOHNSON'S 4WD CENTER

7590 Cypress Ave. at Van Buren Riverside, Calif. 92503 (714) 785-1330

READ ABOUT TODAY'S GOLD RUSH

Articles and news items about prospecting, mines and mining, both large and small operations. Pictures, hints, tips, advertisements for machinery, mines and claims. Published monthly, \$5.00 per year. Send for sample copy.

Western PROSPECTOR & MINER

Box 146, Tombstone, AZ 85638

LIFETIME OF MEMORIES
PACK THE GRAND CANYON
SOUTH RIM • NORTH RIM
SUPAI WATER FALLS

WE TELL YOU HOW TO MAKE THE ARRANGEMENTS TO SEE IT ALL. WE SEND MAPS, PHOTOS, TIPS. WHAT TO, AND WHAT NOT TO TAKE. PLUS INFO ON BEST TIMES TO GO. FOR 8 X 11 BOOKLET SEND...

\$ 2.95

B.EXUM

P.O. BOX 6527 ORANGE, CALIF. 92667



JUST FOR YOU!

Expeditions from Sierras to Nevada, Death Valley to Mt. Whitney

- Bonded Guides
- Fishing
- 4WDs.
- Photography
- Camping
- Geology
- Hiking
- Wildflowers

You name it, We'll do the rest. DEPT. D

P.O. BOX 2005 Ridgecrest, Calif. 93555 [714] 375-1004

DESERT CALENDAR

Listing for Calendar must be received at least three months prior to the event. There is no charge for this service.

April 5: Annual Pegleg Smith Liar's Contest, -Anza-Borrego Desert, 5 mi. N.E. Borrego Springs. Event also celebrates Harry Oliver's birthday. Prizes.

April 12-13: San Jacinto-Hemet Rockhounds Gem Show. Fairgrounds, Hemet, CA.

April 13: Murrieta Fire Dept. 33rd Annual Old Fashion Pit Bar-B-Q,11:30-4:30, Murrieta Fire Station. For Info: (714) 677-5511.

April 19-20: Rail Festival '80, Orange Empire Railway Museum, Perris, CA. for Info: Jim Walker (213) 240-9130.

May 3-4:Art Festival sponsored by Antelope Valley Allied Arts Assoc. Fair Center Hall, corner Ave. 1 and Divsion. Free. Hours: Noon-9 and 10-6.

May 3-4: Delvers Gem & Mineral Society Annual Show, Bellflower Women's Club, 9402 Oak St. Bellflower, CA. Dealer space filled. Hours: 10-10 and 10-6.

May 3-4: Tourmaline Gem & Mineral Society Gem Show. Free. 7393 University Ave., La Mesa, CA., No dealers. Hours: Noon-10, Noon-6.

May 3-4: Berkeley Gem & Mineral Society Show. Contra Costa College, 2600 Mission Bell Dr., San Pablo, CA., Adults \$1, under 12, \$.25; hours: 10-9 & 10-5.

May 17: Annual Book Fair, San Diego Museum of Man Plaza. Benefit. Hours: 9-4.

May 17-18: Yucaipa Valley Gem & Mineral Society Show. Free. Community Center, First St. & Ave. B, Yucaipa, CA. Hours: 10-9 & 10-5

May 17-18: Les Floralies Internationale de Montreal, flower exhibition. Contact for more information: 360 Saint-Jacques St., Suite 310, Montreal, Canada H2Y IP5. (514) 873-7375.

May 21-26: Chest of Jewels Gem & Mineral Show, Chico Fairgrounds, Chico, CA. Hours: 21-23, 5-10 p.m.; 24-26, 10-10.

May 23-25: Northern California Square Dancers' 27th Annual Square Dance Festival, San Francisco Civic.

May 24: So. Cal. Palm Society Show, San Diego Wild Animal Park, Escondido. Judged palm show.

May 31-June 1: Convair Rockhounds Gem and Mineral Show, Convair Recreation Hall, San Diego, CA., Dealers. Free. Hours: 10-9 and 10-5.

May 31-June 1: Rockatomics Gem & Mineral Show, 8500 Fallbrook Ave., Canoga Park, CA., Free. Hours: 10-9 and 10-6.

WEST WIDE MAPS

"IT COSTS TO GET LOST!"

Don't use a road map.

Use a TOPO map.
Let us help you find
your heart's desire: Gold,
Ghost Towns, Hiking Trails
Travel by-ways or Wildlife.

Just \$1.75 plus \$1.30 shipping per order.

(Calif. residents add 6% sales tax) We have 29,000 USGS Quads of all western states

WESTWIDE MAPS CO. Topographic Maps 114 West 3rd Street Los Angeles, CA90013

> Call Walker S. Clute (213) 624-2679

"ON YOUR DESK TOMORROW MORNING

FIRST CLASS MAIL-ORDER
PHOTO DEVELOPING
Kodacolor and Fuiicolor



Film returned by first class mail for FAST service. Send this ad for complete price list

SPECIAL OFFER!!!

12 Exposure Color Negative Film
Developed and Printed
Jumbo Prints \$1.69

24 Exposure Color Negative Film
Developed and Printed
Jumbo Prints \$3.36
Mail this coupon with order
Offer expires 60 days after publication
One Roll Per Coupon

MARKET BASKET PHOTO SERVICE

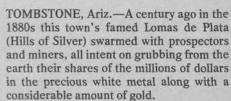
Your Reliable Mail Photofinisher

P.O. Box 2830, 1544 Frazee Road San Diego, California 92112 Kodacolor and Fujicolor Print Film Developing Specialists

TOMBSTONE

RISES AGAIN

by Wayne Winters



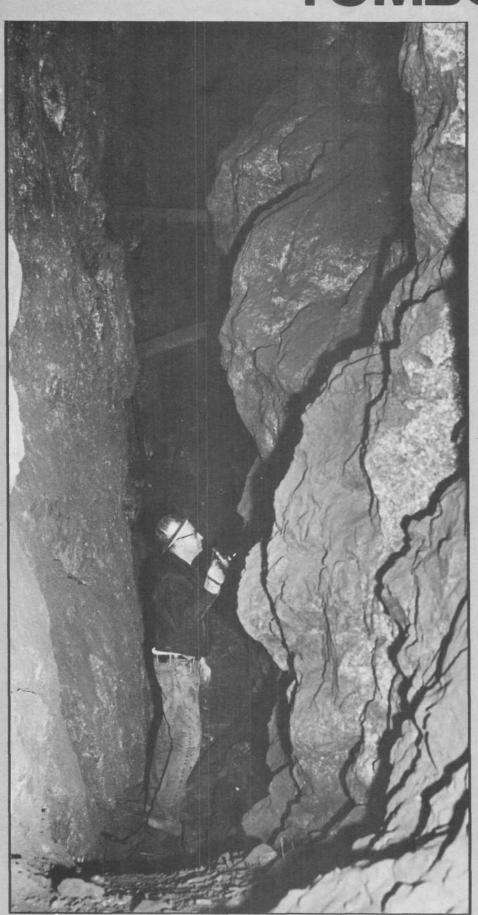
Today, a hundred years later, those same hills ring with the music of steel striking against steel as drill bits bite ever deeper into the rock that still hosts huge amounts of the noble metals.

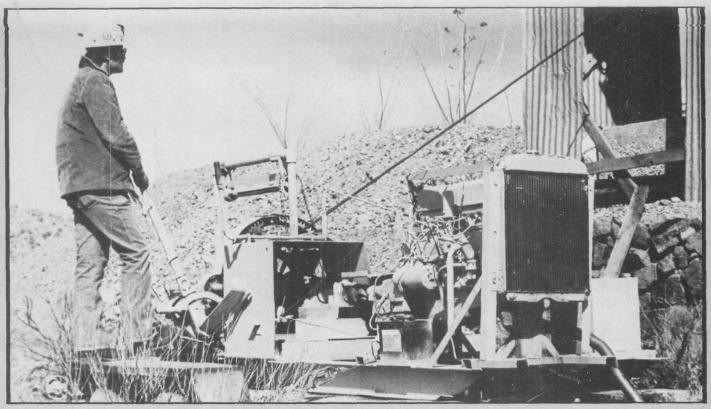
Mining has returned to the sleepy little camp, so long a ghost of its one-time greatness, and of recent years a flourishing small town catering to tourism, retirees, and serving as a "bedroom" community for civilian workers at nearby Fort Huachuca.

While considerable exploratory activity has taken place in the Tombstone District over the last 15 years, little actual production of metal occurred.

About five years ago pad leaching of old dump material — rock so low in metal content that it was thrown away as waste during the boom years of a century ago — came into vogue in and around Tombstone.

