

# The SMOKE SIGNAL

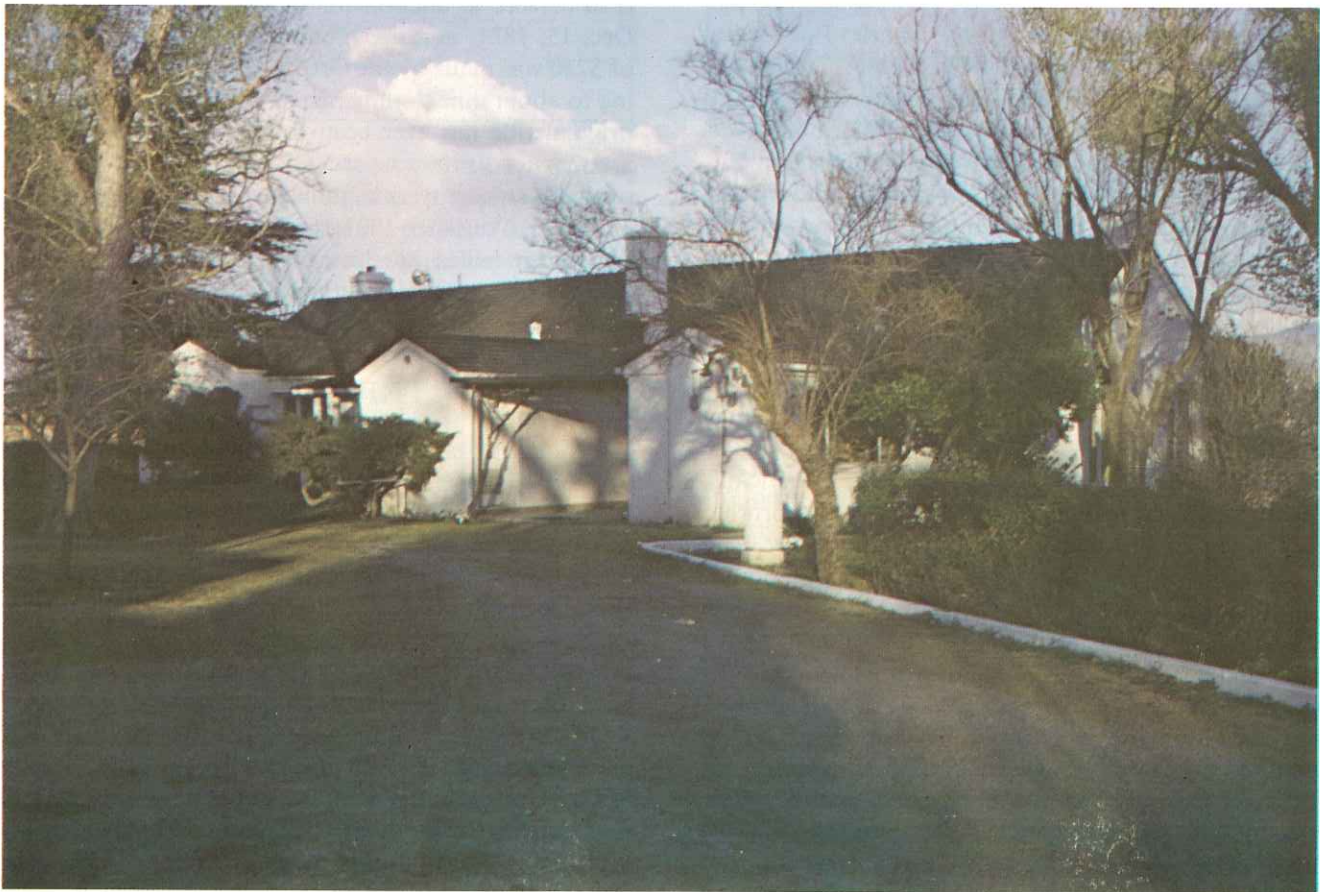
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## LA CANOA: A Spanish Land Grant Lost and Found

by RICHARD R. WILLEY



*Main house of the Canoa Ranch as it appeared in 1977.*

THE FANTASTIC LAND CLAIM OF JAMES A. REAVIS, THE "BARON OF ARIZONA," and the dramatic motion picture of the same name, both brought public attention to the complex and devious problems which arose from Spanish and Mexican land claims in what is now U.S. territory in the Southwest. The Reavis-Peralta episode was an exquisitely planned fraud (Powell 1960), but there were dozens of additional land claims made under Spanish law which posed other intriguing problems to those who sought them and to the U.S. court which ultimately had to settle them.

The San Ignacio de la Canoa claim of more than 17,000 acres along the Santa Cruz valley of south-central Arizona was, in a sense, "lost" for more than a century. It was one of the few Spanish grants finally to gain U.S. recognition. But the meager literature on the Canoa completely overlooks the fact that the land grant made to Ignacio and Tomás Ortiz in 1821 for four *sitios* was by no means the same as that finally recognized by the United States Court of Private Land Claims in 1899 (Mattison 1946:294-297; Wagoner 1977:166-172). Nor does it appear that the Court was ever aware of the change in location by several miles of the grant it had approved. The carefully surveyed bounds of the original grant became lost amid the errors and arrogance of the later U.S. surveyor whose work led to official acceptance of the claim, but in the wrong place.

The Canoa claim was laid out in 1821 from "the place of the Canoa," a point on the Santa Cruz River mentioned by padres Pedro Font and Francisco Garcés, and by Raphael Pumpelly, John Spring, Charles Poston and other travelers of the trail between Tucson and Tubac (Font 1931:26; Garcés 1968:16; Pumpelly 1965:24; Spring 1966:53-55, 161; Poston 1963:93-95). Canoa was a site that would become known in the 1850's and 60's for its lumber camp, its frontier inn, an Apache massacre, and finally in this century for its prosperous and progressive ranch, a synthetic rubber plantation that failed, and the contemporary retirement community of Green Valley.

The original grant was made to Tomás and Ignacio Ortiz, sons of Augustín Ortiz who in 1812 had settled on land west of Tubac at Arivaca. Tomás was born in Tubac in 1792. He died at the age of 85 shortly after completing sale of the Canoa to two Americans, Frederick Maish and Thomas Driscoll. His brother Ignacio was an enthusiastic prospector and miner, said to be knowledgeable about all the mines of Sonora. Ignacio was a member of a convention in Tucson in 1856 held to promote territorial status for this new area of the United States. The following year he was killed by Papago Indians as he returned from a trip to California with C.D. Poston.

In 1820 the Ortiz brothers initiated their claim to the Canoa according to the prevailing Spanish and, subsequent to 1821, Mexican land law. This required that the land be surveyed and valued according to its agricultural quality and the availability of water. Contrary to modern popular belief, the Santa Cruz River was not a continuously flowing stream even during the early part

of the 19th century. The valley between Tubac and Tucson was described by Ignacio Elías Gonzáles in 1821 as "an area that contains a wide plain, through the middle of which runs the river of this military post (Tubac), although without water, because of its many sandy places which interrupt its flow at a distance of a half a league from the post . . ." But at one location, La Canoa, it was known that water could always be found by digging down only a short distance. This was the spot at which Captain Juan Bautista de Anza, Font, and Garcés camped on Oct. 23, 1775 on the first night of their memorable journey from Tubac to the Pacific Ocean.

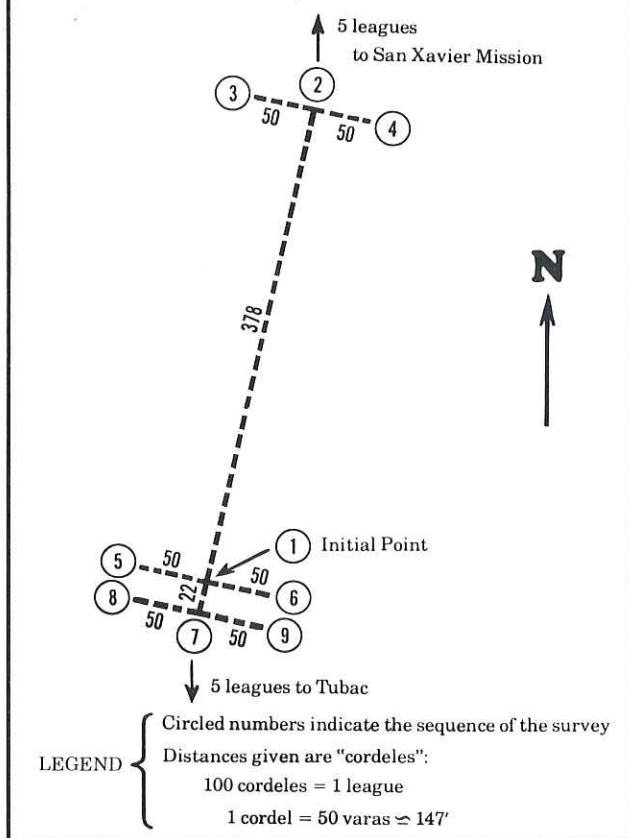
Because there was no surface water dependably available on the lands surrounding La Canoa, it was appraised at 30 pesos per *sitio*, rather than the 60 or more pesos customary for land with dependable surface water. The claim was duly advertised for thirty days and then offered at auction for three consecutive days. On Dec. 15, 1821, in Arizpe, Sonora, a final successful bid of \$250 was made by the Ortiz brothers, a price amounting to about nine dollars per section. But no copy of an original title has ever been found. According to some accounts, no title was issued because of the overthrow of the Spanish government in Mexico in 1821 (Mattison 1946:296; Wagoner 1977:168); or the title may indeed have been issued but later lost in a fire in Tubac, as claimed by an Ortiz heir during later litigation (Wasson 1880 a).

