

INSTITUTE OF CURRENT WORLD AFFAIRS

FMF-25

Northwest Mexico: Saga of a Mining Town

5 March 1969

Cananea, Sonora

Richard H. Nolte, Executive Director  
Institute of Current World Affairs  
535 Fifth Avenue  
New York, New York 10017

Dear Mr. Nolte:

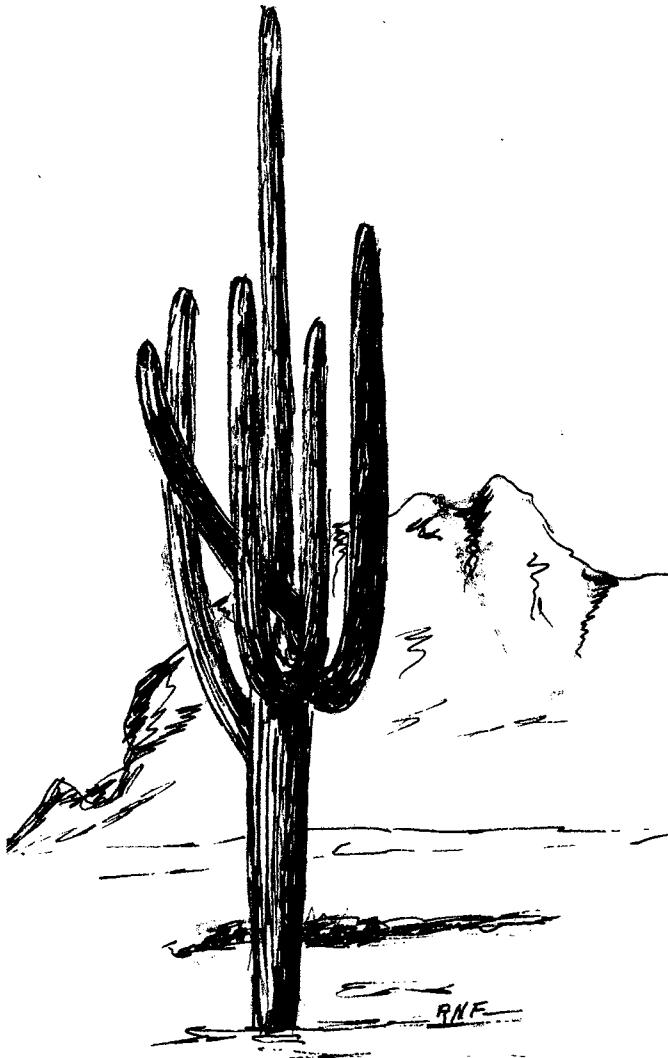
Cananea, near the U.S. border in the State of Sonora, Mexico, was reluctant capital of a swash-buckling autocracy until a decade ago. Two thousand miles of barb-wire fence marked its boundaries, the posts emblazoned with the sovereign's initials: W.C.G. The daring, bloody and querulous half-century history of the domain spans the evolution of Mexico from sycophant of Europe to beatifier of the mestizo, of the U.S. West from lawless frontier to retirement haven, of society's change from unfettered individualism to the defense of the social rights of the underdog.

Some say that at his height Col. William C. Greene held a million acres. More casually, "half the Sierra Madre". In any case, amid headlines in Mexican newspapers proclaiming "Mexico Recuperates a Huge Area of Its National Territory", it all came to an end on August 22, 1958:

"The nation's ensign was slowly hoisted today over the rancho 'Los Martinez'.

"It was 2:15 in the afternoon and the State band had just played the national anthem, also slowly, the notes reaching out over the Valley of Cananea, Naco and Santa Cruz. More than 500 peasants walked on land regained which had been taken from their antecedents 66 years before. Eyes moist, their gaze was fixed on the flag. Some women pressed small bunches of daisies against their breasts...