But today things are changing. While at least ten pad leaching plants have operated spasmodically in the District in the last five years, four are currently producing from "old" material on a steady scale; two are probably making some part-time production; one is operating with the use of a grinding circuit; another is in the planning stages to run on "new" ore; two are operating on "new" ore from open pits; and two on "new" material from small un-





Opposite page: Sampling Sidewheel decline showed that far from all the rich ores were recovered by early miners. Above: Modern exploration hoist replaces hand labor at the Nicholas. Below: ''Air track'' is used to drill sampling holes on unpatented claims.

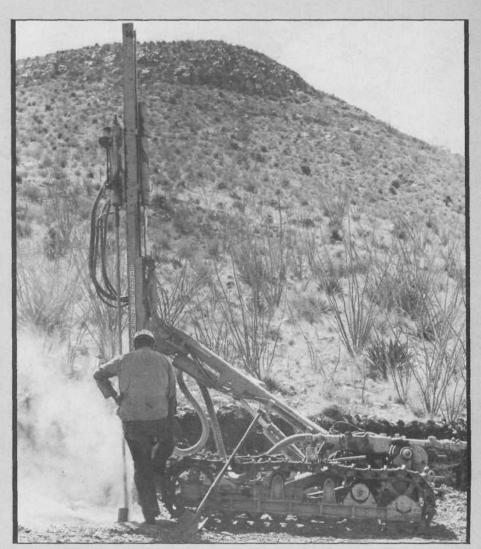
derground diggings.

But the big news in the Tombstone Destrict for 1980 is the announcement of the completion of negotiations by Houston Mining and Resources, a growing mining firm of already considerable stature, to lease a major block of mining claims in the District, patented and unpatented, from two owners. Houston acquired mining rights to the Nicholas Patented and the Gambasino's Dream unpatented mining claims from Coloradoan Ken Hodgson. From Piedras del Sol Mining Co., a firm wholly owned by Tombstoner Wayne Winters, the Houston-based mining group leased mining rights to four patented and eight unpatented properties.

Houston Mining and Resources geologists completed a preliminary survey on the Hodgson properties and two of Piedras del Sol's patented mines (both early-day producers) in November and have, on the basis of their investigations, decided to initiate a drilling program that calls for taking of core samples from seven diamond drill holes totaling 2,305 feet on the Piedras del Sol claims and six diamond holes totaling 1,817 feet on Hodgson's Nicholas property. The Nicholas as described in an early issue of the Tombstone Prospector as having produced from one small area on the 110-foot level, 50 tons of ore assaying 4,032 ounces of silver to the ton in February of 1889. The article described it as "The richest ore ever produced in the Tombstone District."

At current silver prices that 50 tons of ore would return about \$8,064,000.







The CAXTON PRINTERS, Ltd.

P.O. Box 700 Caldwell, Idaho 83605

We take pride in the production of fine books for the readers of Western American history — with particular emphasis on the history of the Pacific Northwest and the Rocky Mountain region.

Write for a Free Catalog.





MOVING?

SO YOU WILL NOT MISS AN ISSUE NOTIFY US AS SOON AS POSSIBLE.

Be sure to include old address as well as the new AND BOTH ZIP CODES!

NOW YOUR DESERT WILDFLOWERS 100 DESERT WILDFLOWERS 100 ROADSIDE WILDFLOWERS

100 DESERT WILDFLOWERS • 100 ROADSIDE WILDFLOWERS
CALIFORNIA DESERT WILDFLOWERS • DESERT WILD FLOWERS
COLORFUL DESERT WILDFLOWERS

To order these books, turn to page 47.

INDIAN MUSIC AND CHANTS RESEARCHED AND TAPED

WASHINGTON—At first there was only a scratching sound. Then, filling a recording studio as it must have filled an Indian lodge years ago, came the sound of Raincloud of the Chippewa tribe chanting a dream song. Rising and falling rhythmically, overpowering the defects of the recording made more than a half-century ago, the words of the sacred song came to life once more.

To capture such songs, Frances Densmore, a musician and teacher, had tramped through the wilds of Northern Minnesota in the early 1900s, recording on wax cylinders, the most effective device then available to researchers studying the rapidly vanishing culture of Native American tribes.

As a child in the 1870s, Densmore had listened to the enchanting songs and sounds from a Sioux Indian camp across the Mississippi River from her home in Red Wing, Minn.

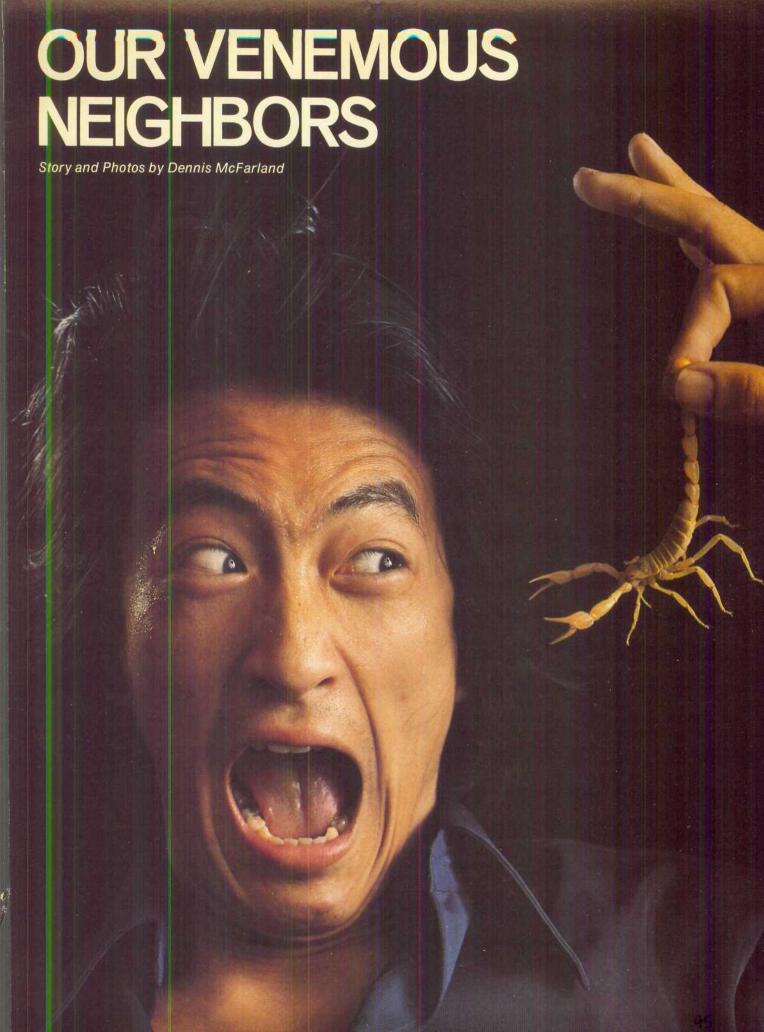
Densmore eventually recorded and described in special publications more than 3,000 songs of 30 tribes, from the Minnesota Chippewa in 1907 to the Florida Seminole in 1954.

Her recordings and those by other researchers are now being transferred to modern high-quality magnetic tape in a three-year project underway at the Library of Congress' American Folklife Center. The Smithsonian's Thomas Vennum is director of the project, which involves more than 3,500 wax cylinder recordings of American Indian music and legends recorded from 1889 to 1930.

"Along with the major concern of preservation," Vennum says, "the project is intended to provide Native Americans with information about their past. There is an increasing desire among tribal people to recover old documents and revive cultural traditions. Many have their own tribal museums and want early recordings to be part of their collections."

Saved, for example, are recordings of Winnebago flute melodies, Navajo ceremonial songs, and songs of the Sioux sun dance, all of which help both scholars and Indians reconstruct life the way it was for the great tribes.

by Kathryn Lindeman Smithsonian News Service





scorching summer sun hovers brilliantly over a parched desert. The atmosphere is deafeningly quiet, and the only movement is in an occasional ant scurrying across the hard baked ground in search of home, or food or relief anything to shield itself from the deadly heat. Rarely will a bird or mammal be seen in direct sunlight. They know that only a few minutes of exposure may lead to death, and not a very pleasant one. In contrast, during the uncommon desert cloudburst, tons of water can come rushing down mountain ravines, causing violent torrents that brutally kill much desert life. Flash floods rip through desert lowlands destroying everything in its path. But the delicate balancing act of the desert turns this tragedy into beauty. Dormant seeds stirred by the waters of life produce a carpet of dazzling wild flowers that will nurture the surviving animals.

Many venomous animals live in this harsh environment. But most of them, however feasome looking they may seem, are only aggressive when threatened. And their venom is less toxic than is commonly believed. The number of people that die from rattlesnake bites, for example, is about 2 per cent of the total of those bitten. More people die from lightning bolts than from rattlesnake bites.

