

1-1-1942

Notes Upon the Routes of Espejo and Farfan to the Mines in the Sixteenth Century

Katherine Bartlett

Follow this and additional works at: <https://digitalrepository.unm.edu/nmhr>

Recommended Citation

Bartlett, Katherine. "Notes Upon the Routes of Espejo and Farfan to the Mines in the Sixteenth Century." *New Mexico Historical Review* 17, 1 (). <https://digitalrepository.unm.edu/nmhr/vol17/iss1/3>

This Article is brought to you for free and open access by UNM Digital Repository. It has been accepted for inclusion in *New Mexico Historical Review* by an authorized editor of UNM Digital Repository. For more information, please contact amywinter@unm.edu, lsloane@salud.unm.edu, sarahrk@unm.edu.

NOTES UPON THE ROUTES OF ESPEJO AND
FARFAN TO THE MINES IN THE
SIXTEENTH CENTURY

By KATHARINE BARTLETT

IN 1540, Coronado's expedition penetrated the unknown territory of Arizona and New Mexico. From Hawikúh in the Zuñi country, the leader sent Tovar to visit the Hopi villages, and a few weeks later, Cárdenas to see the great river of which the Hopis told. The routes taken by these daring explorers from Hawikúh to Hopi have been established and seems to coincide reasonably well with the Indian trail between these two points.¹

Arizona was not again visited by the Spanish until 1583, for the best route from Mexico to the populous Pueblo villages in the Rio Grande valley was found to be from southern Chihuahua rather than up the west coast of Mexico as Coronado had come. In 1582, Antonio de Espejo set out from Valle de San Gregorio with fourteen companions. The expedition was organized ostensibly for the purpose of rescuing two friars who had remained in New Mexico after the Rodríguez expedition of the previous year, but the Spaniards were really more interested in prospecting. They went down the Conchos River and up the Rio Grande to the Pueblo of Pualá, where they found that the friars had been murdered. However, the members of the company decided to continue their explorations. In the course of time Espejo and nine companions arrived at the Hopi villages, where they heard about some mines further west. The leader and four others determined to visit the place and set out with Hopi guides. Their itinerary is given below.

In 1595, Juan de Oñate was awarded a contract for the conquest and settlement of New Mexico. Not until nearly three years later was he allowed to start north, with his

1. Bartlett, Katharine. "How Don Pedro de Tovar discovered the Hopi and Don García López de Cárdenas saw the Grand Canyon, with Notes on their Probable Route." *Museum of Northern Arizona, Plateau*, Vol. 12, No. 3, Jan., 1940.

soldiers and colonists, with their loaded carts and live stock. They arrived at the Tewa pueblo of San Juan in August of 1598, and shortly thereafter, Oñate set out to receive the submission of the Indians in the name of the king. Coming from Zuñi to the Hopi villages, he heard about mines off towards the west. He sent his Captain of the Guard and of the Horses, Marcos Farfán de los Godos, with eight companions and Hopi guides to visit these mines.

The mines to which Espejo and Farfán went have been a subject of some speculation among historians for many years. Though all the other portions of the routes of these explorers seem clear enough, the position of the mines has often been imagined. In 1888, Bancroft published his *History of Arizona and New Mexico*,² in which he indicated that Espejo had found the mines in the region of Bill Williams Mountain, near Williams, Arizona. Farfán, he thought, might have gone to the same region previously explored by Espejo.

In 1916, Bolton's *Spanish Exploration in the Southwest, 1542-1706* was published.³ Here are given translations of Espejo's own narrative regarding the trip to the mines and the official testimony of Farfán of what he saw. Bolton believed that both the men had traveled to the western part of Arizona, Espejo reaching the Bill Williams Fork, and Farfán the Big Sandy, which is the northern branch of that river.

The journal of Diego Pérez de Luxán, a narrative of the Espejo expedition, was translated and edited by Hammond and Rey and published in 1929.⁴ They pointed out that

2. Bancroft, Hubert H. *History of Arizona and New Mexico*. The Bancroft Co., New York, 1888.

3. Bolton, Herbert E. *Spanish Exploration in the Southwest, 1542-1706*. Chas. Scribner's Sons, New York, 1916.

(a) Account of the Journey to the Provinces and Settlements of New Mexico, 1583, by Antonio de Espejo, pp. 163-195.

(b) The Oñate Expedition and the Founding of the Province of New Mexico, 1596-1605, pp. 199-280.

