THE CAMINO DEL DIABLO: WITH NOTES ON A JOURNEY IN 1925

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The road from Ajo to Yuma by the Camino del Diablo ("devil's road") is probably the most difficult and dangerous route in the Papago country. The region west of the Growler Mountains, east of the bluffs of Colorado River, and south of the Southern Pacific Railroad, an area 60 miles wide on the east and 20 miles wide on the west and nearly 100 miles long, has only one permanent inhabitant, who is the caretaker at the Fortuna mine.¹

The Camino del Diablo follows quite closely the United States-Mexican border (see Fig. 1). The above quotation describes the northern part of the region through which it runs: the southern, or Mexican, part is drier and if possible less inhabited over a vast extent.

Early Travelers

The first recorded journey over this famous road was made early in the year 1699 by Father Eusabius Kino, the pioneer missionary amongst the various Indian tribes of Pimeria Alta and Papagueria—today southern Arizona and northern Sonora. Accompanied by Commander Juan Matheo Mange, Father Adamo Gilig, and a numerous retinue of servants, Indian guides, and camp followers, together with some ninety head of pack and riding animals, Father Kino left the outlying Spanish settlements on the Magdalena River on an expedition to the distant Indian tribes along the lower Gila.

It is difficult to identify the exact course taken, even with a thorough knowledge of the region and the help afforded by the map and diary of Kino and the journal of Mange, but there is little doubt that it approximated pretty closely to the route followed by Kino upon several subsequent occasions, which in part developed into and gained unenviable notoriety a hundred and fifty years later as the dreaded Camino del Diablo.

The Kino-Mange party made their journey in midwinter, and, as they had been delayed by heavy rains before leaving the Spanish settlements, the season was undoubtedly a favorable one for crossing the desert. They traveled, under Indian guidance, first towards the north to Tubutama and Saric, then almost due west until they

dropped into the drainage of the Rio Papago, or Sonoita River. The little Indian settlement of Sonoita, which has survived as the small Mexican hamlet of the same name, was then, as it remains today, the last focus of human activity towards the northwest. Indian guides for the desert were secured at this place, water was obtained at the associated watering place of Carrizal, and the fifty-three leagues which remained between there and the Gila were safely traversed in five days.

The route forms a chord to the great arc made by the upper Altar, Santa Cruz, and Gila valleys; which was otherwise the logical route to have followed, inasmuch as water and forage for their animals would have been pretty well assured. The saving in distance was a very substantial one, however, the total mileage being some two hundred and thirty as against nearly four hundred for the longer but safer way.

There is no record available of any further use of the desert route by white travelers for many years after Kino's time; but, as Spain began to develop possessions and interests in California Alta in the last quarter of the eighteenth century, it again became a recognized line of communication between the Sonoran settlements and the western coast and began to take its heavy toll of human and animal life.

Father Garces traveled from the Magdalena settlements to the mouth of the Gila in 1772 by way of the desert and acted as unofficial guide for the expedition of Commander Juan Bautista de Anza over the same route in January, 1774. By this time the name, Camino
Del Diablo, seems to have been established and applied to the particularly hazardous hundred and fifty miles which must be traversed between Sonoita and the Gila.

Between these two points water can be found, and then in very limited quantity, at only two places, with the added possibility after heavy rainfall of a further scanty but evanescent supply at one other spot. The two more-or-less assured natural supplies are in *tinajas*, natural eroded basins in the rocky mountain sides, which serve as concentration points and catchment basins for rain water. The occasional supply is in a series of *charcos*, shallow pools, where the soil is sufficiently impervious to retain water until it is dried up by evaporation. Forage of any description is scant except for brief periods after the infrequent rains and even then is poor and unsustaining in quality.

Even to the seasoned and reasonably well-equipped desert traveler such a journey involves some serious risk, especially during the hotter months of the year, through the possible breakdown of equipment, loss or exhaustion of stock, or failure to find a supply of water at known watering places; while for those whose equipment or strength does not reach a certain rather definite standard, disaster is almost certain.

**Later Use of the Road**

It was during the period of the first great overland rush to California, beginning in 1849 and lasting through the early fifties, that travel along the Camino del Diablo reached its maximum and the loss of life became most appalling. Parties were hurriedly and inadequately organized and equipped at various points along the Texas frontier and did not realize the danger they were involved in until the small Sonoran settlements were left behind and the desert was actually surrounding them.

