

# Chapter 1

## Mining In Hispanic Arizona: Myth and Reality

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In 1767, the Spanish Viceroy in Mexico City dispatched troops to the remote province of Sonora to put an end to a war with the Seri and other Indian tribes. Jesuit priests being expelled from Mexico were at the port of Guaymas when the soldiers arrived there in the spring of 1768. One of those priests, Father Ignaz Pfefferkorn, stated in his memoirs that the troopers were, with few exceptions, raw recruits—counting house clerks, merchants' apprentices, and "other such youths, inexperienced in warfare [but] dazzled by the fame everywhere circulated of the treasures found in Sonora..." According to Pfefferkorn, nearly all the soldiers were equipped with "gold balances and sacks, because they thought to find gold and silver in large quantities in all rivers, in all fields and mountains, and to return to Mexico laden with riches."<sup>1</sup>

The priest's comments make clear the fact that Mexico's northwest frontier enjoyed a widespread reputation as a region of great mineral wealth. In spite of disappointments associated with the Coronado expedition of 1540-42 and the later search for a mysterious mercury lake near a mountain range (the Sierra Azul) full of silver and gold, the northwest region—Sonora particularly—was viewed in 18th century Mexico as a vast storehouse of treasure whose recovery depended only upon subduing the hostile native tribes.

Sonora's fame persisted even though at the time of the Jesuit expulsion the province accounted for only a fraction over two percent of Mexico's total silver production. A few years later the percentage would reach ten, but would drop to half that amount by the end of the 18th century.<sup>2</sup>

The region now known as Arizona shared in the mining legends of northwest Mexico and early Anglo settlers gave full play to their imaginations as they embellished these tales. In an article published in 1968, Jesuit historian Fr. Charles W. Polzer went so far as to suggest that many of the mine and treasure legends associated with Arizona's Hispanic years are relatively recent in origin and largely derived from Anglo, rather than Spanish or Mexican, sources. Although there are a few tales that clearly date from the early years of Hispanic exploration and settlement, Polzer argued that the majority boast no such antiquity; and he pointed out

that self-serving Anglo mining entrepreneurs of the mid- and late 19th century were often major contributors to the spread of such legends.<sup>3</sup>

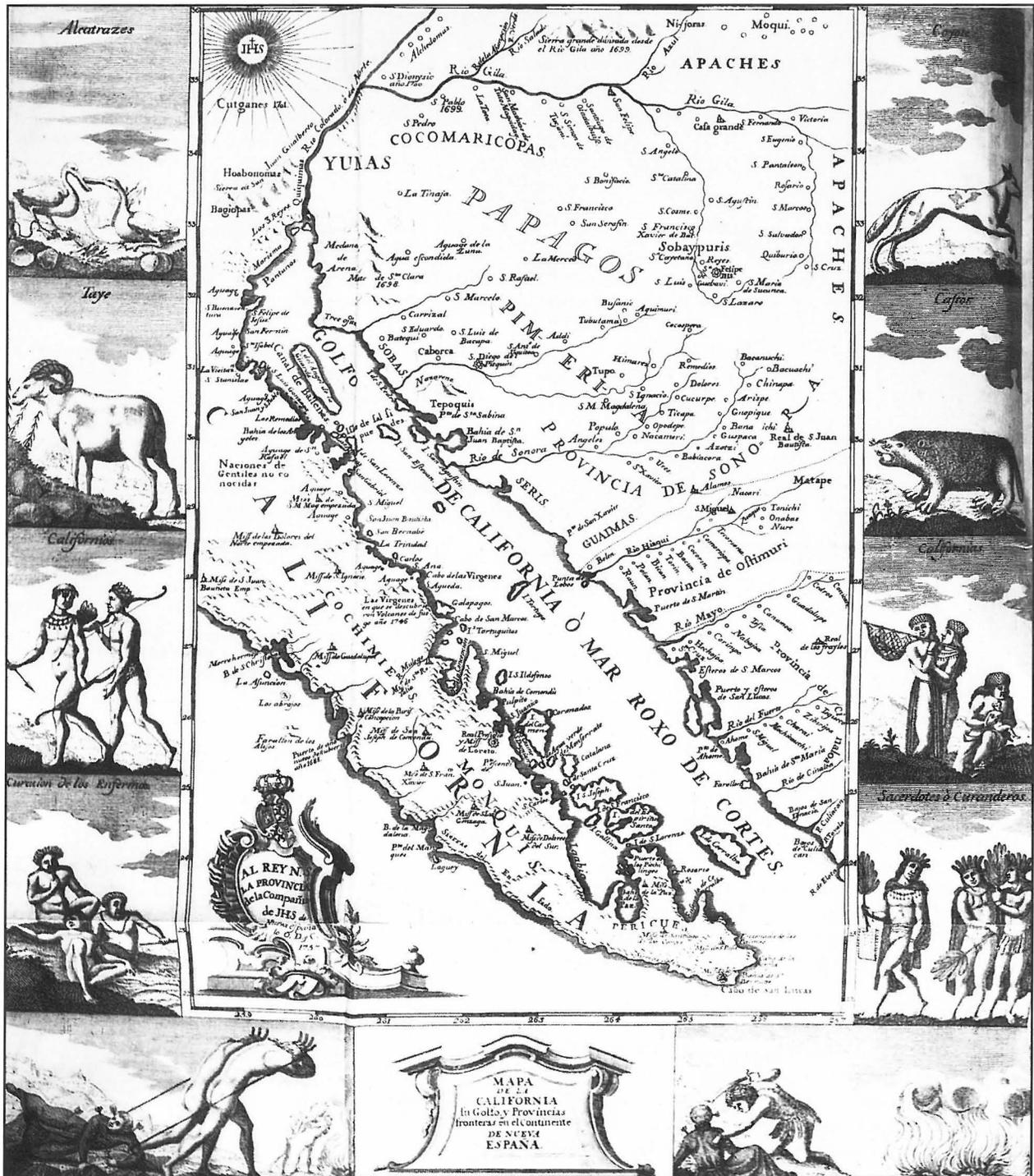
Regardless of who first invented and disseminated them, tales of lost mines and treasures have continued to enjoy widespread popularity and helped to make mineral prospecting a favorite pastime for many contemporary Arizonans. In October 1988, the *Arizona Daily Star* published a story about the discovery by government geologists of high concentrations of gold in sediments from stream beds in the Silverbell Mountains northwest of Tucson. Within twenty-four hours, more than thirty would-be prospectors called the state Department of Mines and Mineral Resources to express their interest in staking claims in the area!<sup>4</sup>

In the present chapter we will take a look at several well-known legends that relate to the Spanish and Mexican periods of Arizona history and identify some of the individuals who helped to spread those tales. Our main purpose, however, is to examine the accounts of Arizona mines and mineral deposits that appear in early Spanish and Mexican documents in order to gain a better understanding of the nature and extent of mining in the region prior to 1854.

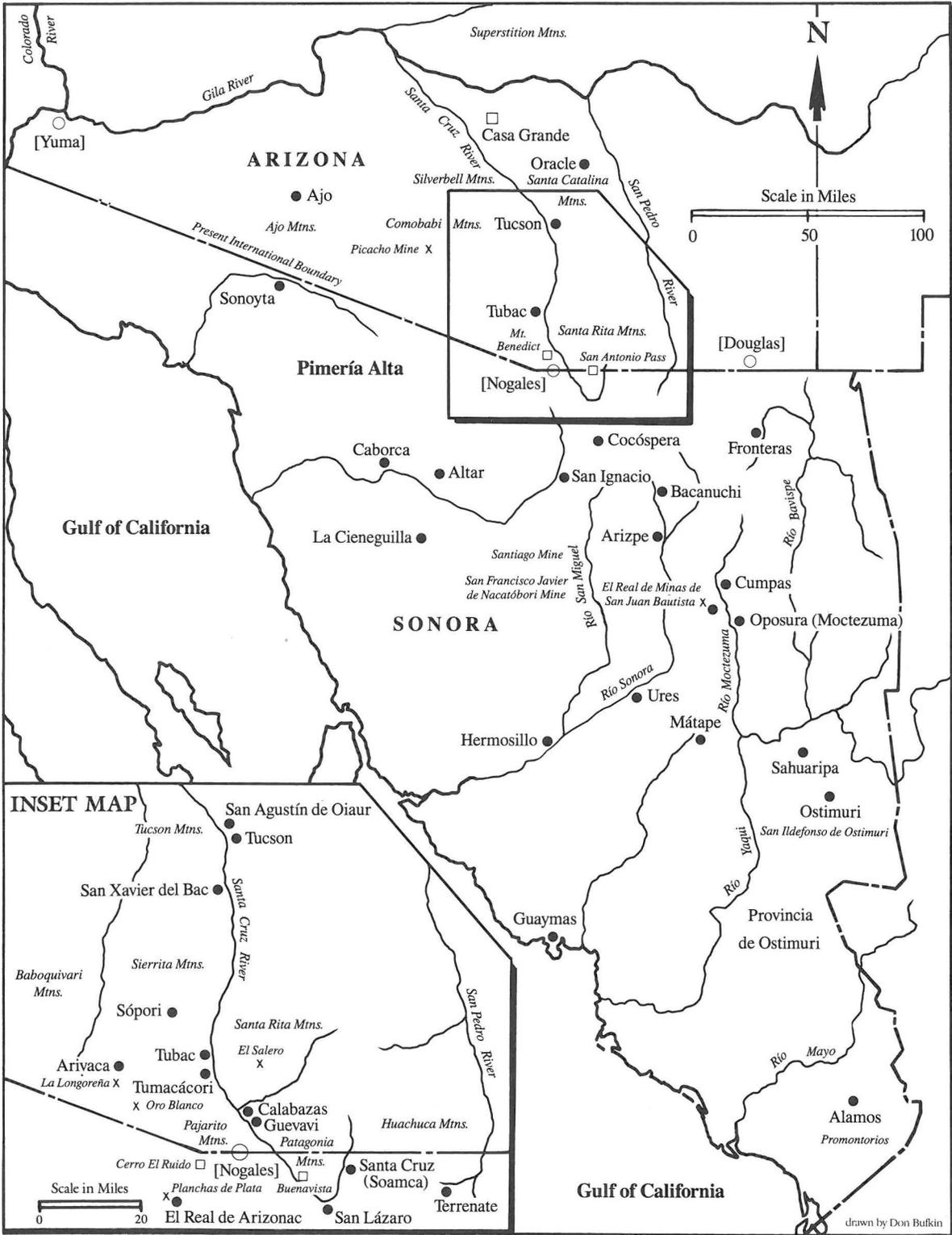
### Early Mine and Treasure Stories

Failure of the Coronado Expedition of 1540-42 to find the golden cities of Cibola and the Gran Quivira sought by its members removed much of the luster from the first important legends concerned with great mineral wealth in what is now the southwestern part of the United States.<sup>5</sup> Within a century, however, a new treasure tale had taken their place. This one focused on a mountain range called the Sierra Azul purported to be rich in silver and gold. The range included an elevation known as El Cerro Colorado (The Red Hill), near which lay a lake filled with mercury. The principal incubation period for Sierra Azul stories was the last half of the 17th century.

Interest in the Sierra was so great in the aftermath of the Pueblo Revolt of 1680 that the search for it contributed to the resettlement of New Mexico. The Spaniards felt that the Hopi Indians, some of whom had served as guides for early Spanish expeditions into



1757 Jesuit map of northwestern New Spain. A French reproduction of this map may be the one from which Sylvester Mowry extracted the names of purported Spanish mines and missions in Southern Arizona. Courtesy of the Arizona Historical Society Library.



Map showing principal locations of early Spanish settlements and mining communities of Arizona - Sonora Area.

