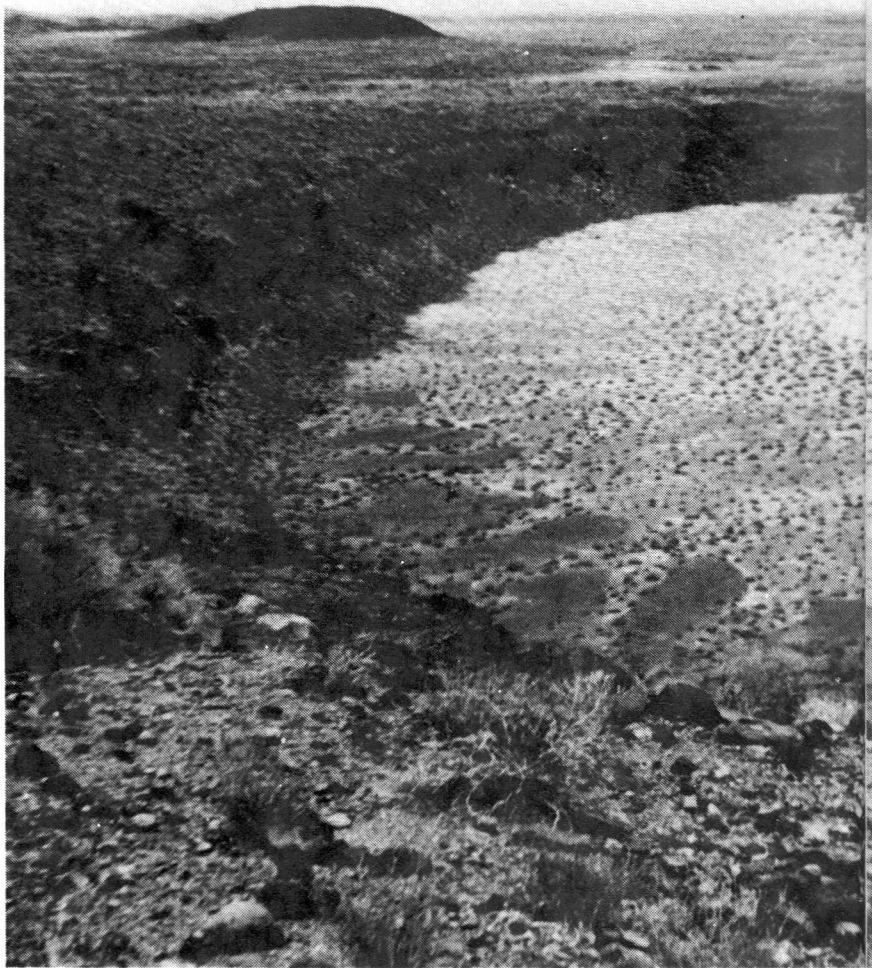


Celaya Crater from the west rim.
Photograph by the author.

PINACATE— Mexico's Newest Natural Park

by CARL ALLEN



ON NOVEMBER 11, 1908 Dr. Daniel T. McDougal led a party of 10 men, 17 horses, three dogs and two wagons into the Pinacate volcanic field on the first exploration of that unknown corner of Mexico. In 1951, Randall Henderson's article is *Desert* described the area as still almost unknown, and accessible only by four-wheel-drive or on foot. Today, thanks to the wisdom of the Mexican government, a million acres of this wild and desolate territory have been set aside as "Parque Natural Del Pinacate." Roads have been graded, guideposts erected and, for the first time, the Pinacates are becoming accessible to the ordinary traveler.

My wife, Jaclyn and I visited the Pinacates last March, attracted by descriptions of the region's renowned volcanoes. We left with a new respect for this desert and a sincere belief that the Mexicans have, in their new natural park, a treasure well worth preserving.

We left our home in Tucson and followed the highway past Kitt Peak National Observatory, the Papago reservation town of Sells, to Organ Pipe Cactus National Monument. The MacDougal

party, as described in William T. Hornaday's classic book *Camp-fires on Desert and Lava*, took four days to travel this route. Our driving time was three hours. Organ Pipe, which served as our base camp, was established to preserve a part of the unique Sonoran Desert ecosystem, which features the impressive Organ Pipe cactus. This out-of-the-way National Monument has been "discovered" in the last few years. The 250-space campground was nearly filled with camping rigs — their owners obviously enjoying the warmth of the desert sunshine.

Just outside of Organ Pipe the border town of Lukeville caters to tourists on the American side. Food, lodging, gas and Mexican car insurance are all available. We crossed the border, obtained our Tourist Permits, and headed south.