4. Hammond, George P. and Rey, Agapito, translators and editors. *Expedition into New Mexico made by Antonio de Espejo 1582-83, as revealed in the Journal of Diego Pérez de Luxán*. Quivira Society, Los Angeles, 1929.

Espejo could not have covered the distance to western Arizona in the time at his disposal and that he probably went to the Verde Valley. This assumption is undoubtedly correct, for the Spanish description of the mines (which were copper mines), is identical to the description of the Indian workings, which were found when the United Verde was incorporated in 1883. The Spanish description of the country in the vicinity of the mines corresponds exactly to the region of Jerome at the present time. The United Verde Copper Company has now been mining at the site for fifty-eight years, and long ago destroyed the ancient workings.

Hammond and Rey were not familiar with the country and the route they selected for Espejo to travel is almost impossible. Granting that Espejo and Farfán went to the same place, which seems likely, and that the mines they visited were identical with the United Verde of today, what were the routes which they might have traveled to arrive there?

Geography of the country

Between the Hopi villages and the Verde Valley there are a number of geographical features that interfere with the ease of one traveling over the route. First one descends a long gradual slope to the Little Colorado Valley and ascends a long slope on the other side; then comes an abrupt ascent of 600 feet, leading to Anderson Mesa. On the west side of this plateau is a cliff of 2000 feet whence a gentle slope leads to the Verde River.

Near the foot of the Hopi Mesas are areas of sand dunes, which soon give way to a grassy region with occasional juniper trees, especially in the Moqui Butte Region. The grassy area extends to the Little Colorado river, and is very waterless from twenty to thirty miles back from the river. After crossing the river another waterless area is found, of the same width.

Towards the southwest appears the escarpment called Anderson Mesa, which swings towards the northwest and

merges into the volcanic area about the San Francisco Peaks. A long gradual slope, grassy in its lower reaches, with pinyon and juniper higher up, and cut by deep limestone canyons, leads from the river to the edge of the escarpment or to the San Francisco Mountains. Upon ascending the Mesa, which is about 600 ft. high, a vast pine forest extends away in all directions. It is about twenty miles wide, northeast to southwest, at its narrowest point and runs unbroken from the vicinity of Williams in a southeasterly direction into New Mexico. On this plateau, occasional springs and small shallow lakes are found. The whole area is covered with old lava flows and cinder cones. The lava flows are badly eroded and the ground cover alternates between heavy clays and weathered lava rocks, the "malpais" which is so bad for both man and horse. The clay, when wet, is bottomless and unspeakably sticky.

To the southwest of the pine belt is the Mogollon Rim, a cliff about 2000 ft. high, which extends unbroken from a point south of Williams, southeasterly to the White Mountains. This cliff is a great barrier to travel, for except in a few places where lavas from the plateau have flowed down over it, it is most hazardous and difficult to descend. Below this, fertile valleys with flowing streams lead to the Verde River. The valleys are separated from one another by low ridges covered with juniper in the higher parts and prickly pear, mescal, and beargrass below.

