

Historic Hopi Use and Occupancy of the Little Colorado Watershed, 1540-1900

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Introduction	1
The Coronado Expedition, 1540-42	4
The Rodríguez-Chamuscado and Espejo Expeditions, 1581-83	9
The Colonization of New Mexico, 1598-1604	15
The Franciscan Mission Period, 1629-1680	19
Revolt and Reconquest, 1680-1692	22
1701-1770: Missionaries and Others; the Hopi Remain within Spanish Dominion	25
The 1770s: Escalante and Garces	28
1780-1821: Anza in 1780; the Navajo Treaty of 1819	41
The Mexican Period, 1821-1846	47
The American Annexation of New Mexico, 1846-50	49
Hopi Delegations to Santa Fe, and a Diplomatic Communiqué to President Fillmore, 1850-52	51
American Exploration of the Area and Accounts of the Hopi	54
Mormon Visits, 1858-1873; Records of Hopi Farming and Residences at Mùnqapi	62
The 1860's: U.S. Guarantees of Hopi Rights, Hopi Initiatives to U.S. Representatives, and the Establishment of the Hopi Indian Agency	64
The 1870's: Hopi Agency Developments, Navajo Trespass, and Relations with Mormons at Mùnqapi	68
Establishment of the 1882 Hopi Reservation	69
Ongoing Hopi Protests over Loss of Water and Other Resources, 1890-1900	80

Historic Hopi Use and Occupancy of the Little Colorado Watershed, 1540-1900

Records of the Hopi Economy at the Beginning of the Reservation Period	87
Hopi Water Resources at the Beginning of the Reservation Period	94
Conclusions	101
Appendix: Hopi Population Estimates 1520-1900	104
References Cited	106

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### *Introduction*<sup>1</sup>

[T]he Moqui Pueblos get title to their towns and the water and lands adjacent from the former owners of the soil. Spain found them there and called the country the "Province of Tusayan". Viceroy, captain general, military commander, governor, and all, recognized and mapped these pueblos....

The Moquis of Arizona, even if they had no military, pueblo, or community grants, would be entitled to hold the lands they now occupy under possessory title and the law of occupancy. By the Treaty of Guadalupe Hidalgo, they were to have the same rights, protection, and guarantees under the laws of the United States as they claimed or had under the laws of Spain or Mexico. The rights of the Pueblos of New Mexico have been respected. Why not respect the rights of the Pueblos of Arizona, once a part of New Mexico?

Thomas Donaldson, U.S. Special Agent for the 1890 Census (1893:40).

Hopi rights in water resources of the Little Colorado River watershed must be understood in terms of historic occupancy and use. The salient hydrographic area includes tributary drainages to the Little Colorado and springs fed by underground aquifers and precipitation seepage. The tributaries are, principally, the Hopi washes; namely Moencopi, Dinnebito, Oraibi, Polacca, and Jeddito (and their tributaries). The relevant aquifers generally underlie Black Mesa of the Colorado Plateau. The principal

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<sup>1</sup> This report draws upon the author's prior inquiries into Hopi history, territory, and resource use, both for academic purposes, which began in 1980 (e.g., Whiteley 1988a, 1998), and for the 1934 Reservation case (*Masavesyva v. Zah*), for which the author engaged in historical and ethnological research for the Hopi Tribe in 1988-1992, and in 1995-96 (e.g., Whiteley 1989, 1996). In the first phase of the 1934 Reservation Case (1988-90), the author was also asked to synthesize information collected on Hopi land use in the 1934 Reservation by other experts, including Anthony Godfrey (1988a, 1988b), whose reports detailed the history of Hopi agriculture and grazing throughout major parts of the Little Colorado watershed. Those reports also inform the present work. This report also draws upon S. Lyman Tyler's *History of Hopi Use of Land, Water, and Other Resources Within the Little Colorado River Watershed*, prepared for the Hopi Tribe in 1992.

hydrogeologic subdivision is Black Mesa, along with parts of the Painted Desert and Western Navajo Uplands subdivisions through which washes pass into the Little Colorado (see Cooley et al 1969).

This entire area, including also tributary drainages south of the Little Colorado River, falls well within traditional Hopi territory, or “Hopitutskwa” (e.g., Whiteley 1989). Hopis have used this area for traditional economic and religious practices from the time of unrecorded history up to the present. That use is founded upon long-term occupancy, and ancestral Hopi villages throughout the area:

In Hopi tradition, the clan migrations after emergence from the underworld covered much of the American southwest. It was during this period that agriculture reached them from the south, along with pottery making and the weaving of cotton. As agriculture became more important, and gradually replace hunting and gathering as the primary basis for subsistence, the Hopi lifestyle became sedentary, building pit house hamlets and later masonry storage structures that gradually evolved into the modern Pueblos. Agricultural land and sources of water became more important and the early Hopi settled on Black Mesa, in the Hopi Buttes, along the Little Colorado River, and in the Grand Canyon.

It is a fundamental Hopi belief that the deity Masau [Maasaw] assigned to the Hopi the Tusqua [Hopitutskwa], or sacred land, and charged the Hopi with a sacred stewardship over the area. The Hopis were and still are responsible under this stewardship to mark the boundaries of their area and to live and carry out various religious practices within it.... (Eggan 1986:6)

Agricultural, pastoral, hunting, gathering and religious use (including gathering of eagles and visitation of shrines, typically associated with named springs on both sides of the Little Colorado River drainage) are all equally parts of *tutskwa iqatsi* - Hopi land and life - that occupies Hopitutskwa, Hopi land. That area encompasses: Black Mesa and on north to Navajo Mountain; all of the Hopi Washes; the Little Colorado River from its confluence with the Rio Puerco of the West to its confluence with the Colorado; the Little Colorado's western and southern tributary washes and associated water sources down to the Mogollon Rim; and the area east up the Rio Puerco of the West to the border with the modern state of New Mexico (cf. Whiteley 1989). Hopis have actively expressed and demonstrated

their interests in this area repeatedly to U.S. Government officials since the mid-nineteenth century forward (ibid.).

The Hopis and their forebears - "Basketmakers" and "Anasazi," or "Ancestral Pueblo" - have occupied this area for almost two millennia and possibly longer:

Sites representing the late Basketmaker and early Pueblo phases of the prehistoric culture are to be found throughout the Hopi country....That the villages of 1,500 and 1,600 years ago were occupied by direct ancestors of the modern Hopi is a matter for discussion, but the cultural remains present a clear, uninterrupted, logical development culminating in the life, general technology, architecture, and agricultural and ceremonial practices to be seen on the three Hopi mesas today (Brew 1979:514).