## THE SURVEYS

Let us examine how the original survey was conducted. For this purpose we must turn to the detailed description by Elías contained in the earliest known title document, a *título* obtained by the Ortiz brothers in 1849 from Ures, Sonora, which confirmed the grant made to them in 1821. Later copies of the 1849 *título*, such as that appearing in the 5-volume *Journal of Private Land Grants*, contain many small but significant discrepancies from the original text (see JPLG vol. 1:347-349 and 374-377). According to the *título*, the survey was carried out personally by Ignacio Elías Gonzáles, commander of the military post of Tubac, commencing from "el paraje (place) de la Canoa" and proceeding serially to the points numbered in Fig. 1.

Remarkably accurate measurements were achieved using a stretched and twisted rope of 50 *varas* length and, by inference from other data, a magnetic compass.

Fig. 1  
CANOA LAND GRANT  
Plan of the 1821 Canoa Grant Survey



The exact length of the official *vara* prevalent in Mexico at this time has been debated, but it appears to have equalled 32.9927 inches; a *cordel* equalled 50 *varas* or 137.47 feet. One hundred *cordeles* equalled one league, 13,747 feet. A *sitio* was one league square, containing 4,338.46 acres. Minor variations in the *vara* were, however, widespread and have provided vexing problems to modern surveyors (Wattles 1964:131-132).

A magnetic compass was carried by Font on his second expedition through the Canoa as early as 1775 (Font 1931:xii). Use of magnetic compasses by the surveyors of other early Spanish land claims is mentioned explicitly, though very incidentally, in the *Journal of Private Land Grants* in connection with surveys as early as 1807 (Calabassas-Tumacácori) and again in 1827 (Buena Vista), 1828 (Babocomari) and 1841 (Nogales de Elías). While a compass is not explicitly mentioned in either of the surveys carried out by Ignacio Elías Gonzáles in 1821 (the Canoa and San José de Sonoita), Elías' status on the frontier, the care with which his surveys appear otherwise to have been carried out, and the documented prior use of compasses permit us to infer that he most probably had and used one (JPLG 1878).

Points 1, 2, and 7 in Fig. 1 of the Canoa survey lay on the generally N-S *camino real*, the first highway be-

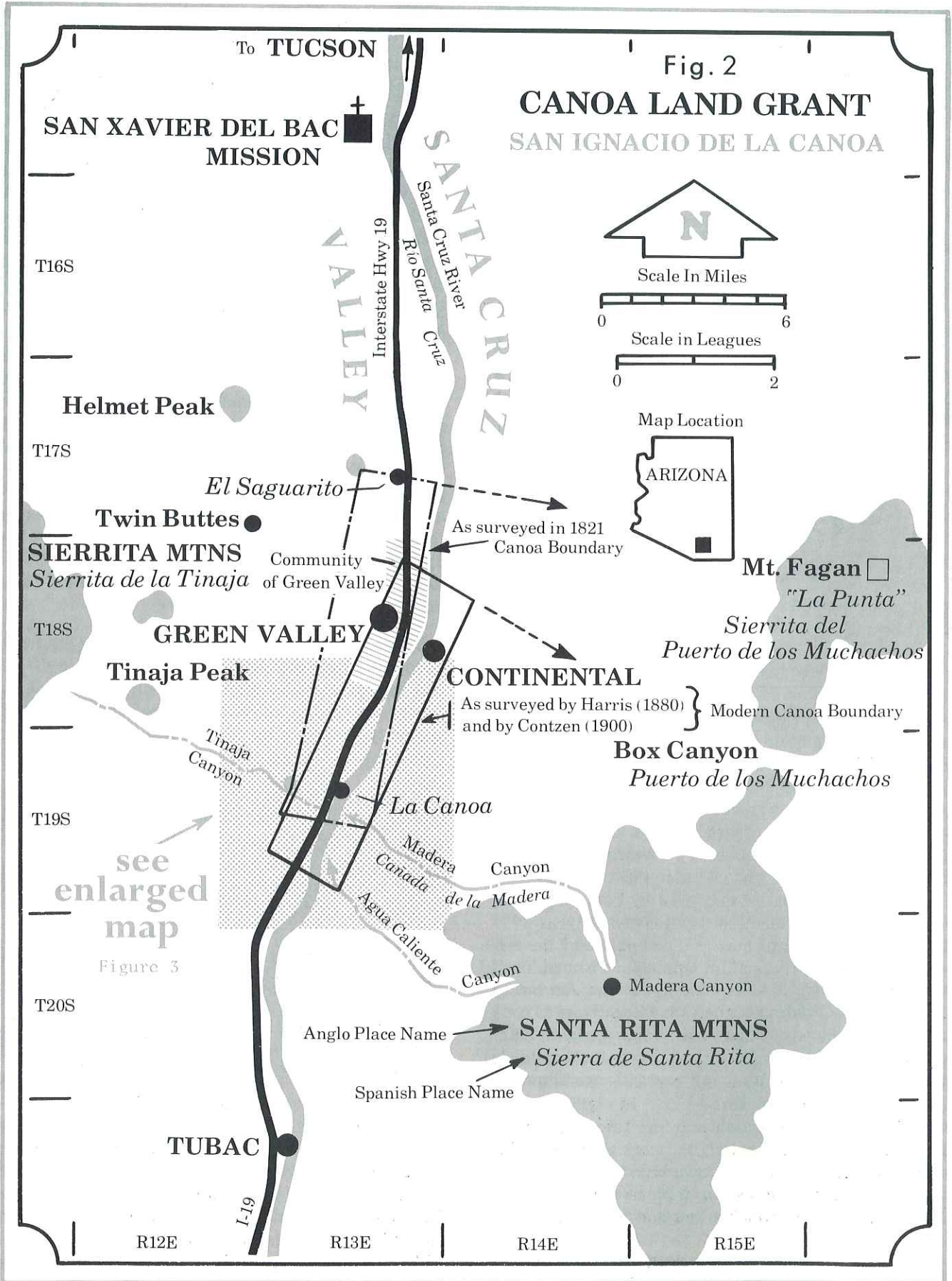
tween Tucson and Tubac; points 5, 3, and 8 were fixed by Elías by measuring 50 *cordeles* westward respectively from the points on the road; points 6, 4, and 9 similarly to the eastward. The north boundary adjoined the lands of the San Xavier Mission, the south boundary abutted the boundary line of the Tubac military post. The area of the grant was four leagues (400 *cordeles*) by one league (100 *cordeles*), or 17,353.84 acres. This was the grant accorded the Ortiz brothers in 1821 and for which the later owners of the grant, Maish and Driscoll, claimed recognition by the U.S. government in litigation lasting from 1879 to 1899.

As a prelude to legal consideration by the United States of the Canoa claim, John L. Harris, a U.S. deputy surveyor under Surveyor General John Wasson, was directed to map the claim to establish its precise boundaries. This he did in 1880, producing a survey which must stand as a monument to incompetent land surveying in Arizona history. Although clearly purporting to reconstruct the claim from the 1849 Mexican title description, Harris ignored the original starting point of the survey, established new and arbitrary N-S and E-W boundaries on bearings and in places unrelated to the original ones, while commenting without apology throughout his field notes that he was unable to locate *any* of the identifying land features or the earlier title description (Harris 1880).

Let us consider first some of the prominent discrepancies between the description of the Ortiz claim of 1821 and that of the land grant shown in Fig. 2 as it was finally accorded to Maish and Driscoll in 1899 and subsequently shown on modern USGS and other maps of the area:

**The Initial Point.** The starting point of the 1821 survey was described as "el paraje de la Canoa," a point that was apparently well known to travelers of the Santa Cruz valley during the 19th century. It was a point on or within a few yards of the *camino real*. It was a place where water could be obtained at any time by shallow digging even when the river was dry, and a frequent stopping place along this frontier route. By contrast, Harris in 1880 located the Initial Point of his survey close to the Santa Cruz River channel but at a place where the Tucson-Tubac road was a third of a mile away, and where there are no map or other historical references to a water source or camping spot.

**Northwest Corner.** The Spanish of the 1821 survey clearly states that the northwest corner monument of the claim was placed on a lone hill of black rocks whose slopes were covered with palo verde and saguaros, and to the right (north) of which was a smaller hill. Actual field inspection today of the corner established by Harris in 1880 reveals that it is on substantially flat land with no distinguishable hills within 3 miles in any direction.



drawn by Don Bufkin

*Southeast Corner.* The 1821 survey places this corner on a rocky tableland along the bank of a *cañada* called *la madera*, the Madera Canyon outflow. The 1880 government survey placed the present southeast corner along no streambed but nearest to Agua Caliente Canyon, more than 2½ miles away from the Madera Canyon drainage.

*Southwest Corner.* The 1821 survey describes this corner as "on some hills." The present day corner established in 1880 is low in a streambed surrounded by higher ground.

*Bearings of North and South Boundaries.* The north and south boundaries as laid out for the Ortiz claim were surveyed to run "east" and "west," presumably along magnetic bearings. The later survey placed these two lines on bearings more than 30° off of true E-W and about 17° off (present day) magnetic E-W. The original north boundary was clearly described as aligned with the *punta* or headland of the *Sierrita del Puerto de los Muchachos*, the northern portion of the modern Santa Rita Mountains. The north boundary of Harris' aligns with nothing conspicuous.