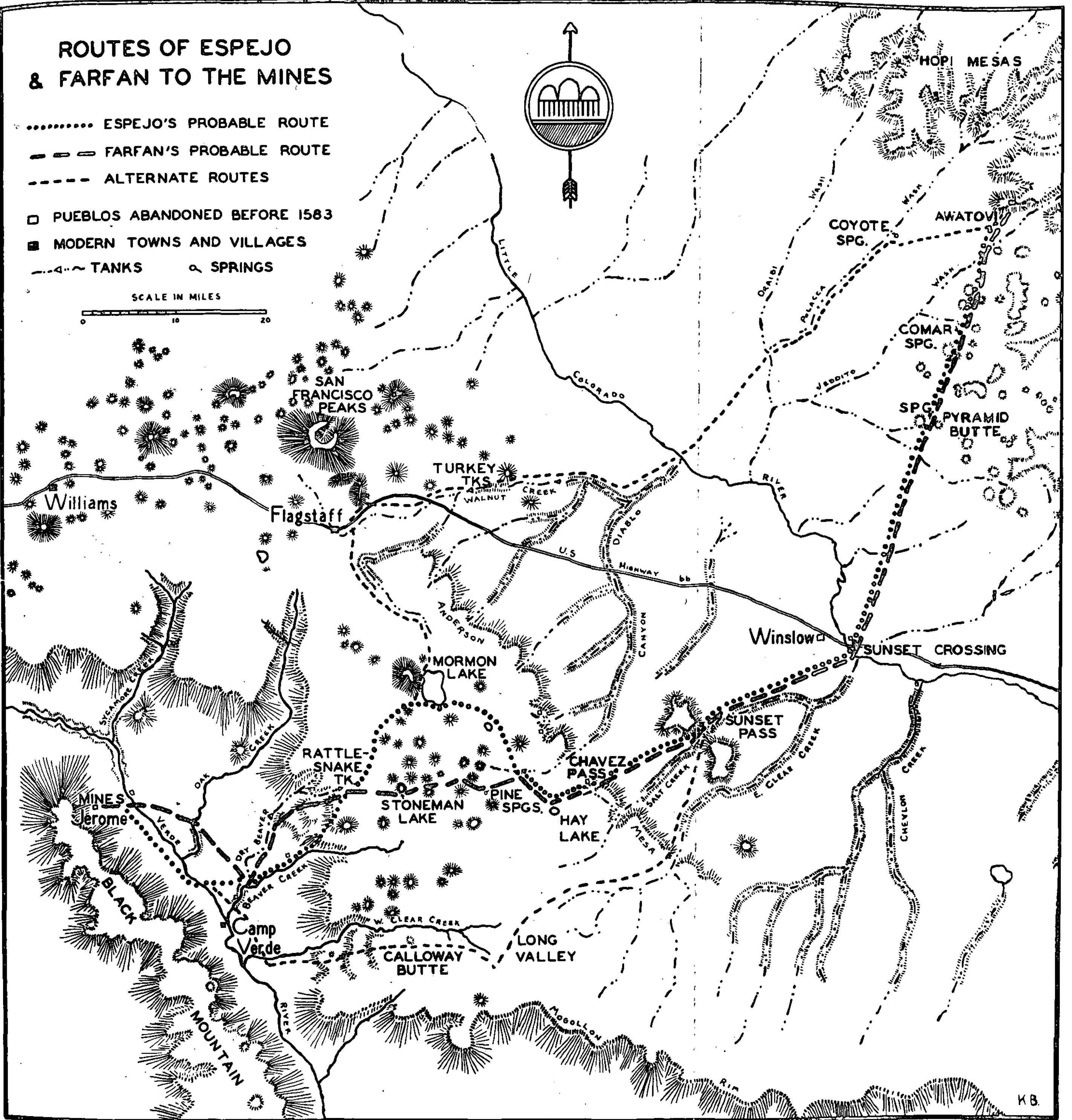
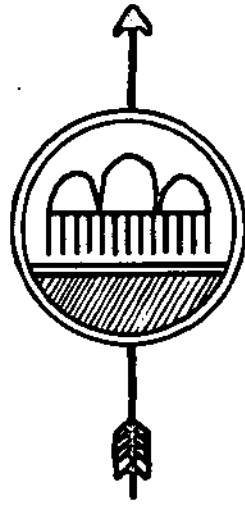
Route 1 from the Hopi Villages to the Verde Valley

At the present time, old Hopis can remember having gone to the Verde Valley over the old trail. This trail ran from the Hopi villages directly southwest to near Winslow (in the early days called Sunset Crossing), passing occasional small springs on the way. The Little Colorado was crossed at this point and a direct line made for Sunset Pass. This is an opening about ten miles from the river between two prominent lava capped mesas called Table Mountain and Sunset Mountain. Salt Creek Canyon with deep pools of

ROUTES OF ESPEJO & FARFAN TO THE MINES

- ESPEJO'S PROBABLE ROUTE
- - - - FARFAN'S PROBABLE ROUTE
- - - - ALTERNATE ROUTES
- PUEBLOS ABANDONED BEFORE 1583
- MODERN TOWNS AND VILLAGES
- TANKS ○ SPRINGS

SCALE IN MILES



water runs between the two mesas. Here the trail left the canyon and headed more west for Chavez Pass, a small canyon leading up to Anderson Mesa. At this point a seep spring was encountered. A gently sloping valley leads upward to a large shallow lake, called Hay Lake. There the trail turned northwest to Jay Cox Tank, then west to Pine Springs. Here a ridge of volcanic cinder cones must be crossed, where the vegetation is dense with pines, Douglas Fir and aspen trees on the north slopes of the hills. Within a few miles, Stoneman Lake was reached, a beautiful small lake in the bottom of an old crater. A long gentle slope extends towards the west, and in a nearby canyon is Rattlesnake Tank. The long slope, old lava flows covering the high red cliff bordering the Verde Valley, leads down to Beaver Head, a point at which the canyon of the Dry Beaver opens out at the foot of the cliffs. From this point one can (1) follow down the Dry Beaver southwest to its junction with the Beaver Creek (sometimes called the Wet Beaver), (2) go south over a gentle ridge to Beaver Creek, or (3) proceed directly westward down grassy ridges to the Verde River. The distance from Awátovi to the mines by this route is 152 miles.