"The leaders of Section 65 of the Syndicate of Miners---heads down, with knitted eyebrows---joined together in an improvised tribute in open air. In



Saguaro cactus

the morning they had gone to place a floral offering on the tomb of the martyrs of the 1st of June, 1906." (Excelsior, Mexico City)

Prompted by long-ago readings about the Cananea massacre of 1906 and by The New York Times report of the 1958 expropriation, I turned off the Nogales-Hermosillo highway to wind 52 miles to the infamous mining town. I quickly left behind the flat desert spined with mesquite, saguaro and ocotillo cacti. The asphalt road spiraled up a denuded spur cut by canyons and washes and, after some 10 miles of perpendicular cuts imperiled by rock falls and of embankments crumbling at the outer edge, descended as a straightaway through a level basin. Scrub brush entangled bare branches but the taller cottonwoods showed the tender green of their early spring leaves. Very occasional clusters of brown and white Herefords gave small hint of the herd of 35,000 in the Cananea cattle-raising area. After another rollercoaster hurdle, the vast valley of Cananea appeared, straw-colored by its natural grama cover. Northward it extended to distant mountains across the border in the United States. At 5000 ft., the town of Cananea spreadeagled over an oxide pediment backstopped by the Sierra Madre range. Only a couple of its streets were paved, and low, weatherbeaten buildings formed the cheerless grisaille typical of mining towns.

Since my key contact left for Nogales 10 minutes before I arrived, I stayed two nights and a day and a half in this chilly outpost of 18,000 people. The Hotel Alameda—the best in town—was lime-sherbert green inside and out, immaculately clean and newly decorated. But its worn wooden stairs (no elevator) showed its vintage, and a scattering of functionless, hip-high vases made a sorry attempt at grandeur with their overlay of locally-painted Chinese designs, replete with vermilion dragons and indigo lotus flowers. Though the fireplace in the main hall was reduced to a storage bin for fire extinguishers, a gas burner in my room gave forth ample heat—at least when standing right in front of it. Its disadvantage was that I was dependent on a male maid with pliers to turn it on and off.

Though the town's reason-for-being—the copper company—musters the majority of the residents for a work day beginning at 7:00 a.m., there is little likelihood of tardiness because the alarm didn't go off. At 6:00 a.m., with the sky still black and the night wind blowing, the angelus is sounded. Neither Anaconda now, nor the Wall Street financiers before, nor Colonel Greene before them saw fit to invest copper profits in the church's carillon. Its tinny stridency ends sleep, persisting during some 10 minutes of tuneless caterwaul. Thereafter, it nags the morning at 15-minute intervals.

The bellhop told me that the hotel was often filled—traveling salesmen during the week, visitors over the week-ends. Such was not the case when Colonel Greene held forth. In fact, journalistic accounts have it that the Greene's—father, son, and grandchildren—opposed communications with the outside world, interested only in the dusty paths hoofed out by the cattle in the yearly drives northward for sale in the United States. The latifundia, finally set at some 648,000 acres, was later dotted with landing strips which, critics said, were used for various nefarious purposes, such as contraband and trafficking in bracero labor.

In his isolated fiefdom William Cornwall Greene owned the bank and the newspaper—built, used and abused the jailhouse of Cananea—and hired and fired the police and the office-holders. At 40 Greene was broke, a daring but unsuccessful and untutored prospector hanging around Tombstone, Arizona. At the rumor of copper in the Sierra Madres he went south to Mexico and in 1899 began carving out his empire, based on concessions from the Porfirio Diaz Government—it is still argued whether Mexico ever received any payment for the land. Described as "one of the most bizarre and colorful figures in the thrill-packed history of frontier days", he was an associate of Wyatt Earp, Teddy Roosevelt and New York tycoons. The huge property stretched northward into Arizona and served as sluiceway for many U.S. interests or, as The New York Times described it:

"The estate figured in various revolutionary movements but the Greene family was always fortunate in being on friendly terms with the winning side. United States troops and state police organizations in the early part of the century had informal working agreements with the estate to pursue fugitives from justice across the border."