## RECONCILING THE SURVEYS

The true magnitude of the discrepancies between the two surveys can be fully appreciated only by going into the field with the original Spanish text of the metes and bounds and actually examining the terrain and the location of conspicuous hills, *cañadas*, and flatlands. The discrepancies seemed far too great to attribute to the effects of erosion, changes in vegetation, or even to inaccuracies in the use of the 1821 measuring rope or compass. The problem then was to determine why the original Spanish description did not seem to fit the actual terrain, and to see if perhaps there were some other location, another set of boundary points, another set of bearings, which might offer a better fit to the century and a half old Spanish text.

Modern topographic maps were helpful but they do not show the subtleties of land forms necessary to reconcile text and terrain. It would clearly be necessary to spend considerable time in the field sighting from various hilltops, testing different boundary lines, and hoping for some remaining traces or markers left by the Spanish survey party of 1821. Or could the Spanish survey really have been so poorly executed as to make its reconstruction impossible?

Several days were spent reconnoitering the principal features of the modern land grant. Unfortunately there was no convincing trace of the old *camino real*. Worse, the Santa Cruz River channel is known to have shifted many times. After several unproductive experiments, it seemed plausible to concentrate on Elías' description of the southeast corner of the Canoa claim which should lie along a *cañada* called *la madera*. Was this likely to be

identical with the Madera Canyon of modern maps? In Fig. 2, if we were to shift the land grant to the north far enough to place the southeast corner on the bank of the Madera Canyon wash, and then rotate the grant area slightly counterclockwise . . . .

Now the northwest corner of the grant is indeed at a unique lone *cerrito*, conspicuous by its black rocky slopes which are still today covered by palo verde and the skeletons of the last saguaros to survive. (The Spanish *título* makes reference in various places to *sierras*, *sierritas*, *cerritos*, and *lomas*. At first glance these Spanish words for mountains or hills appear to have been used indiscriminantly. Closer study reveals that surveyor Elías had a remarkably accurate concept of the relative heights of various peaks in this area, using the above terms in order from highest to lowest mountains.) A smaller hill, now quarried for rock, lies 900 yards to the north.

The Initial Point now falls at the site of the oldest known well in this area, a well which continued to play an important role in the history of Canoa even into the 20th century. It is on the west bank of the Santa Cruz River channel, about 250 feet east of a point marked on later maps as the Canoa House, and just across the riverbed from the probable location of the ill-fated lumber camp and of the inn which was to be the site of an Apache massacre (Spring 1966:53-55; Barney 1933:12-14; Poston 1963:93-96; Lockwood 1938:109).

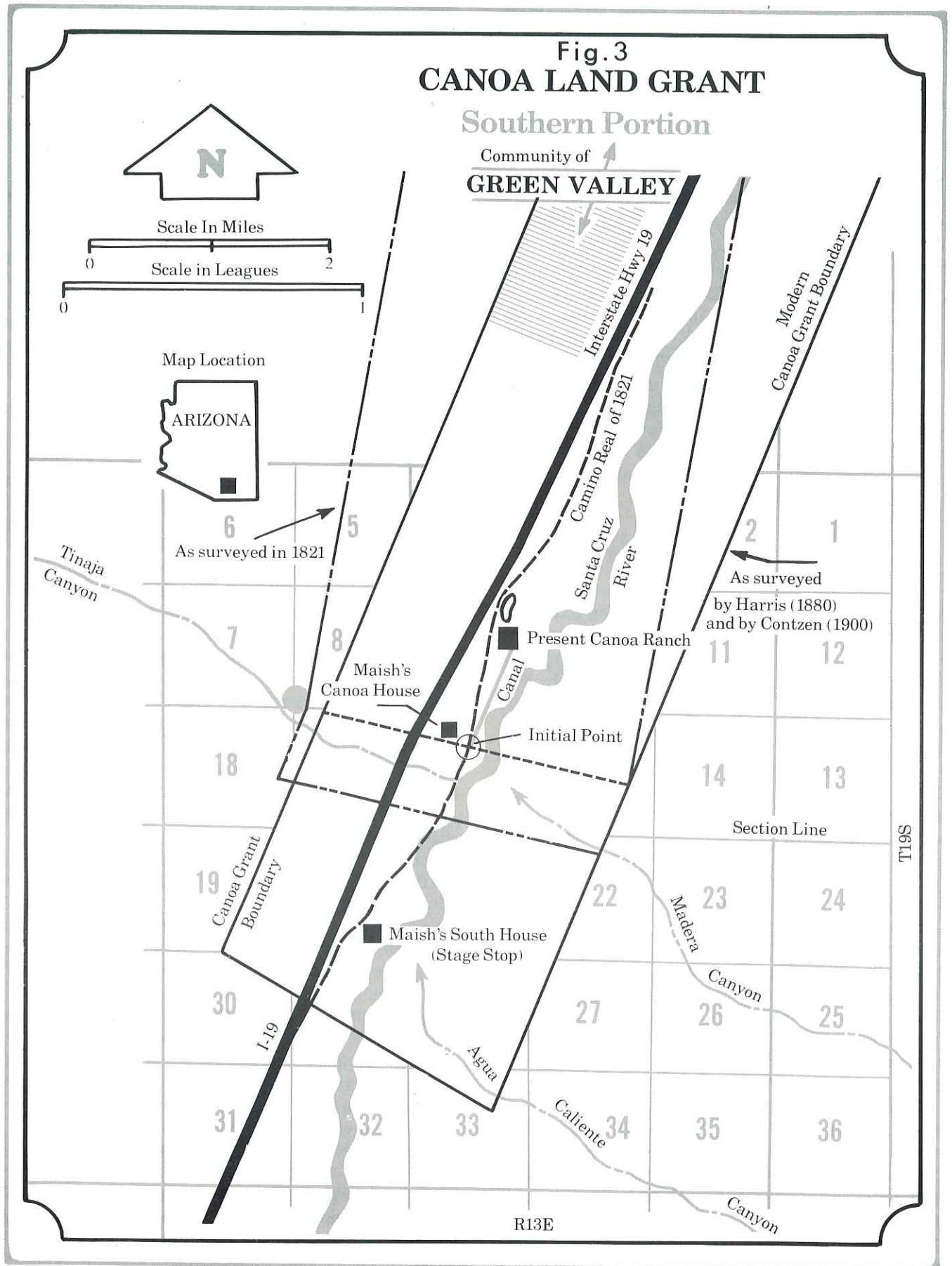
The clear remains of stone cairns consistent with the positions of those erected by Elías can still be found at the correct locations for the east and west center boundary points (points 5 and 6 in Fig. 1), although there is admittedly no way to determine the authenticity of these markers. Remains of a third cairn can also be found at a critical position along the west-center line (1-5 in Fig. 1) precisely at the only spot from which a surveyor could see both ends of that line. The line of sight eastward along the north boundary is within two degrees of Mt. Fagan, the northernmost peak or *punta* of that portion of the Santa Rita Mountains which had been known during the time of the Elías survey as the *Sierrita del Puerto de los Muchachos* (Mountain of the Pass of the Children). Other points described in the 1849 Spanish title agree strikingly well with the actual terrain.

Even more convincing are the bearings of the reconstructed north and south boundaries of the old survey. They lie 12° off true E-W. According to Ives the magnetic declination of the Tucson area in 1821 would have been very close to 12° east, suggesting that surveyor Elías used his magnetic compass with commendable precision (Ives 1975:174-176).

Observe also the distances of the north and south boundaries from San Xavier Mission and from Tubac respectively (Fig. 2). Traditionally a certain area of land surrounding both missions and military posts was assigned to those jurisdictions. Now the actual road distance between the Mission and Tubac is about 35

