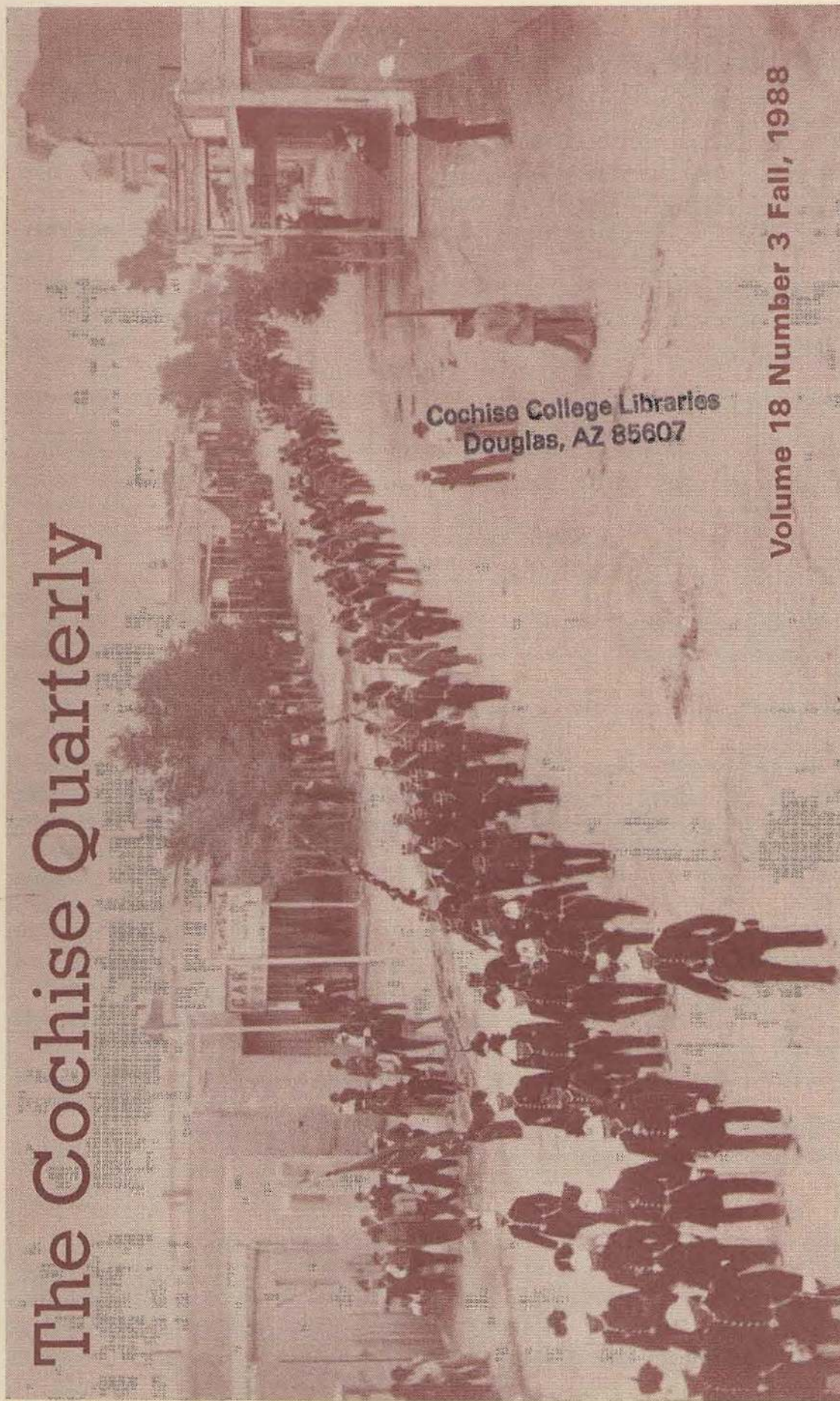


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About The Cover: Original boudoir print by C.S. Fly of Memorial Day parade in Tombstone, Arizona Territory. (Photo courtesy of Arizona Historical Society.)

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# ANALYSIS OF THE GREAT REGISTER OF COCHISE COUNTY, ARIZONA TERRITORY, 1884

By James M. Crane

The 1884 Great Register of Cochise County <sup>1</sup> has over 2,800 lines of relatively easily quantifiable data. I could not help but wonder what the register would have to say about Cochise County in 1884.

Here were the names, ages, occupations and places of residence for 2,836 men. Being a list of registered voters in 1884, there were no women or children recorded but males over 21 were represented, and males over 21 were an important and large part of the population of Cochise County in 1884. Moreover, the county itself was in a state of flux that year, both economically and politically. Eighteen eighty-four saw a miners' strike in Tombstone, the collapse of the Hudson and Company bank and the disruption of rail service across the entire northern tier of the county. All that was in addition to the national and local elections.

Mainly, however, I just wanted to be able to take the information in the Great Register and organize it in a manner that would reveal its secrets. Who were these men? How old were they? Where did they come from? Where did they live? How did they earn their livings?

The answers were there. It was just a matter of getting them out of the register.

The Great Registers of Arizona and Cochise County were simply lists of registered voters. The first Great Register for Cochise County was compiled in 1881, the year the county was split off from Pima County and made into a separate entity of its own. <sup>2</sup> The second Great Register was done in 1882 and thereafter they were done every two years until 1908, after which they were apparently done yearly. <sup>3</sup>

I chose the 1884 Great Register for analysis over other registers for two reasons. First, it is in print and therefore easier to work with. Being in print, it is also the Great Register that scholars, students and researchers of Cochise County are probably most familiar with. Second, as mentioned before, 1884 was a historically important year for the county and I hoped that an analysis of the register for that year would help provide a larger context for the events of 1884.

<sup>4</sup>

There are 10 categories of information listed in the Great Register of 1884. <sup>5</sup> They are: voted; registration number; name of registrant; age of registrant; country of nativity of registrant; occupation of registrant; local residence of registrant; naturalized, date of naturalization, place of naturalization, by what court naturalized; date of registration; sworn.

The following analysis and discussion will, more or less, follow those categories.

## 1. Voted

Despite the fact that this is the first category listed in the Great Register, there are no entries indicating whether or not the registrant actually voted. I have been unable to determine if this information is available elsewhere, but I suspect it is not. If it is, one of the things it suggests is an analysis of voting behavior. Since



the information is not given in the Great Register itself, however, I will not dwell on the possibilities here.

## 2. Registration Number

Names were entered by the first letter of the surname only. All men whose surname began with C, for example, were entered under C but the names were not alphabetized beyond that. Generally though, the names were entered in such a manner that those who registered in the early part of the year were entered first and those who registered in the later part of the year were entered last. This is not, however, a hard and fast rule.

## 4. Age of Registrant

This is the first category that offers the opportunity to crunch some numbers and discover something new and, in this case, something interesting.

Traditionally, most people associate younger men with the settling and conquering of the West. It was, after all, hard work but in Cochise County the average registered voter was 37.15 years of age. The median age (the median being the age that divides the group in half) was 35 and the modal age (mode being the age which occurs most often) was 30. Sixteen cases (0.6%) were not recorded for age.

The youngest registered voters were, of course, 21. There were 44 men (1.6%) of that age. The oldest was one man of 76. Looked at another way, 870 registrants (30.9%) were 30 years of age or younger, 1,926 (68.3%) were 40 years of age or younger, 2,471 (87.6%) were 50 years of age or younger and 2,708 (97.1%) were 60 years of age or younger.

Generally, the mean, median and mode of the county as a whole held true for the largest population clusters in the county as well as many of the smaller ones. Tombstone, for example, with 1,387 registrants (48.9% of the total) had a mean, median and mode of 37.63, 36.0 and 32.0 respectively. Bisbee, a distant second with 257 registrants (9.1%), checked in with 37.16, 36.0 and 32.0 for its mean, median and mode. Even much smaller communities such as Charleston and Contention City hovered around the county figures. Contention City, with 46 registrants (1.6%), showed a mean, median and mode of 37.76, 37.0 and 34.0 respectively. Charleston, with 125 registrants (4.4%), had figures of 35.3, 33 and 30.

Only when the very small population clusters are considered do the figures begin to vary widely and that, of course, is to be expected. The sample would simply not be large enough in small clusters to mimic the county as a whole. Fife's Ranch, for instance, had only five men registered and its mean, median and mode were 29.0, 22 and 21 respectively.

What all of this suggests is that the registrants were fairly well dispersed around the county in terms of their ages. When ages are collapsed into categories and cross-tabulated with occupation, it's obvious that age groups were spread across all occupational categories. I will examine this further in the discussion on occupation, but for now I will simply note the following figures for overall age categories.



Age	Frequency	% of Total
21-29	739	26.1
30-39	1,076	37.9
40-49	601	21.2
50-59	300	10.6
60-69	96	3.4
70-76	8	.3
Missing	16	.6
Totals	2,836	100.0

### 5. Country of Nativity

Slightly more than one-third of the 2,836 registrants (961) were foreign born, representing 34.0% of the total. Not surprisingly, the most common country of foreign nativity was Ireland. Two hundred seventy men (9.5%) claimed the Emerald Isle as their birthplace; so at least one myth about the West seems to have, in this instance, some basis of truth.

England was second with 139 registrants (4.9%) and Germany was third with 125 registrants (4.3%). Canada was fourth, 105 men (3.7%) having been born there.

The 139 men born in England quite possibly represented the fabled Cornish Jacks of so much mining literature, particularly since 63.3% of the Englishmen gave their occupation as a miner. Interesting too is the fact that the equally fabled Welshmen are, for all practical purposes, missing from the 1884 Great Register. Only 15 men listed Wales as their country of nativity — barely one-half of the one percent of the total number of registrants. <sup>6</sup>

Also conspicuous by their absence are those of Mexican birth, of whom only 29 (1.0%) are listed.

Even though there are representatives from every continent in the 1884 Great Register (with the exception of the Antarctic), the overwhelming majority of immigrants were from the British Empire. Aggregating the totals from England, Scotland, Ireland, Wales and Canada, I arrive at a figure of 591 men (61.43%) — well over half of the 962 foreign born listed on the Great Register. Europe as a whole (excluding Britain and Scandinavia) claimed 268 registrants (9.55), 125 of those from Germany alone.

Perhaps most interesting, however, is the list of other countries represented in Cochise County in 1884. Denmark, Sweden, Russia, Chile, Peru, French Guinea, Australia and Hawaii, to name just a few, all had natives registered in the county — a truly diverse population.