Moreover, both prior and subsequent to the Spanish entry into the Southwest, the Hopi played a prominent role in a wide ranging- trade network that gave them access to other areas and their resources:

The Tusayan towns dominated the trade route from the Upper Southwest to the Verde [River] area and to the lower Colorado river. Tusayan supplied Cibola, and through Cibola the rest of the Upper Southwest and the Gila-Salt and Sonoran regions, with verde Valley area pigments and, at least the upper Southwest, with Gulf of California and California Pacific Coast shell....

Archaeological work in the Tusayan area produced not only Pacific Coast shell but also *Glycymeris*, *Strombus galeatus*, and *Melongena patula*, as well as specimens of *Cardium* painted with black lines, and clay models of *Glycymeris*, *Olivella*, and *Conus*. Most or all of this shell came from the Gulf of California and could have reached Tusayan either by the Cibolan route or by the western one....

Tusayan-Hopi, in return for blankets and other cotton goods and transhipped shell and pigments, received turquoise, worked bison hides, fibrolite (probably in the form of finished axes), and perhaps salt.... Tusayan was an exporter of pottery, especially the beautiful yellow pottery. such wares as Jeddito black-on-yellow are distributed over practically the whole Pueblo area in Pueblo IV times. Indeed they go well beyond, for early historic Jeddito pottery is found in south coastal California (Riley 1987:196-97).

This report focuses upon the historic notations of Hopi presence and use within this area, since

the arrival of the Spanish explorers in the 16<sup>th</sup> century to the turn of the 20<sup>th</sup> century. For the majority of that time, Hopis were the only Native people on Black Mesa and the Hopi Washes down to the River itself and beyond. Havasupais lived or passed through the area south and west of the river into late historic times and north of the river near the Moencopi Wash. Zunis used the river as far west as the confluence with the Rio Puerco of the West. But there was no presence of the largest tribe in the area today, the Navajo, until the late nineteenth century, after the Hopi had been guaranteed rights to their resources by the U.S. in the 1848 Treaty of Guadalupe Hidalgo. The historic record is intermittent, and by no means constitutes a thorough picture of Hopi use and occupancy throughout this area. But the record provides serial glimpses of long-term and widespread Hopi use and occupancy; these glimpses, particularly the sharper ones, are the principal subject of this report. Greatest attention is paid to those accounts referring to patterns of Hopi occupancy, population presence and size, characteristics of resource use, and formal relationships with the Spanish, Mexican, and early American regimes.

#### *The Coronado Expedition, 1540-42*

When Alvar Nuñez Cabeza de Vaca and his party reached Culiacán in northern Sinaloa, following their extended trek across the southern and southwestern United States from Florida, they reported hearing of a northern region where people wore clothes, lived in houses, and towns, raised corn, beans, and squash, and possessed “many cotton fabrics” (Bolton 1949). The Viceroy of New Spain, Antonio de Mendoza, sent Friar Marcos de Niza with a member of Cabeza de Vaca’s party, Estévan, to explore, and to report back to Don Francisco Vázquez de Coronado, the Governor of Nueva Galicia. In April 1539, Niza was sent word by Esteván, who had gone ahead, that, “Besides

these seven cities [Zuni], he learned that there were other kingdoms, called Marata, Acus, and Totontec” (Winship 1896:357). “Totontec” has been identified as “Tusayan,” or the Hopi towns. When Esteván went forward to make contact at the first Zuni town, he was killed, and Niza retreated without any direct contact with the Pueblo peoples himself. But his report was sufficiently expansive that Coronado himself led the next expedition, as its Captain-General, in 1540.

At Hawikuh, the first Zuni town entered, Coronado learned of other provinces, including “Tusayan” (Hopi) from his Zuni hosts:

They informed him about a province with seven villages of the same sort as their, although somewhat different.... This province is called Tusayan. It is twenty-five leagues from Cibola. The villages are high and the people are warlike (Winship 1896:488).

Coronado himself records this Zuni report of the Hopi Province in a letter of August 3<sup>rd</sup>, 1540, to Viceroy Mendoza, emphasizing that “they raise much cotton there” (Winship 1896:562). In this same letter, Coronado noted, in specific reference to Zuni, but with broader implications for all the Pueblos:

So far as I can find out, the water is what these Indians worship, because they say that it makes the corn grow and sustains their life (ibid:561).

Coronadó dispatched his ensign Pedro de Tovar and Fray Juan Padilla with a force of twenty soldiers to explore the Hopi country on July 15<sup>th</sup>, 1540. There were initial hostilities at the first village (probably Awat’ovi, although there is debate it may have been another village on Antelope Mesa [Brew 1949:5-7]), but after a Spanish show of strength, the Hopi soon capitulated and invited the party into the village:

...the natives came peacefully, saying that they had come to give in the submission of the whole province and that they wanted him [Pedro de Tovar] to be friends with them and to accept the presents which they gave him. This was some cotton cloth, although not much, because they do not make it in that district [but see *Relacion del Suceso* below].

They also gave him some dressed skins and corn meal, and pine nuts and corn and birds of the

country. Afterward they presented some turquoises, but not many. The people of the whole district came together that day and submitted themselves, and they allowed him to enter their villages freely to visit, buy, sell, and barter with them (Winship 1896: 488ff).

Tovar learned of a great river to the west, and returned to report to Coronado at Zuni. A month later Coronado sent the army-master Garcia Lopez de Cárdenas back to Hopi, to pick up guides to take them to the great river:

...the general...dispatched Don Garcia Lopez de Cardenas with about twelve companions to go see this river [the Colorado]. He was well received when he reached Tusayan and was entertained by the natives, who gave him guides for his journey. They started from here loaded with provisions, for they had to go through a desert country before reaching the inhabited region, which the Indians said was more than twenty days' journey. After they had gone twenty days they came to the banks of the river, which seemed to more than three or four leagues above the stream which flowed between them....They spent three days on this bank looking for a passage down to the river, which looked from above as if the water was 6 feet across, although the Indians said it was half a league wide. [they confirm this by a trip down]....They did not go further up the river, because they could not get water. Before this they had had to go a league or two inland every day late in the evening in order to find water, and the guides said that if they should go four days farther it would not be possible to go on, because there was no water within three or four days, for when they travel across this region themselves they take with them women loaded with water in gourds, and bury the gourds of water along the way, to use when they return, and besides this, they travel in one day over what it takes us two days to accomplish....On the way [back] they saw some water falling over a rock and learned from the guides that some bunches of crystals which were hanging there were salt. They went and gathered a quantity of this and brought it back to Cibola, dividing it among those who were there (Winship 1896:488-90).