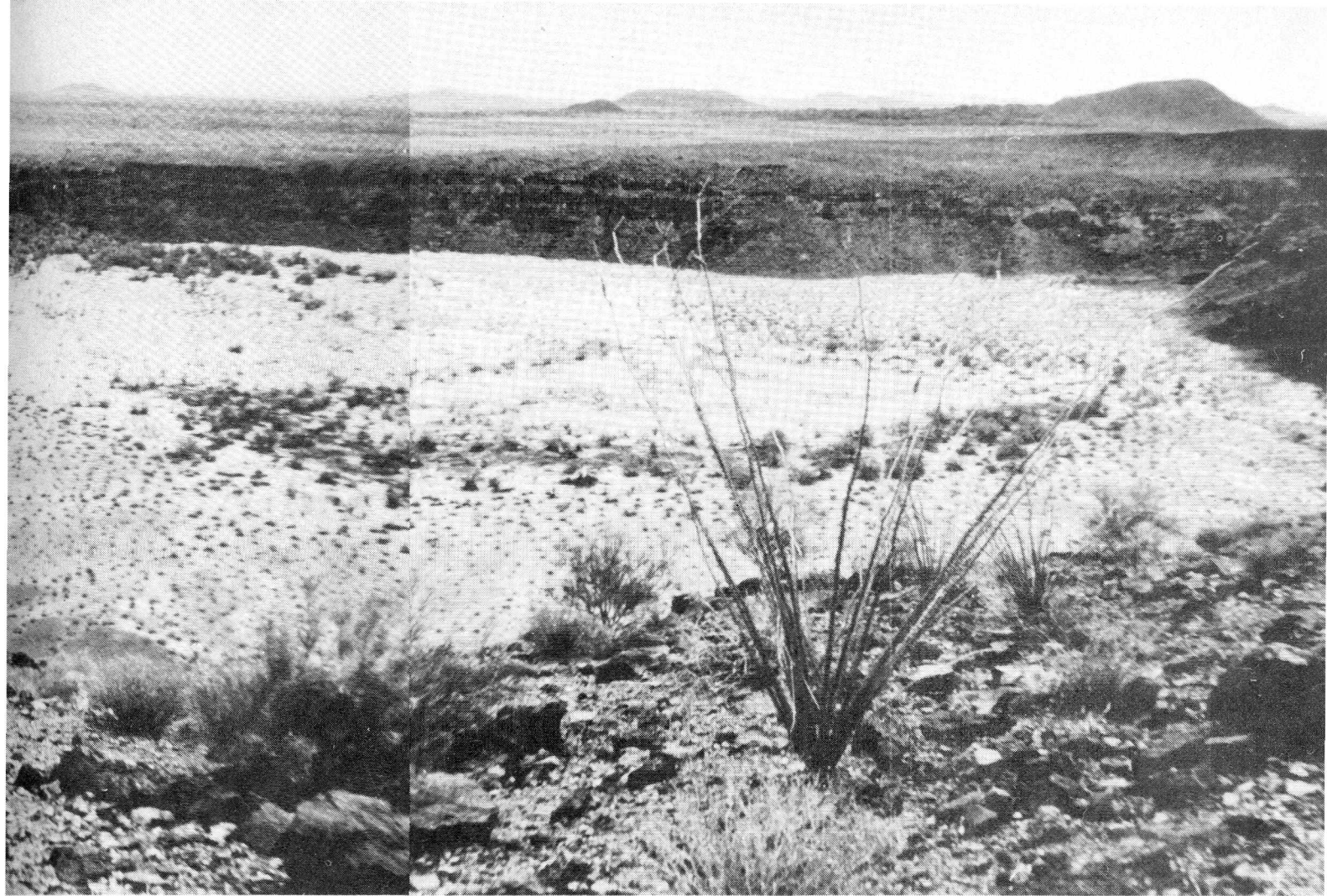
At the town of Sonoyta, a few kilometers from the United States border, the road to Pinacate divides. Mexico Route 8 runs south to Rocky Point, the fishing village and resort on the Gulf of California. Route 2 closely parallels the border, running west to San Luis, near the California-Arizona line. The Pinacates can be entered from either road, and a

great deal of interest can be seen from the highways themselves.

Leading south from Sonoyta, Route 8 crosses a stretch of Sonoran desert not unlike that found at Organ Pipe. Small mountain ranges rise abruptly from the flat bajada, with an occasional saguaro to break the monotony. The road is good and well-traveled, especially by Americans heading for the sun and surf at Rocky Point.