### 6. Occupation of Registrant

There are over 250 different occupations given on the Great Register of 1884. While many are synonymous — attorney and attorney at law, for example, or barkeep and barkeeper — there is still an impressive number of occupations listed. This suggests that by 1884 Cochise County was well on the way to becoming a well-rounded slice of civilization. <sup>7</sup>

Ranching and farming, business and professional jobs, labor and skilled labor, government and public sector jobs, they are all listed. As might be expected, the mining industry and the cattle and ranching business are both well represented.



Those means of livelihood, while dominant, are not exclusive, and it takes no great leap of analytical reasoning to recognize the interlocking relationship of cattle, mining, transportation, professional and recreational occupations spelled out in the Great Register.

True, the number of ministers and teachers and such are minimal, but the fact that they are represented at all is indicative of the unmistakable trend toward permanence that was going on in the county. In addition, it has to be remembered that the Great Register only lists males over 21 who were registered to vote and as such is heavily weighted with male-oriented occupations. Dress-makers, waitresses and ladies' maids are just not going to be listed.

But that consideration aside, what is on the list? Collapsing occupational categories reveals the following:

Occupation	Frequency	% of Total
Ranching and farming	410	14.5
Business and professional	1,032	36.3
Unskilled labor	141	5.0
Mining	1,137	40.1
Transportation	73	2.6
Public sector	37	1.3
Not recorded	6	.2
Totals	2,836	100.0

With mining and ranching and farming accounting for over 50 % of the occupations, it's easy to see that the economic foundation of the county was set early on. No surprises there.

What is surprising, however, is that when occupations are cross-tabulated with local residence, the occupations are fairly evenly dispersed across the county. Even though 90 % of the registrants lived in named towns, the remaining 10 %, spread out across the mountains and valleys, along the rivers and creeks and in outlying ranches and camps and mines, still reflect the preponderance of mining and ranching occupations. No part of the county is free from them. Whether it is Tombstone with its 1,382 registrants of 659 miners and 28 ranchers, or Turquoise with its single stockman and two miners, the pattern is consistent.

This is not to say, however, that there were not occupational clusters. Tombstone had the most miners, to be sure, and Willcox the most teamsters and freighters. But it is never an exclusive hold, never a monopoly. There were freighters in Tombstone and miners in Willcox.

#### 7. Local Residence of Registrant

The 1884 Great Register lists 86 different local residences for the registrants. In other words, people were living all over the county, although as mentioned above, over 90 % of them lived in named cities or towns. The following figures are revealing:

Place of Residence	Frequency	% of Total
Tombstone	1,387	48.9
Bisbee	257	9.1
Benson	174	6.1
Charleston	124	4.4



Fairbank	75	2.6
Contention	46	1.6
St. David	40	1.4

Totals	2,103	74.1
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What makes the figures interesting is that if Tombstone is thought of as the center of a circle with a radius of about 35 miles, all of the above towns fall within the boundary of that circle. In other words, almost 75 % of the registrants either lived in Tombstone or within a day's ride of it (more or less).

That still leaves 79 other places of residence to account for as well as the remaining 25 % of registrants. They break down approximately as follows:

Place of residence	Frequency	% of Total
Smaller towns and villages	459	16.2
Along the rivers, creeks and springs	36	1.3
In the mountains	105	3.7
Forts, camps and mines	65	2.3
Valleys and basins	40	1.4
Outlying ranches	28	1.0
Totals	733	25.9

Were they available, it would be interesting to compare actual population figures with the Great Register of 1884 to see how closely they coincide.

### 8. Naturalized

One-third of the registrants were foreign born. Of those, 758 were naturalized and the remaining 192 had declared their intention of becoming citizens. Of the 192 declarants, 112 had declared in Arizona, 91 of those in Cochise County. Utilizing the same list used for analysis of local residents, the following figures emerge:

Place of Residence	Frequency	% of Total
Tombstone	131	68.2
Bisbee	24	12.5
Benson	8	4.2
Charleston	3	1.6
Fairbank	1	0.5
Contention	2	1.0
St. David	1	0.5
Totals	170	88.5

In other words, almost 90 % of the declarants were in the same 35 mile radius circle, 15 % more than the population as a whole.

Of those who were already naturalized citizens at the time the Great Register was compiled, the figures look like this:



Place of Residence	Frequency	% of Total
Tombstone	458	60.4
Bisbee	86	11.3
Benson	34	4.5
Charleston	32	4.2
Fairbank	19	2.5
Contention	19	2.5
St. David	4	0.5
Totals	652	85.9

As with the declarants, there was a higher proportion of naturalized citizens in the Tombstone radius than the population as a whole. 9

As pointed out earlier, these men came from all over the world, but the figures also show that once in the United States they came from all over the country as well. Thirty-four states and territories are represented. The most, 31.4% listed California as the place where they had either declared or actually been naturalized. Nevada was second with 18.5% and Arizona was third with 8.8%.

Unfortunately, almost 18% of the naturalized citizens gave no information on the state in which they were made citizens, but it must be noted that naturalization information was not recorded for those who claimed citizenship on the basis of their father's naturalization. There were 110 such cases. In addition, there were three who claimed citizenship by virtue of birth to American parents, eight who professed citizenship by virtue of treaties with Mexico, and four who earned citizenship by serving in the United States Army. This accounts for 125 of the 136 for whom no state was listed.

Finally, of those naturalized 49.5% were miners. The next largest category was merchant at 4.5%. Millmen and freighters each claimed 3.4% and ranchers were fourth at an even 3.4%.

### 9. Date of Registration

This category is just what it implies, the date each man was registered. No analysis was done on this other than frequencies and there appeared to be nothing more significant here than the somewhat obvious fact that registration started out slow and picked up as election day neared.

### 10. Sworn

All 2,836 registrants were sworn, attesting to their veracity and their allegiance to the United States.

In conclusion, I discovered that the average registered voter in Cochise County in 1884 was a little older than expected, being over 37 years of age. He probably lived in or within easy striking distance of Tombstone. One out of three men listed was born in some country other than the United States. Better than half of all registrants were in either the mining occupations or the cattle and/or ranching occupations.

As for Cochise County itself, it was highly urbanized, even as far back as 1884. Despite the great number of residences listed on the Great Register, populations were clustered in cities and towns, a fact that still holds true today for the West in general, Arizona in particular, and Cochise County specifically. The great wide open spaces associated with the West remain largely uninhabited with people, either out of choice or out of necessity, living in or near cities and towns. To be sure, the population centers of 1988 are substantially larger than the popu-



lation centers of 1884, but it is a difference of quantity and not a difference of patterns.

Perhaps more importantly was the tremendous diversity of people in Cochise County in 1884. They came from almost everywhere with a variety of occupational skills. To say the least, it must have been an interesting time and place.

### NOTES

1. J Guthrie, *Great Register of the County of Cochise Territory of Arizona, for the Year 1884* (Tombstone Commemorative Enterprises, n.d.).

2. Byrd Howell Granger, *Arizona's Names (X Marks the Place)* (Tucson: Falconer Publishing Company, 1983). p. 160; George H. Kelly, *Legislative History / Arizona / 1864-1912* (Phoenix: The Manufacturing Stationers, 1926), p.94.

3. I say "apparently" because I have been unable to track down a complete list of the Great Registers. The Cochise County Recorder's office has the following Great Registers for Cochise County: 1881, 1882, 1884, 1886, 1888, 1890, 1892, 1894, 1902, 1904, 1906, 1908, 1909 and 1910.

4. For the narrative historian, the Great Registers provide information on personalities involved in important events. The Great Registers as a whole are also tempting for the quantifiers because such things as mobility and population clusters can be tracked over time using them, particularly where there is a run of registers available.

5. Not all registers contain the same information. Later registers, for example, deleted the age category and replaced it with a category indicating whether the registrant was over 21 or not. Occupation was also deleted from later registers, much to the chagrin of historians and genealogists.

6. I mentioned this lack of Welshmen to Dr. Otis E. Young, now retired from Arizona State University and one of the foremost authorities on Western mining in the country. He was not at all surprised by the small number of Welshmen appearing on the Great Register. "Welshmen," he said, "were notoriously apolitical." Therefore, one would not expect to find them represented on voter registration lists in proportion to their actual numbers in the population as a whole.

7. Occupations listed ran the gamut of human possibility: rancher, granger, barber and gentleman. Artist, musician, butcher, baker and wagon maker. Capitalist, merchant, jeweler, fruit dealer and book seller. Brewer, tinker, gunsmith, etc., etc.

8. Residences, like occupation, were high, wide and various. From Antelope Springs to White Water, from the State of Maine mine to the Star Ranch, from Buckhorn Basin to Dragoon Summit, men claimed to live just about everywhere in the county. One man listed his residence as just "the mountains."

9. There is probably a multiplicity of reasons for the higher concentration of foreign born men in the main population centers than elsewhere. It could have something to do with the kind of job skills they had, the kind of environment in which they were used to living or even the structures of the prevailing social networks. Until further studies are done, only guesses can be made.

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# THE STORY OF THE SAN PEDRO VALLEY DURING THE HISTORIC PERIOD FROM 1535 TO 1853

By LARRY D. CHRISTIANSEN

The known chronicle of the San Pedro Valley has a diversity and variety from the first passage of Europeans through the area until the United States took possession of the valley. Across it passed Spanish nobility searching for golden cities, black robed missionaries seeking souls, soldiers trying to hold the line against the Indian hostiles and finally, ranchers attempting to establish themselves and their way of life in the valley. The cast of characters was impressive, but their passage was short and they left little of lasting impression. The land was inviting; however, the masters of the area did not desire sharing their domain with either red or white neighbors. The Apaches controlled the destiny of the valley until the Americans established their settlements in the area in the 1870s.

The historical period was initiated in the San Pedro Valley by the passage of four survivors of the ill-fated Narvaez expedition journeying to rejoin their countrymen in 1535 or 1536. Alvar Nunez Cabeza de Vaca and his three companions, Alonso del Castillo Maldonado, Andres Dorantes and Estevanico, did not personally penetrate as far west as the San Pedro Valley. Coming out of Texas they may have reached the San Simon and San Bernadino valleys. The four Spaniards ended their eight years of wandering at Culiacan in the province of Sinaloa in April 1536. Their story of the northland was honest and modest. They had actually seen many poor Indians, a new type of cattle (bison), some magnetic iron and lead, a little turquoise, a few emeralds, and one small copper bell. But the survivors told of reports of large rich cities north of the country they traversed. No more incentive was needed with Pizarro's recent conquest of the Inca Empire and even Cortes' Mexican venture just a decade and a half earlier. The northland would be penetrated and explored in a flurry of activity in the next six years.