The role of these U.S. forces in the 1906 firing upon demonstrating miners in Cananea, killing 15, is still debated. The Mexican press implies that helpless Mexicans fell before American mercenaries, but the Mexican Army, ordered in by the Diaz Government, was also there and was probably the perpetrator of the massacre.

Regardless of who was the guilty party, the strike was symptomatic of the times and contributive to the Revolution starting in 1910. Following its independence in 1821, Mexico suffered almost a half century of kaleidoscopic politics, victim of both internal and international ambitions. Subsequently, the dictator Porfirio Diaz held sway for almost 40 years, imposing a peace shot through with cultural stagnation, social injustice and economic servitude. Though Diaz himself was an Indian, he allowed white and foreign interests to subjugate the native elements, stealing their lands, employing them under near slave-labor conditions.

Such was the case in Cananea when the idea was introduced of organizing the miners to improve their miserly wages and subhuman working conditions. In a time keyed to laissez-faire, individualism and survival of the fittest, such a move was heresy and, as at Cananea, to be put down even by physical force. But the confrontation in itself was a harbinger of changes to come and the news of the one-sided clash spread across the country as a catalyst for liberal forces already discontented with the Diaz sell-out of Mexico's patrimony.

It was not Mexican forces, however, which were to do Colonel Greene out of his copper, but the machinations of Wall Street financiers. By stock manipulations and credit denials, they edged him out of his mine properties. By the mid-1920's Anaconda had bought out the various interests and became 100% owner of the rich mineralized zone which now occupies some 20,000 acres.

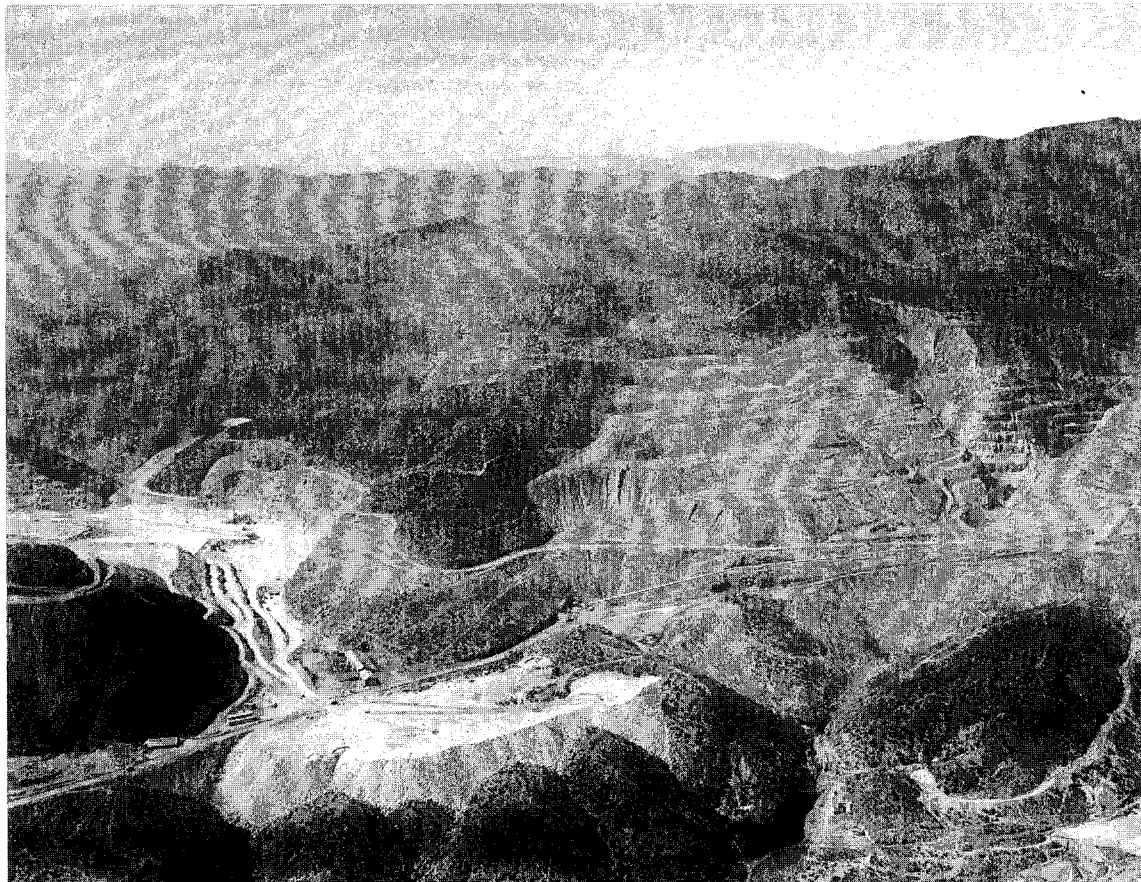
The belt in which Cananea lies is quite large for copper, stretching some 150 miles from the area of Tucson, Arizona, southeastward beyond