Arizona, knew where the Sierra was located. Don Diego de Vargas, leader of the New Mexico resettlement, visited the Hopi villages to discuss the situation with the Indians there. He obtained from them samples of red earth purportedly taken from the Sierra site and said to contain mercury. The Mexico City specialists who examined these samples found no evidence of quicksilver, however, and Vargas was soon obliged to turn his attention to other matters.<sup>6</sup>

The legend of the Sierra Azul did not disappear with Vargas' failure to locate the site. While in the Yuma area in 1864, J. Ross Browne heard of "a golden region east of the Rio Verde and north of the Gila which Spaniards, Mexicans, and Americans have been trying to reach for over three centuries." José Manuel Espinosa, in a 1934 publication, traced the persistence of the legend to the present century. Some contemporary scholars have suggested that the Jerome area, where the Hopis and other Indians obtained minerals, is the most likely location for silver deposits visited by early Spanish explorers Espejo, Farfán, and Oñate; and they feel these deposits may have contributed to the Sierra Azul story.<sup>7</sup>

### The Beginning of Mining in Sonora

During the mid-1600s, when the legends of the Sierra Azul began to spread throughout Mexico, Spaniards started working mineral deposits in Sonora. The first recorded mines were a pair called the Santiago and the San Francisco Javier de Nacatóbori, both located near the spot in the San Miguel River Valley where the first Sonoran colonists had settled.<sup>8</sup> Although the longevity of these two mines appears to have been considerable, both were soon overshadowed by the Real de Minas de San Juan Bautista de Sonora which the Spaniards discovered in 1657. So important was this mining area that it became the capital of the province, a status it held for nearly a hundred years. The San Juan mines were located in what is now the municipio (county) of Cumpas, two hours drive south of Douglas, Arizona.<sup>9</sup>

In 1673, by which time the San Juan mines were in full production, Spanish prospectors discovered silver deposits at locations in east central Sonora not far from the modern town of Sahuaripa. The first important mining camp (real de minas) in the area was called San Ildefonso de Ostimuri. The region was removed from the political jurisdiction of Sonora and Sinaloa in 1676 and fifteen years later it became a separate province.<sup>10</sup>

Ostimuri is perhaps best remembered today as the setting for the so-called "Lost Mine of Tayopa," focus of one of the most famous Mexican mining legends. According to some tale-spinners, the Tayopa mine produced extraordinary wealth for more than a hundred years without the viceregal government ever learning of its whereabouts.<sup>11</sup>

By the end of the 17th century, Spaniards had established other mining communities in Sonora, among them Alamos, where the first significant deposits were discovered in 1683 at a place called Promontorios.<sup>12</sup> Some gold veins and placer deposits were worked at these early sites, but silver was the principal mineral.<sup>13</sup>

Many of the 17th century Sonoran mines were close

to Indian communities where Jesuit priests had begun to establish missions in the 1620s. Although the documents that are available provide scant evidence that the priests themselves engaged in mining, stories to that effect began circulating quite early and have continued to make the rounds ever since. The Lost Mine of Tayopa was one the Jesuits were supposed to have operated making use of Indian slave labor.

Following the failure of Franciscan priests from New Mexico to establish a permanent presence in the Hopi villages during the 17th century, the Jesuits extended their Sonoran mission effort northward to include the Pimería Alta (Land of the Upper Pimans). Father Eusebio Francisco Kino was a principal figure in the Christianization of this region and during the 1690s he, too, was introduced to the legend of the Sierra Azul. Certain of the Indians of the Gila River were said to paint their bodies with a type of red earth believed to contain mercury and Spanish officials felt it might have come from the fabled location to the north. They also were intrigued by tales of mercury deposits northwest of Casa Grande.<sup>14</sup>

In spite of contemporary legends to the contrary, Kino did not do any mining in Arizona or elsewhere. He, like other Jesuit missionaries, was proscribed by his order from engaging in such endeavors.<sup>15</sup> When he passed through Alamos in 1687, he commented on the extensive silver deposits there, but his principal interest was in the support the large mining camps could provide the Jesuit missions through purchasing commodities which the Indians produced.<sup>16</sup>

Kino's military escort for several of his journeys was Captain Juan Matheo Manje whose fascination with mines and mining was much greater than that of his Jesuit companion. In the diary he kept for a trip he made with Kino in 1697, Manje wrote that the Sobaipuri Indians of San Xavier del Bac told the Spaniards of "a silver mine to the west at a distance of twelve leagues...the metal apparently is of high grade."<sup>17</sup> This ore deposit may well have been worked by the Indians to obtain pigment, but it was not a mine in the usual European sense of the term. Still Manje's report and others by those in his party may have inspired later tales of mining by the priests and Indians at San Xavier.<sup>18</sup>

Also contributing to contemporary beliefs about mining at San Xavier in Jesuit times are misinterpretations of Spanish documents such as one made by the late Captain Donald Page, who did some original work in Spanish archives. In the book *Tucson—the Old Pueblo*, Page wrote that, "About April of 1702 several rich mines were discovered near San Cosme del Tucson and San Xavier del Bac." He did not provide a reference for this statement, but it almost certainly was based on a letter translated by Herbert Eugene Bolton in the first volume of his work entitled *Kino's Historical Memoir of Pimería Alta*. On April 8, 1702, Kino wrote to his superior, Father Antonio Leal, commenting about "the treasure and rich mines which have just been discovered near here at Quisuani, Aygame, San Cosme, etc., and very near to the new conversion or mission of San Francisco Xavier of the Pimas Cocomacaques of Pimería Baja."<sup>19</sup>

Page apparently did not realize that the San Cosme and San Francisco Xavier cited by Kino were not those of the Tucson vicinity, but Lower Pima missions farther south in Sonora. Of the discoveries referred to, only Quisuaní, near Pitiquito, was in the Pimería Alta.

During his twenty-four years on the Sonoran frontier Kino had considerable contact with Spanish miners, including prominent pioneer José Romo de Vivar whom the priest called upon occasionally to serve as a sponsor for Indians undergoing baptism. One of Romo de Vivar's godsons was the leader of the Sobaipuri Indians of San Agustín de Oiaur, a village within the city limits of modern Tucson. Following the baptismal ceremony, the chief took the Spaniard's name as his own.<sup>20</sup>

Best known to modern Sonorans as the founder of the mining town of Bacanuchi, Romo de Vivar had a ranch at San Lázaro, southeast of Nogales, and he may have done some mining or mineral exploration near there or even farther north in what is now the United States. He held a high office in the Sonoran government, which undoubtedly gave him an excuse to travel to remote areas of his jurisdiction and it is probable that he took advantage of such opportunities to examine the countryside for evidences of mineralization.

Although we lack documentary proof that Romo de Vivar extracted any ore from Arizona soil, he was certainly one of the most important of the early Spanish miners to live and work in the area that now forms the Arizona-Sonora border.<sup>21</sup>

## **Eighteenth Century Arizona**

The two decades after Kino's death in 1711 represent a period when Spanish missionization and exploration in Southern Arizona all but ceased. In 1720, Father Agustín Campos, the priest at San Ignacio, stated that the number of Jesuits serving the Pimería Alta during the preceding fourteen years had never exceeded three. More often, it had been only two, and many times, he had ministered to the whole area by himself.<sup>22</sup>

Jesuit priests took up assignments at Guevavi, Bac, and Soamca beginning in the early 1730s. Coinciding with this renewal of missionary activity was a remarkable mineral discovery that occurred in 1736 a few miles southwest of modern Nogales. The site, which came to be known as "Planchas" or "Bolas" de Plata [Slabs or Chunks of Silver], was located a short distance to the north of a new mining settlement called El Real de Arizonac or Arizona.<sup>23</sup> This find attracted large numbers of prospectors, some of whom pushed on northward beyond the present political boundary between the United States and Mexico.

In 1746, ten years after the "Planchas de Plata" discovery, Jacobo Sedelmayer, a Jesuit missionary, wrote an account of life in the Pimería Alta, the name then applied to Southern Arizona and Northern Sonora. In this account he reported that various mines had been located near the missions of "Guevavi, Santa María [Soamca] and San Javier del Bac." With respect to other parts of the Pimería Alta, he wrote the following:

I do not speak of mines of gold and silver, for this is not my province. Nor do the Indians of the Gila and Colorado have such things in mind either, for theirs is no such greed. This none the less does

not preclude the possibility of such riches being found in those regions. We can say, however, that no precious metals have thus far been discovered.<sup>24</sup>

The only mineral discovery in the Guevavi-Soamca-Bac region that Sedelmayer specifically mentioned was that previously referred to as Planchas or Bolas de Plata. However, he may have been thinking, also, of gold and silver deposits being exploited in the Guevavi area and in the Santa Rita Mountains. We know about the latter from testimony collected from settlers of the region in the aftermath of the Pima Revolt of 1751.

Two of the persons providing accounts of the Indian uprising stated that they had been engaged in mining activities at the time of the outbreak. Antonio de Rivera reported that he had been working small silver veins, in addition to ranching, and that shortly before the Pima Revolt he had gone to Guevavi to look at a gold outcrop there.

Francisco Padilla, described as a vecino (resident) of New Mexico, was identified as the proprietor of the Realito de Santa Rita, located in the mountain range of the same name. He observed that he had come to Sonora for the purpose of mining and that "when the uprising occurred" he was taking some ore (unos metales) to "the place called Buenavista."<sup>25</sup>

Information from other sources confirms that the Spaniards also worked mines at Arivaca prior to the Pima Revolt.<sup>26</sup> Antonio de Rivera, who gave testimony concerning his mining activities at Guevavi, also had a stock ranch at Arivaca and undoubtedly exploited the mineral potential of his property there. In 1764, a dozen years after the Pima Revolt ended, Jesuit Father Juan Nentvig wrote of a gold mine and several silver mines at Arivaca, but it is uncertain whether any of them was in operation at that time. Three different published versions of Nentvig's memoirs, two in English and one in Spanish, leave the reader in a state of utter confusion about this matter. They also disagree whether the mines referred to were at Guevavi or Arivaca.<sup>27</sup>

Although the Planchas episode brought attention to the mineral potential of Sonora, ore deposits in the area gained a reputation for being quite shallow as compared with those farther south. Jesuit priest Ignaz Pfefferkorn, who served in the Pimería Alta in the 1750s and 1760s, wrote in his memoirs:

Both the gold and silver mines which have been discovered in Sonora up to now, yield great wealth daily when they are first worked, but when a depth of some fathoms (klafter) has been reached, the mine either becomes filled with water so that one cannot continue working it, or the quantity of the metal becomes depleted and the miner is hardly compensated for his expenses.<sup>28</sup>

Another contributor to our knowledge of Spanish mining in Arizona during the 1760s was Nicolás de LaFora, Captain of the Royal Spanish Engineers, who accompanied the Marqués de Rubí on an inspection trip of the northern frontier of New Spain in 1766-67. LaFora came into the area from the presidio of Terrenate to the southeast and reported the presence of mines in the Huachuca Mountains, "which are now producing good silver." On December 19, 1766, he rode into Guevavi, by then a settlement of only fifty Indians. The Jesuit priest in charge of the mission and its visitas of Calabazas

and Tumacácori was Father Custodio Ximeno who would be the last of his order to serve in this region. If he or anyone else was operating mines at Guevavi, this fact did not come to LaFora's attention.

It does not appear that anything much was happening in the Santa Rita Mountains at this time. LaFora and the members of the Rubí party were in Tubac from December 20, 1766 to January 5, 1767. The engineer commented on the "Santa Rita range with its very high peak" but nowhere in his diary did he mention any mining activity there.

Arivaca, on the other hand, was the center of a limited amount of such activity. After leaving Tubac, the Spaniards headed west southwest toward the Altar presidio. Near the summit of the Arivaca pass, they encountered "a mediocre placer mine." Farther on, they came to a spot called La Ciénega (The Marsh), location of a silver mine which at that time was abandoned. Abandoned also was the mine at nearby "El Aribaca" itself.

LaFora several times mentioned a silver mining location called La Longoreña. Shut down in the aftermath of the Pima Revolt, it lay "a league and a half beyond La Ciénega," where he and his companions camped on the evening of January 5, 1767. LaFora observed that close to the site of La Longoreña was a small creek that ended in a very steep pass. Upon leaving the Arivaca region, the Spaniards followed the narrow canyon of this creek for two leagues, going south-southwest toward the Tres Bellotas Valley.<sup>29</sup>

One contemporary writer has placed the Longoreña mine in a heavily mineralized area approximately three miles south of the modern town of Arivaca. Nearby is Fragueta Wash, which could be the creek LaFora referred to.<sup>30</sup>

The comments of the Spanish engineer concerning the lack of mining activity around Arivaca early in 1767 are at odds with a statement made later by Juan Bautista de Anza, commanding officer of the Tubac presidio at the time of the LaFora visit. In his diary of a 1774 expedition to California, Anza noted that he spent the evening of January 9 at Arivaca, where there was "an abundance of water and of the best pasturage." Although he commented that Spanish occupation of the area ceased with the 1751 uprising of the Pimas, he also observed that "This place has many good mines of silver, which were worked until the past (sic) year of '67, when they were abandoned by reason of increased raids of the Apaches, who on three occasions beat down those who were working the mines."<sup>31</sup>

LaFora concluded his comments on Arizona mining with the observation that many gold deposits were reported to exist in the desert region occupied by the Papagos. He did not provide specific locations for any of these deposits, but stated that they lay beyond the high Babuquiri [Baboquivari] mountain range.<sup>32</sup>

Following the visit of his party to southern Arizona in 1766 and 1767, the Marqués de Rubí proposed relocation of the Tubac presidio; one of the sites he suggested was in the Arivaca valley. This recommendation was rejected, however, by Antonio

Bonilla, another inspector who came into the region in 1774. Bonilla observed that the valley was "large but marshy and unhealthful." The only benefit he could think of to justify the move was so that "the rich silver mines called La Longoreña, La Dura, and others could be worked."<sup>33</sup>

In 1777, three years after Bonilla's report, several citizens of Tubac visited Tucson, to which place their presidio had been transferred shortly before. They were responding to an order from Tucson's commanding officer to provide information about their area and its resources. With respect to mining, they commented:

There are many mines of very rich metals some twenty miles to the west in the vicinity of Arivaca. Three of these mines are especially productive. One yields eight ounces of pure silver to every twenty-five pounds of ore. A second yields forty-five ounces to every carga (100 pounds) of ore. The third mine yields a little less than this.