The new viceroy of New Spain, Antonio de Mendoza, tried unsuccessfully to persuade Cabeza de Vaca and two of his companions to return to the north and check out the report of the cities. In the meantime the viceroy put together a reconnaissance party. To lead this group he acquired the services of a Franciscan, Fray Marcos de Niza. The friar had recently entered New Spain after spending about six years in the New World. He had a short experience observing the conquest of the Inca. As chief guide the viceroy borrowed Andres Dorantes' Negro slave, Estevanico. Both slave and master had been over part of the proposed route north.

The first official exploration party assembled at Culiacan and comprised Fray Marcos, a Franciscan companion who shortly left the party, Estevanico and some Indians. The latter had accompanied the four Spanish wanderers back to civilization and opted to settle near the Spanish rather than returning to their homeland. The party headed north in March of 1539. Within two weeks a fateful decision was made to allow the impatient Estevanico with a few Indians to push ahead as an advance scout. The guide was to send back information about what he found and then wait for Fray Marcos so they could enter the rich cities together.

Fray Marcos never saw Estevanico again, but he did receive several reports from the guide, each more encouraging than the last. The Negro pushed up to the



Sonora River at or near the present Ures. Here he no longer retraced his steps of a few years earlier. Instead he went due north up the Sonora Valley not tarrying for Fray Marcos. He entered present day Arizona at either Lochiel or followed the San Pedro River. The black guide hurried down the river to near present day Benson where he left the river to strike northeast-north. He moved across the Gila River and went on to Hawikuh, the first of the Zuni villages on the present border between Arizona and New Mexico. Here Estevanico and some of his Indian companions were killed by the natives.

The Indian companions of Estevanico not slain fled south and informed Fray Marcos of the disaster to their party. We are not sure of Fray Marcos' location when he received the bad news or what he did next. He claimed to have continued on and viewed the first of the cities of Cibola before returning to New Spain. His description of the ordinary Indian pueblo turned it into one of the fabled Seven Cities of Gold; his description of the locale where he viewed the city, its size and the distance to the sea were likewise very amiss. Most historians of the area do not believe the fray went on as he claimed, but just pieced together the stories of the fleeing Indians and turned it into his imaginative report. It is quite probable that Fray Marcos moved as far into Arizona as the Gila River before hastily returning to Mexico City.

Viceroy Mendoza was still making preparations for the conquest of the north-land, and had chosen his young friend Francisco Vasquez de Coronado to do it. Coronado accompanied Fray Marcos from Culiacan to Mexico City to see the viceroy. In the meantime, Coronado, whether on his own or acting in behalf of Mendoza, dispatched a small group of cavalry to retrace the fray's steps and verify his account. Capt. Melchior Diaz and a dozen men started off and moved north, passing down the San Pedro Valley and over to an old Indian ruin on or near the Gila River. The ruin was called Chichilticalli or "Red House" and Fray Marcos had praised it. Diaz and his men spent the winter there before returning to the south. Diaz had no praise for the ruin or the country and believing he had discovered nothing of importance, he headed back south to report his findings.

Meanwhile the grand expedition led by Coronado was slowly moving northward. Described as the "most brilliant company" ever assembled in the New World, it had 225 cavalymen, many of whom were from families of distinction and influence. The company also had 60 foot soldiers, five friars (which included Fray Marcos as guide) and 1,000 Indian escorts. Their reserve riding and pack animals and slaughter animals numbered almost 1,500. In short, the vast company would have made both Cortes and Pizarro envious.

The company met Capt. Diaz, and Coronado tried unsuccessfully to keep Diaz's discouraging news secret. There were grumblings, but the grand army was built on hope and high expectations and Diaz's report could not deter their advance.

The vast assemblage moved painfully slowly and finally Coronado went ahead with about 50 horsemen, a few foot soldiers and many of the Indian allies, leaving the major portion of the army to follow them. They had no trouble crossing the inhabited region, which included the San Pedro Valley, due in large part to the Indian residents knowing several of the Spaniards from their earlier crossing of the area. The reports gave no details of the San Pedro nor the Indians who lived in the valley. All we really know is that when the expedition reached Chichilticalli they had crossed the inhabited lands and faced the wilderness. They



crossed the wilderness and ran into a plague of troubles searching for that which did not exist.

When they discovered that the first city of Cibola was a little, crumpled, poor village and not the grand one larger than Mexico City as Fray Marcos had reported, the Fray was cursed thoroughly and Coronado observed that nothing Marcos had said was true. Fray Marcos departed south hurriedly with the messengers taking orders to the main army and bearing a report for the viceroy. He traversed the San Pedro Valley for the fourth and last time with a heavy heart and a cross that would stay with his name throughout history — the lying father.

Coronado's main army moved down the San Pedro to catch up with their leader. As 1540 ended, the trail down the San Pedro Valley was well marked by all the recent travel up and down it.

The great flurry of exploring activity in 1539 and 1540, inspired by the report of the rich cities to the north, gave way to the reality of Coronado's actual findings in New Mexico and on the plains. In 1543 the dejected conquerors retraced their route south back to New Spain looking far from the impressive array that moved north a couple of years earlier.

The inglorious outcome of this expedition forestalled the Spanish entering the San Pedro Valley from the south for almost a century and a half. During the 1600s, however, some of the New Mexican colonists established trade with the Sobaipuri Indians living in the San Pedro Valley.

In the waning years of the 17th century, the northwestern frontier of New Spain was pushed into present day Arizona. The prime mover for Sonora and Arizona was Eusebio Francisco Kino, the Jesuit missionary, who, with indefatigable energy, pushed the leading edge of Spanish civilization northward in Pimeria Alta. His labors produced a trio — baptisms, missions and ranches. Indian converts had to be taught a new way of life mirroring the white man's ways. So Kino instructed the neophytes in the techniques of agriculture, animal husbandry and useful handicrafts, and provided them with animals and new crops.

In his new work Kino kept moving further afield from his home mission of Dolores. In 1691 Kino crossed the present day boundary between Sonora and Arizona to become the first white man to visit San Cayetano del Tumacacori. Indians from Bac bid the "Black Robe" to come down the Santa Cruz River to their village. Kino promised to visit them when he returned to the area, and on subsequent visits he brought religion, cattle and horses to Guebavi, Tumacacori and San Xavier del Bac in the Santa Cruz Valley.

While Padre Kino performed his labors, the Spanish military penetrated Pimeria Alta seeking to make the Sobaipuris allies in its efforts against the Apaches living east of the San Pedro River. The first attempt in 1688 did more harm than good. But the following year Capt. Pacheco Zevallos led a military company into the San Pedro Valley and, using more diplomacy than force, succeeded in breaking up a threatened alliance between the Sobaipuris and Jocomes, Janos and Sumas.

In 1691 some Indians stole some horses from a mission east of Dolores and the Sobaipuris of the San Pedro were blamed for the loss. Early in 1692 Capt. Francisco Ramirez with 10 soldiers followed a trail of stolen horses and came to the valley, but found no horses among the Sobaipuris. With no evidence of stolen animals, Ramirez pursued peace and friendship with the natives and received a favorable reaction to the suggestion of the Indians allying themselves with the



Spanish. Ramirez took a delegation of Sobaipuris back to Dolores where they met Kino.

Later the same year Kino fulfilled his promise to the natives of Bac in the Santa Cruz Valley and then traveled to the Indian village of Baicatcan in the San Pedro Valley northeast of Bac. The Sobaipuris received Kino with all kindness and their leader Coro and Kino quickly became friends. Kino described these eastern Sobaipuris as being less docile than the Indians in the Santa Cruz Valley.

While Kino was impressed with the Sobaipuris, many Spaniards were not. In 1694 several herds of horses were stolen from missions in Sonora, and once again the Sobaipuris were blamed. Lt. Antonio Soliz went with a small military party to visit the accused Indians on the San Pedro. He found no stolen animals, but this failed to convince many of the innocence of these Indians.

In December of 1696 Kino traveled to the San Pedro hoping to show his superiors that the Sobaipuris were not stealing stock nor in revolt against the Spanish. Kino traveled to the valley. He went via Santa Cruz, Santa Maria and down Babocomari Creek to the San Pedro. Just north of the junction of the two streams Kino found Coro in a new chief village — San Pablo de Quiburi. Since Kino's earlier visit, the eastern Sobaipuris had split into factions and Coro had relocated his village some 40 miles south of their home where Kino first visited them. In the past year all the villages between the new location and the old one had been abandoned due to war between the two factions.

There were about 400 people living in the village, which included an earthen fortification. In Kino's mind the Indians were innocent of the horse stealing and he set about giving them some Christian teachings. Apparently the adults listened patiently and then allowed Kino to baptize and christen some of their children. Even Coro gave his small son to the padre for baptism. Then Kino promised them a resident padre and persuaded them to build an adobe house for the promised priest.

In his missionary work among the natives, Kino stressed that the Sobaipuris must hold the line against the enemies of the province — the Apaches, Jocomes, Janos and Sumas. They were to even be ready to go with the Spanish soldiers against the hostiles. Both Coro's village of Quiburi and the neighboring village of Santa Cruz de Gaybanipitea, a couple of miles south, were in key locations on a long established Indian trail to Sonora. For the Spanish it was important to keep this area in friendly hands to protect the missions on the southern end of the trail.

Kino had liked Coro from their first meeting and the Sobaipuris at their new village of Quiburi and Santa Cruz de Gaybanipitea must have further impressed the padre. The natives of the two villages used irrigation ditches from the river to their fields where they grew maize, beans and cotton. The latter crop they used to make clothing.

Shortly after Kino's second visit to the San Pedro, he established a small ranch at Quiburi stocked with a few cattle and a drove of mares. He either had the livestock delivered or took it there on his next visit, which occurred in March of 1697. By November of the same year he had about 100 head of cattle at the smaller village of Santa Cruz de Gaybanipitea. No resident priest or other Spaniard came to live in the valley, so the stock was completely cared for by the natives' between Kino's periodic visits. Kino returned to the valley in April, perhaps to check on the natives' care of the animals. In both the March and April visits, Kino stressed the importance of the Sobaipuris being ready to take to the field



with the soldiers against the hostile Indians, who were becoming more troublesome.

All was going well with Kino's work among the Sobaipuris except he was not making much progress in getting a resident priest for them as he had promised. To facilitate this, Kino persuaded a delegation of the natives to come to Dolores and then accompanied them to visit Kino's superior, the father visitor. The natives went to Dolores in September of 1697 and the whole company reached the father visitor at Santa Maria de Bazeraca the first week October. The demonstration convinced Kino's superior of the Sobaipuris' loyalty, and he recommended that fathers were needed and deserved.

It was decided at this time that some Spanish soldiers should go up at least as far as Quiburi and see with their own eyes the good state of affairs. An appointment was set for the soldiers to be there early in November and Kino would meet them. When Kino left Dolores for this rendezvous he was accompanied by Capt. Mattheo Maje, Kino's servants, over 60 horses and mules and presents for the Indians. It was evident that he was going beyond Quiburi on this trip.