the Anaconda holdings to another site now being surveyed by American Smelting in conjunction with Mexican interests. Producing some 35,000 T. of blister copper per year, the Mining Company of Cananea provides approximately 55% of Mexico's copper, all of which is sold domestically. Nationwide production barely keeps pace with the country's expanding industry.

Interested in making a comparison of the Mexican operation with Chile's Chuquicamata, also 100% Anaconda, I suggested a tour of pit and plant to company officials. Whereas Chuquicamata is keyed to visitors, set up with bi-lingual guides and comfortable busses, my request at Cananea caused a moment of confusion, and a couple of phone calls to see who might be at hand to accompany me. I was pleased when my escort turned out to be the assistant geologist, equipped with his pickup truck. Sr. Ayala, a pleasant young Mexican, graduated from the University of Arizona and was enthusiastic about his country's mineral potential, feeling that foreign capital was necessary to help develop it.

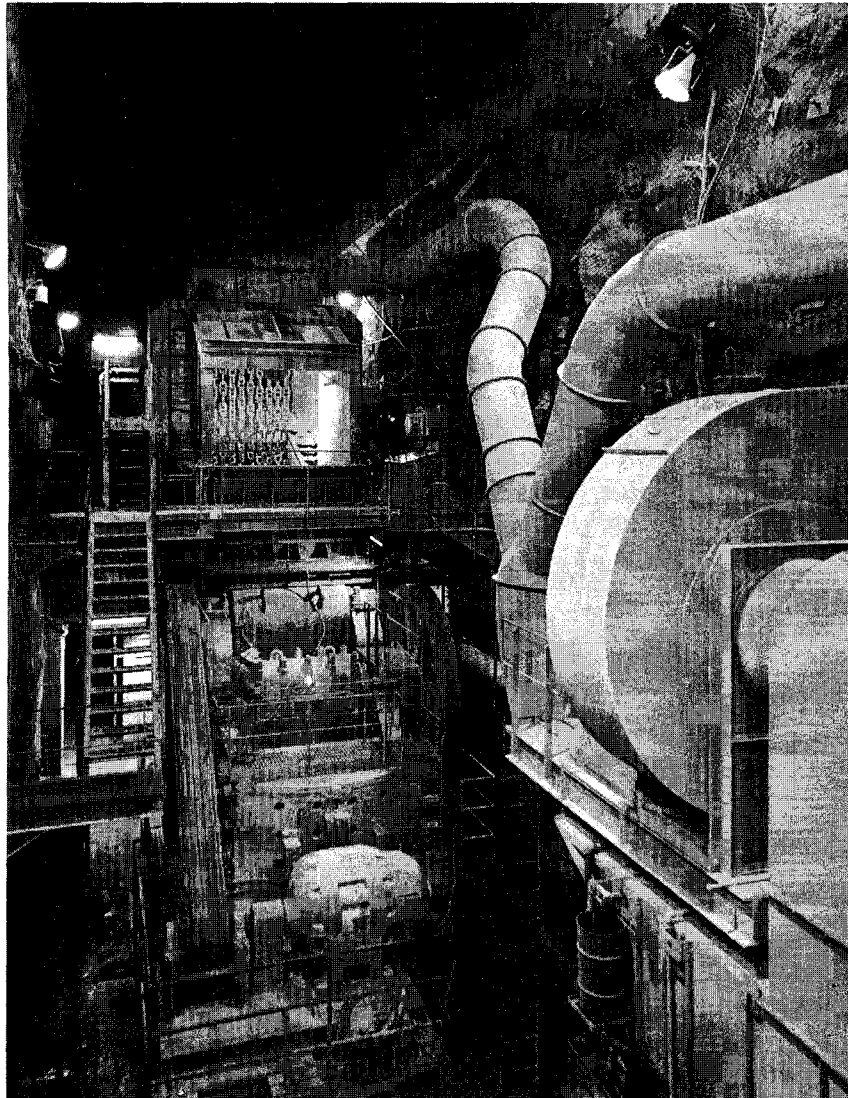
Chuquicamata is first and foremost a placer mine; Anaconda's operation always centered on an open pit which is now the world's largest. At that site in the Atacama Desert, copper-laden ores lie close to the surface and the dry, temperate climate makes above-ground work convenient.