It is likely that the route described is a very old Indian trail, for in the 1300's the last remaining pueblos of north central Arizona must have been joined together by it. There were occupied pueblos close to the present Hopi towns; then on the Little Colorado were Homólovi, northeast of Winslow, and Chevlon at the mouth of Chevlon Creek, a few miles up the river. Chavez Pass Pueblo, Kinnikinnick Pueblo, and Grapevine Pueblo were on the eastern border of Anderson Mesa. In upper Beaver Creek, the pueblo at Montezuma's Well was occupied, and Montezuma's Castle near the mouth of that creek also flourished. On lower Oak Creek and along the Verde as far north as Tuzigoot, were several large pueblos. The yellow pottery then made by the Hopi was traded in great quantity to all these other pueblos as far as the Verde, so intercourse between the towns must have been

constant. Moreover, there were no other pueblos then extant, for the large pueblos around the San Francisco Mountains had been abandoned for fifty years or more.

When the American explorers came into Arizona in the last century, they used the same routes. Lieutenant J. C. Ives, traveling without guides from the Colorado River to Fort Defiance, tried to go across country from the mouth of Canyon Diablo to the Hopi towns but was unable to find water. He turned back and followed the Little Colorado up to Sunset Crossing, where he found a well marked Indian trail leading northeast. This he followed and arrived at the Hopi villages in two and one-half days.⁵

At a later date, when military posts were established at Camp Verde and Fort Apache, one of the wagon roads followed this old trail from Sunset Crossing to Chavez Pass, Stoneman Lake, Beaver Head and Camp Verde.⁶ The old ruts and deep blazes on the trees can still be seen.

Route 2

A route from Awátovi to the mouth of Canyon Diablo, on the Little Colorado, could be easily followed, passing springs such as Coyote Springs in the Polacca Valley, and following down that to its junction with the Oraibi, then proceeding west to the river. Crossing the river, the north side of Canyon Diablo can be followed to its junction with Walnut Creek, then to Walnut Tank, and Turkey Tanks (Cosnino Caves), where the yellow pine forest begins; and from there, leaving the canyon, and going westward to the foot of Elden Mountain, close to Flagstaff, where there are springs. This was the route taken from the mouth of Canyon Diablo to Flagstaff by Whipple in 1853-54,⁷ and Beale in

5. Ives, Lt. J. C. Report upon the Colorado River of the West. *Senate Ex. Doc.* 36th Congress, 1st Session. Washington, 1861, pp. 117-119.

6. Wheeler, Lt. Geo. M., *Preliminary Report of Explorations and Surveys South of the Central Pacific R. R., principally in Nevada and Arizona.* Washington, 1872. Map.

7. Whipple, Lt. A. W. "Route near the 35th Parallel. Vol. III of Reports of Explorations and Surveys to Ascertain the most practical and economical route for a Railroad from the Mississippi River to the Pacific Ocean." *Senate Ex. Doc.* No. 78, 33rd Congress, 2nd Session. Washington, 1853-54, pp. 78-82.

1857-58.⁸ Crossing low ridges south of Flagstaff, Clark Valley, the upper valley of Walnut Creek, is entered, and leads almost to Mormon Lake. From this point it is not far to Stoneman Lake, where the yellow pine forest ends, and the descent to Beaver Creek can be made via Rattlesnake Tank as in the previously mentioned route. The distance is 172 miles from Awátovi to Jerome over this route.

Route 3

By following the old Hopi trail to Sunset Pass, and then the south side of Salt Creek Canyon, one arrives on Anderson Mesa. Turning southwest, one can follow up long ridges, heavily forested with yellow pine, and cut by many side canyons, to various water holes and small lakes such as Lost Eden, Little Springs, and so arrive at Long Valley.