Kino met Senor Captain Christobal Martin Bernal and 22 soldiers at Santa Cruz de Gaybanipitea in early November of 1697. The two groups then went down the river two miles to Quiburi where they not only found the villagers friendly and jovial but in the midst of a scalp dance. The Sobaipuris were dancing over the scalps and spoils of 15 enemies — Jocomes and Janos — they had killed a few days earlier. Capt. Bernal and several of the party joined the circle and merrily danced.

Bernal was thoroughly convinced about the Sobaipuris as good warriors and friends of the Spanish. He became so caught up that he was disposed to go with Kino further down the river and see more of the people. Several among the party, however, expressed the opinion that they would need at least 200 men to penetrate north toward the last of the Sobaipuris. Kino quickly countered the argument with his belief that one person could go on to the last of the Sobaipuris as safely as they could return to Sonora. Kino went on to explain that the leader, El Humari, and other principal men of the northern Sobaipuris had journeyed to Dolores the previous Easter and asked for and received baptism. They had requested Kino to come and visit them.

The following day the party, accompanied by Coro and his men, moved north and for 25 leagues found all the villages abandoned within the last year because of war between the two Sobaipuri chiefs — Coro and Humari. Then they came to Cusac, a village of 70 people, just north of the abandoned Baicatcan where Kino had first met Coro. This time Kino met Humari, who had come there to meet the padre. The visitors were received in a special house of reeds and poles made just for them. With Kino's mediation, Coro and Humari reconciled their differences.

Afterward, they traveled through several other villages and at each they found the natives using irrigation to grow calabashes, beans, maize and cotton. At La Victoria de Ojio, Humari's village, there lived some 380 souls. Manje counted the people in all the villages and his totals were more than 2,000 people in 14 villages, with Quiburi and La Victoria being the biggest.

At each village Kino spoke the Word of God and the natives offered many little ones to him to baptize. Everywhere they were treated well and all were favorably impressed by the Sobaipuris. The final point in favor of the villagers of the San Pedro was the fact the Spaniards found no trace of stolen horses. Kino



was delighted and emphasized that the charge of horse stealing had always been a bad rap for these Indians; the two military captains wrote reports blaming the horse stealing on the Sobaipuris' enemies — the Jocomes and Janos.

Kino continued on to the Gila River and returned to his mission via the Santa Cruz Valley. All appeared to be going very well in the villages of the San Pedro, and if all went well, perhaps there would be missions with resident priests and several ranches. There were at the time the two ranches established by Kino among Coro's people. As to why the smaller village of Santa Cruz with one-fifth the population of Quiburi had quite a few more cattle than Quiburi, we can only guess. Perhaps Santa Cruz had the better grazing areas, or maybe they were tending extra cattle which Kino planned to distribute among the Sobaipuris further down the river.

If the latter idea was planned, it quickly became mute by an event at Santa Cruz de Gaybanipitea. On March 30, 1698, the Apaches and their allies numbering about 600 attacked the village at daybreak in a repeat performance of what they had done at Cocospera a month earlier. In the initial attack they killed the village's captain and two or three others. The rest of the villagers retreated to their adobe and earth fortification. The enemies covered themselves with many animal skins and moved on the fortification and put warriors upon its roof. They had in their possession an arquebus, which they had taken from the Spanish. They used it and fire to complete their victory and rout of the villagers. The victors were in no hurry and set about feasting on the spoils. They killed three cattle and three horses and with beans and maize they began eating in the middle of the village they had just sacked and burned.

When the news of the fight reached neighboring Quiburi, Coro assembled his warriors along with some visiting Pima and Papago Indians, who were on a trading expedition, and hastened to the fallen village. The trading Indians were better armed than the Sobaipuris and the hostile Indians, having been given arms by the Spanish when they joined the presidio soldiers on expeditions against the Apaches.

The leader of the enemy decided on strategy instead of an all-out fight. He proposed to Coro that the fight should consist of a contest in which 10 warriors from each side should fight to determine the results. Coro accepted the idea and chose 10 warriors while the opposition leader selected himself and five other Apaches with the remainder being Jocomes and Janos.

Coro's warriors proved to be wise selections for they wounded nine of their opponents and killed the Apache leader. When the latter occurred, the hostiles who had been watching the contest began to flee, but only to have the Sobaipuris and their allies in hot pursuit for approximately 10 miles. The new victors inflicted about 300 casualties with over 50 dying. It was the biggest victory the Sobaipuris had ever inflicted on the Apaches and their allies, and the visiting Pima and Papago had contributed significantly to the outcome.

Coro immediately sent word of the victorious battle to Kino with the count of the slain Indians on a "long stick." Kino immediately notified his religious superior and the military of the great victory. The padre went to see the sight and found the Spanish military there represented by 22 soldiers. Manje, one of the officers, claimed he counted the bodies of 60 of the enemy and estimated that another 168 died further afield from the effects of the poisoned arrows used by the Sobaipuris.



Everyone was pleased and overjoyed at what they called "the fortunate event." The senior military commander thought the victory would bring relief to all the province and promised to give presents to the Sobaipuris. The latter had been offered to the villagers if they struck a good blow at the Indian enemies of the province. By far the proudest man was Padre Kino who saw this victory as a complete vindication of his Sobaipuris.

Kino did not arrive at the battle site until 23 days after the fight, but the dead bodies were still there, and he counted 54 corpses — 31 men and 23 women. The victors gave the Spanish leaders the spoils of the battle which included an arquebus, powder and balls, a leather jacket, along with buffalo and deer skins, bows and arrows and the scalps of the slain enemies.

The Sobaipuris in the two villages involved in the fight received at least a couple of thousand pesos worth of clothing. They received praises by the score and became the toast of the Spanish missionaries and military for their triumph. Kino used it to put some weight behind his attempts to get more missionaries in the area. Before the praises had ceased the villagers, fearing reprisal from their enemies, abandoned both of their villages and relocated to Los Reyes on Sonoita Creek near present day Patagonia. The move closer to the Spanish missions did not please the Spanish leaders who wished for the Sobaipuris to serve as a buffer against the hostile Indians to the east. The move had only involved the Sobaipuris headed by Coro and left the upper San Pedro uninhabited as far north as Humari's domain, which was where the valley was narrowed by the mountains north of Tres Alamos. Padre Kino never visited the San Pedro again, but he worked for the Sobaipuris and tried to get a mission in the valley all the rest of his life.

As to why the Sobaipuris under Coro left their homes weeks after their victory there are two main theories. One of Padre Kino's superiors and definite antagonist wrote of the Sobaipuris as "having come out victorious, have remained so frightened that they moved at once from where they were living and established themselves inland, for fear that the enemy should destroy them." The captain in charge of the soldiers who went to witness the victory tried to get the Sobaipuris to go out and pursue the enemy. He reported they made excuses and so he did not push them.

Certainly fear of their enemies was the central factor. Coro had to do what was best for his people, and perhaps he realized that his Spanish allies were long on promise and short on deliverance. He had struck the hostiles a blow when the odds were in his favor, but to remain on the frontier as a buffer without more backing from the Spaniards would have been foolish.

The Apaches were now the dominant enemy and became more assertive. On the lower reaches of the San Pedro River, Humari's warriors had all they could do to keep their enemies at bay. From Los Reyes, Coro and his men joined the Spanish soldiers on a raid against the Apaches in November of 1699. In the spring of 1700 Kino called the native leaders to San Xavier del Bac. Humari and one of his sons attended the gathering but one son remained at home to guard their country against the Apaches. On Easter of 1700, Coro presented himself at the mission of Dolores and was baptized. A couple of weeks later Kino visited Los Reyes where Coro and 500 of his people were living.

In 1704 some of the Sobaipuris returned to the San Pedro and re-established their village on the river. They rebuilt on the burned ruins of their old site. The



new village was given the name of Santa Ana del Quiburi, but it was never as large nor as important as the original village. Apparently disease and warfare had taken a toll, but more importantly some of the Sobaipuris had chosen not to return to the exposed frontier.

Although Kino did not visit the San Pedro after his April 1698 trip, he continued to plead with his superiors for new missionaries, one of whom would serve in the valley of the San Pedro. His request called for a resident priest at the head village of Quiburi with the nearby villages being *vistas*. Beside the religious argument of saving souls, he stressed the fact that the Sobaipuris had fields with crops of wheat and maize and cattle, sheep, goats and horses which they had been tending for years.

In 1709 and 1710 Kino made his last attempt to get a mission for the San Pedro. He sweetened the inducement by stating that benefactors would contribute more than 20,000 pesos in suitable goods and some silver for the founding of the new mission. Kino alone committed a quarter of the promised amount. He included in this request a declaration that through the timely aid, the Sobaipuris would be able to pursue the hostile Indians bringing total relief to the whole province of Sonora.

Kino, the friend and champion of the Sobaipuris, died in 1711. He had given the natives livestock, hope and promises; he never lived to see his promises fulfilled. Coro died the same year in a hand-to-hand fight.

Times had been hard for the Sobaipuri leader from the time of his return to the San Pedro. Not only were the external forces ever present, he began to experience internal troubles as several would-be leaders challenged his position. One by one he killed his rivals in "various controversies" until he finally was killed. The new leader, El Turumisani, desired baptism and priests for his people. But with Kino dead, the long years of maintaining a special house for the promised padre and more than their share of trouble with the Apaches, the hope of the Sobaipuris grew thin. Fighting and disease took a toll on their numbers. Without substantial assistance from the Spanish, their years in the San Pedro area were numbered.