Ten to fifteen miles further on, in the Babocómari Valley, there are excellent gold placers. These were examined by José de Torres and all of the Tubac settlers. Three visits to these placers, where camp was made for three days each visit, reaped a profit of 200 pesos in gold. This can be verified by two merchants who traded their goods for it and now have the gold. Ten miles east of Tubac, in the Santa Rita Mountains, two silver mines have been worked with smelters and three more with quicksilver, all with a tolerable yield. Though these mines are common knowledge to all of the Tubac settlers, they cannot be worked on a permanent basis because of the Apaches...<sup>34</sup>

The Arivaca mines were apparently not in production in 1780, when they were visited by Royal Engineer Gerónimo de la Rocha who was carrying out still another inspection. In his journal, Rocha commented:

When I went to visit Arivaca Lieutenant Pablo Romero and two citizens of Tubac accompanied me. I found the ruins of houses and a landscape completely lacking in water. My companions informed me that they had never known the area to be so dry. It is a broad plain with abundant grass, and I was assured that it contains many, good silver mines and some gold placers.<sup>35</sup>

Several late 18th century documents mention a mysterious mountain range identified as Chigaguilla or Chihuahuilla. In 1781 Teodoro de Croix referred to it as "second in riches and known minerals." Second to what, he did not say, but he placed La Sierra de Chihuahuilla four leagues (approximately 10 miles) northwest of a proposed presidio site near "the abandoned Hacienda de Buenavista."<sup>36</sup> This would situate it on the northeastern outskirts of Nogales, Arizona in the vicinity of Mount Benedict where gold mines are known to have been worked by both Spaniards and Mexicans.

Complicating the problem of establishing the location of the Chihuahuilla Range, however, is the fact that LaFora in the report of his visit to Southern Arizona in 1766-67 placed it to the north of San Antonio Pass (El Puerto de San Antonio).<sup>37</sup> This pass, an important Spanish colonial landmark, lies a few miles northwest of Santa Cruz, Sonora and is directly south of the Patagonia Mountains!

In 1787, the Tubac presidio gained a second life, this time with Pima soldiers and Spanish officers. Although mining activity may have resumed shortly thereafter, it apparently did not continue for long. The commanding officers of the Tubac and Tucson garrisons reported in 1804 that there was no mining taking place in either of their districts at that time.<sup>38</sup>

Gold mining seems to have begun again at Guevavi by 1814 and it may have been on a fairly large scale. The labor force consisted of Yaqui Indians, who were among the most skilled miners in Sonora.<sup>39</sup> During this period or shortly afterward, miners also began working gold placers in the Sierrita Mountains southwest of Tucson.<sup>40</sup> Sometime before 1820, at least one of the Santa Rita mines—that known as El Salero—was back in operation.<sup>41</sup> Silver may also have been mined in the Arivaca region after 1812 when don Agustín Ortiz acquired a land grant there. The Longoreña mine was identified as the south boundary of his property.<sup>42</sup>

A statistical report on Sonora and Sinaloa published in 1828 mentions gold mining on “the Calabazas ranch” but the authors may have been referring to the Guevavi operation which was within the Pima land grant known as Tumacácori-Calabazas.<sup>43</sup>

Mining continued in Arizona for a few years after Mexico became an independent country in 1821. Most of it apparently ceased, however, during the early 1830s when Apache raids forced abandonment of the land grants. The Guevavi gold mine was worked intermittently until 1848<sup>44</sup> and after 1835, the Mexicans obtained gold from mines and placers in Papago territory a few miles south of the present international boundary.<sup>45</sup>

### Summarizing the Documentary Evidence

Early Spanish and Mexican documents clearly establish the fact that mining took place in Southern Arizona prior to the time that this area became a part of the United States. Doubt remains concerning the exact location of many of the early mines, but Spaniards and Mexicans worked at least five silver deposits in the Santa Rita Mountains and three in the Arivaca area. They mined silver, also, at the south end of the Huachuca Range, although it is by no means certain that these deposits were within the present boundaries of the United States. Additionally, they dug for gold on the slopes of Mount Benedict west of Guevavi Mission, and exploited placer deposits there, as well as in the Sierrita Mountains and the Arivaca area.

None of the Spanish and Mexican documents we have examined provides clear confirmation of Hispanic mining in the Tucson vicinity, at Ajo, Oro Blanco, or Sópори; nor in the Comobabi or Patagonia mountains. These are all regions where such activity is widely believed to have taken place.<sup>46</sup> Those who make such claims rely primarily on “reports” of discoveries of old shafts and ore processing facilities believed to date from the Spanish and Mexican periods of exploration and settlement. Regrettably, the “discoverers” are seldom identified or their credibility appraised. Given the threats posed by hostile Indians, it is unlikely that significant mining took place at remote and unprotected locations; however, some limited activity could have occurred at such spots.

Although Captain José Zúñiga, Tucson’s commanding officer, reported in 1804 that no mining was taking place in his district,<sup>47</sup> it is probable that prospectors had been at work for some time in the mountains surrounding the presidio. The Tucson Range, particularly, was close enough to be defended by the soldiers and mineral

deposits were undoubtedly exploited there. These could well have resembled the Snyder Hill prospect, mined more recently in 1922, which produced a very small quantity of extremely rich silver ore.<sup>48</sup> Still, there is no documentary record of extensive Hispanic mining activities in the Tucson Range and the total mineral production of that area during the past century has been relatively limited.<sup>49</sup>

In a recent publication, two authorities on contemporary mining in Arizona have written about extensive Spanish mining activity at Ajo.<sup>50</sup> Both apparently based their conclusions on statements supplied various authors by the late Thomas Childs, Jr., whose father was an Anglo pioneer in the Ajo area. The elder Childs purportedly entered Southern Arizona before the Gadsden Purchase and visited the Ajo region where he saw conclusive evidence of Spanish mining.

The biographical files of the Arizona Historical Society in Tucson cast serious doubt on the presence of Thomas Childs, Sr. in Arizona prior to 1857, by which time an Anglo mining company was already at work in Ajo. When the elder Childs applied for membership in the Arizona Pioneers’ Historical Society early in the 20th century, he listed his birthdate as 1839. Thus, he would have been but 15 years old when the Gadsden Purchase Treaty was ratified in 1854. He could certainly not have been in the area in 1836, as reported by one author, and would not likely have been a member of an 1847 Anglo exploring party, as stated by another. Although some of the information in the biographical file of Thomas Childs, Sr. argues for an earlier birth year (usually 1831), none of it was supplied by the man himself whose commentary on the subject should stand as the final word.<sup>51</sup>

The Oro Blanco region is only a few miles from Arivaca and prospecting, at least, must have taken place there during the years the Arivaca mines were being worked. It is also within striking distance of the Planchas de Plata discovery, another element that lends support to the idea of some sort of mining activity at Oro Blanco during the mid-18th century.

In his massive unpublished manuscript on Tubac, Henry F. Dobyns refers to Sópори as a ranch and mining camp. No Spanish or Mexican document is specifically cited as the source for this information. Also, Pradeau and Rasmussen, in their English translation of Father Nentvig’s description of Sonora in the mid-18th century, imply the existence of silver mines near Sópори. However, their translation is at such variance with the published Spanish version of the priest’s report that one must question its reliability.<sup>52</sup> If there were mineral deposits at Sópори, they would likely have been known to the prospectors of nearby Tubac, or to those Spaniards who had been operating a stock ranch at Sópори since before the Pima Revolt.<sup>53</sup>

Richard Hinton, a 19th century writer notoriously generous in crediting the Spaniards and Mexicans with widespread mining activity, assigned 1860 as the discovery date for the Picacho Mine, said to be the oldest in the Comobabi Mountains. Although L.J.F. Jaeger was the earliest owner of record, the mine appears to

have been operated during this period by Francisco Padres, a teamster who had previously transported goods from Hermosillo to Tubac and vicinity.<sup>54</sup>

Portions of the Patagonia Mountains could have received protection from the presidios of Terrenate (after 1742), Tubac (after 1752), and Santa Cruz (after 1787) and some mining likely occurred there. A major route for traveling from the Arizona missions to Soamca and Cocóspera (and later from Tucson to Santa Cruz) passed through San Antonio Pass (Puerto de San Antonio), located at the southern end of the Patagonia Mountains within three miles of the Washington Camp-Duquesne area where extensive mining took place between the 1880s and World War I.

Even with presidios relatively close by, mining in the Patagonia area would have been extremely hazardous. The San Antonio Pass was a favorite site for Apache ambush as early as the 1770s and for nearly a hundred years thereafter. Santa Cruz citizen Teodoro Ramírez and fourteen companions were attacked there on January 31, 1857. Tucsonan Luis Elías and three other Mexicans lost their lives in this encounter. J. Ross Browne reported an ambush there in 1864.<sup>55</sup>

Even in the most favorable locations, Arizona mining could not have amounted to much in Hispanic times. The labor force was limited, and equipment hard to come by. Ore-processing facilities were expensive to set up and maintain, shipping costs exorbitant, and Indian attacks a constant menace. Writing in 1746, during the time Spaniards were first coming to live in southern Arizona, Father Jacobo Sedelmayr commented that the slow development of mining in the region was not due to the absence or poor quality of mineral deposits, but to the “deficiencies and needs” of the miners themselves. According to him:

Today they have no lead, tomorrow no mercury, another day they have no steel and iron. Then they may need a house or they have no clothes to cover the nakedness of their peons. Then they need a blacksmith. Sometimes they lack everything, sometimes only a few things. There is always something wanting because of the high prices and the general deficiency of needful articles. This is caused by the enormous distances which separate the province from Mexico City a distance of more than six hundred leagues. From Mexico City itself we must mention the difficulty of transport since the required goods must come north on the backs of mules.<sup>56</sup>

The relative insignificance of Hispanic mining operations in Arizona is highlighted by the fact that only one location, Arivaca, is included in a list of 18th century mining camps published in a recent, comprehensive history of Sonora. Accompanying the roster are the following observations concerning mining in northwestern New Spain prior to the expulsion of the Jesuits in 1767:

Fortunately, most of the gold came from placers which required only water and did not call for any investment. By contrast silver demanded more sophisticated forms of exploitation. Even at the beginning of the 18th century smelting was the method principally employed. The ore-processing facilities (*haciendas de beneficio*) of the area were very poor as compared with those found in other regions of New Spain. Miners had few tools and those they did possess were of poor quality. Excavation was almost always superficial and miners abandoned the shafts before the metal was exhausted owing to their inability to extract the mineral from deeper levels. Although the patio technique was known in the region, it was little used because mercury was so expensive.<sup>57</sup>

The above comments notwithstanding, the patio or amalgamation method was employed in Arizona mining operations by the 1770s. The Tubac citizens who responded to Captain Allande y Saavedra in 1777 mentioned that three of the five silver mines in the Santa Rita Mountains had been “worked with quicksilver.”<sup>58</sup> In some of the areas believed to have been exploited in Hispanic times, early Anglo explorers and prospectors reported the remains of arrastres which were used in the patio process.<sup>59</sup>

## Spreading the Word

In spite of the fact that Spanish and Mexican documents reveal little mining of consequence in what is now Arizona prior to the 1850s dozens of stories suggesting a different situation began to find their way into the English language press following the U.S.-Mexican War. These were based on a combination of folktales, rumors, and speculation, along with bad translations, misinterpretations, and deliberate distortions of Spanish language materials. The authors of such stories usually knew little or nothing of Spanish or Mexican history, but they made the most of what came their way. The priest-miner (especially the Jesuit priest-miner) was a stereotype they could not resist. Folktales of Jesuit wealth, much of it said to have come from mining operations near the missions where these priests served, had an appealing ring to individuals seeking their fortunes in areas where the Jesuits had labored.

Mexican writers of the early independence period, themselves believers in the tales of Jesuit treasure, contributed to the new legends that were building. The author of a widely circulated book published in 1835 observed that Sonora was everywhere blessed with rich minerals, including gold placers that were more or less abundant and mines of silver, gold, and copper that were both abundant and rich. “If the day ever arrives,” he commented, “when Sonora develops a society of people who can work mines as frugally and cleverly as the Jesuits, it will lead the world in precious metals. In their day these priests successfully exploited poor mines of low grade ore using only their wits and native abilities.”<sup>60</sup>

The legend builders also borrowed from the writings of Europeans who traveled in Mexico at the end of the colonial period and in the first years after independence. The German explorer Alexander von Humboldt, after visiting Mexico in the early 1800s, wrote extensively of mines and mining operations. He did not get to Sonora, but was told of the famous placers of La Cieneguilla, first discovered in the 1770s, and commented favorably on the nature and extent of Sonora’s gold resources. He noted, however, that the placers were difficult to exploit because of such obstacles as “the incursions of the savage Indians, the excessive price of provisions, and the want of the necessary water....”<sup>61</sup>

Spain tried diligently during all her years of rule to limit the visits of foreigners to Mexico and to prevent commerce between Mexicans and representatives of other countries. Shortly after gaining independence in 1821, the new nation of Mexico reversed this policy, and sought investors from England, Germany, France, and even the

United States. Well aware of the silver and gold that Spain had extracted, foreign investors cast their eyes on mineral resources.