Hopi knowledge of the landscape and its water sources is both revealed and concealed in this account. Clearly, the Hopi knew well the route to the Colorado River and the usable water sources along it. The notation of Hopi water jars carried by women and buried along journey-routes conforms to present-day Hopi accounts of how they stored water during long journeys by foot into the recent past. But equally clear in the reports of Cárdenas's trip is that the Hopi were not revealing all they knew. The fact that no route could be found down to the river indicates the Hopi guides were not

entirely frank with this exploring party - that had already engaged them in battle, and was about to go on to do much greater violence in the Rio Grande Pueblos. The Grand Canyon is an area of religious and secular significance to Hopis. On the salt trail down Little Colorado Canyon, for example, Hopis regularly went in the past to the very confluence of the Little Colorado (Paayu, or Palavayu, the Little Colorado River; part of its stretch is also known as Sakwavayu) with the Colorado (Pisisvayu, the Colorado River). The spirits of deceased Hopis go to dwell at Maski, the house of the dead, which is located in Tupqa, the Grand Canyon. The Hopi emergence shrine, Sipaapuni, is located along the Little Colorado a few miles above the confluence, and there are numerous other Hopi shrines in the area. Old Pueblo villages at the base of the canyon on the riverbank are specifically ancestral to some Hopi clans. There can be no doubt that had they wished to, the Hopi guides could have guided Cárdenas right to the river's edge.

Further descriptive elements concerning the Hopi are contained in other accounts of the Coronado expedition. Captain Juan Jaramillo, for example, reported: "...there is a province called Tucayan, about five days off, which has seven flat-roof villages, with a food supply as good as or better than these [Zuni], and an even larger population; and they also have the skins of cows [bison] and of deer, and cloaks of cotton..." (Winship 1896:586-87). And the *Relacion del Suceso* reports:

Francisco Vazquez then sent Don Pedro de Tobar to investigate, who found seven other villages, which were called the province of Tuzan; this is 35 leagues to the west. The villages are somewhat larger than those of Cibola [Zuni], and in other respects, in food and everything, they are of the same sort, except that these raise cotton.... (Winship 1896:573-74).

Principal chronicler of the expedition, Pedro de Castañeda, reported of Zuni, which he likened to Hopi in this regard, "They do not have chief as in New Spain [Mexico], but are ruled by a council of the

oldest men. They have priests who preach to them.... These are elders. They tell them how they are to live, and I believe they give certain commandments for them to keep” (Winship 1896:518). Castañeda also provided a population estimate: “there may be as many as 3,000 or 4,000 men in the fourteen villages of these two provinces” (Winship 1896:518).

These various references to Hopi forms of settlement, political society, and agriculture (notably, of cotton), all correspond with known details of Hopi society and culture from subsequent accounts. As regards population, I have inferred elsewhere (Whiteley 1988a:15) that this may suggest a total Hopi population of ca. 8,000. That should not be regarded as indicative of aboriginal population, since it is highly likely that Old World pathogens had reached the Southwest significantly ahead of the first Europeans and Africans themselves. Everywhere in the New World, Native populations were devastated by virgin soil epidemics of diseases to which they possessed no natural immunities (e.g., Dobyns 1983, Ramenofsky 1987, Rushforth and Upham 1992). Even in the late 19<sup>th</sup> century, the Hopi continued to suffer major population loss from smallpox incidents - four hundred years after their likely first exposure to smallpox pathogens (Whiteley 1998a:90-91). Of earlier incidents, Indian Agent C.E. Vandever reported in 1890:

About 1780 an epidemic of small-pox devastated all the Moqui villages, and again in 1840 [he probably means 1852-53] the same disease raged among them for several months, and many ghastly stories are still told of its ravages. many houses were then abandoned and their ruinous walls still form ragged fringes around every village, and the old men point to these memorials as they tell of the pestilence which diminished their people to insignificance (Vandever 1890:168).

By the time Tovar reached Hopi in 1540, sixteen years had elapsed since a smallpox pandemic of 1524 spread out from Mexico City (Dobyns 1983). It is very likely that this, and other disease incidents, were transmitted to the Southwest long in advance of the first explorers themselves (cf. Rushforth and

Upham 1992). Steadman Upham (Rushforth and Upham 1992:94-95), using conservative epidemiological and demographic projections, suggests a Hopi population figure in 1520 of 29,305 people.

*The Rodríguez-Chamuscado and Espejo Expeditions, 1581-83*

The next Spanish entrada to Hopi occurred in 1583, led by Antonio de Espejo, a merchant from Mexico City. Responding to the report of the Rodríguez-Chamuscado expedition, which had been in New Mexico in 1581-82, the Viceroy sent Espejo to again explore the northern lands. One branch of the Rodríguez-Chamuscado expedition (which had followed the Rio Grande northward) had marched west to Zuni in December 1581, “where they found six pueblos of thirty, forty, and even one hundred houses, with many Indians clothed in the same manner as the others [“dressed in shirts, cotton blankets, and hide shoes with soles”], the houses being of two and three stories and built of stone” (Bolton 1916:149). At Zuni they learned of Hopi:

...where there were five large pueblos with many people. According to the signs which the Indians made, they understood that two of the pueblos were very large [probably Orayvi and Awat’ovi], and that in all of them large quantities of cotton were raised, more than in any other place which they had seen (Bolton 1916:148-49).

The party was prevented from going on to Hopi by inadequate provisions and the deep snows (Hammond and Rey 1966: 108, 120).

The Rodríguez-Chamuscado expedition recorded some of Pueblo ceremonial life, “which they perform to bring rain when there is a lack of rainwater for their cornfields” (Hernan de Gallegos, in Hammond and Rey 1966: 99). At the end of a description that sounds partly similar to the Hopi Snake

Dance (still performed), Gallegos notes that the chief, “makes an offering of a certain number of sticks, adorned with many plumes [pahos, or prayer-sticks], so that the people may place them in the cornfields and waterholes; for they worship and offer sacrifices at these holes” (ibid: 101). The practice of planting prayer-sticks in cornfields and at springs to ensure replenishment of moisture is still widely done by Hopi religious leaders and ordinary Hopi practitioners: indeed it has been described as the epitome of Hopi religious activity (Bradfield 1995:56). In short, this Pueblo religious concern with water, first recorded by Coronado, was clearly very well established by the time of first European records, and remains ongoing at Hopi via identical traditional practices noted in 1581.