From Long Valley it is possible to proceed westward, crossing south of the headwater tributaries of West Clear Creek, to Calloway Butte, Salmon Lake, Thirteen Mile Rock, down a canyon, and thence down long ridges to the crossing of Clear Creek near the mouth of that stream, then up the Verde to the mines. This is an arduous road, for from the east edge of Anderson Mesa to Thirteen Mile Rock there is a yellow pine forest very dense the greater part of the way, for the altitude is about 7,000 to 8,000 ft. and the rainfall is very great so close to the rim. There are innumerable ridges and washes to cross, with but few landmarks. By this route the distance from Awátovi to Jerome is 160 miles.

When Camp Verde and Fort Apache flourished as military posts, General Crook's wagon road between these two points followed this route from Camp Verde to near Long Valley.

8. Beale, Edward F. "Wagon Road from Fort Defiance to the Colorado River." *House Ex. Doc. No. 124* 35th Congress, 1st Session, Washington, 1858, pp. 47-50.

ITINERARY OF ESPEJO'S TRIP TO THE MINES
(ABBREVIATED FROM LUXAN'S NARRATIVE,
EDITED BY HAMMOND AND REY)

<i>Date</i>	<i>Leagues</i>	
April 30 1583	5 l.	We left the Pueblo of Aguato ⁹ for the mines, taking along with us the necessary guides. We marched 5 leagues to a waterhole which was insufficient for the horses, ¹⁰ so they were two days without water. We named this place El Ojo Triste.
May 1	10 l.	Marched two hours before daybreak. We halted midway for a siesta. Reached a fine and beautiful river, almost as large as the Del Norte, containing many groves of poplars and willows. River flows from south to north. ¹¹ It is settled by a warlike mountain people.
May 2	6 l.	To a deep stream where there are many large pools of rainwater which would be sufficient for a whole year. ¹² This route is rich in abundant pastures and cedar forests. The cedar bear a fruit the size of hazel nuts which are somewhat tasty. ¹³
May 3		Remained at the same place.
May 4	6 l.	Went through a mountain ¹⁴ dense with cedar forests and ash trees. ¹⁵ We found many water

9. Aguato is Awátovi. This pueblo was destroyed by the Hopis in 1700, and never again occupied.

10. Farfán's account described a similar spring at the end of the first day's march. It could be Comar Spring or Pyramid Butte Spring, or any others in the Moqui Butte Region.

11. The Little Colorado River.

12. Deep pools of this description are Sunset Tanks, permanent water holes in Salt Creek Canyon. They also describe Turkey Tanks on Walnut Creek.

13. Hammond and Rey, page 105, footnote 125, state that there must be an error in the text and that pinyon trees with edible nuts must have been meant. However, Mr. A. F. Whiting, curator of botany, Museum of Northern Arizona, points out that at least two species of junipers with large single-seeded edible berries flourish in this area. These are *Juniperus utahensis* and *Juniperus monosperma*. Some berries remain on these trees well into the spring.

14. "Through a mountain" may describe entering Chavez Pass Canyon, which leads to Anderson Mesa. There are many cedars and pinyons in this locality.

15. Ash trees is a misnomer, as there are none to be found in this area. The most common deciduous tree is the oak.

THE ROUTES OF ESPEJO AND FARFAN 29

<i>Date</i>	<i>Leagues</i>	
		holes and small ciénagas. ¹⁶ We stoppéd by a beautiful and large ciénaga which was 2 leagues in circumference, surrounded by numerous pines, cedars, and many waterpools which can be utilized for irrigation. ¹⁷ This region is inhabited by a mountain people because it is a temperate land.
May 5 & May 6	7 l.	Traveled through a very broken and rough mountain, with bad roads and very dangerous in an enemy country. ¹⁸ We descended a slope so steep and dangerous that a mule belonging to Captain Espejo fell down and was dashed to pieces. We went down by a ravine so bad and craggy that we descended with difficulty to a fine large river ¹⁹ which runs from northwest to southeast. ²⁰ The river is surrounded by an abundance of grapevines, many walnut and other trees. It is a warm land and there are parrots. ²¹ The land is rather warm than cold. This river we named El Rio de las Parras. We found a ranchería belonging to mountainous people who fled from us. We saw plants of natural

16. Water holes and ciénagas well describe such places as Jay Cox Tank, Hay Lake, Cow Lake, etc. The lakes are very shallow even when full.