England's first emissary to Mexico was Henry G. Ward, who in the mid-1820s made a personal survey of major mining areas in the central and southern parts of the country. He traveled only as far north as Durango, but obtained first hand information about the *minerales*<sup>62</sup> of the northwest from an English mining engineer named Glennie and a "Colonel" Bourne who was his principal informant for Sonora and Sinaloa. A short time later, he published his observations in a two volume work that was so well received it quickly ran through several editions. Ward noted that Mexicans commonly believed the silver ores of the north were richer than those found elsewhere and asserted that "The States of Durango, Sonora, Chihuahua, and Sinaloa contain an infinity of mines hitherto but little known, but holding out, wherever they have been tried, a promise of riches superior to any thing that Mexico has yet produced."

With respect to the "planchas de plata" discovery, Ward wrote:

I see enough....in these records of Arizona [meaning the Real de Arizonac or Arizona] to warrant the supposition....that the hitherto unexplored regions in the North of Mexico contain mineral treasures which, as discoveries proceed, are likely to make the future produce of the country infinitely exceed the amount that has been, hitherto, drawn from the (comparatively) poorer districts of the South.<sup>63</sup>

Exploring the Gulf of California and traveling overland through Sonora, at about the same time Ward was making his trek into Northern Mexico, was an English naval officer and adventurer named R.W.H. Hardy. Lt. Hardy was in the employ of the General Pearl and Coral Fishery Association, a newly-formed British company interested in exploiting the mineral, as well as the pearl and coral, resources of the Gulf and adjacent areas. Hardy managed to see more of Sonora than perhaps any other Englishman of his day and he was impressed with the mining potential of the region. In a book published in 1829, he listed some of Sonora's principal mine locations. Included is Arivaca, which he described as lying between the presidios of Fronteras and Altar. He stated that "it once produced much metal....but of late years [has] been little attended to." Separately, he referred to a mine called "La Olavéña," which he placed close to Arivaca. Almost certainly he was talking about La Longoreña. In addition, he commented that "between Tubac and Toison (sic) is the mine of Santa Rita, once very famous for its riches."<sup>64</sup> Although he sailed for a short distance up the Colorado River, Hardy did not travel overland through northwestern Sonora and his general description of the area is somewhat confused.

By the time of the Gadsden Purchase a few Americans had read or learned from others of the comments made by persons such as Humboldt, Ward, and Hardy and saw in the newly acquired area of the Pimería—and in Sonora generally—a land of silver and gold waiting to receive and enrich them. Even before the Purchase was ratified in June 1854 Charles Debrille Poston and certain companions traveled through northwestern Sonora and into the Santa Cruz Valley. While Poston waited for the boundary to be determined, he began devising plans to

attract investors to the mines he proposed to establish in the region. In his publicity, he cited the comments of others, embellishing them with accounts of his own discoveries of Spanish and Mexican mine shafts, arrastres, and smelters. In 1856, the Sonora Exploring and Mining Company, with which Poston was connected, noted in one of its reports that Tubac was the center of an extensive mining district that "has probably 150 silver mines within sixteen miles."<sup>65</sup>

First published in 1857, the report of the U.S.-Mexico team surveying the Gadsden Purchase boundary gave additional encouragement and ammunition to the Anglo mining promoters. U.S. Commissioner W.H. Emory observed that:

Enough was ascertained....to convince us that the whole region was teeming with the precious metals. We everywhere saw the remains of mining operations, conducted by the Spaniards and, more recently by the Mexicans....There are remains of mines in the Mimbres Mountains [New Mexico] rich in copper and gold; in the San Pedro mountains [Chihuahua], between the San Pedro and Santa Cruz rivers, and on the Santa Cruz river a few miles north of the boundary [Guevavi?], there are the remains of a mill for crushing gold quartz....We had what I consider authentic accounts of silver being found in placers in the Ajo mountains a little north of the line; although I have never before heard or read of silver being found in placers. I was informed upon authority which I could not permit myself to doubt, that a solid lump of virgin silver had been picked up in that region weighing eighteen ounces.<sup>66</sup>

In addition to the locations mentioned above, Emory wrote of finding in the Arivaca area "large excavations made by men previously engaged in mining; piles of metallic ore lay near the springs where they had been engaged in smelting." He also made reference to the "Sierra de los Pajaritos" which he said formed part of the Arizone (sic) mountains, "reported to be the richest in Mexico." In another passage, the same range was called the Sierra del Pajarito and was described as "especialy worthy of exploration with reference to a development of its mineral production. Specimens of silver from this locality were analyzed...." Ajo received further mention, also, as a place with mines "long known to the Papagos and Mexicans, but....not worked for want of capital and security against the Apaches."<sup>67</sup>

The extravagance to which such comments inspired the promoters is illustrated by the following quotation from a speech Sylvester Mowry delivered to the American Statistical and Geographical Society in New York in 1859:

The reports of the immense mineral wealth of the new country, made by the Jesuits, induced a rapid settlement. There are laid down on the map before me more than forty towns and villages. Many of these were of considerable size. There were a few north of the Gila, and several on the lower Gila, near the Colorado. The Santa Cruz and its tributary valleys teemed with an agricultural and mining population. Thousands of enterprising Spaniards cultivated the rich valley of the San Pedro, and scattered settlements flourished at every suitable stream and spring at the foot of the mountains toward the Rio Grande.<sup>68</sup>

From this point, Mowry went on to provide a long list of settlements in what is today southern Arizona. Some appear to be towns farther south in Sonora; others are unrecognizable. A few can be identified as presidios or mission towns that did exist in the region. Mowry also stated that the area contained more than a hundred silver and gold mines successfully worked by the

Spaniards. He attributed all this information to surveys made by Jesuit priests in 1687 and 1710 and included on a Jesuit map drawn in 1757, ten years before members of the order were expelled.

Many of those who followed Mowry quoted him and added their own flourishes. Two widely circulated books published in the 1870s were particularly important contributors to the legends of Spanish and Mexican mining in Arizona. One, written by Hiram C. Hodge, contained many statements such as the following:

Mines of gold and silver were known to exist in what is now Arizona two hundred years or more since, and some successful workings were carried on by the old Jesuit priests who first explored the Territory and who employed Mexican and Indian laborers.<sup>69</sup>

The other book was by Richard Hinton and carried the impressive title *Handbook to Arizona, Its Resources, History, Towns, Mines, Ruins and Scenery*. Although this volume included a good deal of useful information, it, too, was filled with unreliable statements about pre-Anglo mining in Arizona. In some cases, the distortion seems almost deliberate. For example, Hinton attributed to English Ambassador Ward certain remarks about the richness of silver mines in the Santa Rita Mountains. However, the diplomat was clearly referring to a range of mountains near Mexico City, not to those of the same name in Arizona.<sup>70</sup> In another passage, he quoted a Spanish Jesuit concerning a great silver discovery purportedly made in the Santa Rita Range in the early 1700s. The cited author, however, was referring to the "Planchas de Plata" incident, not to anything that happened in the Santa Ritas.<sup>71</sup> A number of the early Anglo publicists deliberately capitalized on the fact that the name Arizona—proposed for a new territory in the late 1850s—occurred frequently in Spanish and Mexican writings, always in association with mineral wealth.<sup>72</sup>

The mining industry in Arizona leaped into prominence in the 1880s with important silver discoveries at several locations and spectacular increases in the production of copper. Now, it seemed, no one could doubt the tales of past exploitation of the region's abundant resources.

In 1884 a San Francisco publisher brought to the market still another book that extolled the mining adventures of the Jesuit priests, repeating much of what had been said and written by earlier promoters and adding embellishments of its own. From its pages, we learn that Father Kino established the mission of Guevavi in 1687 and that of St. Gertrude de Tabac [Tubac] in 1690. Also, that there were eight flourishing Arizona missions with many rich silver mines by 1710. Finally, we are told, the Indians revolted against the priests in 1721, killed "a number" of them, and dealt the missions a blow from which "they never entirely recovered."<sup>73</sup>

The doubters' corner was a lonely spot in 1889 when Hubert Howe Bancroft, as part of a great commercial and scholarly venture, published his history of Arizona and New Mexico covering the period from 1530 to 1888. Much of it based on Spanish and Mexican documents, this volume offered no support to the legend bearers. Bancroft himself went so far as to state that "modern writers have greatly exaggerated [Arizona's] former prosperity in mining and other industries...." He also

declared that the Jesuits had operated no mines in the state and that, in fact, the period of greatest mining activity was around the beginning of the 19th century, long after the Jesuit expulsion.<sup>74</sup>

Following publication of Bancroft's work, serious historians became more cautious in their comments on Arizona mining in Spanish and Mexican times.<sup>75</sup> Most did not consult original Spanish documents, but were content to let Bancroft and later scholars doing research in Spanish and Mexican archives tell the story for them. As a result, the Jesuits and their Indian slaves ceased to play the important role previously assigned them.

As the scholars tempered their comments, however, popular writers gave full play to their romantic emotions and since World War I, publishers have kept the market supplied with books providing many variations on the theme of lost mines and buried treasures. Several periodicals—notably *Desert Magazine*, *True West*, *Westways*, and, more recently, *Treasure Search*—have devoted literally thousands of pages to the same topic.<sup>76</sup>

The legends of Spanish and Mexican mines have received unintended support from the writings of a few contemporary geologists and mining engineers. The fault here, if blame is to be assigned, belongs primarily to the regional historians who have neglected Spanish documents in writing about the beginning of the mining industry in the Southwest.

Prior to his death in the 1980s, Geologist Stanton Keith prepared several pamphlets concerned with mining in various parts of Arizona. Those relating to Pima and Santa Cruz counties include frequent references to the mining activities of the priests and suggest a more widespread distribution of Spanish and Mexican mining activity than present documentation will support. Lost mine and treasure buffs find comfort and inspiration in such professional publications and sometimes cite them in the articles they write.<sup>77</sup>

## Addressing the Legends

Since World War I, the story of the Dutchman's gold in the Superstition Mountains has emerged as Arizona's most famous lost mine legend. Beginning about 1930, this tale took on Hispanic features. Popular writers now insist that the mine Jacob Waltz supposedly discovered around the end of the Civil War was worked nearly twenty years earlier by a Mexican family named Peralta.<sup>78</sup> No documentary evidence from the pre-Anglo period supports this significant change in the story.

Apart from the Lost Dutchman legend, a majority of the tales of great wealth or treasure dating from the Spanish or Mexican periods concern the alleged mining activities of the priests, primarily the Jesuits. Some include the idea of lost Spanish mines, towns, and missions. Especially noteworthy among the latter are the legends of the Lost Padre Mine in Coconino County, the lost city of Nueva Mia [Nueve Millas] in the Catalina Mountains, and the unnamed lost mission of Sonora's Cerro Ruido.<sup>79</sup>

From the early part of the 17th century throughout the remainder of what is sometimes called "the Hispanic period" of Arizona's history, the hostility of native tribes,

especially the Apaches, obliged settlers to huddle together in communities at or close to locations guarded by soldiers and militiamen. Documentary evidence from these years argues strongly against the existence of isolated communities devoted to mining or other enterprises. Furthermore, the period of the 1840s was clearly one of the most difficult for the Hispanic population of Southern Arizona and it seems far-fetched that the Peraltas, or anyone else, could have operated mines in the Superstition Mountains at that time.<sup>80</sup>

While it is not our purpose in this chapter to try to refute in detail all of the popular mining tales that continue to fascinate so many people, certain general observations about them are pertinent to furthering our understanding of the extent and nature of mining in this region prior to the early 1850s. One of the most important of these observations has to do with the purported mining ventures of the Jesuits.

In an earlier passage we noted that the Jesuit missionaries were forbidden by their order from engaging in mining. This prohibition extended even to having "knowledge of mining, whether direct or indirect..."<sup>81</sup> Despite this fact, we do have evidence of Jesuit mining at one Sonoran location, San José de Mátape, late in the 17th century. The circumstances surrounding this phenomenon are unique.

The mission at Mátape (the village is known today as Villa Pesqueira) was officially established in 1629, but the Jesuits did not build a church there until the arrival of Father Pedro Bueno in 1645. Bueno was succeeded by Father Daniel Angelo Marras, a Sardinian by birth, who reached Sonora in 1653. Late in the decade of the 1660s Mátape was granted the unusual status of *colegio incoado* ("incipient college"), in addition to that of mission. This new title conveyed the intention of the Jesuit order eventually to establish a school (*colegio*) at Mátape where the children of both Indian and Spanish families could be educated.

As rector of the incipient college, Father Marras enjoyed more freedom of action in the economic area than he would have enjoyed as a mere missionary. Exercising that freedom, he had by the early 1670s come into possession of an ore-processing facility (*hacienda de azogue*). Subsequently, in the name of the college, he also acquired mining properties. His relations with other mine owners in the region were not particularly cordial during this period. He was transferred from his post in 1681.