The highway skirts the gray granite of the Sierra Blanca mountains and crosses the floodplain of the Sonoyta River. Contrary to many maps, the Sonoyta does not flow into the Gulf of California. Like its larger neighbor, the Colorado, the last trickle of the Sonoyta river sinks into the baking sand of this floodplain.

At this point the scenery along the highway undergoes a striking change. Floodplain and cactus are replaced by low dunes of windblown sand from the Gulf. The Pinacate volcanoes are bounded on the south and west by the sands of El Gran Desierto. A small group of Indians, the Hiattit Ootam, or sand people, lived among these dunes until the 1850s, when an epidemic of yellow fever



killed many of their number and drove out the remainder. Carl Lumholtz, in his book *New Trails in Mexico*, recounts one of their legends about a flood that covered the world. The Indian diety litoi, or Elder Brother, rode out the flood in a boat made of greasewood, finally coming to rest on Pinacate Peak as the waters receded. The sand dunes, with their scattered Indian campsites, are included within the National Park.

The highway west from Sonoyta, Route 2, penetrates the volcanic field proper. This well-traveled route, the only road from eastern Mexico to Baja California, crosses a long stretch of Sonoran desert and then leads onto black lava flows. Pinacate Peak still looms distantly to the south, but smaller lava buttes and cinder cones dot the nearby landscape.

Just to the north of the highway lie two short ranges of granitic mountains, each of which has been subjected to a striking geologic insult. Black fluid lava, apparently welling up along cracks in the granite, broke through the tops of these mountains and spilled down the sides. Hornaday described the more eastern of

these features, christened "Black Cap Hill," as a rarity among volcanoes. He did not discover the more impressive copy only a few kilometers to the west.

Besides being topped by lava, Black Cap Hill is abutted by windblown sand. Here El Gran Desierto curves around the northwest edge of the lavas. To the west the highway crosses sweeping yellow dune fields, the dunes aligned like straws in the prevailing wind. The sand piles around the bases of the larger granite mountains, and slowly buries the smaller ones. In this hostile environment, though, some life still persists. The white petals of the desert primrose add an occasional touch of delicacy to the scene. Near Black Cap Hill an area of several acres supports a thick stand of cholla cactus, described by Hornaday in 1908 and still impressive to the modern traveler on the nearby highway.

While the traveler who sticks to the highways can experience the fringes of this land of sand and lava, the heart of Pinacate still shimmers in the desert heat, mysterious as ever. In 1908, approach to the main mountain required a well-equipped expedition. With the ad-

vent of the automobile access became easier, but not much. A recent investigation saluted "the woodcutters who have, with their dilapidated trucks, a barrel of water, a sack of frioles, and an abiding faith in God, laid down tracks where no sensible person would have driven an army tank." These tracks lead through Jeep-busting country, without guideposts or maps. Until recently, however, these tracks were the only paths into the Pinacates.

The best of these old roads, and probably the only one which should be attempted with a passenger car, leaves Route 2 across from the Los Vidrios gas station, heading south. We followed a moderately rough track through sand and gravel for about five kilometers, and reached a cinder cone which was being quarried for road fill. Turning left and following a very broken road up a short rise led us to the rim of Celaya, one of the 11 gaping craters which makes the Pinacate field unique in North America.

Celaya is a middle-sized crater for the Pinacates, measuring 88 meters from the rim to the floor and over 900 meters from rim to rim. The inner walls are formed by



*Elegante Crater
from the south.
Photograph by
Steve Larson.*

steep cliffs of dark basalt, the stuff of Pinacate lava flows, while the floor is covered with yellow windblown sand. Lines of dark debris, radiating from the center like the spokes of a wheel, show where brief desert downpours have carried rocks and gravel inward from the walls. Patches of desert vegetation on the sandy floor tell of sparse underground water. Celaya lies silently under the desert sun, challenging the explorer to explain its existence.

The MacDougal party did not locate Celaya, but they did discover and map several other massive craters nearby. One of the roads being planned for the new park will bring the traveler to two of these features, MacDougal and Sykes craters, named for members of the 1908 expedition. This road will also pass Tinaja Papago, Papago Tank, one of the natural water catch basins which once meant the difference between life and death in this desert land. The MacDougal expedition used Tinaja Papago as one of their base camps for their assault on Pinacate Peak.