Various estimates have been made as to the deaths from thirst and other mischance between Sonoita and the Colorado during these few years of wild excitement; some placing the numbers at hundreds, others at thousands. The facts can never be known, but it is significant that over fifty rude graves can be counted still in one small area at the foot of the rocky chine which contains the Tinajas Altas. Numerous others can be identified along the route, in spite of the obliteration due to time, wind, and occasional torrential rains, and of the probability that the actual line of travel was several miles in width except at certain focal points such as the tinajas.

Placer gold was discovered at various places in the Colorado valley just before 1860, and another wave of excited gold seekers began to pass over the desert to reach the new camps. These travelers were mostly Mexicans from Sonora and other near-by Mexican
FIG. 2—Papago Well. The deep borehole is under the headframe, the sand pump can be seen suspended above the well casing.

FIG. 3—Tule Well. The desert guidepost in the background.
states. The loss of life was again very heavy, and in a few years the road was almost abandoned, even by these native Sonorans, as being too dangerous. The alternative route along the Gila was commonly used before the mid-sixties.

The region has remained entirely undeveloped and practically unknown from that day to this, save for an occasional mining prospect in some of the surrounding mountain ranges. The old road itself is but seldom traveled, although two wells in which water can always be obtained now exist, one at either end of the most dreaded stretch.

The International Boundary Commission, which surveyed and remarked the boundary line between the years 1891 and 1896, examined the border strip, which includes a large portion of the old Camino, quite thoroughly in the course of their work, and the description of it given in the official report merits quotation:

During the "early sixties" there was a large influx of Mexicans from Sonora to the gold diggings on the Colorado River, and an enterprising Mexican dug two wells near the road, in the Tule Mountains, built a small adobe house, and occupied it with his family for two years, for the purpose of selling water to travelers. But the deaths from thirst along this route became so frequent that the road was soon abandoned, and for over twenty years had remained unused. Having accidentally learned of the former existence of these old wells, which are not shown on any maps, arrangements were made to have them cleaned out as soon as possible. This was done by a party of Mexicans and Papagos from Sonoyta, who found them almost filled up.

These important wells are situated on the road about 5 miles north of the point where the line crosses the summit of the Sierra del Tule, and when thoroughly cleaned out yield a supply of about 500 gallons per day. The water is beautifully clear, but owing to the presence of minerals has a vile taste and is very unwholesome. Near the wells stand the ruins of the old adobe house, the only building between Quitobaquita and the Colorado River.²

At the present time only one of these two wells is in repair. It is maintained as a desert watering place by Yuma County and has one of the excellent signposts established by the United States Geological Survey placed close to it. The report continues:

The road between Agua Dulce and Yuma is for the most part very heavy, and, until the Tule Wells were reopened, no certain supply of water could be counted on between Agua Dulce and the Colorado River. This road is appropriately called by the Mexicans "El camino del Diablo." When traveling it for the first time, alone or with but few companions, it is hard to imagine a more desolate or depressing ride. Mile after mile the journey stretches through this land of "silence, solitude, and sunshine," with little to distract the eye from the awful surrounding dreariness and desolation except the bleaching skeletons of horses and the painfully frequent crosses which mark the graves of those who perished of thirst—grim and suggestive reminders when the traveler's supply of water is running low. In a single day's ride sixty-five of these graves were counted by the roadside, one containing an entire family, whose horses gave out and who, unable to cross the scorching desert on foot, all perished.

Fig. 4—Vegetation amongst rocks at Tule Tanks (principally *Elaphrium microphyllum*).

Fig. 5—A roadside grave on the Camino del Diablo.
together of thirst. Their bodies were found by some travelers during the following rainy season, and were all buried in one grave, which is covered with a cross of stones and surrounded with a large circle of stones, inside of which not a bush nor a blade of grass grows. Near by lie the skeletons of their horses and the broken fragments of their water bottles.

During the few years that this road was much traveled, over 400 persons were said to have perished of thirst between Sonoyta and Yuma, a record probably without a parallel in North America.3

The other well now existing on the old Camino is a deep bore known as the Papago Well, and this is also marked by a desert signboard. Obtaining water from it is a rather laborious process, the only means of raising it being a sand "pump," which is lowered into the bore by a winch and steel cable.