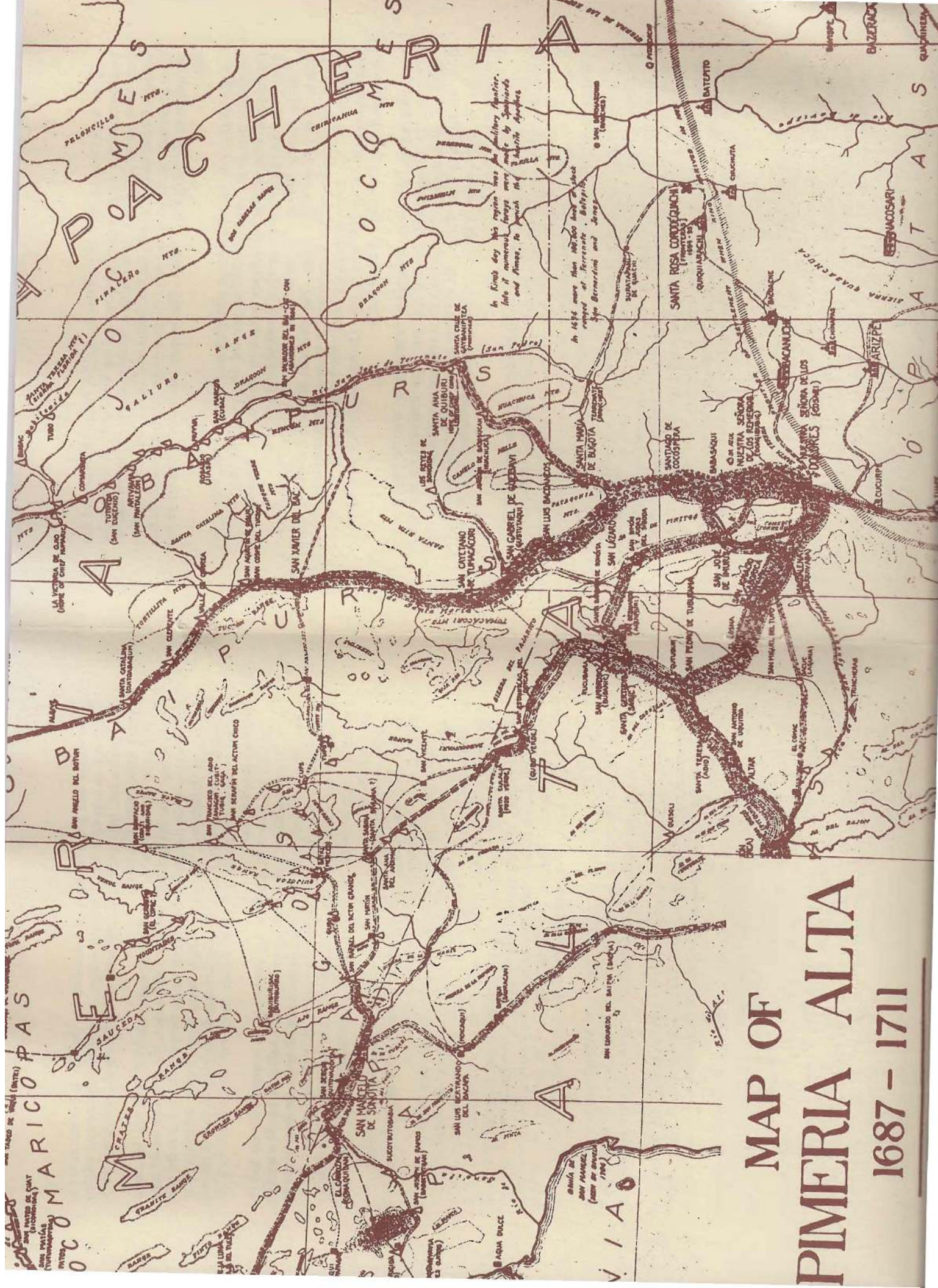
Padre Kino's successor at Dolores, Padre Luiz Velarde, wrote in 1716 of the poor situation among the Sobaipuris. He saw them as basically heathens with little religion; yet he did admit that they had had no missionaries to minister to them.

Still the Sobaipuris continued to ask for the missionaries. Finally the bishop of the diocese made an inspection tour of a portion of his area in the 1720s. He saw a great need for missionaries and requested the Spanish crown to send three missionaries to Pimeria Alta.

In the fall of 1728, the King directed that the bishop's request be fulfilled. Three missionaries were sent from Europe and arrived in Mexico City in 1731. They were assigned their posts, one to Guebavi, another to San Xavier del Bac and the third, Father Ignacio Xavier Keller, to the San Pedro Valley.

Captain Juan Baptista Anza of the Fronteras presidio escorted them to their new places of labor. The company traveled down the Santa Cruz Valley to San Xavier del Bac; then Keller, in company with Anza, traveled due east to the San Pedro. The party turned south traversing the area that Keller would serve, but the padre himself would reside at Santa Maria, actually on the headwaters of the Santa Cruz river before it makes its great bend to flow northward.





MAP OF  
PIMERIA ALTA  
1687 - 1711



Father Keller listed at least five villages on the San Pedro. He estimated that from his mission and a neighboring village and the five San Pedro villages that there were over 1,800 souls. It is not clear from his report if Humari and the northern faction had abandoned the San Pedro or if he was not including them since he did not visit them. Either way, the time of the Sobaipuris was fast coming to a close in the San Pedro Valley. The Spanish had arrived with too little too late.

Father Keller was a German Jesuit who preferred to go it alone, both in his travels and missionary work. In 1737 he traveled down the San Pedro River to the Gila and observed deserted villages ravaged by the Apaches. Apparently by this time at least Humari's followers had abandoned the San Pedro.

Things were far from well in the southern region of the San Pedro. Quiburi was no longer an important village. The chief and his family moved to Santa Maria. While San Pedro, a village located at or near the present international boundary, was the chief village in the San Pedro Valley. It was to this village that Indians desiring baptism went to from Quiburi and even Tres Alamos, or they went over to the mission at Santa Maria.

The attacks and raids by the Apaches grew in intensity with the passing years. Then in 1751 the situation in Pimeria Alta got worse instead of better when an Indian revolt hit the area. The northern Pima revolted against their Spanish masters. In the Santa Cruz Valley, the missions at San Xavier and Guebavi plus several in Sonora were destroyed. Livestock was either killed, run off or left without caretakers.

The Pima Revolt and the increased hostilities of the Apaches forced the Spanish authorities to take a more active stand in defending the northern frontier. In 1754 they established a presidio at Tubac to protect the heart of Pimeria Alta. After the Pima Revolt had been put down, the Jesuits reoccupied their stations. There was one last attempt to place resident priests in the San Pedro Valley.

In 1757 five new missionaries came to Pimeria Alta to bolster the sagging northern outposts. They were to be divided between Tucson and Quiburi. The latter location was chosen not because of the village's importance but strictly due to its strategic location as a gateway to the interior of Sonora, which if left open would invite Apache depredation. But the attempt to close the door by strengthening Quiburi with resident priests stirred the opposition of Father Keller at Santa Maria, who viewed the move as an infringement of his territory. He caused enough friction between the civilian and religious leaders to thwart the attempt.

Finally in 1762 those Sobaipuris who had not moved before were escorted from the San Pedro Valley by Spanish soldiers from the presidio of Terrenate. The Apaches had won complete control of the San Pedro.

Some of the Sobaipuris relocated at Santa Maria, others at San Xavier del Bac, with probably the largest contingent at Tucson. The Spanish authorities were much opposed to the move of the Sobaipuris and they tried to stop it but without success. With the buffer area removed, the Apaches destroyed the mission at Santa Maria in 1768. The flock, including the just relocated Sobaipuris, moved



to Cocospera, which became an Apache target the following year. The Sobai-puris moved west again crossing the Santa Cruz River and amalgamated with the Papagos. The Sobaipuris ceased to exist as a separate group of people, although some of their blood flows among the Papago of southern Arizona today.

While conditions on the northern frontier went from bad to worse, Spain belatedly tried to stop the deterioration of her northern possessions. In 1766 the King of Spain ordered an examination of the northern defenses from Texas to Sonora. An inspection revealed a need to realign the presidios to prevent the possible collapse of some of the northern provinces. The recommendations were to rearrange the presidial line by tightening it, closing gaps and choosing better locations.

The recommendations were approved and the work of implementation began in 1773 but deviated from the original plans. The Tubac garrison was moved to Tucson, which necessitated the moving of the next two presidio sites to the east to comply with the distance requirement. So the presidio at Terrante was transferred north and placed on the site of the abandoned Indian village of Quiburi to become the Presidio of Santa Cruz de Terrenate.

The move was officially made on Dec. 10, 1775. The garrison included a captain, a lieutenant, an ensign, one sergeant, two corporals, 40 soldiers and 10 Indian scouts for a total effective force of 56 men. The implementation directive stated that:

"Each soldier has on hand seven horses and one mule as the regulations require. The uniform which the troops wear is alike in all respects and consists of a short, blue plush jacket with a small cuff, red collar, and gilt buttons, blue plush trousers; and a cloth cloak of the same color. He also has a cartridge-belt, leather jacket, and leather bandolier on which is embroidered the name of his presidio; as well as a black tie, hat, shoes and leggins.... The weapons consist of a broad sword the size and shape the cavalry uses; a lance, leather shield, and smooth bore carbine; and pistols which have been sent to these frontiers by the King's order for use in the presidios."

The Spanish had for the first time established themselves in the San Pedro Valley, but they came too late and with much too little. The soldiers suffered the same Apache raids as had the Sobaipuris. In 1776 the presidio's captain and 30 of his men were attacked on the road to the adjacent presidio at San Bernadino. The following year the settlers who had moved in to provide food for the garrison had their crops and houses burned and they were scattered.

In 1778 the presidios had all they could do to defend their horse herd, and they inflicted few casualties on the Indians. The next year 34 soldiers engaged 60 Apaches on an open plain and lost their captain and 19 soldiers and settlers.

In 1789 conditions had deteriorated to the point that no crops had been raised and the soldiers and their families were suffering from hunger. One final misfortune occurred as a detail of 10 men attempting to carry mail to San Bernadino perished at the hands of the Indians. The road to the east was in reality impassible and the garrison was "suffering daily attacks of the enemies."

The frontier soldiers in the San Pedro Valley were more presidial prisoners



than frontier defenders. In 1780 the Spanish authorities yielded to the precarious situation and withdrew the garrison southward to Las Nutrias on the west side of the Huachuca Mountains.

The Spanish occupation of the San Pedro had been short, unfortunate and sad. After 1780 there were only occasional Spanish military forces on expeditions against the Apaches who moved through the San Pedro area. For all of Arizona, the Spanish had by the end of the 18th century made but small inroads from the beginnings a century earlier. The Apaches had grown stronger and bolder and they controlled all of the San Pedro Valley and most of southern Arizona.

A change came in the late 1780s and 1790s when Spain launched its largest coordinated punitive expeditions against the hostiles. With a stick and carrots philosophy, the Spanish authorities combined military pressure with promised presents on a regular basis to make peace attractive to the Indians. Besides the goal of peace, the hope was to induce the Indians to settle on reservations where they would receive the gifts and also be watched by the military.

One group of Arivaipa Apaches living in the San Pedro Valley moved near Tucson and established the first such reservation in that vicinity about 1793. The system of gifts or bribes brought a marked decrease in the Indians' raids and ushered in what has been called Spain's "Golden Years" on the frontier. The northern frontier of New Spain began experiencing some economic growth.

With the relative peace, the livestock industry pushed northward as the ranchers petitioned the Spanish government for land grants. The first grants in northern Sonora and Arizona were in the Santa Cruz and Sonoita valleys. Many of the petitions came in the period of transition between Spanish rule and Mexican independence, but they followed the same basic pattern since the Mexican government used Spanish regulations. In 1825 Mexico passed legislation regarding land grants; but with slight changes it followed the old Spanish regulations.