# Fig. 3 CANOA LAND GRANT

## Southern Portion



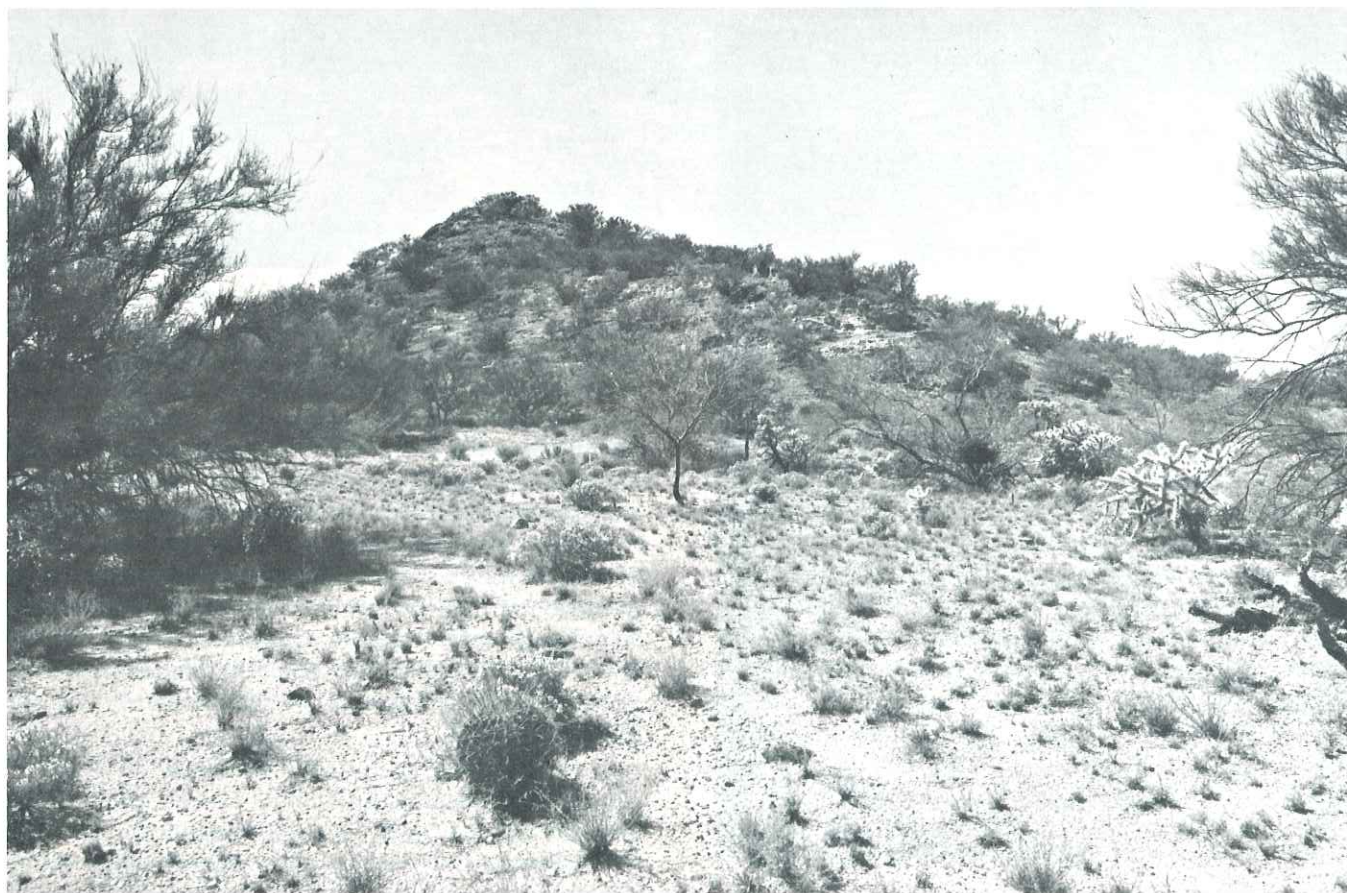
miles or a little under 14 leagues, the precise figure reported by Father Font in 1775 (Font 1931:26-27). Since the southern boundary of the San Xavier Mission land was stated in the Canoa survey to be 5 leagues from the Mission, and the Canoa claim was 4 leagues long and adjoined the Tubac land on the south, then the boundary of the Tubac land must also have extended north about 5 leagues from that outpost. In other words, the Canoa grant was essentially centered between Tucson and Tubac. (Earlier authors, misled by incorrect translations of the survey, have stated that the Canoa grant bordered the land of the Mission *for five leagues on the west*. This is geographically impossible. Correct idiomatic translation of the original Spanish makes clear that the claim *adjoined* the Mission lands *at a distance of about 5 leagues*.)

It may first seem curious that the sum of the distances measured from the Initial Point at La Canoa to the Mission boundary on the north and to the Tubac boundary on the south should so precisely equal 400 *cordeles*, i.e. the 4 leagues required for the Canoa claim. Elías clearly knew the distance between Tubac and the Mission to be about 14 leagues. He astutely measured north from La Canoa first, arriving in 378 *cordeles* at a point on the road known as *El Saguarito* (not to be confused with the

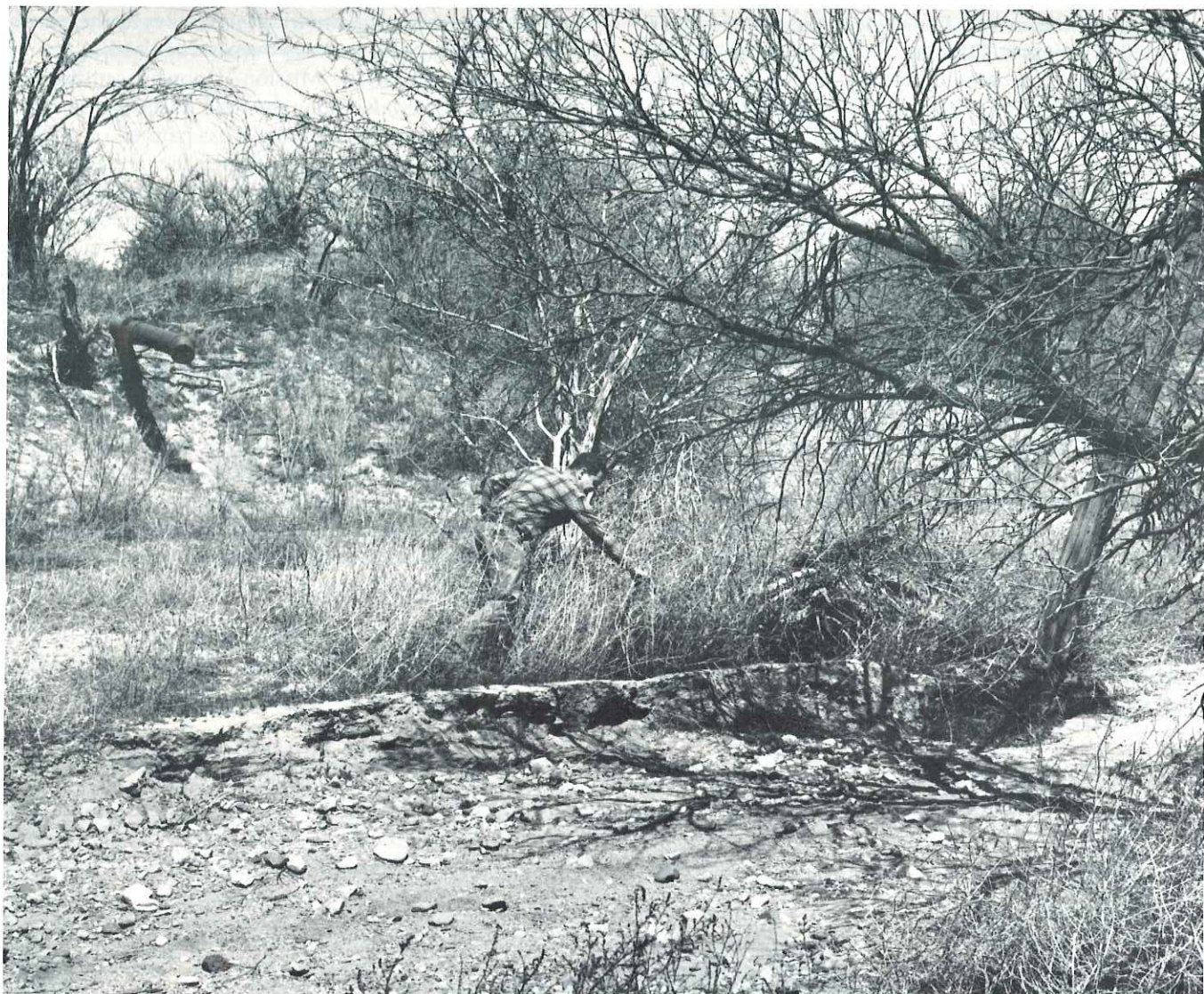
present-day town of Sahuarita three miles to the northeast) which appears to have been recognized as the 5-league boundary of the Mission. Upon measuring the additional 22 *cordeles* along the road to the south, Elías states that he himself ordered a cross painted on a mesquite at that point, suggesting that the *precise* north boundary of the Tubac presidio land was not previously marked. Since Elías at this time was commander of the Tubac presidio, it would be quite reasonable and appropriate for him to establish the boundary between the Canoa claim and the presidial lands in this way when the need arose.

The 1880 survey of the Canoa, however, had the conspicuous effect of unequally placing the north boundary of the claim approximately 15 miles from San Xavier and the south boundary only 10 miles from Tubac. If we use the verifiable landmarks described in the original Elías survey however, the north and south boundaries of the original grant turn out to be approximately 12 road miles from each of Tucson and Tubac respectively, and therefore completely consistent with the 1821 survey plan.

It now becomes possible also to explain a small discrepancy of 145 acres between the area of the claim implied by calculation from the original survey for the



*The northwest corner of the Canoa Land Grant as surveyed in 1821, "a lone hill of black rocks whose slopes were covered with saguaros and palo verde." (Photo: James Honcoop.)*



*The original site of La Canoa, looking northwest, near which Anza, Font, and Garces camped on Oct. 23, 1775. This was the starting point of the original Spanish land grant survey made in 1821. Later development of the well during the 20th century permitted water to be pumped through the pipe at the left into a large impoundment for irrigation use. (Photo: James Honcoop.)*

Ortiz brothers (4 *sitios* = 17,353.84 acres) and that finally approved by the Court of Private Land Claims (17,208.333 acres). The precise geometric shape of the 1821 Canoa land grant was determined by measuring east and west from three key points along the *camino real*: La Canoa, El Saguarito on the north, and a mesquite tree at the south boundary on which Elías painted a cross. Elías appears to have assumed that his magnetic E-W survey lines were in fact perpendicular to the alignment of the Tucson-Tubac road and, therefore, that he had laid out a true *rectangle* of 4 *sitios*. As it turns out, for most of the length of the grant his assumption appears to have been correct to within about 2°, an error too small to have an appreciable effect on calculation of the acreage included. (In fact the three key points do *not* lie exactly on a straight line because the 22 *cordeles* of valley south of Canoa to the mesquite tree lie in a

slightly more SW-NE direction than the more N-S line joining Canoa and El Saguarito. As a consequence, the southernmost portion of the resulting “rectangle” of land which Elías defined as the Canoa claim had a slight dog-leg in it as shown in Fig. 2.) Harris, on the other hand, found that his E-W and N-S boundaries missed being perpendicular by 7°; accurate calculation of the area of the *parallelogram* which he had surveyed reduces the area of the claim by approximately the 145 acres in question.