Rattlesnakes are well known to almost everyone who lives in or who has visited the desert. They are heavy-bodied reptiles with a slender neck, a wide triangular head, and a rotten disposition. With one exception, they all possess one of two types of venom. The first type is called a hemotoxin because it acts on the blood system. The second type is a neurotoxin which, as might be guessed, acts on the nervous system. Only the Mojave rattlesnake (*Crotalus scutulatus*] has both of these toxins which make it one reptile you give a lot of room.

Rattlesnakes, like other poisonous desert species, use their venom for only two purposes—to kill their prey and to defend themselves against predators like the coyote or any other fool who would chase a rattlesnake. All rattlesnakes are skillful hunters. They first find their prey with extremely sensitive heatsensing organs located on each side of their head, that's right, one on the left and one on the right. They strike with deadly accuracy, like zen archers they hit what they aim at with amazing speed; their venom is injected through two hollow fangs. Its prey, lizards, kangaroo rats or any other desert rodent, may travel some distance after it is struck, but the snake is able to trace its victim and eat it.

The most common poisonous animal to be found in the desert is the spider or its relatives. One spider that leads an interesting and sometimes long life is the black widow. Contrary to popular belief, the female rarely eats her mate who is only one-quarter to one-fifth her size. If he is eaten, it is because she is desperately hungry which makes her very angry. But this specie is not as aggressive as many people believe; generally the female is passive and cowardly. Roughly probing her web will usually stimulate her to assume a motionless death posture with her legs curled close to her body, like a passive dog who exposes her vulnerable parts. Hopefully this leads her enemies to move on in search of more lively prey.



Black widows are notoriously known for the potency of their venom. A.W. Blair's classic book, Spider Poisoning—Experimental Study of the Effects of the Female Latrodectus Mactans in Man, states that even the eggs of the black widow are highly toxic. Two of them crushed and injected will kill an adult white mouse. There is no question about the potency of black widow poisoning on man. The very young and the very old are especially susceptible to complications from black widow spider bites.

Since the black widow's poison acts quantitatively, insects are affected more severely than humans. A microgram of venom injected into an insect would be the equivalent of a pint injected into a human. A quantity like that could easily kill 60 to 100 strong

men or 150 weak ones.

Widows do not hunt for their food. They use "come what may" tactics to catch insects. They can wait for days for some disoriented fly to wrap itself up in the gummy web. They survive using this method because they can go for long periods of time without eating, an ability derived from their low energy level. They don't do much so they don't have to eat much. Raymond W. Thorp in his book, *Black Widow*, describes how, in the process of moving black widows, one of his jars was overlooked and remained undiscovered for over nine months. When the container turned up in the course of general cleaning, however, he found the spider occupant, although greatly shrunken, still alive. After several feedings, it slowly recovered.

The black widow is an effective predator but she is not dangerous to humans if left undisturbed. The danger is in the fact that she lives in abundance near people and is sometimes accidentally squeezed against the body. When this happens, and it is rarely, the black widow bites in self-defense. Wouldn't

you?

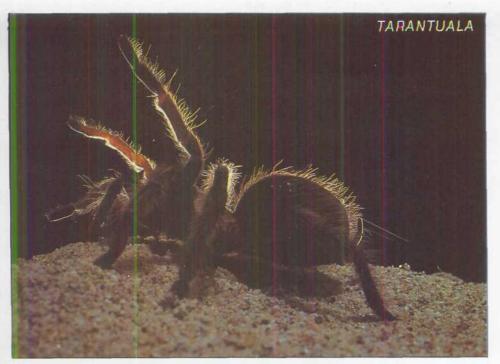
Tarantulas are the southwest's largest spiders. They use poison to overcome beetles, grasshoppers, and small spiders but man need not fear these gentle fuzzy creatures. Their bite usually causes only itching, numbness, and a slight swelling. Some

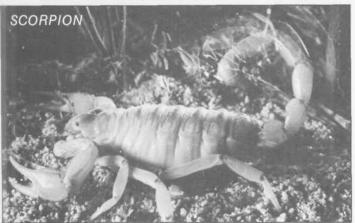


people even keep them as pets and let them walk over their hands and arms. Some people are weird. The long-lived female has been known to survive for up to 20 years in captivity.

The tarantula injects venom into its prey through two curved hollow fangs large enough (some up to 3/8-inches long) that one might suppose the wound made by them alone would be enough to kill a small animal. Powerful buccal digestive juices are injected after the prey has been killed, reducing it to a condition where it is soft enough to be sucked up into the spider's stomach. Then when the victim is drained of its life juices, the empty husk will be discarded.

Tarantulas may take up to 10 years to reach sexual maturity, and then the male lives only a short time after mating. Talk about tragedy! Sometimes the female will eat the male during copulation or soon after copulation takes place. When the female is ready, she will spin a single sheet of web inside her burrow and on this she'll deposit numerous white eggs about the size of a pinhead. Then she'll spin a cover sheet over the eggs and bind it over the lower sheet with silk threads. The young hatch in six to seven weeks but they will remain in the burrow for only a few days, after which they spread out and establish holes of their own.





Perhaps no desert native is more feared than the scorpion. This nocturnal arachnid hunts grounddwelling insects and spiders by using its keen sense of touch and vibration. Sensitive comb-like organs located on its belly, and minute vibration sensing organs on each leg transmit even the slightest vibration of the ground. These organs tell the scorpion how large the prey is, which direction it is moving, and how far away it is. Scorpions have two large eyes in the center of their heads and usually two to five along the margin on each side, but they still see poorly. That's why they keep bumping into rocks. They must depend primarily on touch and surface vibration to capture their prey. The tail of the scorpion is actually an extension of its abdomen, the last segment being called a telson. This is a bulbous structure containing the poison glands which force the venom through a curved stinger located at the end of the telson. The sting from a scorpion is not much more severe than that of a bee with the pain normally disappearing after an hour or two. Only certain species that are found in southern Arizona and northern Sonora in Mexico possess a poison powerful enough to cause death and most of these fatalities involve small children. The deadly species has a small horn-like structure under its stinger, so if you find one you are already too close. Leave it alone.

Scorpion courtship is a fascinating ritual dance. The male holds the female by the jaws or pincers and daintily leads her back and forth in their desert waltz while the male deposits a packet of spermatozoa on the ground. He'll then pull the female over this spermataphore and she'll pick it up with an organ under her abdomen. The eggs develop inside the body of the female and the tiny, translucent young are born alive. They will ride on their mother's back until they shed their skins for the first time, but then they must become independent and find their own territory.

Centipedes are also common in any desert. They're found in soil, under bark, in rotting wood, and under rocks. Our large five to eight inch desert species is a fast runner that feeds on insects. They kill their prey by injecting venom through specialized claws found under the head, appendages that evolved from the centipede's first set of legs.

The bite of many venomous animals is surrounded by superstition and the centipede's is no exception. The eminent desert naturalist Edmund C. Jaeger described one of these old wives' tales: "I was myself once 'bitten' on the foot by a large eight-inch centipede but I noticed litle discomfort other than slight local pain, numbness, and swelling. One of my sympathetic neighbors assured me I might look forward to having my leg rot off for he had 'heard of a man being bitten and having chunks of flesh as big as clenched fists fall from his chest'."

Poisonous desert animals should be respected, not feared. Far too many people kill them on sight instead of observing their behavior. The next time you find one, relax and watch it go about its business. Note the graceful yet deliberate walk of the tarantula or the smooth undulatory movement of a rattlesnake slinking through creosote bushes. These creatures have their place in nature's scheme and should not be persecuted solely because of their ability to kill prey or defend themselves with poison.



HAVE DESERT MAGAZINE DELIVERED TO YOUR HOME

Desert

Box 1318, Palm Desert, California 92261

One-Year Subscription to DESERT MAGAZINE \$9. PRICE GOES UP MAY 6, 1980.

Date Binder(s) with Year(s)

	this issue replaced	
lame	RENEW MY PRESENT SUBSCRIPTION	
ddress	ENTER A NEW SUBSCRIPTION	
City	State Zin	

I enclose \$ [check, money order or charge]

MY CHARGE:

U/SA*

master charge

Credit Card No.	
Expiration Date Month/Year	
MasterCharge Interbank No.	

Check here if you wish

[Charge not valid unless	signed]
SUBSCRIPTION TO:	
Gift Card: "From	
ENCLOSED	BILL ME
Two Years (Or Two 1-Year)	Three Years (Or Three 1-Year
\$17.00	\$25.00
ign subscribers add \$4,00/ye	ear postage
	SUBSCRIPTION TO: Cift Card: "From ENCLOSED

Undated

TREASURES

HOW AND WHERE TO PAN GOLD by Wayne Winters. Gold placers, how to pan, the "wet" process, amalgamation, the "hows" of claim staking, metal detectors, camping tips for prospectors and miners, and location maps. Paperback, 72 pages, \$3.00.