Then in 1821 a resident of Arispe, the capital of Sonora, petitioned for some land on the headwaters of the San Pedro River. Don Jose de Jesus Perez petitioned the government for a depopulated area known as the "San Pedro," which contained a house Perez claimed was the ancestral home of the Elias family. The land was situated south of the present international border. The cited house was two miles northeast of Las Nutrias, where the Spanish presidio relocated for the years between 1780 and 1788. Perhaps the house had been built and occupied during the time the Spanish soldiers were in the area. Perez requested that the survey be made upstream (south) of the old house to include some marshy ground with the better pastures.

The amount of land to be granted was limited to four sitios or four square leagues, which was a little over 17,000 acres, unless the prospective owner could prove that due to excessive livestock he needed more acreage. The applicant had to provide proof that he was a stock-breeder and could stock the land grant satisfactorily. Under the regulations, the land was surveyed, appraised and then published for 30 days to solicit other bidders. It was sold to the highest bidder.

The survey of the San Pedro grants was made and the land appraised. During



the proceedings a man from nearby Terrenate contested part of the land and a compromise had to be worked out. The lands were appraised with the better pasture land comprising three sitios valued at \$60 each and one sitio of marginal land for \$10. The publication of the grant with all necessary proclamations took place as required and finally with all the regulations satisfied, the sale of the land grant was ordered to be held at Arispe on July 3, 4 and 5, 1822. No one outbid Perez and he bought the grants for \$190 plus taxes and expenses (about \$18).

No title was issued for quite some time, which seemed to be the rule rather than the exception with the Mexican land grants. The Sonoran officials sent the papers and money to the board of the imperial treasury in Mexico City, which approved the sale to Perez. But little or no action was taken on the awarding of a title until the fall of 1832 when Ignacio Perez, a brother of the petitioner, petitioned the Sonoran authorities on behalf of his brother. At about the same time the owner sold his grant to Rafael Elias, who finally received the title, issued officially on May 8, 1833.

While Perez never had a title he did possess the land grant. He or his agent had to place monuments made of mortar or stone on the boundaries of the grant. Either they did not do this very well or something occurred to destroy the monuments because in the 1880s the owners had difficulties because the original monuments could not be ascertained.

Regulations said that if the land was abandoned for three years it would revert to the public domain. An exception was made if enemies of the province forced the evacuation of the land, which was the case in the 1830s when Apaches forced the abandonment of most of the land grant ranches in the area. This probably included the San Pedro grant, but this grant remained in legal possession of the family which acquired the title.

Further north, down the San Pedro River, another land grant was requested. On March 12, 1827 at Arispe, Joaquin Elias, on behalf of his brother, Rafael Elias, petitioned the Sonoran authorities for land to graze livestock. The request asked for the vacant land that adjoined the "Ranch of San Pedro" north as far as the "place three Alamos" (Tres Alamos).

The alcalde of Santa Cruz was authorized to measure and survey the grant and appraise it. The grant contained the normal four sitios and each one was appraised at \$60 since they all contained running water. The alcalde made publication of the land for 30 days beginning Aug. 30, 1827. No other offers were received and the final sale was made on April 16, 17 and 18, 1828 in Arispe when Rafael Elias bought the grant for \$240 plus taxes and expenses.

This became the San Rafael del Valle grant. It lay along both sides of the San Pedro River north of the present town of Hereford but did not extend north to Tres Alamos. Its northern boundary was 35 miles south of the asked for line.

The Eliases received their title five years later on September 25, 1832. Soon after the land was purchased, the Eliases placed cattle on the land and established their ranch, which they maintained until sometime in the 1830s when Apache raids finally forced the abandonment of the land grant. The family retained its legal claim to the land until deeding it away in the 1860s. United States courts confirmed the San Rafael del Valle grant in the 1890s.



Further north lay another land grant made a couple of months later than its southern neighbor. On May 12, 1827, Capt. Ignacio Elias Gonzales, an active military commander in the service of Mexico, and Nepomucino Felix applied for four sitios of land along the San Pedro River for raising stock. The land was surveyed and appraised at the going rate for land with running water — \$60 per sitio. In the fall of 1827 the new owners paid \$240 for the land. The title was issued on May 8, 1833.

The grant of over 17,000 acres lay along both sides of the river from a short distance of where Charleston would be a half a century later to a point a few miles south of where St. David is today. The grant was three-quarters of a league wide and 5½ long. The owners called their grant San Juan de las Boquillas y Nogales. "Boquillas" means little mouth in Spanish and so it was with the grant. The mouth of Babocomari Creek entered the San Pedro almost at the center of the grant. Thus the grant contained the area where Padre Kino placed the first cattle with the Sobaipuris who lived on the river.

The ranch established on this grant experienced the same fate as the others. Cattle were placed on the land during a time when Apaches were relatively peaceful. Then when the Apaches increased their attacks the ranch was abandoned. The owners and their heirs still retained their claim and sold it to other people who were able to get the grant confirmed by the courts.

In 1831 several empresarios, or promoters, filed for a new type of grant along the San Pedro — the only attempt for such a grant in Arizona. The promoters requested a huge grant of land, which they offered to occupy with colonists. They asked for 58 sitios (approximately 251,630 acres) divided among eight empresarios with the new grant to be called Tres Alamos. The state of Sonora made a preliminary move on the request in December of 1831, but the Apaches resumed full scale raids and attacks in the area and no further action was taken to carry the request through.

After the Mexican War the government of Mexico, in an attempt to occupy some of its northern frontier as a buffer against the Americans and hostile Indians, tried to create a grant in the same area. A grant for 10 square leagues was issued by the Mexican authorities, but the Apaches made it impossible to take possession of the area. Then the United States acquired the area under the Gadsden Purchase. The courts rejected the claims of those who later purchased the unoccupied Mexican grant.

In December of 1846, Lt. Col. Philip St. George Cooke led the Mormon Battalion into the San Pedro Valley. On the night prior to entering the valley Cooke and his chief guide, Pauline Weaver, discussed their route west to the San Pedro River, which they expected to find near the San Pedro land grant. On Dec. 8 the battalion entered the valley and encountered wild horses and cattle which were descendants of the livestock that were on the land grant ranches until the ranches were abandoned in the 1830s.

The battalion reached the river on Dec. 9 but several miles north of the San Pedro grant, if Cooke and Weaver had the right name on the ranch. They encountered the river in the area of the San Rafael del Valle grant and the following



day found some of the ranch's ruins. Cooke was not sure whether the ruins on the eastern bank were those of "a deserted ranch, or possibly only an adobe cattle pen."

On Dec. 11 the battalion continued its march down (north) the river. Near the place where Babocomari Creek joins the San Pedro River, they had several skirmishes with wild bulls. Cooke named the small stream joining the river "Bull Run."

The following day the battalion was forced to leave the river bottom to go around a place where some rock narrows made travel impossible along the river. As they passed around this obstacle, they encountered another set of ruins which Cooke described as a "ruined rancho, which is probably the true San Pedro." Although the battalion was in approximately the middle of the San Juan de las Boquillas grant, the ruins were probably those of the old Spanish presidio on the site of the Indian village of Quiburi.

The ruins along the San Pedro which the battalion saw were not comparable to the San Bernadino ruins in size or scope. There had been presidio sites and land grant ranches at both locations. Unless the battalion missed the major ruins along the San Pedro, which is unlikely, the difference probably lies in the fact that the San Bernadino was a much larger grant and had been established several years earlier than the San Pedro grants.

Sylvester Mowry, the "Grand Señor of Arizona" who as lobbyist, promoter and propagandist of Arizona, once praised the Spanish settlements in the San Pedro Valley. In this regard, however, he missed the mark by quite a distance. The Spanish only had a short five years tenure at the Presidio of Santa Cruz de Terrenate; and if he fused and confused the Mexican land grants in his thoughts, they hardly qualified under his statement.

The rulers of the San Pedro during the historical period were the nomadic Indians, principally the Apaches, and their reign continued into the latter portion of the 19th century. Even so, the valley had historical characters of note pass through and the area has an interesting story from the time of the Spanish entrada down to the era of passing into the possession of the United States.

**About the Author:** Larry D. Christiansen is a native of the West and was a history instructor at Cochise College for six years. He now resides in North Carolina but continues his hobbies of reading, writing and researching the history of the American West.



## A BRIEF HISTORY OF PHOTOGRAPHIC PROCESSES AND SOME SUGGESTIONS FOR PRESERVATION OF OLD PHOTOGRAPHS

By Joan Metzger  
and Barbara Bush

Most of us are familiar with photographs taken with an Instamatic camera or slides from a 35 mm camera. There are, however, a multitude of photographic items dating back to the middle of the last century which you might find in your family collection. These old photographs, while perhaps a curiosity to us, were very exciting to a world which previously had to rely on sketches, paintings or engravings for a view of other people and foreign places.

Can you imagine not knowing what your elected leaders or military or sports heroes looked like? Can you imagine not knowing what an elephant, kangaroo or ostrich looked like? Can you imagine what it was like to know only the things that you actually saw about you? Before photography an artist's view of the world was the only aid available for the inquiring mind, unless a person could afford to travel and see for himself. Artists, however, were not always accurate in their work.

An example of how an artist could distort reality is in the series of lithographs made of several United States cities by Louis Le Breton. LeBreton made them to show Frenchmen traveling to the California gold fields in 1850 that they had nothing to fear. His depictions of New York, Baltimore and Philadelphia show Egyptian pyramids, Greek temples, Japanese pagodas and minarets in the midst of the other buildings. The inhabitants of these cities dressed in costumes which included fine evening clothes and East Indian saris topped off with headgear ranging from "coolie" hats to Turkish fezzes. Transportation included rickshaws, horse drawn omnibuses and hot air balloons.

The advent of photography not only helped clear up such misconceptions, but brought the wonders of the world and images of distant relatives into the home — a sort of window on the world. This is what made photography so very popular with rich and poor alike.

Photographic materials can be broken into two types, negatives and positives (or prints). Three of the earliest photographic forms combined negative and print in one item.

The first of these practicable photographic processes was the daguerreotype, also known as the "mirror with a memory." The daguerreotype was invented by the French painter Louis Jacques Mande Daguerre in 1839 and it was popular until the early 1860's.

This process made finely detailed images on silver-plated copper sheets which had a mirror-like quality. Like a mirror, the image is laterally reversed and this image appears positive or negative depending on how light reflects on its surface.