If one measures in the field the locations of the 9 points which demarked the 1821 Canoa claim, it becomes possible to make a determination of the most probable length of the measuring rope actually used by Elías in his survey. The land grant appears to have been very close to 2.78 miles in width by 11.1 miles in length. This would imply that the length of this particular



“stretched and twisted rope” of 50 *varas* must have been very close to 147 feet. This figure is about 6.9% longer than the commonly recognized measure for 50 *varas* of 137.5 feet, but it is probably well within the range of actual frontier usage. Perhaps the fact that one of the claimants, Tomás Ortiz, was surveyor Elías’ son-in-law had a positive influence on the length of the rope!

According to the 1849 *título*, Elías and his surveying party completed the survey from points 1 to 6 in a single day, July 10, 1821, and the remainder of the survey the following day. The minimum distance they would have had to travel that first day was therefore 1156 *cordeles* or 30.1 miles. They were, of course, measuring distances and bearings only on each outbound segment, but 15 miles would be an impressive feat of surveying even by today’s standards. The title document to another land grant, the El Paso de los Algodones surveyed in 1838, describes the procedure by which so much land could be surveyed in one day. Wooden poles at the ends of the measuring rope were long enough to reach the ground when carried from horseback. Using the long poles to scribe marks in the road, two riders could advance quickly making one mark after another (JPLG 1878: vol. 1, 484; vol. 2, 30). On July 10, there are over 15 hours of daylight. Much of the distance covered was along the well-traveled *camino real*. Thus the feat of surveying 15 miles in a day was quite possible.

## HARRIS’ ERRORS

How could Harris in 1880 have made so gross an error in the survey of what must have been a rather important land claim settlement? Admittedly, civilian surveyors like Harris deputized by the U.S. Surveyor General to carry out frontier land surveys may not always have been the most skilled in their trade. Harris carried out his contract to survey the Canoa between March 17-26, 1880, and was compensated for his work at the rate of “sixteen dollars per mile, for every mile and part of a mile actually run and marked in the field, random lines and offsets not included” (Wasson 1880 b).

In Harris’ original field notes detailing his survey plan and procedures, he repeatedly observes that he was unable to find any of the stone markers or crosses left by Elías some 59 years earlier. He even recognized that his northwest corner did not lie on the lone hill called for in the title document, but he rationalized that “if this line [Harris’ north boundary] were projected thence it would in course of a mile run over a solitary hill with many black rocks, and on its side there is a very low narrow hill.” Unfortunately there is today no hill whatever within three miles of his north boundary extended, nor any evidence that any earlier hill has since disappeared.

Harris appears to have made three major mistakes. First, in his field notes he indicates that he accepted two

markers which were simply pointed out to him as original corner monuments from which to commence his survey:

Going then to the ground and making careful inquiry and personal investigation, I find that the site of San Ignacio de la Canoa is unknown. But I am shown two mounds of stone on the E. and W. sides of the Santa Cruz Valley respectively in the vicinity of the well known Canoa Rancho, and which are claimed as the E. and W. termination of the S. boundary of the claim. The mounds are old, and after trial by measurement of other points of the claim in connection with a line between these two mounds, I conclude that they are original and meant to mark the S. boundary of the claim; . . . (Harris 1880:3-4).

These markers he determined to be 403.28 chains apart, though he knew well that the south boundary had been laid out as 100 *cordeles*, which would equal 208 1/3 chains. Thus he accepted at the outset a discrepancy of almost 100% in determining a location for his first boundary line.

Second, Harris evidently started the survey with the firm preconception that the original claim *must* have straddled the Santa Cruz River and thus should have embraced more or less equal amounts of land on either bank. In the face of the original explicit description of Elías having used the *camino real* as the centerline of the survey, Harris states:



Cover page of the earliest known title to the San Ignacio de la Canoa Land Grant, issued in Ures, Sonora, to the Ortiz brothers.

Now from the description of the original measurement of the claim it would seem that the main road was a sort of center line northerly and southerly through the claim. But this could not have been the case as the main road is on the extreme W. side of the valley nearly the whole length of the claim, and using it as a center line would lay the center of the claim on the W. side of the valley with the W. half of the claim almost entirely out of the valley while the E. line of the claim would exclude certain portions of the bottom lands of the valley . . .

In the meantime, and to arrive at just conclusions, I . . . establish the true length of the claim and its true course northerly to maintain its center approximately in the center of the valley . . .

So in the absence of other definite points, it would seem consistent with the spirit of the original locations to . . . lay it equally over the valley to the northward, eastward and westward to the extent of its measurement. (Harris 1880:4-8)

Harris failed to recognize the considerable wisdom that evidently went into the original choice of land by the Ortiz brothers. Early settlements and ranches were predominantly on the west side of the Santa Cruz River channel in deference to the Apache hazard from the east. Given a choice, one would not care to have one's livestock or homestead on the more vulnerable east side of this intermittent river. In addition, the road was on the west side for all or most of the length of the claim, and access to the road was certainly more vital to a settler's success and survival than his access to a usually dry riverbed.

It is possible that Harris was encouraged also to displace the claim to the south to avoid the additional complications which could have resulted from the overlapping mineral claims which were being filed during the 1870's near the original north boundary of the Canoa.

Finally, Harris viewed the knowledge and skills of previous generations with the same condescension as we are prone to do today. In his field notes of this survey, Harris gives his own assessment of his Mexican predecessors' work by commenting ironically that "the measurements [of the original boundary], like most of these old measurements, was very bad." In fact, the compass bearings of the 1821 survey appear to have been accurate within about a degree, and it appears from this study that even today we can locate within 150 yards or less each of the points measured more than 150 years ago with the twisted rope of 50 *varas*. By comparison, U.S. deputy surveyor Harris defined for posterity a land claim whose boundary bearings were each 13-18° off and each of whose corners were in error by 1½-3½ miles.

## MAISH AND DRISCOLL AND THE LEGAL CASE

Frederick Maish and Thomas Driscoll acquired title to the Canoa from the Ortiz heirs by a deed dated Nov. 18, 1876. Despite early adversities, they began to stock the Canoa with cattle, and to collect the documents and

affidavits needed to support validation of the Canoa claim by the U.S. government.

While little is known about Thomas Driscoll, his partner Fred Maish and the firm of Maish and Driscoll were destined to become well known in southern Arizona. Maish was born in York County, Pennsylvania, on Oct. 12, 1834. He came to Arizona in 1869 at the age of 34, and the partnership with Driscoll came into being shortly afterward. Starting with 400 head of cattle brought north from Sonora, Maish and Driscoll rapidly increased their holdings of both land and livestock. In the 1890's, letterhead of the firm of Maish and Driscoll proudly announced that the owners were "proprietors of the Canoa, Fresnal and Deep Well Ranches, and Canoa and Buena Vista Land Grants" (Maish, F.). It was during the 1870's and 1880's that cattle herds increased rapidly throughout Arizona. Indeed it was the overstocking and overgrazing of the best Arizona rangelands during the last quarter of the 19th century that resulted in the disappearance of much of the original vegetation and in the subsequent erosion and degradation of what had once been excellent range (Wagoner 1961).

During the same period in 1875, Maish built Tucson's first hotel, the Palace, on Meyer Street. Later patrons of the hotel were encouraged to visit the roadhouse and family resort at Silver Lake just south of town in which Maish and Driscoll appear also to have had an interest. In 1890 Maish became Tucson's twelfth mayor, but resigned the post in 1892 during his second term. He died in Tucson in 1913 having left his mark on more than four decades of Tucson history.

To establish their claim to the Canoa, Maish and Driscoll filed an initial Petition of Claimants with Surveyor General Wasson on Sept. 1, 1879, and in February 1880 Wasson recommended to the Congress approval of the claim. At the same time he authorized the Harris survey of the property. There were many such claims being heard in the ensuing years, some well supported, others of dubious merit. Hearings on the claims dragged on and the procedures for settling them were argued and occasionally altered (Bradfute 1975). Many factors led to delays and complications in the hearings: Had the original Spanish and Mexican *intendentes* had the legal authority to make grants of land? How was their authority altered by Mexican independence in 1821? Had each of the land grants in fact been occupied in accordance with the terms of the grants? Many title documents and other records were in Mexico, some had been lost: Were the copies obtained from Mexico valid? Were the signatures authentic? The boundaries of some claims were vague, others were clearly fraudulent. Could a claimant petition the U.S. government for land in addition to the original Spanish claim if the additional land had been occupied in the interim? Were the English translations of all the docu-



*Frederick Maish (1834-1913), a prominent Tucsonan who, with Thomas Driscoll, owned the Canoa Land Grant after 1876. Maish was the mayor of Tucson from 1890-1892. (Photo: Arizona Historical Society.)*

ments accurate? For years Congress failed to act on the claims. In 1893 the Canoa claim was referred to the U.S. Court of Private Land Claims.