Marras's successors were repeatedly encouraged by their Jesuit superiors to get rid of the hacienda and the mines, but this was not accomplished until the first decade of the 18th century. No evidence has surfaced to indicate a continuation of either mining or ore-processing after that time, and none is at hand to justify a belief that any other Sonoran Jesuit mission was ever involved in similar activity.<sup>82</sup>

Insofar as Arizona is concerned, most of the Jesuit treasure and lost mine stories relate to San Xavier del Bac and to Tumacácori. At least one tale is identified with the mission of Guevavi and another with the short-lived mission of San Miguel de Sonoyta.<sup>83</sup>

Although never served by any Jesuit priest as his primary station, Tumacácori is the center of more lost mine and treasure stories than any other spot in Arizona. The lost Opata mine and those of San Pedro, Guadalupe, and La Purísima Concepción are all identified with this locale, as are the treasure of Carreta Canyon and the Lost Bells of Tumacácori.<sup>84</sup>

In the aftermath of the Pima Revolt of 1751, Father Francisco Xavier Pauer, missionary at Guevavi, supervised construction of a church at Tumacácori, but he never lived at the site and it requires a considerable stretch of the imagination to picture him directing a large crew of Indian laborers in one or more major mining operations there. Equally unlikely is the notion that Guevavi's last Jesuit priest, Custodio Ximeno, in anticipation of the Expulsion of 1767, could have quickly blasted down mountains and employed other means of hiding the entrances to mines in his district. The documentary evidence indicates that the expulsion order took him by surprise. Furthermore, an inventory of mission assets, taken shortly before the soldiers came to enforce the expulsion order, revealed little wealth—certainly not great hoards of silver and gold.<sup>85</sup>

The best known treasure tales associated with San Xavier del Bac are those of the Lost Escalante Mine, also known as The Mine with the Iron Door, and the La Esmeralda Mine. Both involve Father Eusebio Francisco Kino or his alleged contemporaries. The Escalante Mine supposedly takes its name from a Father Alferez (sic) Juan Bautista de Escalante, "who was at one time an assistant" to Kino. In his recitation of the Escalante mine tale, prolific treasure writer John Mitchell asserts that, "According to old church records, the Escalante mine was in full operation in 1767 when King Charles III issued the edict expelling the Jesuit order from Spain and all her possessions."<sup>86</sup>

For a serious historian of Arizona's Hispanic years, the Escalante mine legend contains several significant flaws. To begin with, no record exists of any Jesuit priest named Escalante who ever served in Sonora. The only priest by that name in Northwest Mexico during Spanish colonial times was Silvestre Vélez Escalante, a Franciscan who was an important historical figure in New Mexico nearly 100 years after Kino.<sup>87</sup>

Worth mentioning also is the fact that, contrary to what author Mitchell suggests, no "old records" from San Xavier del Bac are available to tell us much of anything. No historian in this century has been able to lay his hands on the original church registers from San Xavier or Tucson. Where they went is a mystery much more real than the issue of where the Mine with the Iron Door may be located.<sup>88</sup>

Insofar as the Esmeralda Mine is concerned, the tale spinners insist that it was Kino himself who named and arranged for the silver lode at this location to be worked. The Indians supposedly took him to the site, two leagues southwest of San Xavier, shortly after he laid the foundation for the mission's first church in 1700. Surprisingly, the story does not include any reference to Father Francisco Gonsalvo, the only resident priest at Bac in Kino's time, who served the residents of San

Xavier from the spring of 1701 until shortly before his death in the late summer of 1702. To the best of our knowledge, Kino only visited Bac one time after Gonsalvo's death and that was in the fall of 1702 or shortly thereafter.<sup>89</sup>

Following Kino's death no other Jesuit spent more than a few hours at San Xavier del Bac until Father Phelipe Segesser arrived there in the late spring of 1732. Segesser stayed fourteen months and was replaced by Gaspar Stiger who served until 1736. During most of the next twenty years, the people of Bac received the ministrations of Jesuits from other posts. Father Alonso Espinosa came in 1755 and stayed ten years, but he was sick a good deal of the time. It is not clear whether any Jesuit was at Bac when members of the order were expelled in 1767.

Given this history of San Xavier during the Jesuit years, it is highly unlikely that any priest would have had much time to spend in directing major mining operations. Furthermore, the Indians of Bac had the reputation of being difficult to control, and relations between them and the priests were not particularly cordial. They would not have made good candidates for forced labor; and no record exists to indicate that they, or any other natives of the Pimería Alta, worked as slaves or paid laborers in mines located in the region.<sup>90</sup>

### Concluding Statement

Legends to the contrary, the area presently comprising the state of Arizona was never a major mining region prior to the Gadsden Purchase of 1853. It would, in fact, be an exaggeration to hold that mining was the principal economic activity at any time during this early period. The available documentation in Spanish suggests that mining was on its way to becoming important when the Pima Revolt took place in 1751, and that it enjoyed a second interval of growth and relative prominence between about 1810 and 1830. However, the obstacles to development of a major industry were too many to be overcome. The mining that did take place was quite limited in terms of the amount of wealth obtained, although in some instances the value of individual deposits may have been quite high.



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  31. Bolton, Herbert Eugene, *Anza's California Expeditions*, University of California Press, Berkeley, II: 138.
  32. Kinnaird, *The Frontiers of New Spain* (note 26 reference): 110.
  33. Letter from Antonio Bonilla to Hugo O'Connor, Chihuahua, August 14, 1774. Cited in Thomas, Alfred Barnaby, *Teodoro de Croix and the Northern Frontier of New Spain, 1776-1783*, Norman, University of Oklahoma Press, 1941: 172.
  34. McCarty, Kieran, O.F.M., *Desert Documentary, The*

- Spanish Years 1767-1821*, Historical Monograph Number 4, Arizona Historical Society, 1976: 32-33. This passage is based on Appendix C, "Translation of an Archive from Tucson," in Vol. VII of Parke, John C., *Report on Explorations and Surveys to Ascertain the Most Practicable and Economical Route for a Railroad from the Mississippi River to the Pacific Ocean. Made by John C. Parke under the Direction of the Secretary of War, 1853-1856*, Washington: Beverley Tucker, Printer, 1857. Also, see Kessell, John L, *Friars, Soldiers, and Reformers: Hispanic Arizona and the Sonora Mission Frontier, 1767-1856*, The University of Arizona Press, Tucson, Arizona, 1976: 132, text and fn. 21. The translation in Parke misspells the name of Manuel Barragán, a prominent citizen of Tubac who later met death at the hands of the Yuma Indians, and McCarty repeats the misspelling in his revised translation. The Babocómari reference is to a location near Sáric, Sonora and not to the ranch in Southern Arizona with the same name.
35. Rocha, Gerónimo de la, "Informe del Ingeniero Dn. Gerónimo de la Rocha," entries for May 13-16, 1780. Original manuscript in Sparks, 98 (VII), Harvard University Library.
  36. Thomas, *Teodoro de Croix* (note 33 reference): 192.
  37. Kinnaird, *The Frontiers of New Spain* (note 26 reference): 108.
  38. McCarty, *Desert Documentary* (note 34 reference): 84, 87.
  39. Kessell, *Friars, Soldiers, and Reformers* (note 34 reference): 239.
  40. Ygnacio Sardina to the Governor of Occidente, May 4, 1828. Letter in Apache file, Archivo Histórico del Estado de Sonora, Hermosillo.
  41. Kessell, *Friars, Soldiers, and Reformers* (note 34 reference): 247.
  42. Clarke, "La Longoreña," (note 30 reference): 32; Officer, James E., *Hispanic Arizona 1536-1856*, The University of Arizona Press, Tucson, Arizona, 1987: 83.
  43. Riesgo, Juan M. and Antonio J. Valdés, *Memoria Estadística del Estado de Occidente*, Guadalajara, Imprenta a cargo de C.E. Alatorre (copy on Microfilm 537, University of Arizona Library, Tucson), 1828: 64. Kessell has translated a portion of this reference in *Friars, Soldiers, and Reformers* (note 34 reference): 284, fn. 17. He, too, apparently felt that the gold mine mentioned by the authors was at Guevavi, not Calabazas. In the same section of their report, Riesgo and Valdés write of a silver mine not far from Tubac that had been operative a short time before. The reference is probably to the Salero.
  44. Coutts, Cave Johnson, *Hepah, California! The Journal of Cave Johnson Coutts from Monterrey, Nuevo León to Los Angeles During the Years 1848-49*, Edited by Henry F. Dobyns, Tucson: The Arizona Pioneers' Historical Society, 1961: 58-59. Following the abandonment of Tubac and Tumacácori in December 1848, no Mexicans resided near Guevavi for several years. See Officer, *Hispanic Arizona* (note 42 reference): 217-218.
  45. Velasco, José Francisco, *Noticias Estadísticas del Estado de Sonora*, Gobierno del Estado de Sonora, Hermosillo, 1985: 190-93; Officer, *Hispanic Arizona* (note 42 reference): 145-46. Armando Quijada Hernández has written of the pitiable condition of the mining industry in northern Sonora following Mexican independence. He cites Apache raids as a major factor. See "Aspectos Generales de Sonora al Iniciar Su Vida Como Entidad Federativa," in Ruibal, Juan Antonio (Coordinator), *Historia General de Sonora, Período del México Independiente, 1831-1883*, Gobierno del Estado de Sonora, Hermosillo, 1985, Vol. III: 47-48.
  46. The late Stanton Keith, geologist with the Arizona Bureau of Mines, cited Ajo, the Tucson Mountains, the Cañada del Oro, Cerro Colorado, the Comobabi and Patagonia Mountains, and the Oro Blanco region as areas where Spaniards and Mexicans engaged in mining. See Keith, *Index of Mining Properties in Pima County, Arizona*, Bulletin 189, Arizona Bureau of Geology and Mineral Technology, Geological Survey Branch, University of Arizona, Tucson 1974: 2, 11; and *Index of Mining Properties in Santa Cruz County, Arizona*, Bulletin 191, The Arizona Bureau of Mines, University of Arizona, Tucson, 1975: 2-3.
  47. McCarty, *Desert Documentary* (note 34 reference): 87.
  48. Keith, *Index of Mining Properties in Pima County, Arizona* (note 46 reference): 103.
  49. Keith, *Index of Mining Properties in Pima County, Arizona* (note 46 reference): 10-12, 83.
  50. Lacy, John C., "Early History of Mining in Arizona: Acquisition of Mineral Rights 1539-1866," and Greeley, Michael N., "The Early Influence of Mining in Arizona," both in Canty, J. Michael and Michael N. Greeley (editors), *History of Mining in Arizona*, Mining Club of the Southwest Foundation, Tucson, Arizona (Co-published with the American Institute of Mining Engineers, Tucson section, and Southwestern Minerals Exploration Association), Tucson, Arizona, 1987: 6, 14-15.
  51. Rose, Don, *The Ancient Mines of Ajo*, Published in Ajo, Arizona with reserved copyright, 1936: 14-18. Also, see the biographical files of Thomas Childs, Sr. and Jr., Arizona Historical Society, Tucson.
  52. Dobyns, "Tubac Through Four Centuries" (note 25 reference), Vol. III: 564, 579; Pradeau and Rasmussen, *Rudo Ensayo: A Description of Sonora and Arizona in 1764* (note 27 reference): 107; Nentvig, *Descripción Geográfica....de Sonora* (note 27 reference): 161.
  53. Kessell, *Mission of Sorrows* (note 25 reference): 74; Officer, *Hispanic Arizona* (note 42 reference): 396, n. 22.
  54. Hinton, Richard J., *The Handbook to Arizona, Its Resources, History, Towns, Mines, Ruins, and Scenery*,