The daguerreotype image was fragile so it was usually protected with a covering sheet of glass. Often a decorative mat was placed between the two surfaces. Then the edges were taped together and the whole thing placed in a shallow leather or wooden covered box. The inside of the lid was usually padded with velvet or satin. Daguerreotypes were made in several standard sizes ranging from 1½ x 1¾ inches to 8½ x 13 inches but the most common size was 2¾ x 3¼ inches.





Original deguerreotype in original case of Mrs. Smith Mozier, maternal grandmother of F.S. Dellenbough. Inset shows entire case. (Photos courtesy of Arizona Historical Society.)



Since several minutes without movement were required to capture an image, it is estimated that 95 percent of all daguerreotypes were studio made portraits. These portraits were often hand tinted to make the people appear more lifelike. Pink cheeks and gold jewelry were common touches.

Ambrotypes, produced between 1854 and 1880 were made by a process similar to daguerreotypes. They were made on glass rather than on copper sheets and are actually underexposed wet-plate glass negatives. Ambrotypes do not have the mirrorlike quality and, as the emulsion side of the glass is turned away from the viewer, the image is not reversed laterally. They were backed with black paper, velvet or a dark varnish which acts as a barrier to light resulting in a positive image.

This process evolved from the wet-plate glass negative developed by British photographer Frederick Scott Archer in 1851. James A. Cutting of Boston did much to promote this process, but could not get a patent on it due to Archer's previous work.

Ambrotypes were made in the same sizes as daguerreotypes and were placed in the same kinds of miniature cases. The same as daguerreotypes, most were portraits and were often hand tinted. Ambrotypes were a little easier to make and cheaper than daguerreotypes, but the detail was not as fine and the contrast was not as good.

The third type of photographic image which was made without a negative is the tintype, or ferrotype. Tintypes were variations of ambrotypes made on thin sheets of iron, but since they could not be turned over they did not manifest the lateral reversed quality.

This process was developed about 1855 by Hamilton L. Smith of Kenyon College, Ohio, and enjoyed great popularity through the 1890's. They were made into the 1930s but mostly as novelty items at fairs or other exhibitions.

Tintypes were less expensive than daguerreotypes or ambrotypes, but like them were seldom made of exterior views. Many of them were hand tinted, but the contrast was less than the other processes.

Tintypes were durable and therefore easier to mail or carry around in a pocket. It's easy to see why they were popular during the Civil War and why so many tintypes of soldiers in uniform are found in collections.

Tintypes came in standard sizes ranging from "gems" at  $\frac{3}{4}$  x 1 inch to full plates at  $6\frac{1}{2}$  x  $8\frac{1}{2}$  inches. To protect the image after it was made, the surface of the tintype was usually coated with varnish. Some early tintypes were put in miniature cases, but usually they were just inserted into paper mounts which have not survived the passage of time. Some small tintypes, such as the "gems," were used in jewelry or were affixed to gravestones.

Each daguerreotype, ambrotype or tintype image was unique. One exposure resulted in one image. If more than one portrait was desired, the person would have to sit for the photographer for the desired number of exposures.

At the same time Daguerre was doing his work, British inventor William Henry Fox Talbot perfected a photographic process involving use of a paper negative from which a number of paper positive prints could be made. Talbot discovered that paper coated with silver iodide could be made light sensitive. He announced his process, called the calotype, in 1839.

One disadvantage was that the grain in the paper negative also appeared in the finished print, reducing the detail. Because of Talbot's patent rights, the process



In Archer's process, the glass was coated with an emulsion by the photographer immediately before the negative was exposed. Since the plate had to be exposed and developed while wet, the emulsion tends to be thicker at the edges than in the center.

The photographer needed a darkroom close at hand to perform this work, but ingenuity in the shape of the traveling darkroom brought more photographers than ever before out into the field. Heat and humidity didn't trouble studio photographers much but presented problems to traveling photographers, especially in the desert southwest.

Enlargements were still not practical so the glass plate negatives were hand made to the size of the desired print. The largest workable size was about 20 x 24 inches but of course it was quite unwieldy.

In 1871 English doctor Richard Leach Maddox introduced a gelatin emulsion on glass. In 1879 dry glass plate negatives, as they were also known, became available in the United States. They were manufactured in standard sizes and were sold pre-sensitized and ready to use.

The glass was thinner and the emulsion coating much more uniform than wet plate negatives. Although still a fragile medium, the gelatin dry plate negative was a great convenience to the photographer, especially as he did not have to print immediately after exposing the negative. These negatives were sold commercially up to about 1920 and with their development came an explosion of photographic print processes.

Probably the most popular print developed was the albumen print which was produced from about 1850 through the mid-1890's. Frenchman Louis Desire Bianquart-Evrard invented the new kind of sensitive paper in 1850. He discovered that egg whites, or albumen, were a good medium for retaining images on paper.

A negative was placed in contact with the paper and the image produced was fixed and toned by the photographer resulting in a sepia (reddish brown) colored print. Prior to 1872 the photographer would purchase the paper already coated with the albumen solution and would sensitize the paper as needed. After 1872 presensitized paper became available. The surface quality of this paper was so reliable that millions of eggs were diverted from the breakfast table to the darkroom to satisfy the demand for this paper.

Since albumen prints were made on a very thin paper that tended to curl, they were almost always mounted on a stiff card that came in a variety of sizes. These mounts varied in size. The carte-de-visite was 2½ x 4½ inches, the cabinet 4½ x 6½ inches, the panel 4 x 8¼ inches, the boudoir 5¼ x 8½ inches and the imperial 6⅞ x 9⅞ inches. There were several others. These cards often contained information about the photographer or the studio where the print was made.

The carte-de-visite was perhaps the most popular form of albumen card print. It is reputed that the Duke of Parma requested small photographs be placed on his calling cards. 2

Calling cards were the traditional manner of introduction among the middle and upper classes. Known therefore as the calling card photograph, the carte-de-visite was patented in Paris by the photographer Andre Adolphe Disderi in 1854. They became popular in 1859 after Napoleon III stopped by Disderi's studio to have his photo taken as he was leading his troops out of Paris.

Carte-de-visites were introduced into America by George Rockwood and



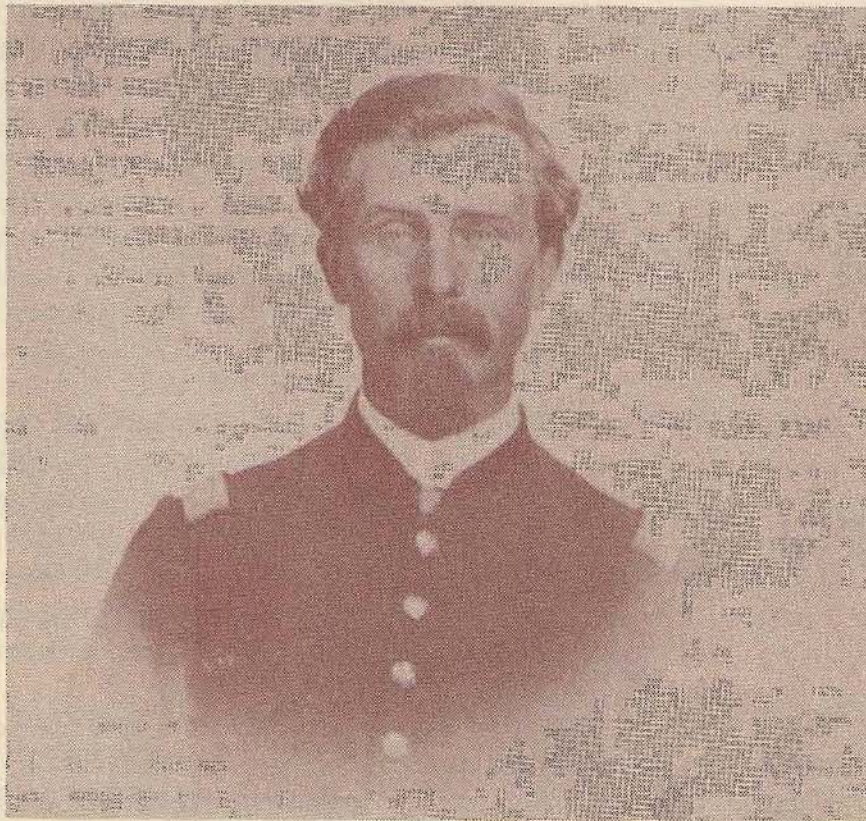
Charles Fredricks about 1859. Their success resulted in the mass production of portraits of famous people for sale to the public. The images of celebrities, statesmen and royalty were sought after by collectors. Collecting carte-de-visites became a hobby much like collecting baseball cards today. Even Queen Victoria collected them and had 36 albums in her collection.<sup>4</sup>

When looking at your family collection you may find an old carte-de-viste with a stamp on the back. This stamp is a U.S. tax stamp which was required from 1864 to 1866 and therefore is a good indication of date.

Carte-de-visites were often made as a group of images exposed on a single glass plate. The plate was printed on albumen paper and the resulting images cut apart for mounting. Carte-de-vistes remained popular until the turn of the century.

The cabinet size albumen print was brought out in London in 1866 by F.R. Window. This print was introduced to increase business when trade in carte-de-vistes began to drop off and it remained popular well into the early years of this century. In the years after 1880, card prints such as the cabinet sized photographs were made with whatever printing paper was available or what the photographer favored.

There are many other types of historic print making techniques such as the platinum print, Woodburytype, photogravure, gum bichromate and carbon print among others. There is a reading list at the end of this article that can provide



"First Lt. Wm. Barwick, 173rd Regt. New York Infantry." Original carte-de-viste by McPherson & Oliver, photographers, circa 1867. (Photo courtesy of Arizona Historical Society.)



more information on these.

One very interesting and distinctive photographic type is the cyanotype. Cyanotypes were invented in 1842 by Sir John Herschel as a means of reproducing line drawings. They are easily identified by their intense blue color, similar to blue prints. Cyanotypes did not become an acceptable medium until the period of 1885 through 1910 when the low cost and ease of processing appealed to amateur photographers.

Professional photographers used the cyanotype process to proof negatives to check which images they wished to print. Most of these paper prints are not mounted. Occasionally cyanotypes which were left untrimmed can be found bound into small scrapbooks.

In the last half of the 19th century, the stereoscope provided a popular form of home entertainment. The stereograph or stereo card was a double image mounted side by side on a 3½ x 7 inch card. By viewing two almost identical images separately with each eye an illusion of three-dimensional depth occurs.

Sir Charles Wheatstone made stereo views using daguerreotypes as early as 1841. Since that time most of the photographic processes have been used to make stereo views.

Most stereo cards were viewed through a stereoscope such as the one devised by Oliver Wendell Holmes in the late 1850s. "Armchair travelers" could look at photos taken of New York or Greek ruins or European castles. Images of Egypt and the Middle East were sought after since many people were curious about the places they had learned about in the Bible.