Following the return of the Rodríguez-Chamuscado expedition in 1582, Antonio de Espejo set out for New Mexico later that year. The Espejo expedition also produced several chronicles, most importantly by Diego Pérez de Luxán. Luxán traveled to the Hopi villages with Espejo, and from there they went south to the Verde River, and the mines near modern Jerome. The party had spent a month at Zuni in March, 1583 before setting out for Hopi (termed ‘Moje’ or ‘Mohoce’). The Zuni (warned by four elder Hopi emissaries [Brew 1949:6]) expressed concern the party would be attacked by Hopis, but this proved false. They arrived on the outskirts of Awat’ovi on April 17<sup>th</sup> 1583:

We set out from this place on the seventeenth [April, 1583] and traveled six leagues. We halted in the province of Moje (sic).... Even though it was almost sunset so many people came from Aguato [Awat’ovi] in a short time with tortillas, tamales, roasted ears of green corn, maize, and other things, that although our [Zuni] friends were many, they had half of it left over. They asked for peace....

There are in the province over twelve thousand Indians with bows and arrows and many Chichimecos and all trembled before ten men. By their command they built a fortress of dry masonry in one day (Hammond and Rey 1929:97).

Once inside Awat’ovi:

Hardly had we pitched camp when about one thousand Indians came laden with maize, ears of green corn, pinole [cornmeal], tamales, and firewood, and they offered it all, together with six hundred widths of blankets small and large, white and painted, so that it was a pleasant sight to behold (Hammond and Rey 1929: 98).

According to another report of this encounter, the Hopis gave them “a thousand cotton blankets, many pieces of cloth, and well tanned deerskins (Hammond and Rey 1929: 98 n 109). In fact:

They brought so much food that we told them not to bring it as it was going to waste. Likewise they brought some venison and dried rabbits.... (ibid:98).

The party then traveled to First Mesa, and was again festooned with agricultural goods and manufactures:

About half a league from this pueblo [old Walpi] many people, men and women, came to meet us along the way until we reached it. Each one carried his bag and jicara of pinole, scattering some of it on the road and some over us and on the horses and servants. This is all a sign of peace.... Along the way are many large earthen jars with water and much food, all very surprising facts....

Upon their arrival over one thousand souls came laden with very fine earthen jars containing water, and with rabbits, cooked venison, tortillas, atole, beans, cooked calabash, abundant maize and pinole, so that although our friends were many and though we insisted they should not bring so much, heaps of it were left over. Then they brought six hundred pieces of painted and white blankets and small pieces of their garments.... Horses cannot be kept in this pueblo owing to the lack of water, which they obtain from very deep wells.... The soil is very fertile for maize, cotton, and for everything sown in it as it is a temperate land. The natives cultivate sandy places without difficulty because they carefully guard the moisture from the snow.... The people are very healthy (ibid:99-100).

The party then traveled to Second Mesa, visiting both extant Hopi towns, Musangnuvi and Songòopavi:

We marched two leagues one of them through cottonfields, and came to a plain between two pueblos separated scarcely half a league from each other.... They brought us abundant water in large earthen jars and barrels, calabashes [squash], cooked vegetables, and maize, and whatever was necessary as in the others.... They brought about six hundred large and small pieces of blankets.

Subsequently, Espejo’s party traveled to Orayvi, the largest Hopi town, on Third Mesa:

We traveled three leagues and reached the pueblo of Olalla which is the largest in the province. We established our camp at its foot close to a well with water [probably Leenangwva, west of Orayvi], to which they descend by stone steps. The water gave out this day and then the natives brought us water, in gourds and kettles, from other wells, for the animals. The greatest handicap in this land is the lack of water....They received us very well here and gave us raw and prepared food in great abundance. They presented us with over eight hundred pieces of blankets, large and small, much spun and raw cotton which, with blankets, we gave to the allies [i.e. the Zunis] (ibid:101-102).

A good part of Orayvi's cotton had probably been grown on the Moencopi Wash. According to Third Mesa Hopis, the area around Mùnqapi (and Mawyavi, or Moenave) and Tuba City (Qötsatuwa, 'white sand'), was the principal center for cotton-growing. Earlier, in pre-Spanish times, the Hopi "satellite" at Homol'ovi on the Little Colorado River near Winslow had been the center of the Hopi cotton industry, sending its crops to "metropolitan" Awat'ovi for redistribution (Adams and Duff 2004). In the 15<sup>th</sup> century, Homol'ovi was depopulated, and the center of Hopi cotton seems to have shifted to Orayvi, and its farming satellite at Mùnqapi (although cotton evidently continued to be grown at both First and Second Mesas too - see below). In the sixteenth century, Hopi seems to have been the big cotton supplier for the Southwest and perhaps beyond: "From all accounts Hopiland was supplying Zuni and the Rio Grande towns with woven cloth and also some cotton fiber, a practice which has continued until the present time" (Kent 1957:469)

Espejo's party stayed for two days in Orayvi and returned to Awat'ovi, where they divided into two groups, one going off to find the mines and the other back to Zuni. They learned at Awat'ovi that the mines were distant, that water was scarce en route, and that the march was over difficult ridges (Hammond and Rey 1929:103). But they obtained guides, evidently from Awat'ovi:

We the five companions left the pueblo of Aguato [Awat'ovi] for the mines on the last day of April, taking along with us the necessary guides. On this day we marched five leagues to a

water-hole [perhaps = Siipa/Seba Dalkai, or Palavatupha/Red Lake] which was insufficient for the horses, so they were two days without water. We named this place El Ojo Triste....

We left this place on the first day of May and marched two hours before daybreak.

Overcome by drowsiness and out of consideration for the guides and because of the bad road we halted midway for the siesta. We traveled ten leagues on this day and reached a fine, beautiful, and selected river [the Little Colorado River], almost as large as the Del Norte, containing many groves of poplars and willows. This river flows from the south toward the north. It is settled by warlike mountainous people.

We left this place on the second of the month and marched six leagues and camped at a deep stream where there were many large pools of rainwater which would be sufficient for a whole year. This route is rich in abundant pastures and cedar forests. These cedars bear a fruit the size of hazelnuts [which are] somewhat tasty [Hammond and Rey infer he means piñons].

We set out from this locality on the fourth of the month and went six leagues through a mountain dense with cedar forests and ash trees. We found many water-holes and small ciénagas. We stopped by a beautiful and large ciénaga which was two leagues in circumference [perhaps Mormon Lake] surrounded by numerous pines, cedars and many water-pools which can be utilized for irrigation. This region is inhabited by mountainous people, because it is a temperate land (Hammond and Rey 1929:104-108).

The party, still led by the Hopi guides, passed southwestward, to the Verde River and the coppermines at Jerome (Hammond and Rey 1929:105-108). Discovering only copper (although Espejo later claimed to have found silver), they returned via the same route to Awat'ovi and then on to Zuni.