17. A ciénega 2 leagues in circumference would be at least five or six miles around, a very large lake for this region. Mormon Lake is the only one this large, and it is surrounded by yellow pines and cedars. To the east of it are many small lakes. As this was in May after the winter snow had melted, every lake and pool would be full.

18. The region between Mormon Lake and Rattlesnake Tank is full of cinder cones and weathered lava flows, and it is rough. The forest is thick and would have been dangerous, because they could not see an enemy approaching.

19. If they went southwest from Rattlesnake Tank area directly to Beaver Creek they would have had to go down one of the short steep tributary canyons. Such a canyon would be two or three miles in length. They arrived at a large river, which could be Beaver Creek.

20. The directions appear to be wrong. Perhaps they should be northeast to southwest.

21. When one descends the plateau to Beaver Creek, there is a very noticeable change in climate. Today there are many winter Dude Ranches along this valley. Parrots could have been *Rhynchopsitta pachyrhyncha*, the Thick-Billed Parrot, which is not there today, but inhabits similar locations in southern Arizona and northern Mexico.

<i>Date</i>	<i>Leagues</i>	
		flax similar to that of Spain, and numerous prickly pears. ²²
May 7	6 l.	We reached a cienaguilla which flows into a small water ditch and we came to an abandoned pueblo. ²³ We marched at times close to the Parras River. ²⁴ Mountainous people who had fled awaited us near the said river. They had crowns of painted sticks on their heads, and jícaras of mescal and pinyon nuts and bread made from it. ²⁵ They gave us metals as a sign of peace and many of them came to show us the mines. In this locality we found many peaceful rustic people. They had planted maize. We named this ciénaga that of San Gregorio. ²⁶
May 8	4 l.	We left this place and marched 4 leagues to the mines and discovery on which we had gone. Midway we found a large and copious river which flowed from north to south, which we called El Rio de los Reyes. ²⁷ Close to it was a ciénaga into which flowed a stream of water. Rustic people with crosses on their heads waited for us. Many of them came with us to the mines which were in a very rough sierra; ²⁸ so worthless that we did

22. In upper Beaver Creek, prickly pears are a prominent feature of the vegetation even today.

23. Mr. Erik K. Reed of the U. S. National Park Service at Santa Fé has suggested that this could be Montezuma's Well with its famous ditch. The water from the Well is heavily impregnated with lime from the Verde Limestone, and the sides of the ditch (made by pueblo people several hundred years previous to this) are coated with travertine. It is a prehistoric ditch, petrified. Beside the Well, is a large pueblo ruin, and there are many others down the valley.

24. They appear to be following down the river, though not always in the valley.

25. Mescal and pinyon grow on the south-facing slopes of the plateau and not in the valley itself.

26. This was probably a swampy place along the river. They appear to have followed down the river to the vicinity of Montezuma's Castle and then turned northwest.

27. This was the Verde River.

28. The mines are located on the east side of Black Mountain, five or six miles from the river. Farfán says that it was at a good height, but one could go to it on horseback.

THE ROUTES OF ESPEJO AND FARFAN 31

Date Leagues

not find in any of them a trace of silver, as they were copper mines and poor.²⁹ So we determined to return to the camp at once.

May 9 Left this place, returned to Aguátovi and on the 17th arrived at Alona.

ITINERARY OF FARFAN'S TRIP TO THE MINES (ABBREVIATED FROM BOLTON, P. 240 ff.)

Nov. 17 1598	6 l.	From the first pueblo of Moki, ³⁰ Farfán set out with eight companions and traveled 6 leagues west through a land of sand dunes without timber. Where they camped, they found a small spring, where the horses could not drink although there was plenty of water for the men. ³¹
Nov. 18	3 l.	Set out west, and came to a river which flowed towards the north, of moderate width, carrying considerable water, with many cottonwoods, level banks, and little pasture. ³²
	3 l.	Further in the same direction, to the slope of a mountain range, where they camped without water. ³³
Nov. 19	2 l.	Arrived at a grove of small pines and at a very deep pool, which was ample to water all the horses, and more too. ³⁴
	2 l.	Along a mountain range, which was covered with

29. Espejo's own account says that the mines were rich. (See Bolton, p. 187.) Silver is found with the copper, the modern workings show.

30. First pueblo of Moki was Awátovi, where they obtained Hopi guides.

31. Compare Luxán's description of the first night's camp.

32. This was the Little Colorado. It is important to remember that prior to 1880, when the modern period of over-grazing and erosion started, the Little Colorado was a permanent flowing stream lined with cottonwoods and willows, and with many beaver dams.