Since the development of motor transportation a few travelers use the route each year. As it follows the border closely, border lineriders are at least supposed to pass along it occasionally, although it would be well for intending desert wayfarers not to rely too much upon their presence and assistance at any given time.

For the driver of a car, the question of water has ceased to be the most serious one in desert traveling. Sand, rough surface, and cross-washes are likely to prove much more formidable; and of course the danger of breakdown when far from possible help is always to be reckoned with. It is these matters that make a journey undertaken and successfully accomplished by the late Raphael Pumpelly and some members of his family over the Camino, in the spring of 1915, the more notable. In striking contrast were the conditions of his earlier journey along the road in 1861. That journey also was successful although made in July; but his party was fortunate enough to encounter a heavy rain while crossing the Tule Desert.

Lumholtz traversed portions of the route in 1910, when engaged upon his examination of northwestern Sonora, and visited and camped at both Tule Tanks and the Tinajas Altas. He was, of course, fully prepared to encounter any ordinary desert conditions and traveled with Indian and Mexican assistants who knew something of the country. His work in this region was accomplished in winter and early spring, when the heat is not a serious factor.

An Example of Desert Thirst

During the summer of 1905 the late Professor McGee camped in quite primitive fashion at the Tinajas Altas for more than three months, gathering meteorological and other data. He records a remarkable case of what he describes as "desert thirst." A Mexican prospector, 40 years old, well versed in the ways of the desert and exceptionally strong and robust, was out on the desert to the south

Fig. 6—A general view of the Tinajas Altas (see also Figure 8).
Fig. 7—Telephotographic view of the Tinajas Altas from a distance of half a mile. A number of mountain sheep (*Ovis Nelsoni*) can be seen on the rocks.
of the Camino for a period of nearly eight days with a supply of water not more than sufficient for two days, and yet he succeeded at length in crawling back to McGee's camp at the Tinajas. Dr. McGee and his Indian helper, aroused by a hoarse, rasping, bellow, quite unlike a human voice, ran down the trail: "and on the arroyo sands, under an ironwood tree, at the foot of the Mesita de los Muertos with its two-score cross-marked graves, came on the wreck of Pablo."

He was stark naked: his formerly full-muscled legs and arms were shrunken and scrawny; his ribs ridged out like those of a starveling horse; . . . his lips had disappeared as if amputated, leaving low edges of blackened tissue; . . . his eyes were set in a winkless stare, with surrounding skin so contracted as to expose the conjunctiva; . . . his face was dark as a negro, and his skin generally turned a ghastly purplish yet ashen gray . . . his lower legs and feet, with forearms and hands, were torn and scratched by contact with thorns and sharp rocks . . . yet without trace of blood or serum.\(^4\)

In spite of his serious condition Dr. McGee succeeded, after several days, in restoring him to a condition in which he began gradually to regain his strength and weight; although the ordeal through which he had passed had thinned and whitened his hair, and he remained dazed and uncertain in speech and memory for some little time afterwards.

Dr. McGee states, with emphasis, that the mental habit of the

man was all important, and I fully agree with him upon this point. My own experience in nearly forty years of desert work and travel has taught me the same thing. Two men of nearly equal physique and strength may be lost or forced to endure prolonged exposure in the desert under almost identical conditions. The nervous and excited man will die, while the phlegmatic or "nerveless" one will survive. The ability to endure and accomplish heavy physical labor under prolonged high temperature seems to be largely a racial matter. The Mexican, especially if his veins contain some Indian blood, can commonly withstand heat, if accompanied by low humidity, that causes distress to the average negro and almost total inability to undergo sustained exertion to the average Anglo-Saxon. In the particular instance described by Dr. McGee, furthermore, the weather was unusually favorable, the sky being overcast and the temperature comparatively low for the whole period.

The Author's Experiences

Circumstances occasionally arise, in a region such as the one under discussion, which show what the combination of high temperature and heavy physical exertion—even though unaccompanied by any great shortage of water—may mean even to those who are fully inured to the desert.