From Luxán, we learn that five of the later-known Hopi towns were definitely in place by 1583 (Awat'ovi, Walpi, Musangnuvi, Songòopavi, and Orayvi). These were large, well-established agricultural communities, with some dependence also on hunting and gathering. Luxán reports Hopi population at 12,000, with numerous "Chichimecos" or "Qurechos" close by. While some have speculated these were Navajos, it seems more likely they were a combination of Havasupais, Paiutes, and Utes, and, if there were any Athapaskans, probably those subsequently known as 'Gila' or

Western Apaches. Espejo's estimate for the population of the Hopi Province was 50,000, though, in contrast to Luxán, he is regarded as unreliable on such details (ibid:84, n. 73). We also learn from Luxán that, from the abundance of cotton blankets woven from their own cotton-fields, the Hopi were engaged in more than simply subsistence agriculture. Espejo's own account (although again regarded as exaggerated) reports the exploring party received as many as 4,000 cotton blankets at Orayvi alone, "some colored and some white, towels with tassels at the ends..." (quoted in Hammond and Rey 1929:102:n 119). As Hammond and Rey note:

These evidently were the robes and kilts woven of native cotton still used in ceremonies by many of the Pueblos, who procure them through trade [with the Hopi]. The total gift [from all five Hopi towns visited] of blankets, or pieces of blankets, as given by Luxán would exceed 2600 (ibid.)

2,600 woven blankets, together with the raw cotton presented at Orayvi, suggests a major enterprise (cf. Riley 1987). While at Hawikuh (a Zuni town), Luxán recorded that the Zuni "spin cotton and weave blankets. They say, however, that they obtain part of this cotton in trade from the province of Mohose [Hopi], which is a temperate land" (Hammond and Rey 1929:91). If Hopis were exporting cotton, both raw and finished, to Zuni, this would again suggest a substantial level of production. Sixteenth century Hopis were thus characterized by their extensive use of agricultural resources, not merely for subsistence but for a widespread network of intertribal trade; in the case of cotton goods, that amounted virtually to a market (cf. Riley 1987).

In this light, it is no surprise that Espejo's Hopi guides to the Verde River and Jerome were thoroughly familiar with the terrain south of the Hopi Mesas, with the Little Colorado River and water sources beyond it to the Mogollon Rim, and on south. The identity of "warlike mountainous people" in

the vicinity of the Little Colorado River, the San Francisco Mountains, and farther south, is not certain, but from later accounts (e.g., Spier 1928), these were probably Pai people (Havasupai and Yavapai). They evidently regarded the Hopi guides as friendly neighbors.

As Pedro de Tovar had done four decades earlier, Espejo formerly proclaimed Spanish dominion over the Hopi Province in each town he came to. Despite Zuni warnings of potential Hopi hostility, the party encountered only extensions of friendship. Espejo entered into major conflict at Acoma and in the Tiguex Province (of the southern Tiwas, like modern Isleta and Sandia). The friendly relations at Hopi are thus the more striking.

#### *The Colonization of New Mexico, 1598-1604*

When Don Juan de Oñate took possession of New Mexico in 1598 in the name of King Philip, the Hopi Province was explicitly included. Oñate reached Hopi to proclaim the dominion of *ambas magestades* (both majesties, God and King) in November of that year:

At the first pueblo of Mohoqui (or Mohoce) they came out to receive us with tortiallas, scattering fine flour upon us and upon our horses as a token of peace and friendship, all of those provinces, which are four [sic] pueblos], rendered obedience to his Majesty and treated us very well (Bolton 1916:236-37).

Dominion explicitly included over water resources. The text for the Act of Taking Possession in New Mexico first established its authorities by God, King, and the right of discovery. It then declared:

Before them I state that in the name of the most Christian King, Don Philip, our lord, sole defender and protector of holy mother church, and its true son, and for the crown of Castile... I take and seize tenancy and possession,... at this said Río del Norte [Rio Grande], without excepting anything and without limitations, including the mountains, rivers, valleys, meadows, pastures, and waters. In his name I also take possession of all the other lands, pueblos, cities, towns, castles, fortified and unfortified houses which are now established in the kingdoms and

provinces of New Mexico, those neighboring and adjacent thereto, and those which may be established in the future, together with their mountains, rivers, fisheries, waters, pastures, valleys, meadows, springs, and ores of gold, silver, copper, mercury, tin, iron, precious stones, salt, *morales*, alum, and all the lodes of whatever sort, quality, or condition they may be, together with the native Indians in each and every one of the provinces, with civil and criminal and criminal jurisdiction, power of life and death, over high and low, from the leaves of the trees in the forests to the stones and sands of the river, and from the stones and sands of the river to the leaves in the forests....(Hammond and Rey 1953:329-36).

Oñate and the Father Commissary staged ceremonies at all the Pueblos where they separately reiterated Spanish dominion and administered formal oaths of submission and vassalage. These ceremonies were held at Hopi on November 15<sup>th</sup>, 1598. The “Act of Obedience and Vassalage by the Indians of Mohoqui [Hopi]” stated:

...it was fitting that they [the Hopis] should render obedience and vassalage to God and king, and in their stead to the reverend father commissary in spiritual matters and to the governor in things temporal and in affairs relating to the government of their nations. For they were free and owed allegiance to no monarch or ruler and could very well submit freely to the king, Don Philip, our lord, great master and ruler, who would maintain them in peace and justice, defend them against their enemies, and employ them in many offices and posts in connection with political and economic matters, as would be explained more at length to them later (Hammond and Rey 1953:329-36).

This language acknowledging Hopi “freedom” to accept the dominion of the Spanish state contrasted with the act as administered at the Rio Grande Pueblos, where dominion was commanded with a more punitive rationale, owing to their imputed role in the deaths of priests left behind by the Rodríguez-Chamuscado expedition of 1581-82.

Pre-existing Hopi territorial and resource rights were acknowledged in the legal foundation of the Act of Possession. And under the “Laws of the Indies,” Native communities retained rights of self-governance by traditional leaders, in a similar manner to U.S. law’s recognition of Indian sovereignty (Recopilación de Leyes de los Reinos de las Indias, Book 6: see Tyler 1980). The King charged local

officials, both civil and church, to uphold the Laws of the Indies in protecting Indian rights (Tyler 1980:55-57). As regards Native rights to territory, land, and water, the laws, inter alia, stipulated:

Book 4, Title 12: Apportionment of Lands, House-Lots, and Waters:

Law 5: They shall leave the lands, cultivated properties, and pastures of the Indians, for the Indians, in such a way that the Indians may not lack what they need, and that they may have all the relief and repose possible for the support of their homes and families....

Law 14: What the Indians now have shall be verified and they shall be given whatever is additionally needed.