BELOW. The open pit at Cananea.



Cananea mining, on the other hand, started underground, the more expensive operation justified by a copper content as high as 6%. The end of the rich ores came, however, in 1944, and the company turned to cheaper placer methods to extract ores of .07% copper content. To reach these ores a considerable overburden had to be stripped. What at Cananea was oxide waste at the more fortunate Chuquicamata was oxide ore, and Chuqui' worked gradually into sulphite ores which Cananea had to dig down to before reaching economic material. To save the long haul up and around the pit banks—performed by train and massive trucks in Chile—the Mexican pit boasts "the world's largest underground crusher" placed at the bottom of a shaft some 500 ft. deep. Its huge mouth is in the floor of the pit and the trucks merely back up to it and dump their load, thus saving time and money.

BELOW. The underground primary jaw crusher at Cananea.



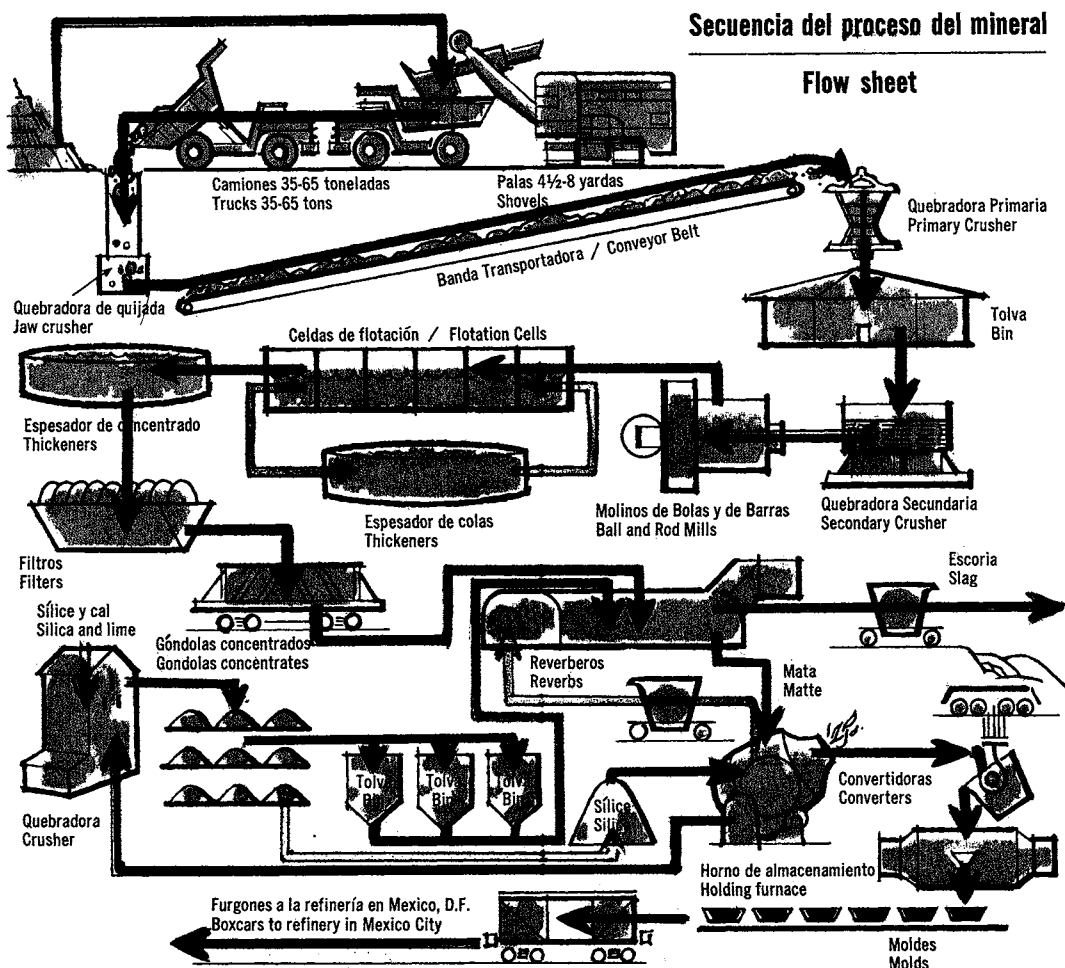
Constant research and development in geological and engineering techniques is a major reason that many old mines are still being worked. If costs could not be reduced to warrant digging out poor ores, many mines, such as Cananea, would long ago have closed down: in 1930 Cananea ores yielded 48 kilos of copper from every ton; in 1960, five kilos per ton. Therefore, mining men hedge when speaking of reserves—new techniques may transform material now uneconomic into profitable ores. Of course, another factor is the price of the mineral—many old silver mines throughout the West are being surveyed and assayed again since that metal experienced a price hike.