- Arizona Silhouettes, Tucson, Arizona, 1954: 134. Antonio Padres, son of Francisco, died in Tucson in 1927. He reported that he had first come to Arizona in 1860 with his father who was working at the Picacho Mine. ("Padres, Antonio," Clip Book File, Arizona Historical Society, Tucson.) According to Hinton (p. 126 of the above citation), a "Señor Padres" was working the old Trench Mine in the Patagonia Mountains, under lease, in the 1870s. This mine, Hinton said, had been worked by Mexicans "in the long ago," and "probably by the Jesuits in the last century." Samuel Peter Heintzelman, in his journal, consistently referred to Francisco Padres, the teamster, as "Pedros." See North, Diane M.T., *Samuel Peter Heintzelman and the Sonora Exploring and Mining Company*, The University of Arizona Press, Tucson, Arizona, 1980: 129, 150.
55. Thomas, *Teodoro de Croix and the Northern Frontier of New Spain* (note 33 reference): 171; Officer, *Hispanic Arizona* (note 42 reference): 296; Browne, *Adventures in the Apache Country* (note 7 reference): 195-202.
56. Dunne, *Jacobo Sedelmayr* (note 24 reference): 37
57. Ortega Soto, Martha, "La Colonización Española en la Primera Mitad del Siglo XVIII," in Ortega Noriega, Sergio and Ignacio del Río (Coordinators), *Historia General de Sonora: Del La Conquista al Estado Libre y Soberano de Sonora*, Vol. II, 1985: 174-75. Escandón, in "Economía y Sociedad en Sonora 1767-1821" (note 2 reference): 280, states that after the middle of the 18th century, the patio technique became the principal method of processing silver ore in Sonora. As proof of this fact, she states that in 1777, sixty percent of the mines at Arivaca were using mercury and only forty percent were smelting the ore. Regrettably, she does not provide a source for this information. The probability is that she was basing her comment on the report of the Tubac citizens cited in note 34 of this chapter. However, they were speaking of mines in the Santa Rita Mountains, not those of Arivaca, which were apparently not in operation at that time. The most comprehensive discussion of the complexities of Mexican mining in the 18th century is found in Brading, D.A., *Miners and Merchants in Bourbon Mexico 1763-1810*, Cambridge, At the University Press, 1971. See especially Part II. Other useful references include Bakewell, P.J., *Silver Mining and Society in Colonial Mexico. Zacatecas 1546-1700*, Cambridge, At the University Press, 1971; West, Robert C., *The Mining Community in Northern New Spain, The Parral Mining District*, University of California Press, Berkeley and Los Angeles, *Ibero-Americana*: 30, 1949; Clement G. Motten, *Mexican Silver and the Enlightenment*, Philadelphia: University of Pennsylvania Press, and London: Geoffrey Cumberlege, Oxford University Press, 1950; Pineda Pablos, Nicolás, "The Baroyeca Mine in Spanish Sonora: Ownership, Management, and Labor, 1701-1850," in *Journal of the Southwest*, Vol. 32, No. 2, 1990; and Young, Otis E. and Robert Lenon, *Western Mining: An Informal Account of Precious Metals Prospecting, Placering, Lode Mining, and Milling on the American Frontier from Spanish Times to 1893*, University of Oklahoma Press, Norman, 1970.
58. McCarty, *Desert Documentary* (note 34 reference): 33.
59. Although correctly spelled *arrastre*, this word appears in both Spanish and English documents as *arrastra*, *arrastro*, and even sometimes as *rastre* and *rastra* (Motten, *Mexican Silver and the Enlightenment*, note 57 reference: 70, fn. 36). Early Anglo miners in Arizona also employed the patio method of ore processing and used arrastres. See North, *Samuel Peter Heintzelman and the Sonora Exploring and Mining Company*, (note 54 reference): 42, 82. Later visitors to mineralized areas commonly inferred that any arrastres they encountered were of Spanish or Mexican origin. In 1864 J. Ross Browne reported seeing arrastres near Sópori and identified them with the Mexican period, although Poston, Mowry, and other Americans had been in the area for several years prior to his visit. See Browne, *Adventures in the Apache Country* (note 7 reference): 262.
60. Zúñiga, Ignacio, *Rápida Ojeada al Estado de Sonora*, Gobierno del Estado de Sonora, Hermosillo, 1985: 54.
61. Humboldt, Alexander von, *Ensayo Político Sobre el Reino de la Nueva España*, Editorial Juan A. Ortega y Medina, Mexico City, 1966: 147. Major placer discoveries occurred in and around La Cieneguilla in 1771 and 1803. See Almada (note 1 reference): 139.
62. Following the achievement of independence, Mexicans began referring to mining areas as *minerales*, rather than as *reales de minas* in order to avoid the suggestion of any association between these regions and the king of Spain. See Ward, H.G., *Mexico in 1827*, London, Henry Colburn, 1828: Vol. II, 582.
63. Ward, *Mexico* (note 62 reference), Vol. I: 127, 136, 138.
64. Hardy, Robert W.H., *Travels in the Interior of Mexico*, London, 1829: 432-33.
65. Hinton, *Handbook to Arizona* (note 54 reference): 186; Poston, Charles Debrille, *Building a State in Apache Land, The Story of Arizona's Founding Told by Arizona's Founder with a Preface and Explanatory Notes by John Myers Myers*, Aztec Press Incorporated, Tempe, Arizona, 1963: 72-73.
66. Emory, W.H., *Report on the United States and Mexican Boundary Survey Made Under the Direction of the Secretary of the Interior by William H. Emory, Major First Cavalry and United States Commissioner*, Washington: A.O.P. Nicholson, Printer, 1857, Vol. I, Part I: 94-95.
67. Emory, *Report on the United States and Mexican Boundary Survey* (note 66 reference), Vol. I, Part I, 119-120; Vol. I, Part II, 69, 74.
68. Mowry, Sylvester, *Arizona and Sonora: The Geography, History, and Resources of the Silver Region of North America*, New York: Harper and Brothers, 1864: 18-19.
69. Hodge, Hiram C., *Arizona As It Was*, Rio Grande Press, 1965: 61. (Originally published under the title *Arizona As It Is*, Hurd and Houghton of New York, 1877).

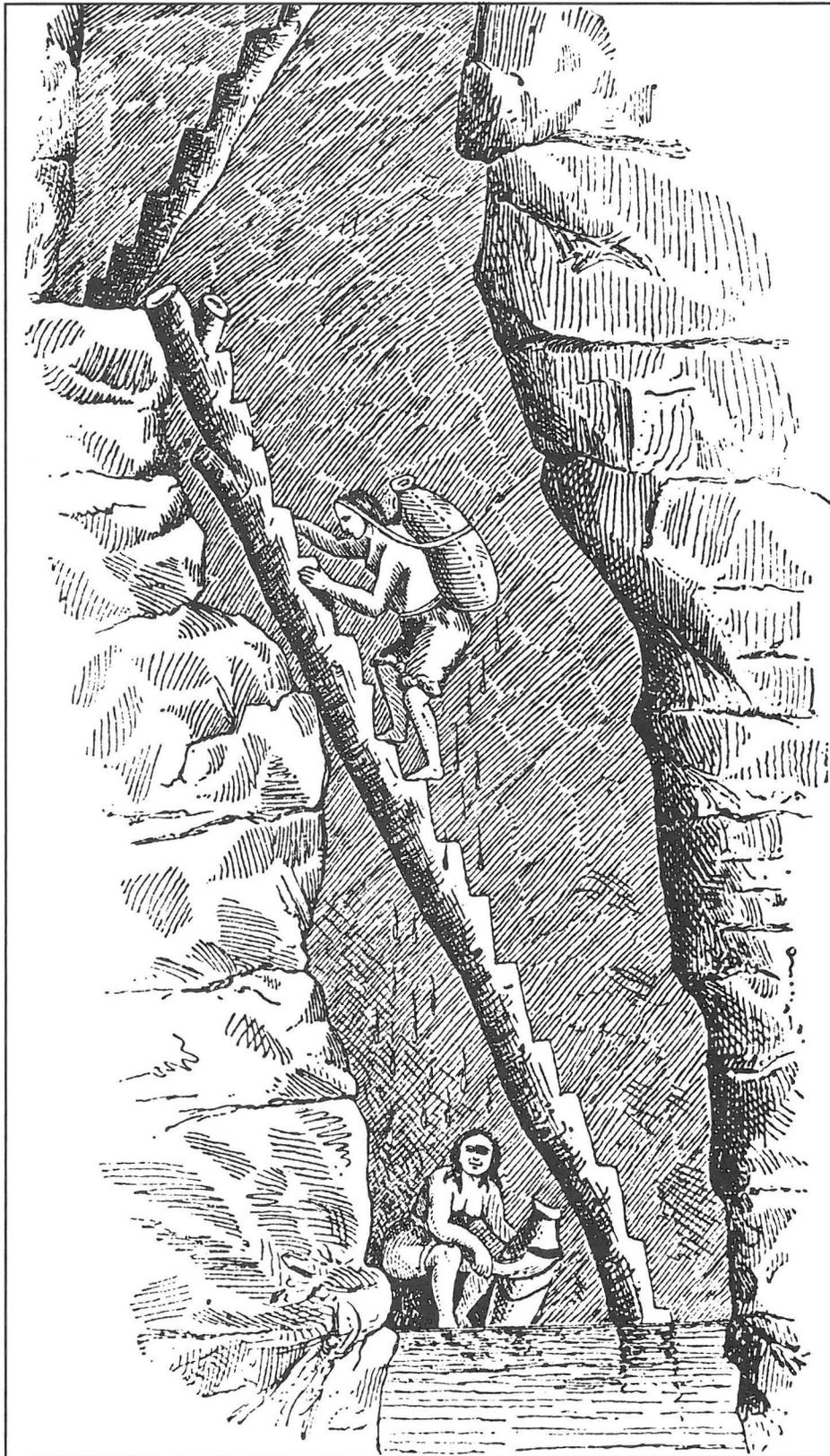
70. Hinton, *Handbook to Arizona* (note 54 reference): 198-99. Ward's reference to the Santa Rita Mountains is in *Mexico in 1827* (note 62 reference), Vol. II: 334.
71. Hinton, in *Handbook* (note 54 reference): 195, states that the comments of the Spanish Jesuit are found in "an old Spanish work" entitled *Apostolic Labors of the Society of Jesus*. He gives no other information about this document, but almost certainly was referring to the book *Los Apostólicos Afanes de la Compañía de Jesús en la América Septentrional* by José de Ortega and Juan Antonio Balthasar, which was published originally by Pablo Nadal in Barcelona in 1754. The passage Hinton quotes from this work appears to have been taken from a 19th century Sonoran publication called *Noticias Estadísticas del Estado de Sonora*, rather than from the Ortega-Balthasar volume. In *Noticias* (note 45 reference): 169-70, author José Francisco Velasco refers to the book *Los Apostólicos Afanes* in connection with his discussion of the Planchas de Plata incident. Nowhere does he imply that this great discovery took place in the Santa Rita Mountains. Velasco incorrectly reports the date as 1769, rather than 1736, a mistake Ortega and Balthasar could not have made, but which Hinton picks up. A modern edition of the book by Ortega and Balthasar was published in 1944 by Luis Alvarez and Alvarez de la Cadena in Mexico City.
72. Poston was strongly in favor of applying the name Arizona to the new territory he hoped to help create, undoubtedly believing it would be useful in selling stock in his mining ventures. See Feather, Adlai, "On the Naming of Arizona," *New Mexico Historical Review* Vol. 39, No. 2, 1964.
73. Anonymous, *The History of Arizona Territory Showing Its Resources and Advantages with Illustrations Descriptive of Its Scenery, Residences, Farms, Mills, Mines, Hotels, Business Houses, Schools, Churches, etc.*, Northland Press Publishers, Flagstaff, Arizona, 1964: 48-49. (Reprinted from the original which was published in 1884 by Wallace W. Elliot and Company, San Francisco.)
74. Bancroft, *History of Arizona and New Mexico* (note 29 reference): 399-401.
75. Twentieth century Arizona historians who have done little or no work in Spanish documents, but who have greatly tempered the remarks of their predecessors concerning Hispanic mining in the state, include Thomas Edwin Farish, *History of Arizona*, San Francisco: The Filmer Brothers Electrotype Company, 1915-1918, 8 volumes; McClintock, Richard E., *Arizona: Prehistoric—Aboriginal—Pioneer—Modern. The Nation's Youngest Commonwealth Within a Land of Ancient Cultures*, Chicago: The S.J. Clarke Publishing Company, 1916, 3 volumes; Sloan, Hon. Richard E. (editor), *History of Arizona*, written by Ward R. Adams, assisted by an advisory council, Record Publishing Company, Phoenix, 1930, 4 volumes; Peplow, Edward H., Jr., *History of Arizona*, Lewis Historical Publishing Company, Inc., New York, 1958, 2 volumes; and Wagoner, Jay J., *Early Arizona: Prehistory to Civil War*, The University of Arizona Press, Tucson, Arizona, 1975. The Jesuit miners and their Indian slaves have largely disappeared from the works of such authors, except for an occasional reference that implies such stories belong more in the category of folklore than of documented history. (For example, see Peplow, *History of Arizona*, Vol. I, 247-48.) Contemporary Arizona historians doing research in Spanish and Mexican documents have little to say about mining in Hispanic times.
76. For a good bibliography of mine and treasure stories appearing in some of these publications, see Penfield, *Dig Here!* (Footnote 18 reference): 207-235.
77. See Keith, *Index of Mining Properties in Pima County, Arizona* (note 46 reference): 2-3, and *Index of Mining Properties in Santa Cruz County, Arizona* (note 46 reference): 2-3. In the volume concerned with Santa Cruz County, Keith states on page 86 that the Jesuits worked the Montezuma and La Paz mines in the Tyndall district in the early 1800s. This is more than three decades after the last Jesuit was expelled from the region. In an article in *Treasure Search*, William H. Conley, Jr. quotes Geologist Keith as his authority for Jesuit mining in Santa Cruz County in the late 1600s. See "Mapping Tumacacori: Research Places Mine East of Mission," in *Treasure Search*, November-December, 1989: 8, 10. In the *Index of Mining Properties in Santa Cruz County, Arizona* (note 46 reference): p. 22, Keith does in fact state: "Exploitation of the mineralization of the Patagonia district started as early as the late 1600s when Jesuit Fathers used Indian labor to recover silver from the oxidized outcrops of the argentiferous lead deposits."
78. Blair, *Tales of the Superstitions, The Origins of the Lost Dutchman Legend*, Arizona Historical Foundation, Tempe, 1975: 80-87.
79. Richardson, Gladwell, "Lost Mine of Coconino," *Desert Magazine*, Vol. 13, July, 1950; Byrkit, James W. "Log of the Verde" (note 7 reference); "The Mine with the Iron Door and the Nine Mile City of the Santa Catalinas," *Arizona Weekly Star*, March 4, 1880; "The Stone Church, A Romance of the Santa Catalinas Just Brought to Light," *Arizona Weekly Citizen*, November 24, 1883; Wallace, Norman G., "The Mystery of Cerro Ruido," *Arizona Highways*, Vol. 21, No. 10, 1975.
80. For further comment on the troubles with hostile Indians during the late 1840s, see Officer, *Hispanic Arizona* (note 42 reference): 204-218.
81. Polzer, *Rules and Precepts of the Jesuit Missions of Northern New Spain* (note 15 reference): 27.
82. Polzer, "The Evolution of the Jesuit Mission System in Northwestern New Spain, 1600-1767," Dissertation Submitted to the Faculty of History for the Degree of Doctor of Philosophy, The University of Arizona, 1972. See chapters 4 and 5, especially pages 181-82.
83. Conrotto, Eugene L., *Lost Desert Bonanzas*, Desert-

Southwest Publishers, Palm Desert, California, 1963: 108-111.