BURIED TREASURE AND LOST MINES by Frank Fish. One of the original treasure hunters provides data on 93 lost bonanzas, many of which he personally searched for. He died under mysterious circumstances in 1968 after leading an adventurous life. Illus. with photos and maps. Paperback, 68 pages, \$2.00.

GOLD FEVER by Helen E. Wilson. History of the gold mining days in Jarbidge, Nevada, through the lives of persons then living. Illustrated with many old photographs. Paperback, 129 pages, \$5.00.

THE WEEKEND TREASURE HUNTER by A.H. Ryan, Ph.D. All about other forms of treasure—such as sunken treasure, hunting gemstones, and also beachcombing, prospecting for gold, and a homemade metal detector. Paperback, 86 pages, \$1.95

APACHE GOLD AND YAQUI SILVER by J. Frank Dobie. Stores of fortune hunters by Dobie (1888-1964), a "Maverick academician, natural historian, folklorist, and above all, a story-teller," Wrote 18 books about the Southwest; this one "A history of what men have believed in - not creeds, but luck, fortune through chance, the fulfillment of hope." Paperback, 366 pages, \$4.95.

GOLD RUSHES AND MINING CAMPS OF THE EARLY AMERICAN WEST by Vardis Fisher and Opal Laurel Holmes. 300 pictures and 466 pages, divided into "The Gold Rushes", "Life in the Camps", "Crime and Justice", and "Special Characters and Situations". Based "as far as possible, on primary sources", to give the general reader a broad picture of the American West. Hardcover, \$22.95.

ELECTRONIC PROSPECTING WITH THE VLF/TR METAL/MINERAL DETECTOR by Charles Garrett, Bob Grant and Roy Lagal. A handy reference for anyone using late-model metal detectors, written by experts. Contains many hints on how to find gold and other treasure ores and artifacts with a good bibliography and appendix. Paperback, 86 pages, numerous illustrations, \$4.95.

HIGH MOUNTAINS AND DEEP VALLEYS by Lew and Ginny Clark, with photographs by Edwin C. Rockwell. A history and general guide book to the vast lands east of the High Sierra south of the Comstock Lode, north of the Mojave Desert and west of Death Valley, by oldtimers who know the area. Paperback, 192 pages, 250 photographs and many maps \$6.95.

THE WEEKEND GOLD MINER by A.H. Ryan, Ph.D. Chapters on where to look for gold, mining in the desert, maps, ghost towns and lost mines, and what to do if you strike it rich. Paperback, 63 pages, \$1.95.

GOLD LOCATIONS OF THE U.S. by Jack Black. Includes Alaska with streams, lodes and placers; production figures, type of gold, locations "for the serious amateur who hopes to find enough gold to make a living." PB 174 pages \$6.95.

WHERE TO FIND GOLD IN THE DESERT by James Klein. Where to find gold in the Rosamond-Mohave area, the El Paso Mountains, Randsburg and Barstow areas, and many more. Paperback, 112 pages \$4.95.

ROADMAP TO CALIFORNIA'S LOST MINES AND BURIED TREASURES compiled by Varna Enterprises, 38 inch by 25 inch and scaled. Southern California on one side and Northern California on the other. Detailed location of place names, many of which are not on regular maps. \$4.00.

SUCCESSFUL COIN HUNTING by Charles L. Garrett. A complete guide on where to search, metal detector selection and use, digging tools and accessories, how to dig and the care and handling of coins. Newly revised, paperback, 231 pages, \$5.95.

GOLD DIGGERS ATLAS by Robert Neil Johnson. Maps showing actual location where gold has been found. Covers the western U.S. with detailed area maps showing interstate freeways, U.S. Highways, paved and unpaved roads, Paperback, 64 pages, \$3.00.

TREASURE HUNTER'S MANUAL #7 by Karl von Mueller. The most complete, up-to-date guide to America's fastest-growing hobby, written by an old master of treasure hunting. Research techniques, detector operation, legalities, and gold dredging. Paperback, 299 pages, \$6.95.

LET'S GO PROSPECTING by Edward Arthur. Learn about minerals and their characteristics, prospecting, descriptions of industrial minerals of California, metallic ores, as well as see mineral maps of California. Paperback, 80 pages, \$6.50.

LOST MINES AND BURIED TREASURES OF THE WEST, Bibliography and Place Names from Kansas West to California, Oregon, Washington and Mexico by Thomas Probert. This large, easy-to-use volume lists the works of more than 1100 different authors, covering thousands of stories of lost mines and buried treasures. An important basic research tool for historians, geologists, geographers, anthropologists and archaeologists. Hardcover, 593 pages, \$27.50.

LOST LEGENDS OF THE SILVER STATE by Gerald B. Higgs. Interesting reading on 16 legends about the golden age of Nevada. Illustrated with rare old photos. Hardcover, 147 pages, \$7.95.

TALES OF THE SUPERSTITIONS* The Origins of The Lost Dutchman Legend by Robert Blair. An intriguing account of the fabulous Lost Dutchman. The author turns up new clues and signatures which will prove to be both a setback and a stimulus to the search for the legendary mine. Paperback, 175 pages, \$4.95.

CALIFORNIA GOLD CAMPS, A Geographical and Historical Dictionary of Camps, Towns and Localities Where Gold was Found and Mined, and Wayside Stations and Trading Centers, by Erwin G. Gudde. Seven excellent maps, in addition to a list of places by county, a glossary and bibliography. Highly recommended. Hardcover, 467 pages, \$22.50.

GOLD RUSH COUNTRY by the Editors of Sunset Books. A revised and updated practical guide to California's Mother Lode country. Divided into geographical areas for easy weekend trips, the 8 inch by 11 inch heavy paperback new edition is illustrated with photos and maps. Special features and anecdotes of historical and present-day activities. Paperback, 96 pages, \$2.95.

GOLDROCK FACTS & FOLKTALES by Iva O. Geisinger. Goldrock, a rich mining area during the late 1800s located in the California desert near Yuma, was once home for 2,500 people and a source of millions of dollars worth of gold ore. Goldrock's history is detailed here, including the fact that General George S. Patton and his 2nd Armored Division trained for combat in this region. PB, 65 pages, \$2.25.

THE GOLD MINES OF CALIFORNIA, Two Guidebooks. Fayette Robinson's guidebook, originally written in 1849, is reproduced in this book. Typical of the many books rushed to press to sell to the forty-niners, with its sensational reports of gold discoveries. Franklin Street's 1850 guidebook, the second guidebook reproduced here, more objectively describes each stream and mining camp in the gold country, without the "flamboyant optimism" typical of 1849 guides. Hardcover, 225 pages, \$10.00.

THE ANZA-BORREGO DESERT REGION, A Guide to the State Park and the Adjacent Areas, by Lowell and Diana Lindsay. A comprehensive photo and text treatment of the world's largest desert state park and its environs told by well-experienced professionals. Tours and hikes are laid out in mileage increments. Much history of region included. PB, with many maps and photos, 165 pages, \$5.95.

WHERE TO FIND GOLD IN THE MOTHER LODE by James Klein. Author is partner in K&M Mining Explorations Co., which is now developoing three gold mining claims. Includes history of gold rush, geology of Mother Lode, where and how to find gold. Also information on equipment and how to stake a claim. Paperback, 121 pages, \$4.95.

DESERT

ANZA-BORREGO DESERT GUIDE BOOK, Southern California's Last Frontier by Horace Parker, revised by George and Jean Leetch. A classic reference to America's largest desert part, originally published in 1957 and now updated, enlarged, and improved by the "dean of desert rangers" and his wife. With excellent logs, maps, and photographs brought up to 1979 standards. Paperback, 154 pages, two maps, many photos, \$6.95.

THE ANZA-BORREGO DESERT REGION* A Guide to the State Park and the Adjacent Areas, by Lowell and Diana Lindsay. A comprehensive photo and text treatment of the world's largest desert state park and its environs told by well experienced professionals. Tours and hikes are laid out in mileage increments. Much history of this region is included. Paperback, with many maps and photos, 165 pages, \$5.95.

BACK ROADS OF CALIFORNIA by Earl Tholander and the Editors of Sunset Books. Early stagecoach routes, missions, remote canyons, old prospector cabins, mines, cemeteries, etc., are visited as the author travels and sketches the California Backroads. Through maps and notes, the traveler is invited to get off the freeways and see the rural and country lanes throughout the state. Paperback, large format, unusually beautiful illustrations, 207 pages, \$6.95.