In reviewing such land claims, it was not unusual to consider as part of a claim "overplus" land, acreage outside the original surveyed boundary but which the claimant had effectively occupied with livestock or other ranching activities for a period of years. Two maps were introduced into the Canoa hearing, one dated March 1, 1893, surveyor unknown, and one of November 1893 by Ignacio Bonillas, both supporting a claim by Maish and Driscoll for almost 47,000 acres. Both these maps and the accompanying testimony are particularly curious. After assuring the court of his credentials as a surveyor, Bonillas stated that he was able to locate all the *original* monuments except one from the 1821 survey, monuments which Harris had been unable to locate in 1880. Bonillas' map then identifies and connects these original points in a 6-sided polygon which he represented as now embracing a claim of almost 47,000 acres, rather than the original 17,208

acres! The other (unidentified) map shows boundaries for both the larger and the smaller claims, but again associates the known boundary markers with the over-plus claim. Curiously, Bonillas' testimony employs only word descriptions of the boundary points exactly as these were described in the 1849 *título*, rather than the more personalized descriptions one might expect from a man who claimed to have actually found these points in the field 72 years after they were originally described by Elías. The discrepancies in Bonillas' map make it appear unlikely that he ever went into the field to make the "survey" he submitted to the Court. Indeed his testimony suggests deception or outright perjury. Nonetheless a Mandate dated October 1897 awarded 46,696.2 acres to Maish and Driscoll. This order was reversed however in May of 1898, and a final award of 17,208.333 acres, as surveyed by Harris, was confirmed on Feb. 15, 1899 (see Wasson (a) microfilm). This closed the matter legally and made the Canoa one of the few claims in southern Arizona to be accepted by the United States.

## THE CANOA, YESTERDAY AND TODAY

Let us now traverse the length of the Canoa, north to south, comparing the mid-19th century sights along its length with those of today. For the hearty of today, such a trip can most advantageously be made on foot, although some of the key landmarks can be identified from Interstate 19.

A traveler about to head south from Mission San Xavier del Bac should pause a moment at the front doors of the imposing White Dove of the Desert. He might note that while most present-day roads in the vicinity of the Mission are on precise E-W and N-S bearings, the road south from the Mission entrance has a bearing of 175° and today disappears into the desert in less than two miles. Mission records provide no explanation for the 5° deviation from true south of the principal approach to that historic structure. But if we extend the present road on its 175° bearing for 12 miles (5 leagues), it precisely intersects the point El Saguarito, the center of the north boundary of the original Canoa land grant survey. From as far as seven miles south of the Mission along this line, it is possible today to see the Mission towers. The terrain is substantially level from the Mission to El Saguarito and it is most probable that early travelers would have struck an essentially straight course from one to the other. Later, after the Gadsden Treaty, the road between San Xavier and El Saguarito faded in importance as attention shifted from the frontier mission church to the growing town of Tucson. By 1871-2 there is survey evidence that the road had been shifted to the east.

The roadways of this period can be located precisely from the notes of the government surveyors who first laid out townships and sections of land in those years.



*The Canoa Canal in 1925. Water flowed north to this point from seven artesian wells at the site of the original La Canoa. (Photo: Progressive Arizona 1925, 1, #4.)*

These surveyors recorded their crossing of every significant roadway, noting its location to one-tenth of a chain. Thus it is possible to establish at one mile intervals (the section lines) the precise location of most of the Tucson-Tubac road during this period.

El Saguarito was still shown on a crude map by Biertu in 1861; it now lies in a subdivision of desert homes. The lone hill of black rocks and palo verde that Elías established as the northwest corner of the land grant is clearly visible between two modern-day *mesas* of mine tailings. The northeast corner of the old grant lies in a pecan orchard near the west bank of the Santa Cruz River channel.

As we travel south, the level land between the riverbed and the foothills to the west narrows. The *camino real*, State Highway 89, and Interstate 19 converge as we pass the sprawling retirement community of Green Valley and the tiny village of Continental, a mile to the east.

A few miles farther south is the present Canoa Ranch headquarters. Here we are still a mile north of the

original La Canoa site. Here also is the terminus of what must have been the first Central Arizona Project. The original water source which had made La Canoa a convenient overnight stopping point on the Tucson-Tubac road was developed by Maish and Driscoll to supply the increased livestock they had put on the adjacent range. Then in October 1887, Maish, Driscoll, John Gardiner, J.H. Hise, and William M. Lovell signed articles of incorporation for the Canoa Canal Company "to construct a main canal from a point on the Santa Cruz River . . . on or near the southern boundary of the Mexican Land Claim known as the 'Canoa,' and from there in a northerly direction down the Santa Cruz Valley and to the City of Tucson . . ." (Sachs, item 1680). It is not known how far north the construction of this canal may have been pushed, but the project appears to have been abandoned after a particularly bad flood in the area. The first mile of the canal, however, not only survived, but with improvements, continued in use for irrigation of the Canoa ranch properties at least into the 1920's.

The 30'-wide, tree-lined but now dry channel may still be seen today just beyond the spacious lawn to the east of the main Canoa ranchhouse.

We can hike south along the dry canal, finally reaching the Canoa of Anza, Font, Garcés and Elías Gonzáles. From a reconstruction of the 1821 survey, it is clear that the well site at La Canoa lies precisely at the head of the 1887 Canoa Canal. Remains of later concrete improvements at the well site, and of a 20th century well house, are still to be seen. Standing at this site today, it is possible to imagine some of the developments of a century ago.

Shortly after the Gadsden Treaty, according to John Spring, "a party of about eighteen [newly arrived squatters], including women and children, stayed at a place named then, as now, 'La Canoa' . . . Here they erected log houses, began to cultivate the virgin soil, raising cattle at the same time" (Spring 1966:53). Pete Kitchen lived at Canoa from 1855 to 1862 before moving south. Canoa thrived. On Sept. 15, 1859, the *Weekly Arizonian* carried the following:

#### NOTICE

The subscriber having opened a Hotel at the Conoa (sic) Ranch, calls the attention of his traveling public to his new House "The Cross Road Tavern." Every attention will be paid to the comfort of Travelers, who will find a good table and the best liquors, the market affords.

Having made arrangements to supply lumber in any quantity either at my ranch or delivered, I will sell lumber at my place at \$100 per thousand or \$125 per thousand delivered at Tucson, or other points accordingly.

Richard M. Does  
Conoa Ranch

A year and a half later, on Feb. 9, 1861, an ad in the same paper announced:

The Canoa Hotel has been recently fitted up, and is now under the superintendence of Mr. Edwin Tarbox a young gentleman well qualified for the position, who will take pleasure in making his guests comfortable. The traveling public, whether by stage or otherwise, will find the Canoa Hotel a superior and convenient stopping place.

Wm. S. Grant, Proprietor  
Tucson, N.M., Feb. 1, 1861



*The author surveys the abandoned Canoa Canal bed in 1977. This photo is taken from the same location as the photo on page 164, about one mile north of La Canoa. (Photo: James Honcoop.)*



*Remains of the old Canoa Stage Station, photographed in May 1915. This is probably identical with the site of Maish's South House as surveyed by Harris in 1880. (Photo: Arizona Historical Society.)*

But the Canoa Hotel was not kind to either its superintendent or its proprietor. William S. Grant had leased the Canoa and Kitchen ranches as part of an ambitious plan which included cattle raising, supplying military posts, stage lines and the Canoa Hotel. Unfortunately Grant's frontier empire collapsed disastrously as a result of a series of business and military misfortunes throughout 1861 (Pedersen 1975). Within a year Edwin Tarbox died at the hand of Apache raiders at a massacre during which the Canoa Hotel was burned to the ground. He was only 25.

Shortly after acquiring interest in the Canoa, Frederick Maish apparently built a new ranchhouse on the site. Despite the errors of the Canoa boundary survey of 1880, Harris provides in his field notes the surveyed location of "Maish's Canoa House," as well as of "Maish's South House" (see Fig. 3). The former was approximately 250 feet west of the well, the Initial Point of the 1821 survey. As part of the operation of the modern Canoa Ranch during the 1950's, a large circular impoundment for irrigation water was thrown up on this site. The water was pumped from the well site into a 500'-diameter pond, and thence by pipes to irrigate nearby fields. The now dry pond, together with remains of the 20th century pumphouse and irrigation system, may still be seen today. The foundation of Maish's Canoa House should be under the south edge of the pond embankment.

Again following Harris' field notes, it is possible to resurvey and locate the South House. The resulting site is about one and a half miles south-southwest of La Canoa on the old road to Tubac. It appears to be identical with a house shown on Wolfley's township map of 1885 and with the stage station plotted by Contzen in 1900. By this time a second road from Canoa to Tubac had also been in use on the east bank of the Santa Cruz River, as shown on maps by Parkes (1854-55), Ehrenberg (1857) and Grosvenor (1861).

In June of 1900 a third survey of the Canoa was carried out by U.S. deputy surveyor Philip Contzen. He essentially replicated Harris' work but made more detailed field notes of the terrain. Contzen began his survey from the center point of Harris' north boundary and proceeded counterclockwise around the claim. He replaced Harris' wood posts and set distinctive stone markers at the starting point, at the four corners of the grant, and at every half mile of the perimeter. "Bearing trees" near the stone markers were blazed and recorded to assist in later years in finding any of the markers that might become displaced or overgrown.