84. Two authors whose writings on the mines and treasures of Tumacacori have received the greatest circulation are Gil Procter, *Tucson, Tubac, Tumacacori, To Hell*, Arizona Silhouettes, Tucson, Arizona 1956; and John D. Mitchell, *Lost Mines and Buried Treasures Along the Old Frontier*, Desert Magazine Press, Palm Desert, California, 1953, and *Lost Mines of the Great Southwest, Including Stores of Hidden Treasures* (note 18 reference). Both interviewed old time residents of the Santa Cruz Valley, who provided them material and inspiration for the stories they relate.
85. Kessell, *Mission of Sorrows* (note 25 reference): 144; 183; 184, text and fn. 78.
86. Mitchell, *Lost Mines and Buried Treasures* (note 84 reference): 207
87. Bancroft, *History of Arizona and New Mexico* (note 29 reference): 260-61; 391-92.
88. See Officer, *Hispanic Arizona* (note 42 reference): xv-xvi.
89. Bolton, *Kino's Historical Memoir* (note 19 reference), I:373; *Rim of Christendom* (note 14 reference): 514.
90. Donohue, John A., S.J., "The Unlucky Jesuit Mission of Bac," *Arizona and the West*, Vol. 2, No. 2, 1960.



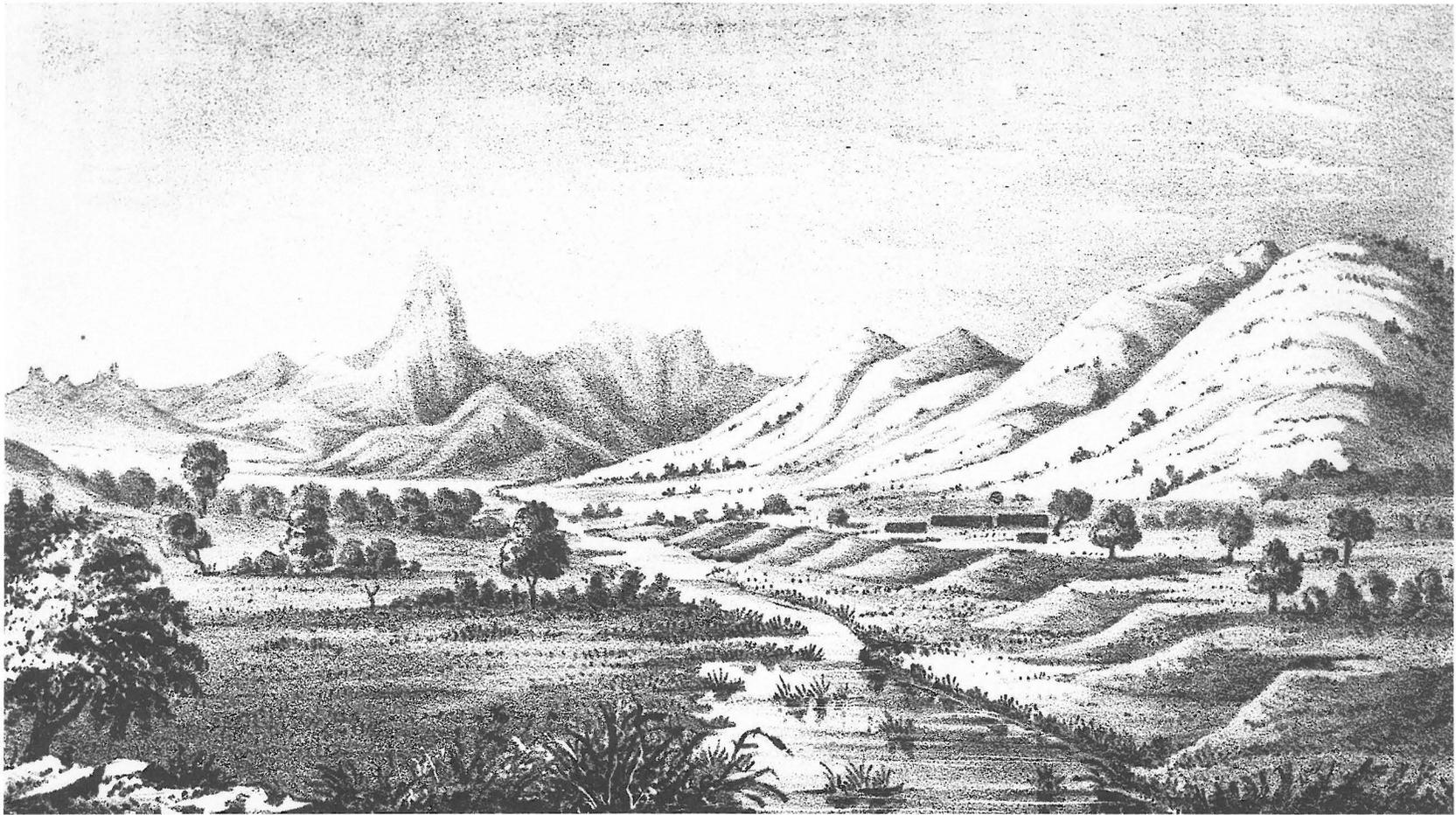
Mt. Benedict where Spaniards and Mexicans mined gold prior to the Gadsden Purchase. Author's photograph from inside the ruins of the Guevavi Mission church.



Ancient Mexican Mining. From Richard Hinton, *A Handbook to Arizona*.  
Courtesy of the Arizona Historical Society Library.



Tumacácori Mission church with the San Cayetano Mountains in the background. Author's photograph.



Drawing of Arivaca with Baboquivari Mountains in the background. From Richard Hinton, *A Handbook to Arizona*.  
Courtesy of the Arizona Historical Society Library.



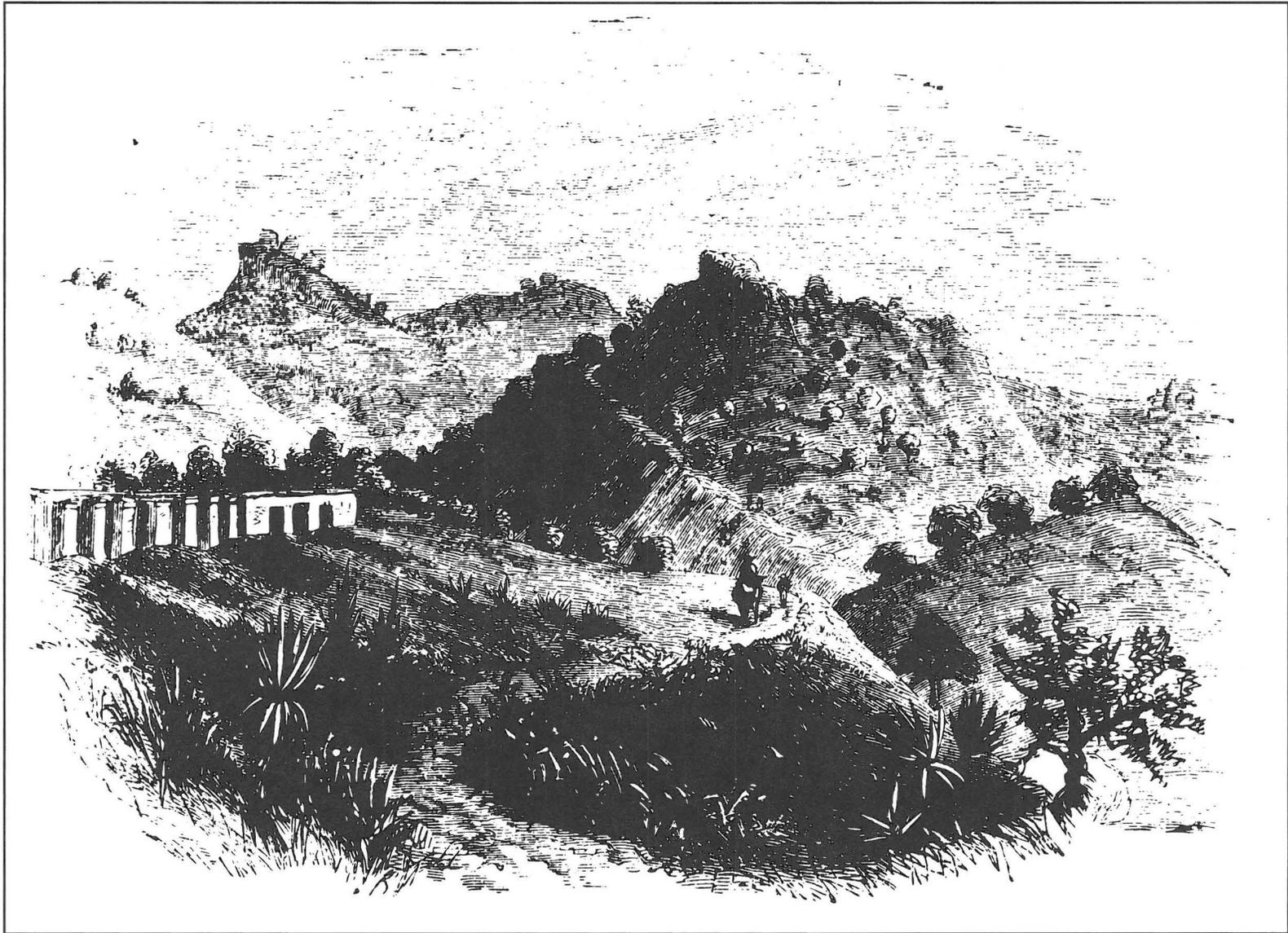
Looking northwest up Fraguita wash toward the Edwards Mine. This spot is about three miles south of Arivaca and is believed to be near the original location of the Longoreña silver mine. Author's photograph.



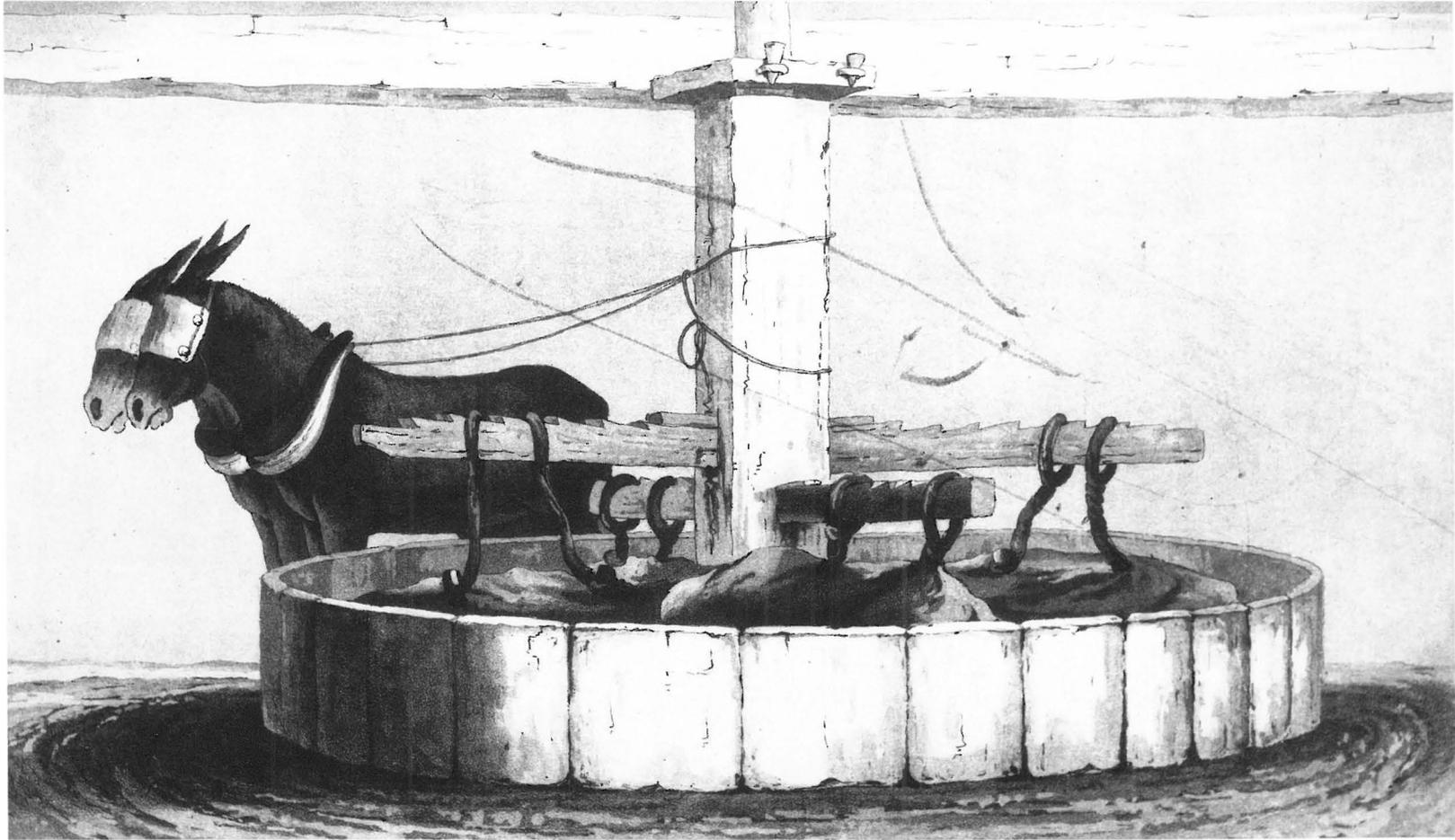
Modern claim on the west side of Fraguita wash below the Edwards Mine. It is on the site of a much older mine, one of several in the area which may date from the 18th century. Author's photograph.