33. As there are no mountain ranges close to the Little Colorado, it is possible that they approached Sunset Mountain, one of the lava-covered mesas forming Sunset Pass.

34. See footnote 4. Sunset Tanks fits this description better than Turkey Tanks, because at the latter place large pines (yellow pines) are found, as well as small ones. In the entry for Nov. 20th, Farfán carefully distinguished 'large, tall pines.'

Date Leagues

- snow. They camped on a slope where was found a small amount of grass for the horses, but no water.³⁵ Two of the Indians whom they were taking as guides said there was water very near there. Also a camp of Jumana Indians. They called this *Ranchería de los Gandules*.³⁶ These Indians were sent back to their own *rancherías* to reassure the rest of the people that they (the Spaniards) were not going to injure them, and wanted to find out where they secured the ore.
- Nov. 20 2½ l. To said *ranchería* which was deserted. Two chiefs and a woman received the Captain and gave them pulverized ores and a great quantity of ground dates (*datil*), and a few pieces of venison. One chief agreed to go with them to show them where the ore came from.
- 6 l. Left *ranchería*, going up a smooth hill. Reached a plain and a very large pine grove with many large tall pines, which is the beginning of the mountain range, all of which was covered with snow which reached to the knees.³⁷ They traveled about 6 leagues along the mountain range, and at the end of this distance they found a rather low valley without snow and with very good grass, water, and wood, where they spent the night.³⁸

35. Luxán says "thru a mountain." I believe this was Chavez Pass. The north-facing slope would be snowy, for they describe eighteen inches or two feet of snow further on.

36. This water was perhaps Hay Lake. The country around is open and grassy. The camp of Jumana Indians seems to have been temporary, for Farfán sent them back to their *own* *rancherías*. Also these people appear to have come from the region towards which the Spanish were progressing. They were probably Yavapai.

37. Turning westward at Hay Lake, one soon comes to a

38. This was one of their longest day's marches. In Bancroft, 1888, p. 139, footnote, the translation is given that they traveled "6 l. *in* mountains to Agua de Valle." This fits the terrain much better than "along the mountain range." At this point they were traversing the high ridge of cinder cones between Pine Springs and Stoneman lake. The elevation is about 7,500 ft. If they followed down the lava flows to Beaver Head, they would have reached a low valley without snow and with water, grass, and wood.

THE ROUTES OF ESPEJO AND FARFAN 33

<i>Date</i>	<i>Leagues</i>	
Nov. 21	2 l.	They came to a ranchería (Ranchería de los Cruzados), where they found a chief and about 30 Indians, stained with ores of different colors. The chief of this ranchería accompanied them.
	3 l.	They set out from it and traveled through a land of pine groves, with the finest pastures, many cattle, very large prickly pears, and many and large maguey patches, where they saw Castilian partridges, a great many deer, hares, and rabbits. ³⁹ They came to another ranchería where the Indians gave them powdered ore, mescal, and venison. They camped there on the bank of a river of fair width and much water, with good pasture and a cottonwood grove. ⁴⁰
Nov. 22	4 l.	The chief of the last ranchería consented to take them to the mines. Having traveled 4 leagues through very fine fertile land with extensive pastures, they came to another river, wider than the first, where they spent the night. This river flowed almost from the north. ⁴¹ They crossed it.
Nov. 23	2 l.	Having traveled 2 leagues further they came to another river, much larger, which flowed from the north. They crossed it. ⁴²
	1 l.	They went one league further to the slopes of some hills, where the Indian chief said the mines were whence they got the ore. And arriving at the slopes of the said hills, the banks of the said rivers could be seen, with deep ravines having the finest of pastures and extensive plains. ⁴³ As it

39. This is similar to Luxán's description (see footnote 19), only even more descriptive of the region of the Beaver Creek area near the foot of the plateau. The cattle he mentioned might have been antelope.

40. They appear to have followed down the Dry Beaver to its junction with Beaver Creek, where they camped on the bank.

41. Turning northwest from the mouth of the Dry Beaver they would come to lower Oak Creek. The best crossing is near the present site of Cornville, above the deep canyon which forms directly below. Here also the stream flows north and south, before emptying into the Verde.

42. Continuing towards the mines, they would soon arrive at the Verde River, a stream larger than Oak Creek and flowing from the north.