The early months of 1925 were extremely dry in southwestern Arizona, and July temperatures were rather above normal. The winter of 1924–1925 had passed almost entirely without rainfall, and in fact the whole of 1924 had also been exceptionally dry. In these circumstances an examination of the vegetation and desert water holes appeared to be advisable before the beginning of the expected summer rains. I started alone from Tucson in a heavy touring car on July 22 to visit several of the desert tanks, Tule Tanks and the Tinajas Altas amongst the number, and to make a general examination of the desert along the line of the old Camino. Ajo was passed the same afternoon, and I then struck south for the Mexican border. The temperature in and about Ajo was quite reasonable for the season, being but little over 100° F.; but the following day, on getting into the Tule Desert, I found temperatures averaging 115° in the shade of the car.

The road is but seldom traveled nowadays, although an excellent log of the portion of it lying on the United States side of the border is to be found in Water Supply Paper 449. Upon approaching the northern end of the Pinacate lava field, which is flanked along each edge with belts of sand described by the compilers of the log as the most difficult parts of the road, I found that recent heavy winds from the south had not only obliterated almost all traces of the road but

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5 See footnote 1.
had produced a series of drifts and windrows of sand. Several hours of heavy labor at shoveling, cutting and laying brush in the track, and deflating and re-pumping tires were necessary before these troublesome stretches could be crossed. On this occasion the car was not equipped with any special devices for crossing sand.

This seemed a favorable opportunity for observing the combined effect on the human organism of heat, violent physical exertion, and the sparing use of water.

I think that it may be reasonably assumed that the question of environment and remoteness from any possibility of assistance did not seriously affect the situation, for it has been my habit for many years to make journeys of this description alone and often under similar conditions. I began the work about midday, with the temperature hovering around 115° at the start and gradually falling to 110° when I at last got clear of the sand at 4.15 p.m. The temperature of the water in my canteens remained at about 95°, and the water was used principally to rinse my mouth with; this is the habit of most Mexicans when at work in the hot sunshine. They drink only when resting or eating.

My pulse ranged from 78, which is about normal for a man of 64 at that temperature, to over 145, after a particularly strenuous half hour. It was not possible to take any reliable body temperatures, owing to the difficulty of working the mercury column down in the thermometer and also on account of the heated air which I was breathing. Twice during the early afternoon I approached the danger point that is almost universally recognized amongst desert workers—the sudden checking of perspiration. If this condition is not quickly remedied it is followed by collapse; but I was able in both instances to avert the danger by stretching myself out for a few minutes in the shade of the car.

I encountered more heavy sand later in the evening and also on the following morning, when working across country to visit and examine tanks in some of the surrounding mountains. This involved a good deal of deflating and re-pumping of tires although not much digging. Upon reaching the Tinajas Altas I climbed to the top of the mountain to inspect the higher tanks and again found a shade temperature of 108° at noon, with every indication of an increase. The Tinajas were almost dry—only two of the nine holes containing any water at all and these only some few gallons.

The net physical result of this journey was a temporary loss of fourteen pounds in weight, from 168 to 154, and some slight digestive trouble due, as I think, to eating some very doubtful canned food.

I again essayed the journey alone over the old road later in the summer, after some particularly heavy and torrential storms. Upon this occasion, however, my car was equipped with "sand treads" for
FIGS. 9 and 10—Country through which the Camino del Diablo passes. Figure 9 is a view of Cabreza Prieta, north of the road. Figure 10 is the Pinacate lava plain to the south.
the wheels, which made deflation unnecessary. Roads were badly washed throughout the region, and some little digging was needed here and there in order to cross gullies and small washes. No other vehicle had passed along the road in either direction since my earlier trip; but, although the sand was soft in some places, the late rains had made it much more passable. The trouble now was to distinguish the road. The temperature was down into the nineties and hence quite tolerable.

Road conditions became steadily worse as I approached Tule Tanks, and I was obliged to shovel out several passages through deep arroyos. At last a point was reached from which the Tinajas Altas could be plainly seen across the intervening desert, but all traces of road had disappeared; and a reconnaissance on foot, extending over a radius of about three miles, at length convinced me that fully two days of single-handed digging and rock moving would be necessary before I could get clear of this plexus of trouble. I therefore reluctantly made my way back to Papago Well and then turned northward across some exceedingly sandy country to the little settlement of Mohawk on the Southern Pacific Railroad.

As a postscript I may add that a party of prospectors or other interested wayfarers succeeded in opening up the road a few months after this journey, and a little later my son also drove a car through with one companion. I have myself followed the greater portion of the old road twice in the last summer during my periodical inspection of the seasonal rain gauges that I have in commission in the region.