The Pinacates in 1908 turned out to be good country for big game hunters. Prong-horned antelope and mountain

sheep were abundant and showed little fear of humans. Trucks, high-powered rifles and even machine guns have decimated the big game population in modern times. One of the hopes for Parque Natural Del Pinacate is that the few remaining animals can be preserved. This park, adjoining Arizona's Cabeza Prieta Game Range and Organ Pipe Cactus National Monument, will increase the protected range for the antelope and sheep, perhaps allowing them to stage a comeback.

The Mexican plan for their park seems to place it somewhere between the American concepts of a national park and a primitive area, with some development on the fringes. All-weather roads are planned to a few of the spectacular natural features, and a resort on the Gulf, near the village of El Golfo de Santa Clara, is anticipated. At present, however, the only work has been the grading of roads in the park's north-east section.

Along both Route 2 and Route 8 large signs proclaim the new park. Near each sign is a guard shack, generally not occupied, and a good dirt road leading into the heart of the volcanic field. These

roads, which are connected, were perfectly passable in our Pinto. For the careful driver a few kilometers of travel are amply rewarded.

We chose to start this road from its northern end, off Route 2. Recently-erected guideposts indicated our goal — Crater Elegante. The first few kilometers led through Sonoran desert country, with lava and cinder cones close ahead. Near one of these cones, which was being quarried, the road suddenly widened to about four lanes and a wind sock appeared. The U.S. Border Patrol later confirmed our suspicions that this dirt airstrip was an occasional staging point for airborne marijuana smugglers. No smugglers were in evidence that day, and we proceeded south.

Off to the left a large pink cone with a raised south rim broke the horizon. The resemblance to Hawaii's Diamond Head was striking, and not coincidental. This cone, Cerro Colorado, was formed by small fragments of volcanic ash, and the raised rim reflects a prevailing north wind. A branch of the road, conveniently marked, leads to this striking pink cone.

Like most Pinacate visitors, however, our goal was Elegante. Our road led

around the edge of a very rough, black lava flow, with jagged blocks towering above the car. We drove across a dry wash and up a ridge to a bulldozed parking area. A trail led up the ridge, passing through a natural garden of ocotillo and cholla. Rain must have preceded us, for the red ocotillo blossoms were out in all their glory. Against the black lava and gray-brown ash the red and green of ocotillo blossoms and leaves and the yellow of the cholla were beautiful.

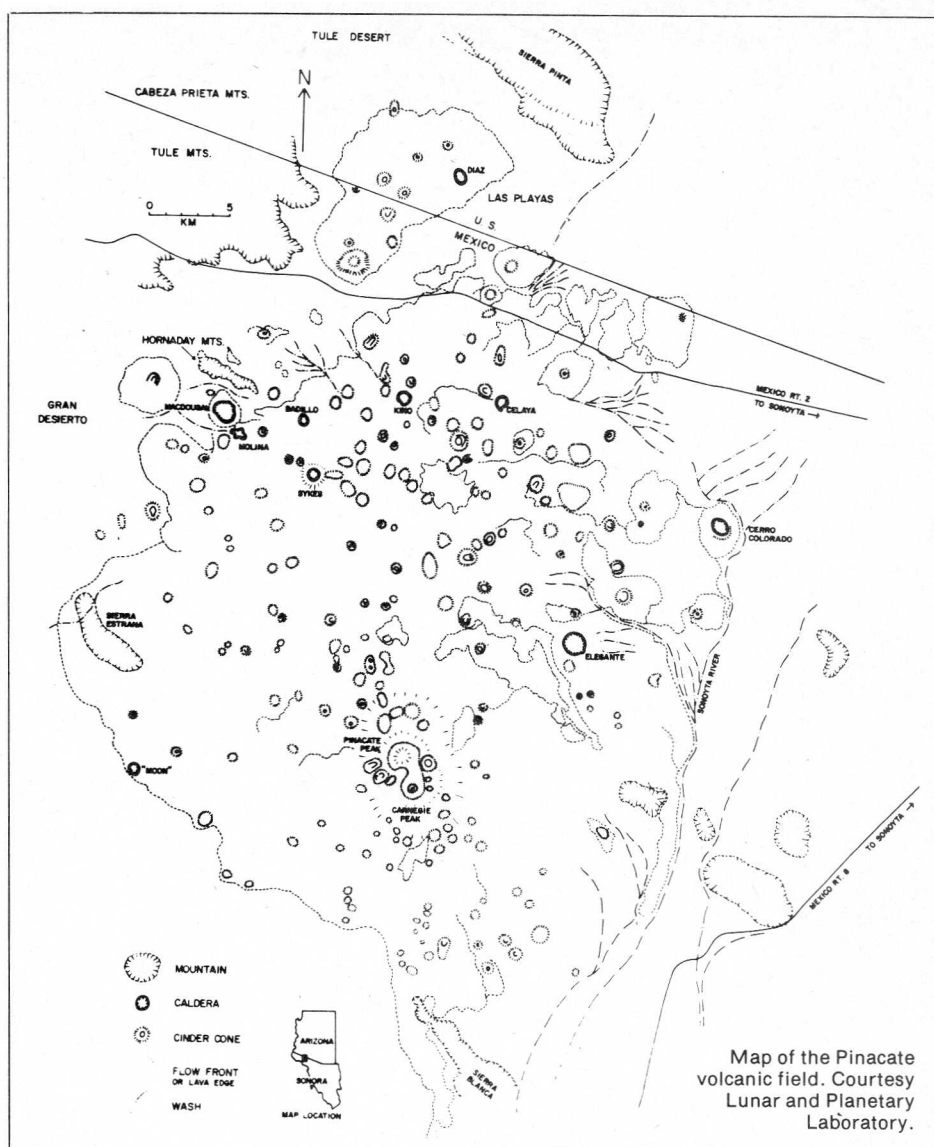
After Celaya we had some feeling for what to expect, but the crater which Lumholtz named Elegante was still stunning. Here the walls dropped almost straight down for some 240 meters. The far wall was over 12 kilometers away. The basalt cliffs looked much steeper and less eroded than those of Celaya, while the bottom appeared to be covered with the deposits of a dry lake. The eastern wall was dominated by a long stream of red cinder, part of a small cone which was sliced open when the main crater was formed.