An example of one such technological breakthrough, now an established phase in copper refining, is the flotation process, important at both Chuquicamata and Cananea. After being pulverized by crushers and ball and rod mills, the rock drops into flotation cells containing liquid of various chemical contents. Copper particles adhere to bubbles on the surface which is skimmed off as a 35% concentrate. Legend has it that a housewife washing the clothes of her husband, a copper miner, noticed this tendency of the ore dust. True or not, this relatively cheap method of concentration makes possible the recovery of low-grade ores.

Cananea's refining process is carried only as far as blister copper, 99.5% pure copper, whereas the Chuquicamata plant refines the metal to 99.99% by means of a final electrolytic treatment. By my woman's logic, this step—described in my ICWA newsletter "The Importance of Copper"—must surely undergo an improvement soon. Except that these copper operations are usually in isolated areas where neither space nor time seem so critical, it is hard for me to believe that modern technology can tolerate a concentrating phase which requires eight days and vast docks while the market waits for cathodes and anodes to shuttle themselves back and forth. But, I confess to a background in metallurgy which is—nil.

Anaconda faces a similar ownership problem in both Cananea and Chuquicamata: to sell 51% of the operations' worth to nationals—i.e., the so-called "Mexicanization" and "Chileanization". In neither case has the U.S. company done so, both mines and plants continuing 100% in Anaconda's control. In neither case does there seem to be much inclination to comply. Kennecott's big El Teniente south of Santiago has sold 51% of its shares to the Chilean Government in accordance with one of the hard-fought laws passed by the Chilean Congress under President Eduardo Frei; however, the law is apparently not mandatory so Anaconda is sitting tight. But the Mexican law is mandatory. Passed in 1961, it allows a 25-year grace period for the sale of the 51% of all foreign mining interests to Mexican nationals.