Law 18: We order that the sale, benefit, and composición [contractual disposition] of lands be managed with such care that more than all the lands that belong to the Indians shall be left to them, to the individual as well as to the communities, and also the waters and irrigations. The lands in which they have created ditches, or any other benefit by which through their personal industry they may have fertilized them, shall be reserved for them above all; and in no case may they be sold or given away.

Law 19: He who has not possess lands for ten years shall not be entitled to a composición of those lands, even if he alleges that he is in possession of them, because this pretext alone is insufficient. The Indian communities shall be given preference over other individual persons, and they shall be afforded every convenience

Book 4, Title 17:

Law 11: The lands shall be watered in accordance with this law.

Emperor Don Carlos and the Governing Empress in Valladolid on November 20, 1536. We order that the same regulation followed by the Indians in dividing and distribution of water shall be observed and followed by the Spaniards among whom lands are apportioned and assigned. For this reason the same natives who were previously in charge shall manage watering of the lands; and the water that each must have shall be given to each one in turn. Penalty for violation of this regulation shall be that he who wants, takes and uses the water by his own authority shall be deprived until all those in line after him have watered the lands assigned to them (Recopilación de Leyes de los Reinos de las Indias, Book 4, Titles 12 and 17, translations in Tyler 1980).

In short, Spanish law as applied to the Hopi explicitly stipulated persistent aboriginal Hopi rights

to land and water, and implicitly recognized Hopi techniques and customs of cultivation and use. The phrasing “lands in which they have created *ditches, or any other benefit by which through their personal industry they may have fertilized them*, shall be reserved for them above all” clearly accommodates traditional Hopi agricultural and horticultural techniques (like building check dams below mesa-edges to catch rain run-off in small sand-fields) that are not recognized as formal irrigation by contemporary Western agronomists. In effect, this law acknowledges all Hopi cultural practices designed to procure and preserve water for the benefit of their people and communities, whether in wells, fields, gardens, or other settings.

Following the oaths of vassalage at Orayvi, Oñate (like Espejo before him) sent emissaries, Marcos Farfan and Alonso de Quesada, evidently led by Hopi guides to explore the mines. As with Espejo, they noted the water sources along the route (e.g., Bolton 1916:240-47). Leaving the Hopi Mesas, they traveled west-southwest (ibid:240):

They traveled six leagues toward the west through a land of sand dunes without timber, and where they camped for the night they found a small spring of water, where the horses could not drink, although there was plenty of water for the men. Next morning they set out from this place in the same direction, and having traveled about three leagues they found a river [the Little Colorado, also designated the ‘Rio de la Alameda’ by the party] which flowed towards the north, of moderate width and carrying considerable water. with many cottonwoods, level banks, and little pasture.

And traveling in the same direction they reached the slope of a mountain range [San Francisco peaks, dubbed the ‘Sierra sin Agua’] in time to camp for the night, having gone about another (three) leagues. They camped without water, and the next morning they set out from this place; and after going two leagues they arrived at a grove of small pines, and at a very deep pool [Bolton identifies this as ‘Laguna’ southwest of Flagstaff] which was ample to water all the horses and more if there had been more.... They camped without water. After they had unsaddled the horses and placed the sentinels, two of the Indians whom they were taking as guides said that they knew where there was water very near there, and that they wanted to go and bring some in some gourds (Bolton 1916:240-41).

The guides - presumably Hopis - were refused permission to go for the water, since it was feared they would simply leave. But again this passage is suggestive of wide-ranging Hopi knowledge, use of, and aboriginal dependency on water resources far from the Hopi Mesas.

In 1604, Oñate again came through the Hopi towns on his trip to the Gulf of California (Ellis 1974:1). He appears to have passed via Mùñqapi, under active farming at that time from Orayvi, and along the Moencopi Wash. The Mùñqapi farms are probably those Oñate designates “Rancho de los Gandules” (Hodge, Hammond and Rey 1945:299). The Hopi were distinguished in the party’s description from Zuni, where the “Indians have no cotton,” as having “the same kind of houses [as Zuni] and *mantas* of cotton” (Bolton 1916:268).

#### *The Franciscan Mission Period, 1629-1680*

Although missionaries were assigned to Hopi as early as October 1598, there is no record of any visit until possibly 1628, the year prior to establishment of the first mission at Awat’ovi (Brew 1949:8). Subsequently churches were built at Orayvi and Songòopavi, with chapels at Musangnuvi and Walpi. The Awat’ovi mission was one of the largest in the Province of New Mexico. Shortly after the opening of the Awat’ovi mission, Father Estevan de Perea reported of Hopi country:

It is eighty leagues distant from the villa of the Spaniards (Santa Fe); its climate is more temperate, but similar to that of Spain in regard to the fruits and seeds [grains] that grow here. They harvest much cotton; the houses are of three stories, well planned; the inhabitants are great land tillers and diligent workers (quoted in Brew 1949:9).

Little of the economic production practices of the Hopi missions is known (surviving records are meager), but clearly San Bernardo de Aguatubi was intended as a particularly industrious establishment,

with a large convento and even larger church (Brew 1949). It is probable that, as at the missions in the Rio Grande Pueblos, much native labor was used in building, in herding flocks, spinning, weaving, and the production of manufactures (Scholes 1937). In 1890, Agent C.E. Vandever (whose history is not entirely reliable in other respects, but in this one seems sound) reported, presumably from Hopi oral history, “they suffered many severities at the hands of the priests, who also held many of the Moqui as peons at the mission stations” (Vandever 1890:168). Each mission was its own productive center, and in the Rio Grande competed with the civilian population for Indian labor. It is not clear that there was a civilian *encomendero* (recipient of tribute, labor, and produce) at Awat’ovi or the other Hopi villages, but it seems quite likely; absentee *encomenderos*, living in Santa Fe, were quite commonplace at the other Pueblos.

The missions introduced a variety of new crops and domestic animals: peaches, apricots, chilies, onions, sheep, goats, cattle, horses, burros, mules, and domestic fowl. All became significant in the Hopi subsistence economy, and were welcomed by Hopis even after the ejection of the missions themselves in 1680. “Spanish corrals” west of Orayvi are still recognized at Third Mesa as having been constructed during this period for horses and cattle. 17<sup>th</sup> century reports of the abundance of horses and cattle at Hopi are a testament to their thorough incorporation into the Hopi economy.