Tubac with the Santa Rita Mountains as a backdrop. From Richard Hinton, *A Handbook to Arizona*. Courtesy of the Arizona Historical Society Library.



The Salero Mine. From J. Ross Browne, *A Tour Through Arizona*. Courtesy of the Arizona Historical Society Library.



Early 19th century drawing of an arrastre. From H. G. Ward, Mexico in 1827. Courtesy of the Arizona Historical Society Library.

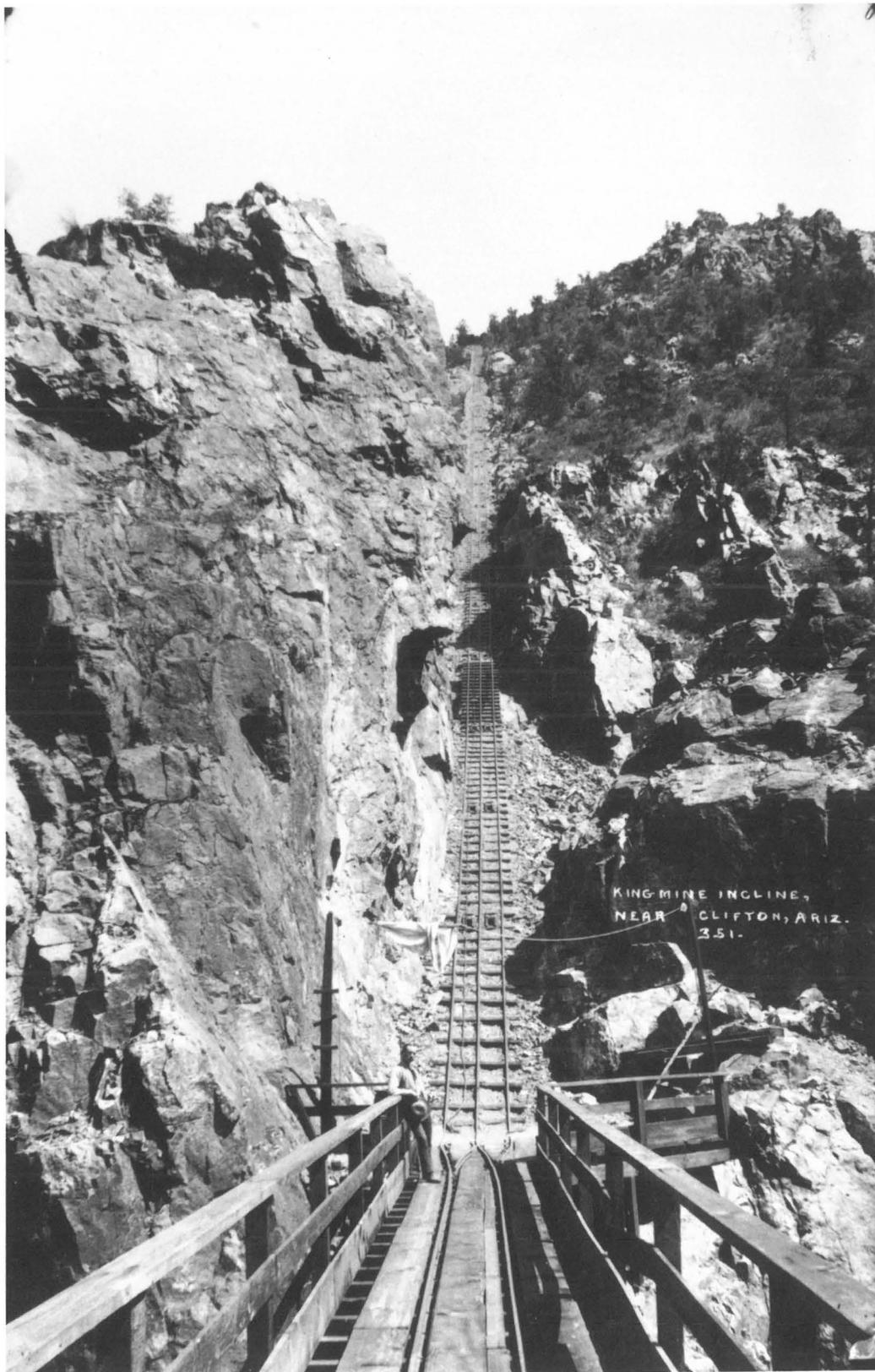
A newspaper story . . .

 **Shooting Affray at Harqua Hala.**

January 21, 1889.

The following full particulars of the killing at the Harqua Hala are from the Arizona Sentinel, published at Yuma:

On Monday, January 7th, Alonzo Johnson left the Aqua Caliente Springs with two passengers in a buckboard, bound for the Harqua Hala mines. After an uneventful trip the party reached the camp on Tuesday evening. A number of new saloons had just started up and Johnson proceeded to imbibe as much of the red liquor as possible, and soon became noticeable that he had succeeded in becoming very drunk. He, however, seemed to sober up somewhat and began gambling, in which pastime he continued all night and the day following. On Wednesday Johnson became involved in a dispute with a man by the name of Peter Burns, who endeavored to keep out of this way, but the half drunken man followed him up and continued to abuse him. Burns at last succeeded in evading him, but in the evening they again met and Johnson resumed his abuse and made a rush at Burns with an uplifted monkey-wrench. In a moment there was a flash and a report of a revolver, and Johnson was lying on the floor of the saloon with a ghastly bullet hole through his forehead. Alonzo Johnson was a native of Yuma and about 22 years of age. There was nothing vicious about him but when drinking he was quarrelsome, although he was never known to have injured anyone. He was a very large and powerful man. P. Burns, the man who did the shooting, is well known in the Territory and was formerly a resident of Phenix; his reputation is good and the general opinion is that he acted in self-defense. A coroner's jury rendered a verdict of justifiable homicide, but the proceedings were irregular, there being no officer at Harrisburg qualified to act as coroner, consequently an examination will be held before Judge Mabbett on the arrival of the witnesses here from the scene of the killing.



Incline to King copper mine, c. 1890. Similar ore-transport systems were common throughout the rugged terrain of the San Francisco (Morenci) mining district. Courtesy of the Arizona Historical Society/Tucson, Henry and Albert Buehman Memorial Collection #91356.

A news item . . .

### Found Nuggets Instead of Oil.

March 11, 1904.

Prof. Skeats, a geologist, while looking for oil indications near Yuma, picked up a nugget of gold worth \$600. Lying around loose in the same vicinity were several nuggets worth from \$10 to \$20. The professor has organized a company to work the field.

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A newspaper article . . .

### Nogales Nuts.

February 19, 1889.

The mill of Col. Royce at Arivaca started up Monday last to test the Yellow Jacket gold ores and the silver ores of the San Francisco in the Noon district.

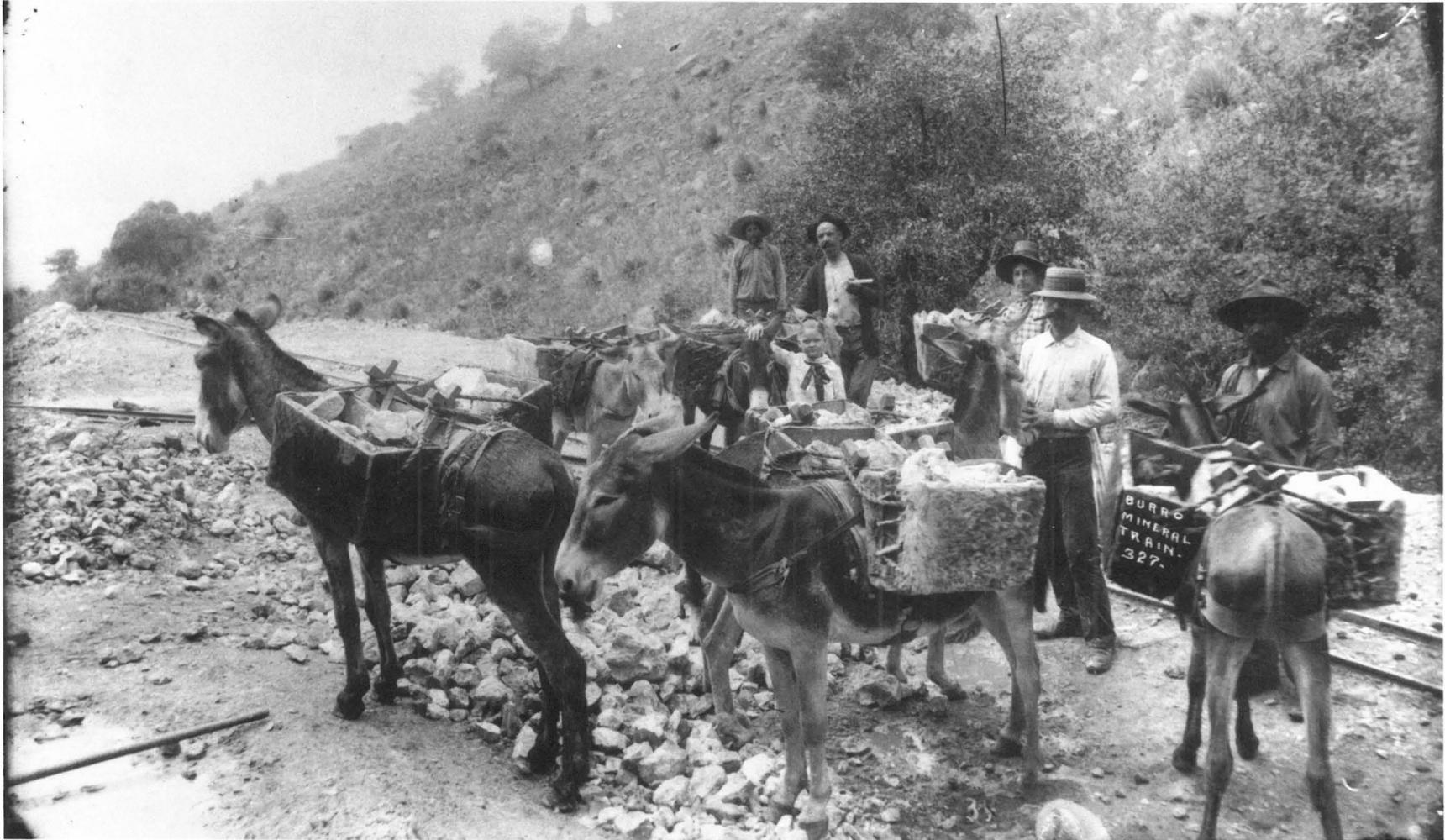
Tol Driscoll and Chas. Bergen have made a strike which appears to be a good one both as to size and quantity, but no assays have been made. This find is about a quarter of a mile north of the line in Owens Canyon.

Messrs. Howard and Leeson have struck a lead of about one inch in thickness that assays 22,000 ounces. They have just made this strike and do not know how much ore they have but there is reason to believe that the vein will increase in width as it goes down. This claim adjoins the Nevada.

Messrs. Scott and Velasco came in Wednesday from the Planchas de Plata. On the same day two cars of machinery arrived from Denver for these mines. Another rich strike has been made in the Planchas de Plata, establishing beyond all question the great value of this property.

Another remarkable find has been made in this camp. The ledge is said to be eight feet wide and crops boldly from the ground. The place where it was found has been prospected over and over again but was covered with moss and was not discovered till recently. The ore assays in the neighborhood of 100 ounces.—Herald.

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Burros packing ore. Courtesy of the Arizona Historical Society/Tucson, Henry and Albert Buehman Memorial Collection #B91767.

**HISTORY OF MINING IN ARIZONA**  
**VOLUME II**

**EDITORS**  
**J. MICHAEL CANTY**  
**MICHAEL N. GREELEY**

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