43. This describes exactly the view as one ascends the slope to Jerome.

Date *Leagues*

Nov. 24.

was late, they camped that night on the slope of these hills, at a spring of water which issued from one of them, very large and carrying much water almost hot.⁴⁴

Six Indians from different rancherías in these mountains joined him and took him up to the said mine, which was at a good height, although one could go up to it on horseback, for these Indians had opened up a road. Here they found an old shaft, three estados in depth (16½ ft.), from which the Indians extracted the ores for their personal adornment and for the coloring of their blankets, because in this mine there are brown, black, water-colored, blue and green ores. The blue ore is so blue that it is understood that some of it is enamel. The mine had a very large dump, where there were many and apparently very good ores which are the ones which have been enumerated.⁴⁵

The vein is very wide and rich and of many outcrops, all containing ores. The vein ran along the hill in plain view and crossed over to another hill which was opposite, where they took from twenty to thirty claims for themselves and for the companions who had remained at the camp as a guard for the Señor governor.

Vein of San Francisco—14 to 15 claims

Vein of San Gabriel—14 to 15 claims

Vein of Guérfanos—10 to 12 claims

The veins are so long and wide that half of

44. Bolton said, p. 244, footnote 3, that the hot spring might be the clue to the location. However, as far as I know there is no hot spring near the mines now.

45. Compare the following description of the mine as set forth in 1884 by Patrick Hamilton. He was describing the properties of the United Verde, and said: "The Chrome South (one of the claims) adjoins Eureka on the East. Traces of old dumps, shafts, and tunnels have been found on this claim showing it to have been worked in the past. Stone hammers and other implements of the same material have been uncovered in the old workings and portions of the vein show it to have been stoped by the ancient miners in the manner in vogue at the present day." Patrick Hamilton, *Resources of Arizona*, 3rd ed. reissued and enlarged. A. L. Bancroft & Co., San Francisco, 1884.

Date *Leagues*

the people of New Spain can have mines there. At a quarter of a league, half a league, or a league, there is a very great quantity of water from said rivers and spring, where many water mills can be constructed, with excellent water wheels, and water can be taken out with the greatest ease.

Near to the very mines themselves, are enormous pines, oaks, mesquites, walnuts, and cottonwoods, and as has been stated, great pastures and plains and fine lands for cultivation.⁴⁶

Dec. 11

They had returned to Cibola and gave their testimony concerning the trip. This was two and one-half weeks after they first arrived at the mines.

I am inclined to believe that both expeditions followed the first route outlined. Both had only a short time to spend on the trip and would therefore have chosen the shortest and easiest route. Moreover, it was business, not pleasure, that took them this long way, and they did not waste time in sightseeing. Espejo's expedition was in May and Farfán's in November. They could hardly have chosen poorer times for crossing Anderson Mesa, for at both these seasons it is muddy and walking is poor. They would have wished to get over this bad part as quickly as possible. If Espejo had gone via Turkey Tanks, Flagstaff, and Mormon Lake, the distance over the mud and malpais would have nearly doubled.

Farfán might have continued southwest from Sunset Pass to Long Valley, and thence west to the mouth of Clear Creek. This is possible since he mentions three rivers: first, where he camped (though he says nothing of crossing it), which could be Clear Creek; second, one flowing from the north, the Verde. This would mean that he crossed the

46. Pines and oaks grow on top of Black Mountain, and mesquites, walnuts, and cottonwoods in the valley bottom. The valley is wide and has fine cultivated fields on both sides.

Verde below the mouth of Oak Creek, which does not fit with his statement that the mines were only a little over one league from the point of crossing the river. They would be at least two or three leagues away. Moreover, in November, with snow on the ground, the route over the plateau would have been long and tedious, up and down ridges, and through the very thick forest. Near the Rim, the precipitation is greater than it is at points further north, and anyone who knew the country would try to avoid it in winter.

As to the possibility that Espejo may have descended to the Verde via Oak Creek or Sycamore Creek, as suggested by Hammond and Rey, knowledge of the country indicates it would be impossible. If one descended Oak Creek near the head of the canyon, it would be very precipitous, and one would arrive at a fine river, but it would be a long and weary way through the thick growth in the bottom of the canyon until one arrived "at a warm land" where prickly pear flourished. The same can be said for Sycamore Canyon, except that it has no permanent flowing river in it, only occasional pools. In either case, Espejo would not have passed any lake two leagues in circumference, only very small lakes such as Rogers Lake.