BACKPACKING GUIDE TO SAN DIEGO COUNTY by Skip Ruland. An informative, no-nonsense primer to day hiking and extended several-day trips into the Southern California mountain and desert back country, covering more territory than the title suggests. Also this little book contains emergency information useful wherever you hike or travel in the back country. Paperback, 80 pages, several maps and sketches, \$2.95.

ARIZONA by David Muench. The finest pictorial presentation of the Grand Canyon State ever published. One of the outstanding color photographers of the world, Muench has selected 160 of his 4-color photographs which are augmented by the comprehensive text of David Toll. Hardcover, 11 inch by 14 inch format, 200 heavy slick pages, \$27.50.

SELLERS

Please add \$1.00 per order for Postage/Handling Calif. add 6% state sales tax

THE BLACK ROCK DESERT by Sessions S. Wheeler. One of Nevada's least-known and most scenic historical desert areas is described by the state's leading professional historian and author. Black Rock is part of the huge Great Desert Basin and was the setting for Indian battles and several tragic incidents during the 1849 California Gold Rush. Paperback, 186 pages, many black and white photographs, sketches and maps, \$4.95.

THE OREGON DESERT by E.R. Jackman and R.A. Long. Filled with both facts and anecdotes, this is the only book on the little-known but fascinating deserts of Oregon. Hardcover, illustrated, 407 pages, \$9.95.

WILDFLOWERS

100 ROADSIDE WILDFLOWERS by Natt Dodge A companion book with the same format as 100 DESERT WILDFLOWERS* lists 100 flowers found from 4,000 to 7,000-foot levels. 4-color photos. Slick paperback, 64 pages, \$2.50.

DESERT WILD FLOWERS by Edmund C. Jaeger. One of the most complete works on flora of the Southwestern deserts. Easily understood and informative. 322 pages, well-illustrated, \$3.95.

CALIFORNIA DESERT WILDFLOWERS by Phillip A. Munz. Line drawings, beautiful color photos, and descriptive text by one of the desert's finest botanists. Paperback, \$3.95.

100 DESERT WILDFLOWERS by Natt Dodge. Each flower is illustrated with a 4-color photo and described in detail, where found, blooming period, etc. Habitats from sea level to 4,000 feet. Slick paperback, 64 pages, \$2.50.

COLORFUL DESERT WILDFLOWERS by Grace and Onas Ward. Categories of red, blue, white and yellow for easy identification. 190 4-color photos of flowers from Mojave, Colorado and western Arizona deserts, with common and scientific names, descriptions. Heavy, slick paperback, \$5.95.

COOKERY

CHUCK WAGON COOKIN' by Stella Hughes. Recipes collected straight from the source, cowboy cooks. Has Mexican recipes, instructions for deep-pit barbecue and the art of cooking with Dutch ovens; everything from sourdough biscuits to Son-of-a-gun stew. Paperback, 170 pages, \$4.95.

CALIFORNIA FIVE-IN-ONE COOKBOOK by Al and Mildred Fischer. Recipes divided into Early California (Indian, Mexican, Mission, Gold Rush), California Fruits (Citrus, Dates, Avocados, etc.), Sea Foods and Wine Cooking. A total of 400 unusual recipes, spiral-bound, 142 pages, \$3.00.

ARIZONA COOKBOOK by AI and Mildred Fischer. This fascinating and unusual cookbook features recipes for Indian cooking, Mexican dishes, Western specialties, Arizona products and outdoor cooking. Also sourdough and Indian fried bread recipes. Unique collection of Western cooking. Paperback, spiral-bound, 142 pages, \$3.00.

CACTUS COOKBOOK compiled by Joyce L. Tate. An excellent selection of recipes emphasizing their edible or potable qualities. Also chapter on Food Preservation. Paperback, 127 pages, \$2.00

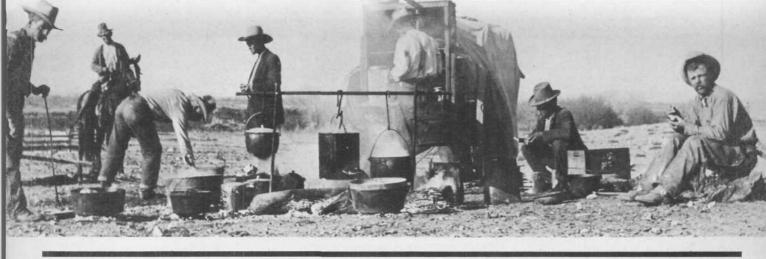
CITRUS COOKBOOK by McGillis. An unusual treasury of citrus cooking. Tips on freezing, juicing, and shipping. Paperback, spiral-bound, \$2.00.

GHOST TOWNS

CALIFORNIA GHOST TOWN TRAILS by Mickey Broman. Thirty-six photographs showing some of the old towns as they appear today, not as they did 50 or 100 years ago. Thirty-six maps with detail mileage to the ghost towns, shown to the tenth of a mile. Interesting and historical data for treasure hunters, rockhounds, bottle collectors and western-lore enthusiasts. Paperback, \$2.95.

COLORADO RIVER GHOST TOWNS by Stanley W. Paher. The skeletal remains of abandoned mines and towns in the Cerbat mountains and other barren ranges in western Arizona along the Colorado River are visited by the author. Two editions are available: the standard edition is a large format, paperback, lavishly illustrated with rare old photos, \$2.95; the second edition available is identical with the exception of an insert of 15 beautiful four-color reproductions of etchings by noted artist Roy Purcell, and is hard-cover. This edition sells for \$9.95. Please state which edition when ordering.

HANDY BOOK ORDER FORM Name __ Address _____ _____ State _____ Zip ____ I enclose \$ _____ [check, money order or charge]. MY CHARGE: Credit Card No. Master charge **Expiration Date** Interbank No. Month/Year Signature (Charge not valid unless signed) California residents add 6% sales tax. 1.00 Postage/handling TOTAL Mail today to: DESERT MAGAZINE BOOK SHOP P.O. Box 1318, Palm Desert, California 92261 ☐ Check box if you wish this issue replaced. October 1979



What's Cookin' on the Desert . . . by STELLA HUGHES

What are flapjacks? A simple answer would be, "a thin batter made of flour and fried in the form of little round, thin cakes on a hot griddle and served with butter and syrup."

On the face of it, that would seem to cover the subject. Well, it doesn't come within a country mile of telling even a fraction of the pancake story. Why, just consider a few of the regional names for the little flat cakes: hotcakes, pancakes, flapjacks, griddle cakes, and flannel cakes, not to mention the fancy name of crepes. Then you'll find batter cakes, breakfast cakes, slappers, gems, and drops. Mountain men called them "splatter dabs," while cowboys called large tough pancakes "Saddleblankets." Loggers liked to call them simply "flats."

Pancakes can be made from a dozen different kinds of flour or you can use rice, oatmeal, cornmeal, potatoes, grits or breadcrumbs. They can be made with baking powder, soda, cream of tartar, sourdough, sour milk, buttermilk, yeast, eggs or snow.

Snow? That caught my attention too, the first time I saw the recipe. Instead of eggs in your regular recipe, use four tablespoons of fresh snow. Snow, for some unknown reason (to me, at least), has the same effect on batter as eggs have, two tablespoons of snow equaling one egg. The batter is made rather thick, and the snow mixed with the batter just before pouring on the hot griddle.

One summer five of us packed into the rugged Blackriver Canyon of Arizona on a trout fishing trip. We took along all our needs which included plenty of grub, on five mules. However, we stayed several days longer than anticipated and the morning we were to leave, I discovered there wasn't a smidgeon of flour in camp. Nor, was there any bread except for a half dozen slices of left-over toast. We had two eggs and one can of milk. French toast would have been fine had there been enough left-over bread. So, instead, I made bread-crumb pancakes.

Even though they turned out good, and were wolfed down with gusto, my friends insisted on calling them "Crummy Pancakes."

Over the years I've found a number of different recipes for bread-crumb pancakes in old recipe books, but I include the one I used on the fishing trip because it doesn't call for any flour at all.

Crummy Pancakes

Grate or roll dry bread crumbs. Any kind will do, but I prefer homemade bread. Toasted bread, white or wholewheat, is fine, but do not use baking powder biscuits.

- 2 cups fine bread crumbs
- 1 cup milk (any kind)
- 1 tablespoon honey or molasses
- 2 tablespoons melted butter or marga-
- 2 teaspoons baking powder salt to taste

Combine baking powder and salt with bread crumbs, pour over the milk, and let soak about five minutes; then whip with a form or egg beater. Add beaten eggs with sweetener, along with melted butter, and whip some more. If too thin, add a few more bread crumbs. Bake on hot griddle in small drollops. Makes about 2-dozen small hotcakes. Serve with whipped butter.