In 1912 the entire Canoa land grant was purchased by Levi H. Manning for \$165,000. Manning was from a wealthy Mississippi family. His father was a state senator. According to an account by Manning's daughter-in-law, he came to Tucson in 1884 at the age

of 19 to escape the wrath of his father following a prank in his hometown in Mississippi in which he had set loose a circus elephant. Like his predecessor, Frederick Maish, Manning built another prominent Tucson Hotel, the Santa Rita, in 1904, and later was elected mayor as well. After purchasing the Canoa, he proceeded to pour money into the ranch, rapidly developing it into one of the finest cattle operations in the southwest. In 1916, he sold the northern half of the land to the Intercontinental Rubber Company for a wartime experiment in the raising of guayule as a substitute for rubber. While the plants flourished, the economics of synthetic rubber production led to abandonment of the project, leaving only the present-day village of Continental to recall the guayule era.

Manning acquired land adjacent to the southern half of the Canoa, eventually bringing the ranch lands to 100,000 acres. He began a scientific breeding program to improve the quality of cattle. In 1921 Manning's son, Howell, took over actual operation of the ranch. Irrigation was installed for the growing of crops. Two huge pit silos were built, each holding 2500 tons of feed; these

can still be seen a short distance from the original well. The range was fenced and a program of pasture rotation implemented. In 1925 it was reported that "it is readily understandable why visiting experts, upon seeing the herds at the Canoa . . ., have declared that no finer specimens than these are anywhere produced in the United States." (McTavish 1925:36). The Canoa became known also for its fine Arabian horses. At its peak, the ranch provided quarters for 35-40 cowboys. The school building for children of the ranch still stands.

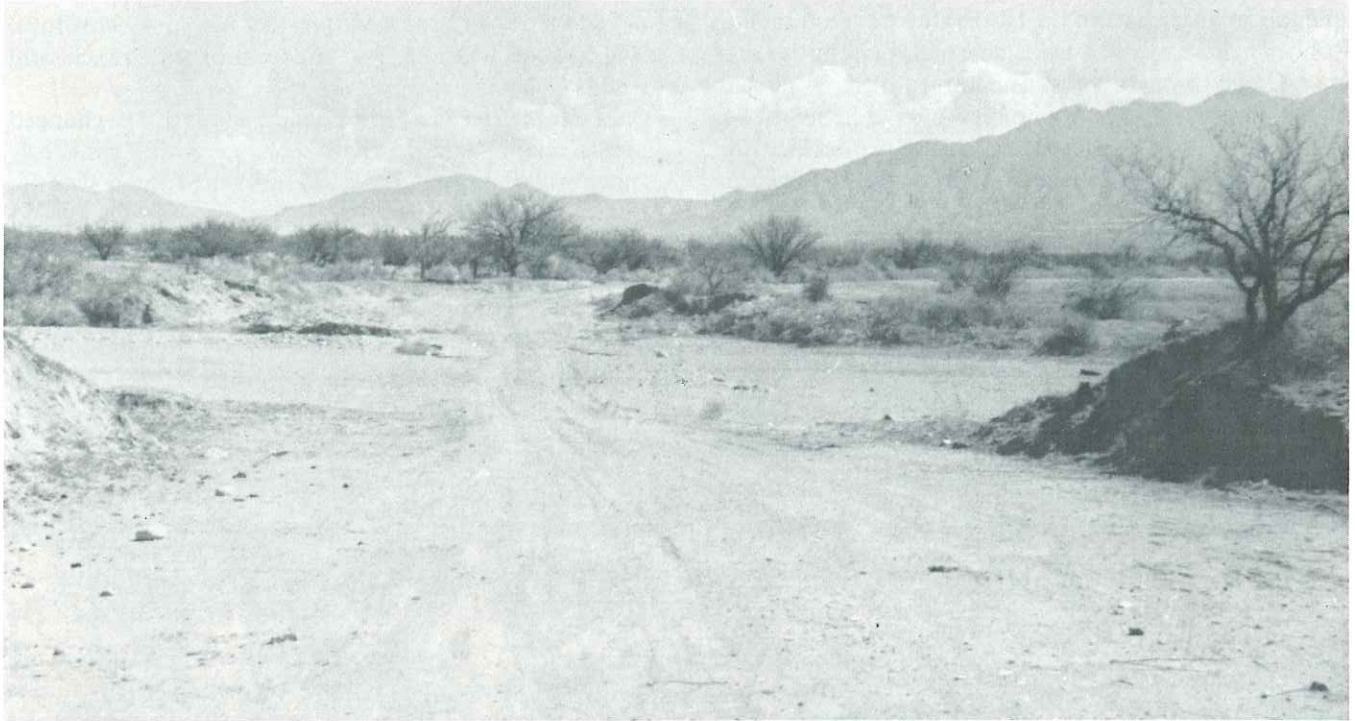
In recent decades, the Canoa lands have changed hands again. The southern portion with its historic ranch buildings and beautiful tree-lined pond was acquired in 1968 by the Duval Corporation. The retirement community of Green Valley and vast pecan orchards now occupy the former guayule fields to the north. The land grant as it was recognized by the U.S. government in 1899 is still set off from the surrounding countryside by barbed wire fence. Its perimeter is still punctuated by many of the marker stones set every half mile in 1900 by surveyor Contzen. Many of these stones,



*Stone marker at the southeast corner of the San Ignacio De La Canoa Land Grant, as located in 1900 by surveyor Philip Contzen. Similar chiseled marker stones were set by Contzen every half-mile of the perimeter of the grant; several of these markers can still be found after 80 years. (Photo: James Honcoop.)*

each bearing a tersely chiseled "SIDLC," San Ignacio de la Canoa, and the perimeter mileage, together with some of the mesquite bearing trees, can still be found today and identified from Contzen's notes. Of the origi-

nal 1821 survey by the Tubac Comandante Ignacio Elías Gonzáles, perhaps nothing remains but the Spanish *título* . . . and the surrounding peaks that still bear silent witness to its metes and bounds.



*The Canoa Crossing of the dry Santa Cruz riverbed in 1977, looking east. The river channel has doubtless moved and meandered many times as a result of erosion and intermittent flooding. The present Canoa Ranch foreman, Jim Johnson, recalls that more than 30 years ago the remains of several early buildings were visible just across the riverbed at this point.*



#### AUTHOR'S NOTE

This study of the San Ignacio de la Canoa Land Grant came about in 1976 in the course of research on the history of the Tucson Meteorite. This meteorite is a unique, ring-shaped piece of material from outer space which was destined to play a curious role in the political, military and social history of frontier Tucson. I was searching for the location of a place near the Santa Rita Mountains referred to in an early Spanish document as the *Puerto de los Muchachos*, where several authors alleged the meteorite had been found. A student at the University of Arizona who knew of my search came across some bibliographical notes mentioning a range of mountains called the *Sierrita del Puerto de los Muchachos*. It was said that one could locate the headland of this range by sighting eastward along the north boundary of the Canoa land grant. The boundaries of

the land grant were clearly marked on USGS maps since the turn of the century. But the sighting didn't work. The mountains weren't in the right place. Or could it possibly be that the land grant wasn't in the right place?

It was soon evident that the key to the puzzle lay in taking a copy of the original Spanish land title into the field. No amount of library study can confirm the identity of "a lone hill of black rocks whose slopes were covered with palo verde and saguaros." As a result, many weekends were spent hiking back and forth across the Santa Cruz River valley, Spanish title in hand. It was several months before the increasing number of discrepancies between the present-day location of the grant and the Spanish description of it began to suggest an answer. In studying such land claims, there is no substitute for observation in the field. There are many other



land titles in Arizona dating from the Spanish and Mexican periods. Might field studies of the others yield equally fascinating results?

I should like to give credit to Timothy M. Johns for his astute recognition in my behalf of the obscure Spanish place name *Puerto de los Muchachos*, and to Prof. Philip B. Newlin and David Dotson of the Department of Civil Engineering of the University of Arizona for valuable assistance in replicating the early surveys of the Canoa. Daniel S. Matson clarified difficult phrasings in the early 19th century Spanish of the *título*. My understanding of the Canoa benefited greatly by conversations with Fr. Kieran McCarty, historian of the San Xavier Mission, and with numerous staff members of the Arizona Historical Society. Finally, I am indebted to several hiking friends, Profs. Bernard L. Fontana and James E. Officer of the Department of Anthropology, and Alex P. Garrott, for their assistance in locating critical landmarks during the research.

Photos not otherwise credited are by the author.