Scenes from all over the world were produced in vast numbers which kept many photographers busy searching for new views. Because of the great numbers of stereo cards produced, a large number have survived over the years. Many of these are the only known photographs we have of certain subjects.

Early stereo cards were flat, but many of the later ones were curved for greater effect. The special stereographic camera which was used had two lenses mounted 2½ inches apart, the average distance center to center between human eyes. The images were made on a single glass plate and after printing the two images were cut apart and mounted. Stereo cards remained popular into the 1920s.

Lantern slides provided another form of group entertainment from about 1860 until the 35 mm slide replaced them in the 1930s. A lantern slide is actually a 3¼ x 4 inch glass plate positive which was usually tinted or colored by hand with transparent oils. Slides were normally protected with another piece of glass taped together along the edge.

Illustrated lectures featuring lantern slides were quite popular after the Civil War. Like stereo cards, lantern slides were often sold in boxed sets and manufacturers carried catalogues featuring a wide variety of subjects.

In 1888 George Eastman revolutionized the photograph industry by introducing what might be the most famous of all hand cameras under the formulated name of "Kodak." This small box camera with a barrel shutter made easily identified round pictures using his "American" film, a gelatin bromide emulsion coated paper.

The user paid \$25 for a camera loaded with film for 100 exposures. After making his exposures the user would send the whole camera back to the factory with \$10 for processing, printing and reloading of the camera with more film.



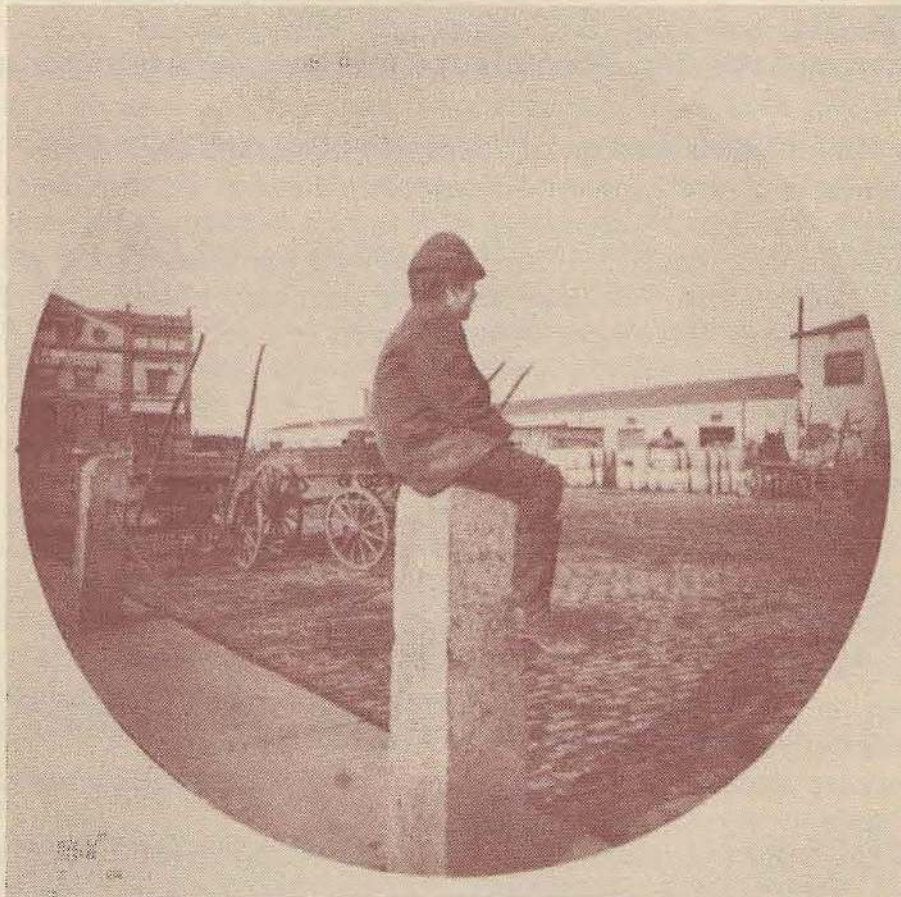
Eastman's slogan "You press the button, we do the rest," explains the concept which made photography what it is today. For the first time the ordinary person could go out and take pictures of things that interested him, his home and family, or the places he visited. There was no need for special training, heavy equipment or a dark room. Virtually anyone with \$25 could be a photographer and across the nation that is what happened.

The weight and fragility of glass negatives led Eastman to experiment with other materials. He experimented with a paper negative in 1883 and in 1886 on an even better material — a gelatin film negative. By putting negatives on a roll, a photographer could make many exposures without changing plates.

In 1889 Eastman came out with the first true roll film on a nitrocellulose base. Nitrate film, also available in sheet form, while convenient was, and is, a highly flammable substance and it is a hazard in any photo collection.

One example of the potential danger of this material comes from the film industry itself. When the movie "Elmer Gantry" was made the director was trying to shoot a tent revival scene in which the tent catches fire. Several different methods were tried to get the tent to burn but the director was not satisfied with the results. After stringing some 35mm nitrate-based film around the tent, the scene was shot again. The film burned rapidly creating an instant holocaust — the very effect the director wanted.<sup>4</sup>

Nitrate film negatives are undoubtedly the most destructive element in any photo collection. Nitrate film was produced until 1939 in both sheet and roll forms, and if found with an accumulation of long-forgotten family photographs



Unidentified scene taken with a No. 2 Kodak camera. (Photo courtesy of Arizona Historical Society.)



you might notice a pungent odor, brittleness or other signs of decomposition on the negatives. Nitrate film needs to be stored separately, far away from other photographic materials, under cool temperatures and with adequate ventilation.

In the mid-1930's a safety film was developed which did not possess the problems of nitrate film. By the 1950's, therefore, nitrate film had been replaced by safety film with few exceptions. Cellulose triacetate and polyester films are used today. There have been various color print processes since 1907, but color prints, even by modern techniques, are basically unstable and will fade eventually.

When we page through an old photograph album or discover a trunk of old family photographs, we are looking at a valuable resource. They tell us about life, history and our family heritage. Your photographs of the family on vacation this past summer or your children in a parade could be of historical interest someday. Take care of the photographs in your possession for they are moments in history.

### NOTES

1. Weinstein, Robert A. and Larry Booth, **Collection, Use and Care of Historical Photographs**, Nashville, Tennessee: American Association for State and Local History, 1977, p. 4.
2. "Selected Chronology of Photographic Processes," compiled by Richard Rudisill, Museum of New Mexico, p. 4.
3. Macdonald, Gus, **Camera Victorian Eyewitness, A History of Photography: 1826-1916**, New York: The Viking Press, 1979, p. 53.
4. Weinstein, **Collection, Use And Care of Historical Photographs**, p. 189.

### Guidelines for Care of Personal Photograph Collections

1. Don't leave photos lying around unprotected and exposed to light, heat or dampness. Storage in a 70° room with 40% to 50% humidity is best, but a room with a constant temperature is recommended over one experiencing great fluctuations in temperature. Humidity and heat encourage mildew and chemical reactions; ultraviolet light causes fading and deterioration.
2. Separate photos, negatives, newspaper clippings, etc. as the various chemicals in each tend to work against each other.
3. Sort photographs by years, then by events or groupings of family members.
4. Have older family members help identify photographs before it is too late. Identified photos are more valuable to families as well as to historical institutions.
5. Handle negatives and prints only by the edges, or buy disposable white cotton gloves. Dirty or oily hands can damage photos.
6. Never write on the image side of the photo.
7. Write only with pencil on back of photo near edge. Never use ink, felt tip pens, or rubber stamps on photos.
8. Don't use rubber bands or paper clips to hold photos or negatives together. Rubber bands rot or melt and paper clips rust.
9. Avoid contact with adhesives such as tapes, rubber cement, glues or pastes on photos. The chemicals in these materials can cause permanent damage. Beware also of "sticky page" photo albums.
10. Use a new, soft bristle brush to clean photos and negatives of excessive



dirt.

11. If photos or negatives have chemical or pest damage see an expert, or have a reproduction made and discard damaged article.

12. Do not take daguerreotypes or other cased items apart unless it is an immediate necessity to save the image. Remember the cases are also valuable artifacts.

13. Store photos in acid-free envelopes or mylar sleeves which are available at many photographic supply stores. Archival photo albums are also being made now. The photo curator in your local museum can also help you locate sources for these materials. If cost is a factor, store photos in clean envelopes or folders, or make an album of high-quality paper and make diagonal slits to hold edges of photo prints.

14. Don't store photos or negatives in plywood, masonite, composition board or wooden boxes as the peroxide in the wood attacks emulsion. For storing large numbers of photos or negatives, use baked enamel cabinets.

15. Never mix food, cigarettes or drinks with photographs. A spilled cup of coffee or a stray ash could damage irreplaceable photographs and negatives.

### **Suggested Reading List of Photographic History and Preservation**

#### **General**

Davies, Thomas L., **Shoots: A Guide to Your Family's Photographic Heritage**, Danbury, New Hampshire: Addison House, 1977. An easy to read guide to understanding and preserving family photos.

Haller, Margaret, **Collecting Old Photographs**, New York: Arco Publishing Co, Inc.

Macdonald, Gus, **Camera Victorian Eyewitness: A History of Photography: 1826-1913**, New York: The Viking Press, 1979

Towler, J., **The History of Photography**, New York: Morgan and Morgan reprint, 1969. This informative and interesting book includes detailed descriptions of early photographic processes. It was originally published in the 1860's.

#### **Photographic Preservation**

Eastman Kodak Co., **Preservation of Photographs**, Booklet F-30, Rochester, New York: Eastman Kodak Company, 1979. Brief and readable resource.

Keefe, Laurence E. and Dennis Inch, **The Life of a Photograph: Archival Processing, Matting, Framing, and Storage**, Boston: Focal Press, 1984.

Remple, Siegfried, **The Care of Black-and-White Photographic Collections: Identification of Process**, Canadian Conservation Institute, Technical Bulletin, Nov. 1979

Weinstein, Robert A. and Larry Booth, **Collection, Use and Care of Historical Photographs**, Nashville, Tennessee: American Association for State and Local History, 1977. An excellent source book.

**About The Authors:** Joan Metzger was an assistant photo curator at the Arizona Historical Society in Tucson for eight years until November, 1987. She now lives in Illinois where she is a docent for the Garfield Farm Museum and does publicity work for the Gurler Heritage Association and DeKalb County Historical Society. Barbara Bush has been with the Arizona Historical Society for 13 years. She is a photo librarian.