Father Benavides’s report of the New Mexico missions in 1630 records a Hopi population of 10,000, “who are receiving Christian instruction and being baptized” (Hodge, Hammond and Rey 1945). Benavides is regarded as exaggerating population estimates in general, but this may be indicative (unlike his wild estimate of 200,000 Navajos) for Hopi since it must have been directly reported by local clergy. It is unlikely that by 1630 Hopi population had recovered to its pre-Spanish

levels, i.e., prior to the introduction of Old World diseases (smallpox, cholera, influenza etc.). In 1664, a record of the Hopi population administered by the missions notes 1236 souls at Orayvi, 900 at Awat'ovi and Walpi, and 830 at Songòopavi and Musangnuvi (Brew 1949:17). The total population of 2,966 suggests a significant decline from 1630, but was still notably higher than estimates from the late 19<sup>th</sup> century, which have been viewed by some scholars as a baseline for construing aboriginal Hopi society. In 1692, Vetancurt recorded the population of the Hopi towns in 1680 as follows; Awat'ovi 800; Songòopavi and Musangnuvi 500; Orayvi 14,000 ("before their conversion but they were consumed by pestilence"); Walpi 1,200 (in Hodge, Hammond and Rey 1945:298). Presumably Vetancurt's figure of 14,000 for Orayvi refers to pre-1629 population. But the impact of smallpox (the probable "pestilence") conforms with remarks above.

Further economic indications of the Hopi Province are few and far between in the 17<sup>th</sup> century. A brief record suggests that the use of Indian labor and products was as extensive as in the Rio Grande Pueblos (for which see, e.g., Dozier 1970). Complaining, before the Inquisition in Mexico City in May 1663, about a priest at Songòopavi, a civil officer (Nicolàs de Aguilar) testified that the priest had taken "from the Indians a great amount of cloth and (other) tribute. The Indians went to the custodian to complain, or else to the governor" (quoted in Brew 1949:15). Their complaints were vain, and the priest tarred and feathered them upon their return, resulting in the death of one. But this suggests the Hopi continued to be great producers of cloth, and it is likely that wool had now entered the weaving economy as well as cotton.

Throughout the mission period, it appears the Hopi were the only Native inhabitants of the Hopi Province. Havasupais and Western Apaches (whom Hopis evidently hired as mercenaries in 1629 to

try to prevent the establishment of missions [Brew 1949:9]) were occasionally remarked as present.

But there are no indications at all of Navajos living within the general vicinity or using any of the waters of Hopitutskwa.

### *Revolt and Reconquest, 1680-1692*

In 1680, all the Pueblo peoples revolted against Spanish authority, and drove the settlers back to El Paso. The Hopi participated in the Revolt, killing the priests, and demolishing the missions or converting them to everyday use (Hackett and Shelby 1942). For twelve years, the Pueblos remained independent, until Don Diego de Vargas led the reconquest. In November 1692, he marched from Zuni seeking to bring the Hopi back within the Spanish sphere:

Forty leagues with only three water-holes in all that distance lay between Alona [the Zuni town of Halona] and Aguatubi [Awat'ovi], the chief pueblo in the Moqui province. From the 15<sup>th</sup> to 19<sup>th</sup> of November, 1692, this stretch was covered with indescribable hardship which was (hardly) lessened by the fact that almost unexpectedly the General found himself in the midst of 800 Moqui, all armed, while the horse of our men were coming up very slowly and in a state of exhaustion on account of the lack of water (Brew 1949:19, quoting from the Mercurio Volante of Sigüenza y Góngora [1693]).

Vargas received formal submission from four Hopi villages (Awat'ovi, Walpi, Songòopavi, and Musangnuvi) in November 1692, but he did not approach the largest settlement, Orayvi, and throughout his stay was surrounded by threats of hostile engagement. Vargas reported that the Hopi were supported by Havasupai, Ute, and Apache allies (Brew 1949:20). During the Revolt period, numerous refugees from the Rio Grande Pueblos came to Hopi, a process that expanded after a second period of revolts from 1693-96 in the Rio Grande. Tanos, Tewas, Tiwas, and Towas, all came to live for varying periods at Hopi; and there were probably Keresans, Piros and Tompiros as well (Whiteley

2002). The entire Jemez Pueblo population remained for more than twenty years at First Mesa, and some southern Tiwas built a pueblo on Second Mesa (Payupki) that was occupied into the 1640's. Jemez and some southern Tiwas returned to the Rio Grande area under escort by Governor Phelix Martínez in 1716 (Bloom 1931), while others remained until 1742, when they returned to Isleta Pueblo, and then six years later refounded Sandia. The Tanos from the Galisteo Basin remained at Hopi, and still inhabit the town of Hanoki on First Mesa. Augmentation of the Hopi population from the other Pueblos brought some new customs and ceremonies, and there were probably intermarriages as well. But these introductions all fell within Hopi sovereign authority to include new members into Hopi society.

After Vargas's reconquest visit, there were no attempts to establish settlements (there had been none before 1680 either), and no attempts to rebuild the missions until May 1700. At that point two missionaries from Zuni visited Awat'ovi, and secured signs of interest from some of the Awat'ovi inhabitants (Bandelier 1890-92, II:371). But other Hopis were opposed to this:

[the missionaries] notified the Indian Don Francisco de Espeleta that it was their intention to go on to the other pueblos. Upon receiving this news the said Indian Espeleta came with more than eight hundred Indians to the place where the two religious were [Awat'ovi], and the latter went out about the distance of an arquebuse shot to meet them. As soon as the Indians saw them they began to draw their bows and threaten the religious with them, but they did not fire any arrows, though some of them struck the fathers some blows with their bows.

The Indian entered the pueblo, where the religious labored more than six hours, preaching to the said Don Francisco de Espeleta and those of his chiefs who were acquainted with the Castilian language, and yet with all this they returned to their pueblos that same day indifferent and obstinate (Valverde 1732 [Hackett 1937, III:385-86]).

Several months later, Espeleta led a delegation to Santa Fe to negotiate with Governor Cubero concerning the future relationship of the Hopi Province to the Spanish state:

On the 11<sup>th</sup> of October of the same year one of the leading chiefs of the Oraybe appeared at Santa Fe with twenty other delegates, and presented themselves to the Governor, Pedro Rodríguez de Cubero, as a formal embassy from the Moquis, not as subjects and vassals of the Crown, but as delegates of a foreign power sent to conclude a treaty of peace and amity. This Cubero could not entertain; still he negotiated with them for a long while, until finally the Moquis seeing that the Governor would not recede from his position, seemingly yielded consent to everything that was asked. With these false promises they were suffered to return, and Cubero indulged the hope that he had completely gained his point (Bandelier 1890–92, II:371).