There are almost as many different names for hotcake syrup as there are for the pancakes. "Larripy-dope" is a logger's term for any kind of syrup and you also hear "lick," "long-sweetner," "larrup," and "drip" to name only a few. But no matter what it's called, be it sorghum, molasses or maple, in the summertime ants are always a problem.

My husband Mack tells of the time he and one of the Apache cowboys rode into camp late. They prepared supper by lantern light and when the Apache poured syrup from the can onto his hot biscuits, he could see little foreign bodies floating around in the sweet liquid. Mack took a close look and said, "Oh, that's just syrup seeds. They won't hurt you." The Apache shrugged his shoulders, casually

picked out the ants, and proceeded to eat his biscuits with relish.

A friend told me about a time she and her parents were forced to spend the night along a lonely desert road. Their camp outfit was meager, as they had no Dutch oven or even a skillet, but they did have a short-handled shovel. The mother mixed up some biscuit dough and poured the thick batter on the shovel which had been heating on hot coals. The cakes were allowed to brown on one side, then turned to cook on the other. When spread with jam, they were folded over and eaten by hand like a sandwich. These were called shovel pancakes. They're good served with hot syrup and eaten with a fork. If there are syrup seeds in the syrup, pick them out.

Old-Time Oatmeal Pancakes

- 11/2 cups cooked oatmeal
- 1/2 cup flour
- 1 teaspoon baking powder
- 1/2 teaspoon salt
- 1 egg
- 3/4 cup milk (any kind)
- 2 tablespoons melted butter

Sift together dry ingredients, set aside. Add milk and beaten egg to cold cooked oatmeal; add flour mixture and melted butter. Fry on hot griddle.

Home-Made Syrup

- 2 cups brown sugar (mix)
- 2 cups corn syrup
- ½ cup water

Bring to slow boil. Add a few drops of maple flavoring if you have it. Another way is just plain white sugar added to water, let boil until of desired thickness. Add maple flavoring.

Whipped Butter

Combine and cream together ¼ pound butter and ½ cup honey. Add ½ cup whipping cream. Whip until fluffy.

Maple-Butter Whip

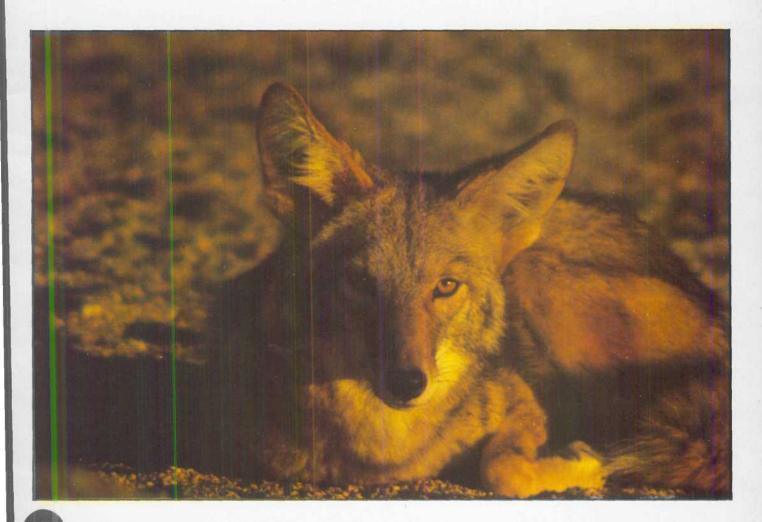
Combine ½ cup butter and ¼ cup maple syrup. Whip.

Molasses Whip

Combine ½ cup mollasses and ¼ cup butter. Cream together, heat, and serve over pancakes.

COYDOGS: Can They Be Tamed?

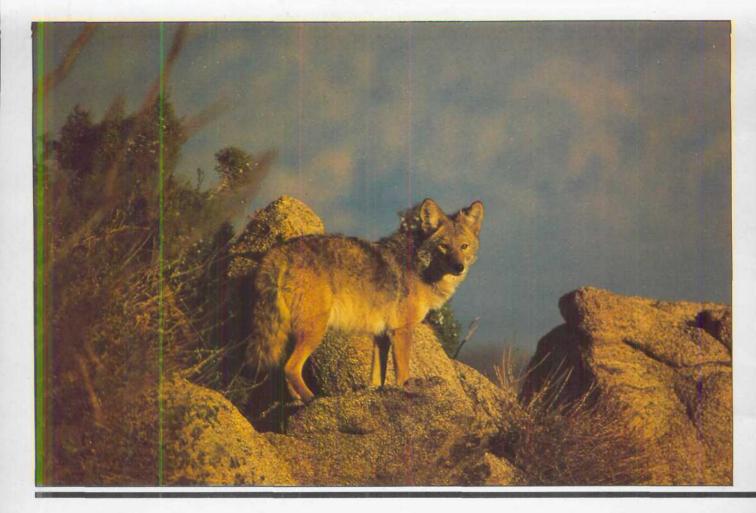
Story and Photos by Karen Sausman



utside my window this winter morning, asleep on sun-warmed rocks, are five coyotes. For the past several years I have shared my life with them and many of their relatives. At least three of them know I'm watching; ears perked, their eyes looking back at me across the tops of their tails that curl across their noses for warmth. I have watched these grow up. One is three years old. Three of them are two years old and the last, with a large white tip on his tail, was part of a litter born just a year ago. They are all different personalities. The older one is cautious, the two females are playful, and the puppy is submissive but full of mischief. I am in-

trigued by them and with their interactions with each other, with me, and with their environment.

The little prairie wolf has been the focus of stories for hundreds of years. The Indians of the plains and the southwest incorporated the wily and ingenious coyote into their legends. To some tribes, the coyote was a god and a helpful friend. Some New Mexican tribes tell stories which characterize coyotes as mischievous animals who play pranks on people. Only the white man's tales made the coyote into a cowardly and tricky killer. Looking at my lazy friends this morning, I feel certain that the Indians have known him longer and better than the white man.



"Why? Why can't this highly intelligent

The coyote is a source of intrigue and fascination to all who come in contact with him, so it's hardly surprising that many people long to capture his wild and free spirit, to share it somehow, and make it a part of their lives. To live and interact with a coyote as one does with a domestic dog is a dream many have shared, including me. But almost all of us have failed. The coyote is many things but he is definitely not a domestic dog.

Why? Why can't this highly intelligent wild canine become the perfect house pet? Why does the appealing little puppy invariably grow up to be a shy and nervous creature ultimately relegated to spending his days in captivity in a dogrun outside the house instead of lying on the rug in front of the fire at his

owner's feet?

To find the answer we must spend just a little time learning about coyotes—their social life, where they live, and how they hunt. All of this should tell us if they could truly adapt to the conditions of the

average human's world.

ost coyote stories start with bringing home a coyote puppy, often a foundling. I have had two and have followed the progress of at least half a dozen more. If the puppy's eyes are already open when it is found, its chances of interacting with humans are very poor. The ideal is to find a puppy under six or seven days of age with its eyes still shut so that the first thing that he sees will be

people. Then add to this a lot of tender loving care, the same care you would give a dog puppy.

For the first few weeks he will act as if he were a young domestic dog. Eyes clear and muscles developing, he begins to explore his world cautiously. He'll follow his surrogate parents around the house, cuddle up in their lap and trustingly go to sleep. You are captivated; everything seems ideal. But, as the coyote matures, some of his instinctive behavior patterns will appear. His strong need to perfect hunting skills is transferred to any animate object handy. A need to dig and bury often results in couches and chairs being destroyed. He becomes, in short, destructive. And as the animal matures, he becomes more and more wary of new situations, new people, and changes in the environment. This wariness leads to pacing, especially when confronted with anything new. Too much stress will be occasionally placed on him despite your efforts to calm the animal, stress that would be no stress at all to a domestic dog, and the covote may, in an effort to escape what is frightening him, lash out in fear.

Some examples may help explain how common, everyday situations can stress a pet coyote. Coyotes are animals of the open prairie. They feel most secure when they can see great distances. They can relax because they can see what is around them, including possible approaching danger. A coyote kept in a back yard with a high solid fence often becomes



wild canine become the perfect house pet?"

agitated and nervous. Strange sounds and smell from the other side of the fence bombard his senses. He cannot see and evaluate them, and he cannot run away. He paces nervously around the yard. He may become too upset to eat. Despite reassurances from his owner, his instincts are too strong. He can't relax.