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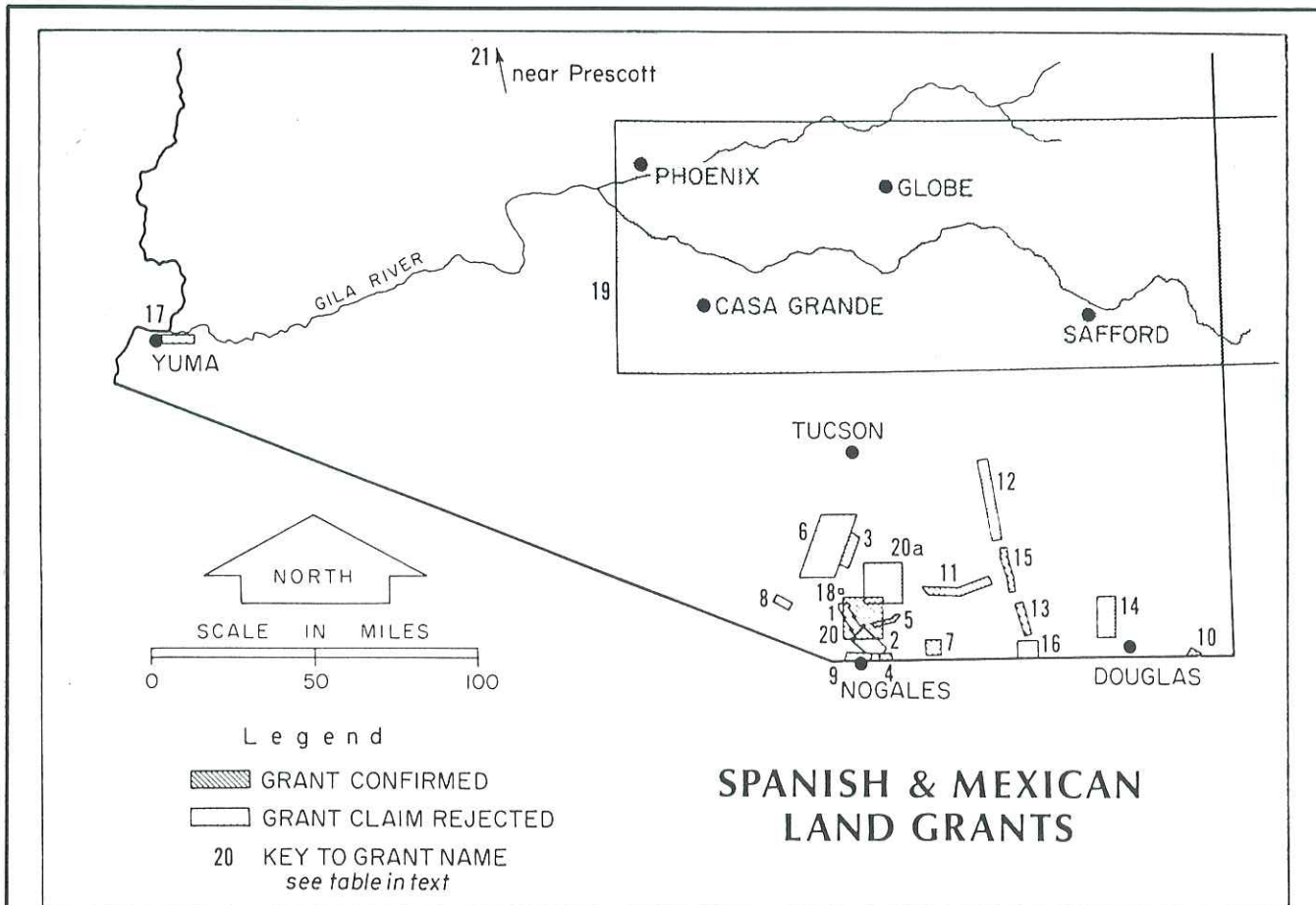
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View eastward from the "lone hill of black rocks" which marked the northwest corner of the original Canoa Land Grant as surveyed in 1821. In the distance is the punta of the Sierrita del Puerto de los Muchachos, know today as Mt. Fagan at the north end of the Santa Rita Mountains. (Photo: James Honcoop.)

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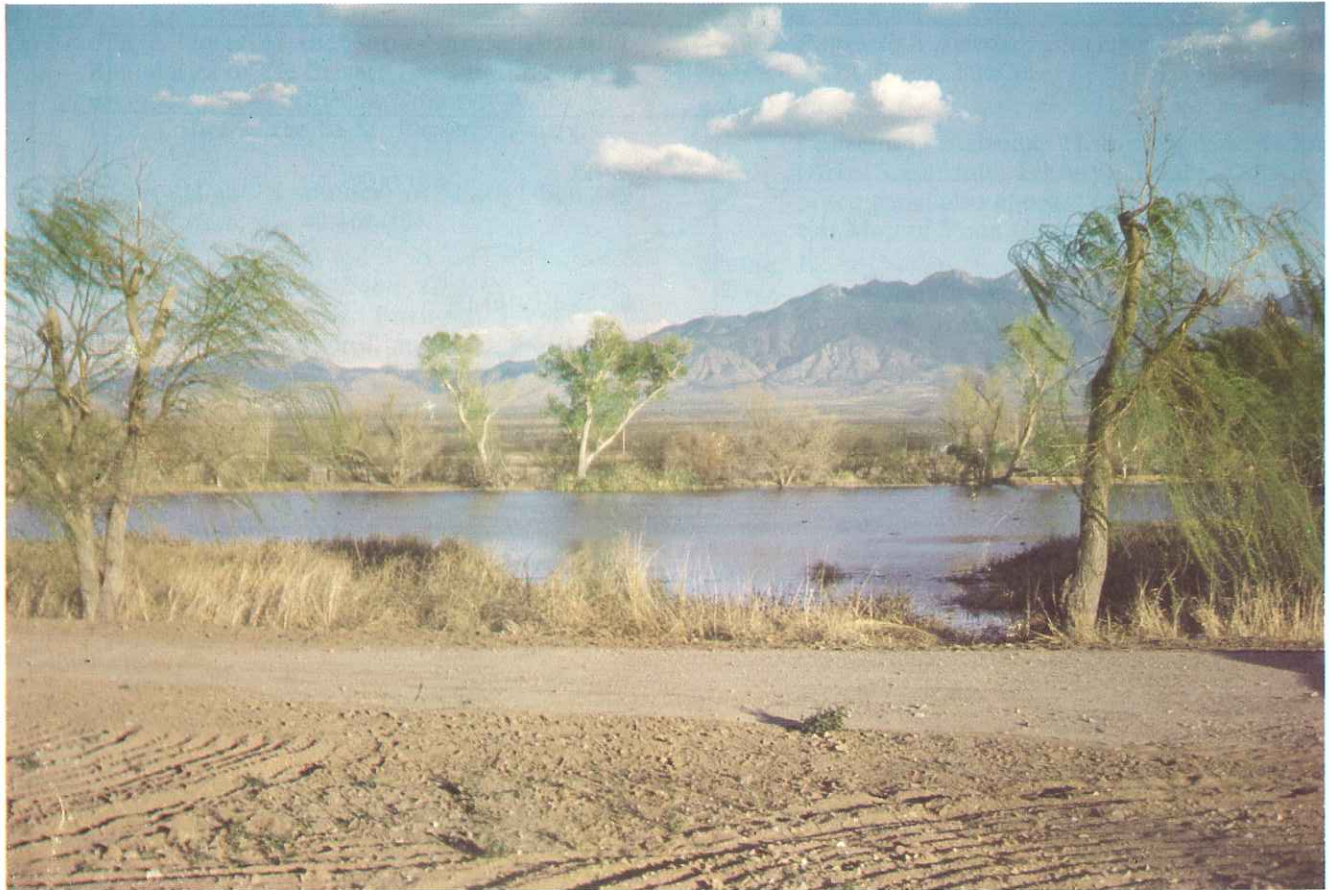




## SPANISH & MEXICAN LAND GRANTS

In the 1890's, the Court of Private Land Claims considered the following claims:

NUMBER ON MAP	NAME OF GRANT CLAIM	ACREAGE CLAIMED	ACREAGE APPROVED OR REJECTED	SUCCESSFUL CLAIMANT
1.	Tumacacori	81,350	rejected	
2.	Calabasas			
3.	San Ignacio de la Canoa	46,696	17,204	Maish & Driscoll
4.	Buenavista (Maria Santisima del Carmén)	17,354	5,733	Maish & Driscoll
5.	San José de Sonoita	7,593	5,123	Santiago Ainsa
6.	El Sopori	141,722	rejected	
7.	San Rafael de la Zanja	152,890	17,352	Colin Cameron
8.	Aribaca	8,677	rejected	
9.	Los Nogales de Elias	32,763	rejected	
10.	San Bernardino	13,746	2,383	John Slaughter
11.	San Ignacio del Babocomari	123,069	33,792	Robert Perrin
12.	Tres Alamos	43,385	rejected	
13.	San Rafael del Valle	20,034	17,475	Juan Pedro Carnoul
14.	Agua Prieta	68,530	rejected	
15.	Ranchos de las Boquillas	30,728	17,354	William R. Hearst
16.	San Pedro	38,622	rejected	
17.	Algodones	21,692	rejected	
18.	Otero (Tubac claim)	1,199	claim not filed	
		850,050	116,416	
19.	Peralta-Reavis	11,280,000	rejected	fraudulent claim
20.	Baca Float Number 3		94,289	Lieu Land selection
21.	Baca Float Number 5		99,000	Lieu Land selection
		12,130,050	309,705	



*Lake at the present-day Canoa Ranch, looking east.*

## THE AUTHOR

Richard R. Willey is the director of the Flandrau Planetarium of the University of Arizona in Tucson. Over the years he has had a variety of interests ranging from astronomy to economic cycles, hypnosis, and medical education. His undergraduate and graduate work was at the University of Chicago and led to a Ph.D. in physiological psychology. He was associated with the research grant programs of the National Institutes of Health for ten years. After coming to Arizona in 1962, he was an assessment officer for the Peace Corps, then associate professor of Community Medicine and director of the Division of Social Perspectives in Medicine at the College of Medicine of the University of Arizona until 1972. He has served on the boards of various health organizations, including several years as president of the Pima County Board of Health in Tucson.

Dr. Willey has been conducting research on the history of the Tucson Meteorite since 1975, a study which is continuing. It was this work which first aroused his interest in Arizona history and which led to his efforts to find the original San Ignacio de la Canoa.

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