An interesting difference between the two situations is that "Chileanization" takes place by means of sale to the Government, whereas "Mexicanization" is by sale to private investors. Mexicans point out, therefore, that Chile's is "nationalization" whereas theirs is not. For Chile the purchase by the Government is probably the only feasible way—it is a small (approximately nine million population) nation with a modest industrial base compared to Mexico's (approximately 50 million population). Even with the comparatively large amount of wealth in their country, Mexicans



foresee difficulties in attracting sufficient national capital to Mexicanize the mining industry. As they explain, the Mexican investor expects short-term, high-return profits; even low-risk paper—such as time deposits and mortgage certificates—bring 10-12%. Mining's glamour is slight in comparison.

But various pressures are being applied by the Mexican Government to goad companies such as Anaconda. Taxes have recently been raised, supposedly being the cause for the company's cancelling orders for four 100-ton trucks—as I recall from Chuquicamata, they cost about \$200,000 each. This may, however, be a cat and mouse game. As long as Mexico depends on Cananea for 55% of its copper and it constantly needs more, Anaconda can play hard-to-get, refusing to increase or even maintain production if chided by punitive fiscal measures.

This dominant position may, however, be short-lived. One example is the American Smelting-Mexican firm just beyond Cananea; now at an early stage, it should start production in about five years and promises to be a major supplier—and competitor. This newly-formed company is operating in a national reserve zone and, therefore, by law is already

capitalized as 66% Mexican and 34% foreign. If Mexico persists in the application of the 1961 Mining Law, Anaconda may have to face up to "Mexicanization". Of course, they would like it on their own terms: 100% of the present operation continues in U.S. hands and capital investments increase until 51% is under Mexican ownership, thus permitting a major expansion in the Mining Company of Cananea.

As it is, the Anaconda interests sit as an enclave amid 648,853 acres owned by the Government. Nothing of Colonel Greene's Mexican empire remains with the family. His son, also named William Cornell Greene, held the vast properties together, although it was clearly illegal since the 1917 Constitution emanating from the Revolution. By that charter, no foreigner could own land within 100 kilometers (62 miles) of a border with another nation. Perhaps because the Greene ranches were good only for cattle-grazing due to water deficiency and probably because of political influence, the estate was not threatened even during the agrarian reform heyday of President Lázaro Cárdenas when millions of acres were expropriated from Mexican latifundistas. Furthermore, to disguise the true ownership, 26 separate "civil societies" were established, each holding some 10,000 acres, supposedly in the hands of various entities—in fact, 100% the Greene family. These straw companies were labeled "fantasmas" by a leading Mexican lawyer at the time he represented the divorced Mexican wife of W.C. Greene, Jr. in an alimony case.

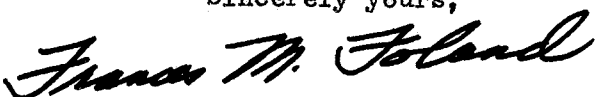
The third generation expended its energies on inner-familial strife. They publicly denounced each other and sued each other for amounts as high as \$6 million. The six grandchildren variously suffered from blindness, ill-health, alcoholism and divorce.

And outside elements moved in to exploit the situation. There were incursions of squatters and gold panners in 1945, 1954 and 1958 resulting in their forceful removal by federal troops and/or mass demonstrations. In the last decade the outbreaks resulting from localized discontent or protest were fanned by leftist elements who came in by truck and car over the road which the Greens had opposed. Figuratively, the barbed-wire fences were down around the Greene domain.

Under President Ruiz Cortinez the Mexican Government moved to acquire this vast latifundia which had long flouted the national laws. But, as those who know the story point out, it was not expropriation but purchase, the Greene heirs receiving \$8 an acre for semi-desert grassland and mountains and \$80 a head for a herd of 35,000, regardless of size, age or condition.

So, on August 22, 1958, the fabulous Green empire of Cananea came to an end. What the sire had forged, the offspring split asunder. In its stead are seven large ejidos—communal farms—occupied by 450 Mexican families. I visited three of them and will describe their operation in a later newsletter on ejidos in Mexico.

Sincerely yours,



Frances M. Poland

Photos, diagram: courtesy of Anaconda