Robert L. Behme in his excellent book, Shasta and Rogue — A Coyote Story describes a similar situation with his own two "tame" coyotes. He had taken them camping with him and had found a private site surrounded by trees in a campground at Lehman, Nevada. "When the coyotes were let out, Rogue pulled to the end of his chain and shivered, looking apprehensively over his shoulder, and Shasta tugged violently until she gasped for breath. Rogue snarled when I tried to comfort him, and Shasta circled nervously so that I could neither touch nor corner her. Both refused attention and would not eat. Finally we carried them to the truck, and they calmed quickly.

"A partial explanation of their behavior came when we compared this camp with the one at Fallon. Shrubbery rimmed the Lehman site like a green cover, and while the coyotes could not see other campers, they could hear and smell them. Danger could lurk behind every bush and in the coyote mind, probably did. Shasta and Rogue were frightened by things they couldn't see; in comparison, the site at Fallon had been safe because it was open and danger

could be seen from a great distance."

Wild coyotes like most predators soon learn every inch of their territory. They are exceptionally aware. A "pet" coyote knows where everything is in the house—chairs, couches, tables, etc. Any change will be noticed and often triggers unfortunate incidents. A young female coyote I was attempting to raise came into the house every day for a play period. She knew the living room with her eyes shut and could race around, through and between furniture, as if it were an obstacle course designed purely for her pleasure. Winter came and I decided to shift a chair nearer to the fireplace. When the young coyote was brought in she started her usual playful dash around the lving room and then froze, glanced at the chair, and then spun and charged back through the bedroom towards her own pen. When she couldn't get out, she wound up in a corner panting and shivering. I very cautiously reached for her, trying to calm her down, and eventually had to carry her outside. It was some time before she relaxed completely. I placed the chair back in its original position and later on in the day, allowed her back into the house. She came in cautiously, surveyed the living room and finding all back to normal, immediately began to enjoy her play period.

Behme reported similar occurences with his two coyotes. They, too, were aware of everything in their house and as long as all objects were in their accus-

tomed places, all was fine. If something was missing or replaced, they noticed the change immediately and would circle nervously sometimes for an hour or more. After an incident involving a barbecue that had been placed on the deck behind their dining room for the first time, it took Behme and his wife "More than one hour to calm them enough to lead them from the hall, and it was another hour before we could persuade them to eat."

hile "tame" coyotes certainly are not domestic dogs, they are also not wild and vicious predators who would "turn on their masters." All of us who have attempted to raise coyotes have had pretty much the same experience. They are shy and nervous with strangers and strange objects, but very loving and affectionate with those they know. As long as the ownder understands and accepts their wild heritage and takes care not to place them in stressful situations, they are as safe as a domestic dog. However, they cannot be controlled and obedience-trained as well as a domestic dog.

The coyote is not a highly social animal and in the wild, their social interactions are not anywhere as well-developed as the social structure of wolf packs. Coyotes form loosely woven groups usually based around the breeding pair. Their interrelationships are not long term. They are not genetically equipped to become the long-term subordinate members of a "human pack." The domestic dog looks upon his owner as his pack leader and is willing to obey his owner's commands once he understands what is wanted of him. The coyote feels no such basic need. His actions will be more independent. A possible parallel in attitude might be the domestic cat, affectionate with his owners but unwilling to be controlled, unwilling to "sit," "stay" or "heel."

Man has had over 2,000 years to select and domesticate breeds of dogs to live with him. For 2,000 years dogs have been selectively bred to live in our complicated environment. The average German



Author Sausman holds a young and sleepy coyote pup.

shephard or French poodle could care less if the furniture is moved. The sound of a vacuum cleaner or a radio does not disturb him. Cars, traffic, strange people, are all things that over the years he has been bred to accept. It is unlikely that a coyote puppy with his strong instinctive patterns for survival could ever become as steady and trainable as the average dog.

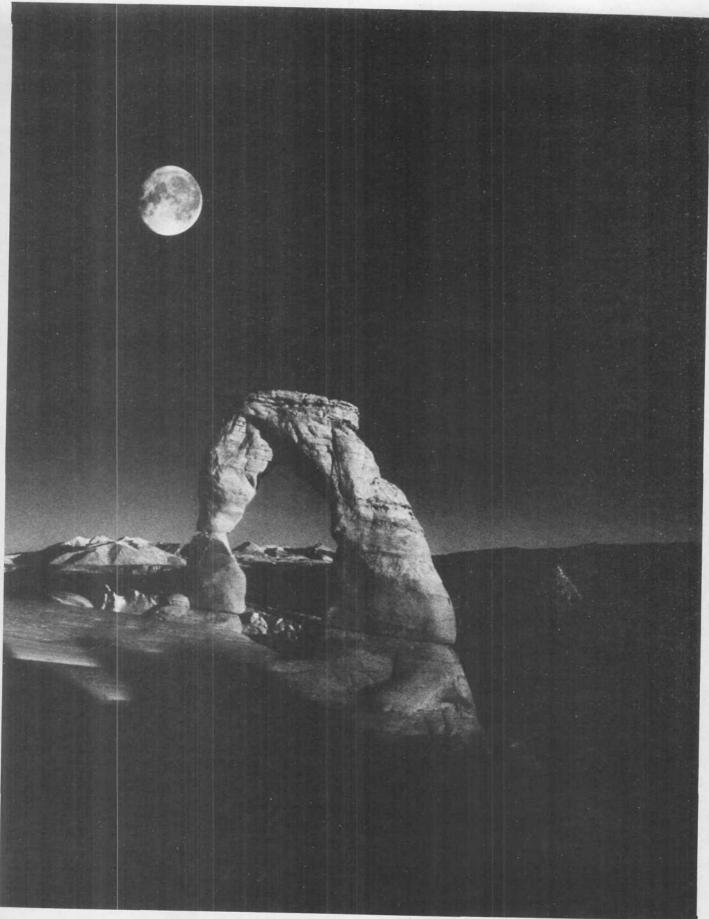
ince the pure coyote is so difficult to work with, individuals have crossbred coyotes with domestic dogs, hoping that the offspring will retain enough of the coyote to be fascinating and still have the calmer temperament of the dog. Coyotes and dogs can crossbreed very successfully. However, there are some major differences in their biology which keeps this from happening commonly in the wild. Female coyotes come into season only once a year. In the desert this is usually in late December. Male coyotes also are only capable of successfully breeding at this time of year. The male dog is sexually active at all times and females can be bred twice a year.

There have been occurences, especially in open farming country, of coyote-dog crosses. Called "coydogs," the appearance and temperament of the offspring are highly variable. Individuals in the same litter may range from being very coyote-like in their behavior to very dog-like, and any combination thereof. On the average, coydogs are easier to handle than pure coyotes. However, each individual crossbreed has to be evaluated for its own personality and temperament. Some friends have a young female crossbreed who is very affectionate even with strangers, but she would be considered a very nervous and hyperactive dog. She is always active, never able to relax. While her basic behavior is acceptable, her constant energy often wears her owners out.

Another coyote-shephard female was very wary of all strangers and new situations. Because her owners lived far out in the country she led a semi-wild existance, coming to the house frequently during the day to sleep and spending the nights out roving. They said her behavior inside was unacceptable and if confined at all, she'd pace nervously until released.

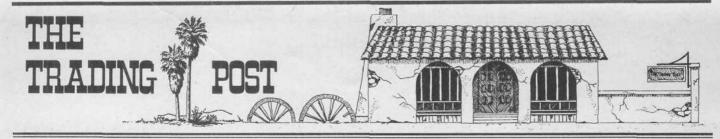
People have had a great deal more success with coydogs that are only a small part coyote. Two friends owned a beautiful male dog that was one-quarter coyote, one-quarter shepherd, and one-half malamute. He was a large dog with a fine disposition. An excellent watch dog, he was obedient and easy to train.

utside my window this morning the five coyotes are beginning to stir. Yawning, they stand and stretch, arching their backs much the same way my Doberman pinschers do. The puppy takes a playful swipe at one of the young females and she spins around to go after him but he's long gone! Then, by some signal that I cannot detect, they leave. I can see them trotting across the flats below the house. Perhaps they're off to search a portion of their territory for game. Whatever, they are wild and free to do as they wish and live as they should. A coyote in the house becomes a different animal, shy and nervous. How much better to see and enjoy him in his own environment, beautiful and confident.



A WINNER

David Parsons of Ogden, Utah, is Desert's May Contest winner for his "Harvest Moon Over Arches," shot on a Minolta X-7, f/11 at 1/30 sec., using infra-red film.



BOOKS/MAGAZINES

SUBSCRIBE TO the magazine that tells how to live in a desert, rural area. Also contains fiction, recipes, home furnishing tips—all sorts of goodles. Published quarterly. \$4 per year. DESERT LIVING, Star Rt. Box 6772, Pahrump, Nev. 89041.