For the hardy soul with good boots and plenty of water, the climb to the bottom of Elegante is indeed possible. Randall Henderson's article shows one route, and others can no doubt be found. The climb requires about four hours, each way.

What happened here? What forces within the earth formed these great craters, now so silent? Geologists do not yet have all the answers, for much work still remains to be done in the Pinacates. Recent studies of the craters, however, suggest what may have occurred.

About 20,000 years ago the crater called Elegante did not exist. In its place were only flat-lying layers of basalt, the results of older lava flows. Below the surface, though, molten rock was rising. The heat of this rock caused gas, and possibly steam, to explode through the overlying basalt, creating a small volcanic vent, forming a cone of gray-brown ash and tuff, some of which can still be seen making up the crater's rim. At about the same time a small cone of red cinder erupted near the main vent. The main ash eruption continued, emptying an ever-expanding underground volume

Black Cap Hill—fresh lava erupted right through an older granite mountain. Photograph by Steve Larson.





Ocotillo and cholla on the north rim of Elegante. Photograph by the author.

and breaking the overlying rock along a series of cracks which circled the vent. Finally the weight of the rock and ash above became so great that they collapsed into the underground chamber, with the rock breaking along these circular cracks. The last collapse formed what is now the crater wall, and sliced right through the small red cinder cone. During the wet climate of the last Ice Age a lake formed in the bottom of the crater, but when the climate became drier this lake disappeared, leaving behind its load of sediment. For over 10,000 years the crater has remained, virtually unchanged through most of the history of civilized man.

Mexico's intention to open the Pinacates and preserve them as a natural park represents a great gift to all those who love and respect the desert. We should show our appreciation by aiding this effort in any way possible.

Planning a trip to the Pinacates? A few precautions will make your adventure safer and more rewarding:

1. Park or no park, this is wild and desolate country. If you get into trouble you will have to get yourself out. Make sure the car is ready with gas, water, a good battery and a good spare tire. Extra gas, water and fan belts can come in awfully handy. The roads are cut into

soft sand and cinder in places, so be prepared with boards and a shovel to dig yourself out. Driving at night or right after a rain will almost guarantee that you will get stuck.

2. Stay on the roads, for your own sake and that of the park. Tearing up the desert is just not fair to those who follow you.

3. Temperatures on black lava in the summer can hit 130 degrees. Take precautions against the heat and always carry water. The natural water tanks in the Pinacates are often dry and some have recently become polluted by cattle.

4. An American citizen in Mexico is a foreigner. The language, customs and laws change when you cross that border. Check with a Mexican Consulate or Tourist Bureau for information on Tourist Permits and car insurance. It is illegal to transport firearms into Mexico without a hunting permit. Recently there has been some trouble with CB radios in Mexico, so it is best to leave the rigs at home.

5. The Pinacate region is beautiful, fascinating and awesome. The Mexicans are now trying to preserve this place, and at the same time make it more accessible to all those who love the desert. They deserve our thanks and our help. □