DESERT MAGAZINE from Dec., 1969 to present. Best offer plus shipping. Nelson F. Arnold, 25-5th Ave. S.E., Oelwein, Iowa 50662.

FOR SALE: full set "Desert Rat Scrapbook" by Harry Oliver. Mint condition. Highest offer! Call (602) 997-6072 or 944-3926.

DESERT MAGAZINE, 229 Issues, 1956-1979 inc. Excellent. \$65, plus UPS. H.L. Reiter, Box 324, Yarnell, AZ 85362.

EQUIPMENT

BUILD YOUR OWN electronic dry gold processor, detailed plans, \$11.95. Harrison, 8902 Randolph, Riverside, CA 92503.

PRECISION LAPIDARY Abrasive Compounds for tumbling, polishing and grinding. Send for free catalogue and price list. MDC Industries, 400 West Glenwood Avenue, Philadelphia, PA. 19140. Dealer Inquiries invited.

AUTOMATIC GOLDPANNER. Pan for gold the easy way. From \$395. Goldhound, 4078 Lincoln Blvd. Marina Del Rey, CA 90291. (213) 822-2252.

MISCELLANEOUS

FREE LITERATURE AND SAMPLE of Aloe Vera Product. Suntan lotion, cosmetics, first aid burn gel and creme, liquid gel, face-lift kit. Write Aloe, P.O. Box 8418, Corpus Christi, Tex. 78412.

STAMP COLLECTORS! 200 beautiful, high quality stamps, plus monthly price listing service. Send \$1 to K. Stamps Co., P.O. Box 921, Capitola, CA 95010.

WILL KIT includes 64-page attorney's booklet, "What Everyone Should Know About Wills" and 4 Will Forms, only \$5 postpaid. (Free: "Personal Assets Record" and "Executor's Duties") INFORMATIVE PUBLICIST, Dept. B., 1009 N. Curry St., Box 2064, Carson City, Nevada 89701.

AGATE CLOCKS OR WINDCHIMES: \$22.50 postpaid. Satisfaction Guaranteed. Gemclox, Box 35695, Houston, TX 77035.

THE CALIFORNIA WAY, Invest in 2nd Trust Deeds, \$3 complete, CALWAY, P.O. Box 4601, San Diego, CA 92104.

REAL ESTATE

ROUND VALLEY and ESSEX PROPERTY FOR SALE. For information call or write Bob Gaskin, PO Box 7326, Riverside, CA 92513. (714) 685-6295.

MAPS

OLD STATE, Railroad, County Maps. 76-110 years old. All States. Stamp for catalog. Northern Map, Dept. DM, Dunnellon, Fl. 32630.

MINING

EXCITING GOLD RUSH of "79" is on! Go for it! Stake your claim! Info, Forms, Plat Maps, Advice. '79ers Gold Pak \$5.00. D-Jem-Trac Mines, Hayfork, Calif. 96041.

ASSAYS—Gold & Silver \$10.00. High quality spectrographic analysis for 65 metals \$9.00. Free price list. Reed Engineering, 2166 College Ave., Costa Mesa, Calif. 92627.

OLD GOLD AND SILVER MINES: Some with cabins, as low as \$1,500 for 20 acre claim. Panamint Valley area. Free List. Connolly, Box 67D, Trona, CA 93562.

SEED/PLANTS

JOJOBA—25 clean seed, instructions. \$1.50 prepaid. Indian Trail Nursery, Star Rt. 2, Box 75, Twentynine Palms, California 92277.

TREASURE FINDERS

TREASURE—Locate quarter mile away with ultrasensitive locator—brochure free. Research Products, Box 13441-BUC, Tampa, Florida 33611

INSTANT RICHES—Explore ghost towns. Find buried treasure, coins, relics, antiques, and more. Goldak—the finest "Metal and Treasure Locators since 1933." Send for free catalog. Goldak, Dept. D, 626 Sonora Avenue, Glendale, California 91201.

GEMS

SHAMROCK ROCK SHOP, 593 West La Cadena Dr., Riverside, California 92501. Parallel to Riverside Freeway. Phone 686-3956. Come in and browse; jewelry mountings, chains, supplies, minerals, slabs, rough material, equipment, black lights, metal detectors, maps, rock and bottle books.

PROSPECTING

DRYWASHERS! GOLD CONCENTRATORS! Guaranteed to recover minerals, gold. A hobby that pays for itself! Write to: Nick's Nugget, P. O. Box 1081, Fontana, California 92335. (714) 822-2846.

GOLD PROSPECTORS. New methods for the 1980s. Everything has changed. Here's know-how from 50 years of experience. \$3 to Hardrock, 402 W. Yaney, Bishop, CA 93514.

DRYWASHER! Mighty Midas Gold Concentrator, Exc. recovery, good cond. \$250. K.E. Harms, P.O. Box 91, Shoshone, ca 92384, (714) 852-4471

WANTED: Worked out placer claims or mines, mineral rights, low producing oil properties, oil leases and deeds. Send complete details to Tom Kenny, Drawer 2079, La Jolla, CA 92038.

"The original of this painting not for sale. Now in the collection of Dr. & Mrs. R. S. Baddour, Palm Springs, California."





HOW TO PLACE YOUR TRADING POST AD

Mail your copy and first-insertion remittance to: Trading Post, Desert Magazine, Palm Desert, Calif. 92260. Classified rates are 50c per word, \$5.00 minimum per insertion.





Like the majestic bird it was named for, Eagle Rare is incomparable.

The very finest Kentucky Bourbon ever created.

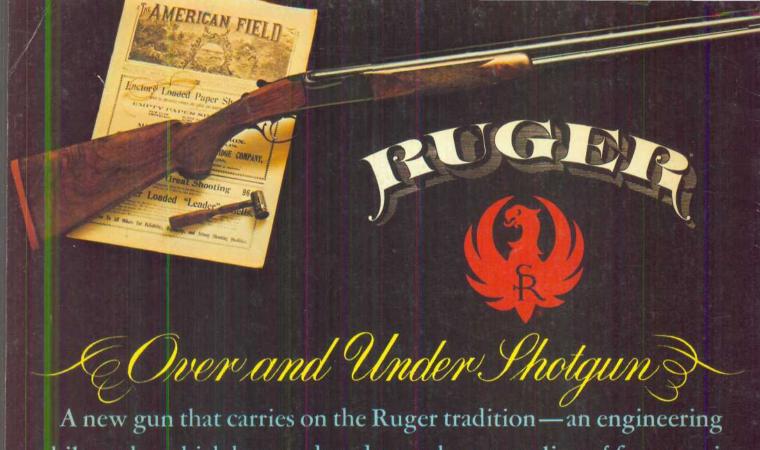
Our 10 long years of aging and careful testing produce a uniquely smooth and mellow flavor no one else can equal.

Eagle Rare. We challenge anyone to match our spirit.

One taste and you'll know why it's expensive.

Bald Eagles once soared above America by the tens of thousands. Today, fewer than 1100 breeding pairs survive south of Canada. For a free booklet on how to help save this extraordinary bird, write Eagle Rare, Box 123, New York, N.Y. 10022.





A new gun that carries on the Ruger tradition—an engineering philosophy which has produced over the years a line of fine sporting firearms, unique in their high quality and handsome design.

This first Ruger Over and Under Shotgun is a perfectly balanced, plain grade gun of elegant simplicity. By the Ruger definition, "plain grade" means precision workmanship and superior finish, with geometrically accurate curved shapes, plane surfaces which are finely polished and mechanical joints that are fitted to minimum hairline clearances.

The unique new mechanism with rebounding hammers and single selective trigger provides positive safety advantages. The gun opens easily and closes solidly. The distinctive styling and unusually low profile are accentuated by the fact that there are no visible pins or screws whatsoever. Barrels are hammer-forged, with 3" chambers and appropriate choke combinations, automatic ejectors and removable barrel side spacers. The barrels and dovetail hollow rib are permanently assembled with strong silver solder joints. The stock and forearm are fully seasoned straight grain American walnut, hand checkered and satin finished.

Every feature of the new gun reflects traditional Ruger attention to detail and the high quality which the American shooter has come to expect of all Ruger firearms. Initial production of the 20 gauge model will be



limited, with increasing numbers of guns becoming available in the months to come. Production of premiumgrade 20 gauge models and the introduction of 12 gauge models is anticipated for the future. See your Ruger Dealer or write for complete details and specifications.



STURM, RUGER & Company, Inc.

96 Lacey Place Southport, Connecticut 06490 U.S.A.

ALL RUGER FIREARMS ARE DESIGNED AND MANUFACTURED IN RUGER FACTORIES IN THE UNITED STATES OF AMERICA