Shortly upon their return to Hopi, apparently through Espeleta's leadership, three other Hopi villages (Walpi, Musangnuvi, and Orayvi) descended upon Awat'ovi and killed most of its male inhabitants, distributing the women and children among the other villages:

At this time, his people being infuriated because the Indians of the pueblo of Aguatubi had been reduced to our holy faith and the obedience of our king, he (Espeleta) came with more than one hundred of his people to the said pueblo, entered it, killed all the braves, and carried off the women, leaving the pueblo to this day desolate and unpeopled (Valverde 1732 [Hackett 1937, III:385-86]).

Vargas had received formal Hopi submission to Spain in 1692, and, judging from Espeleta's visit to Santa Fe in October 1700, the Hopi sought to maintain diplomatic relations with the Spanish. But it is equally clear that Hopi engagement was to be on their own terms. When some from Awat'ovi apparently sought to go farther in this colonial embrace, the Hopi majority drastically reemphasized their independence by razing the town to the ground. That desire for independence remained the Hopi position throughout the remainder of the colonial period, but simultaneously there are clear indications the Hopi sought to reaffirm their protections guaranteed under Spanish law within the umbrella of Spanish dominion.

*1701-1770: Missionaries and Others; the Hopi Remain within Spanish Dominion*

In response to Awat'ovi, and to try to persuade Rio Grande Pueblo Indians to return to their towns, Spanish military campaigns were launched in 1701, 1707, and 1716 (e.g., Brew 1949:24-25). But especially now that the Hopi Province had been joined by numerous Rio Grande "irreconcilables" (Brew 1949:20), the campaigns were successfully repulsed.

A series of missionary attempts throughout the 18<sup>th</sup> century to bring the Hopi back within the fold were effectively rejected, although at various points, some people from the Hopi Province elected to go to the Rio Grande and take up residence, which implied reconversion to the church. While periodically debating the missionaries, seeming to offer hope for the future, and not visiting any violence upon even lone Franciscan friars who approached them, Hopis refused to permit their reestablishment (Brew 1949:24ff; Whiteley 1988a:21-23). A flurry of Franciscan visits in the 1740's (partly in response to a temporary transfer of the Hopi Province to the Jesuits; a transfer that saw no Jesuit visits) produced some significant records. In 1742, Fathers Delgado and Pino successfully returned 441 Natives to the Rio Grande. Most, perhaps all, of these were from the Tiwa settlement of Payupki on Second Mesa. Six years later they reestablished Sandia Pueblo, probably with these same returnees but also with others who may have been returned in 1745 and 1747 (Brew 1949:32-34). Brew infers strife between the Rio Grande refugees and the Hopi by this point, perhaps owing to a drought that began in the 1730's. During his visit in 1745, Father Delgado, whose observations seem quite scrupulous, reported initial success in persuading the Hopi to listen to his proposals for baptism:

...I went on September 16 of this year of 1745 to the extensive provinces of Moqui....I arrived at the said province with Father Fray José Yrigoyen and Fray Juan José Toledo, my beloved companions, on the 29<sup>th</sup> day of (September) of the said year. We were well received there and

we preached the word of the holy gospel to the natives with great fervor.... [The Hopis suggest they might be willing to entertain baptism at some future point]. With this understanding and feeling safe in the midst of those barbarous heathen, we went on to examine their pueblos, which are situated within a space of six leagues, apart from each other. There are six of them [Walpi, Hanoki, Musangnuvi, Supawlavi, Songòopavi, and Orayvi], and I *can assure your reverence (since I saw it, and the count was made by me and my companions) that there are 10,846 persons among them*, including young and old. In order not to be tiresome, I will say no more, except that they live under a good system of government, have enough to eat of the food to which they are accustomed, and inhabit rugged, rocky heights, with very rough and impassable ascents (Delgado 1745 [Hackett 1937, III], emphasis added).

Brew interprets the population figure to reflect the increase from Rio Grande refugees, but it is significant nonetheless.

In 1747, a campaign was launched to subdue the Gila Apaches, the Yavapais, and others who were resisting Spanish expansion. When the campaign arrived at Zuni:

...they found a large delegation of Hopi *principales* ['chiefs'] waiting for them. Having got word that Spaniards were coming, perhaps to build presidios in Hopi territory, these representatives had hastened to Zuni to prostrate themselves before Captain Rubí de Celis and the friars, "promising to do whatever was desired of them, and giving assurance that already they were completely loyal, even as before their rebellion." The Hopi performance was convincing, but the weather proved even more so. Fierce cold and heavy snows caused Rubí de Celis to cancel the proposed excursion to Hopi (Kessell 1971).

This is an indicative record of the Hopi expression of formal belonging within the Spanish state.

The demographic situation after the Pueblo Revolt remained in flux; Hopi continued to receive refugees from the Rio Grande Pueblos well into the 18<sup>th</sup> century. In 1760, Father Juan de Lezaún reported:

The province of Moqui has remained in revolt up to the present (1760). It was composed of some nine pueblos but due to continuous wars among them there remain only five, containing more than eight thousand Indians. The province is the refuge of the Christian Indians when they are tired of working for the governor and the *alcaldes mayores* [i.e., from the Rio Grande Pueblos to Zuni]; at such times they retire thither, and, uniting with the Moquis, do great damage to the cattle and horses of the Christians.... The difficulty might have been overcome at

small cost, for the towns are so situated that they might soon be taken by a siege force, since they have no water except at a distance, and their wood supply and their crops are also remote. I have seen and proved this to be true by my own experience, because I have been there to preach to them (Lezaún 1760 [Hackett 1937, III:469]).

From this account, several inferences are possible. Brew (1949:32) suspects disagreement (“continuous wars”) between Hopis and the immigrant population from the eastern Pueblos. This may be so, but the rhetoric of missionary zeal may have exaggerated the conflict. The population estimate is particularly significant, again, in conjunction with the figure recorded by Delgado in 1745. The contrast noted above with the population in 1900 is striking. More than two centuries after the first Old World diseases had, in all probability, decimated the indigenous population in the Southwest, the population of the Hopi towns, certainly augmented by Rio Grande refugees, but not, we may presume to the degree that they outnumbered Hopis, was four to six times higher than figures recorded in 1900. Another significant factor suggested by Lezaún concerns the introduction of more livestock to Hopi by fleeing Rio Grande refugees; the implication is that they took cattle and horses from the Rio Grande Pueblos with them to increase the holdings at Hopi. This would conform with notations in the 1770's (below) of the large cattle and horse herds of the Hopi.

Despite Lezaún's desire for troops to subdue the Hopi and force them back more submissively into the arms of Church and State, what is also clear, from the visits of Delgado and others as well as Lezaún himself, is that the Hopi desired to remain on good terms with the Spanish. Their participation in submission and reincorporation within Spain's dominions after the Revolt may have been merely formal, but in the minds of colonial officials the Hopi remained part of New Mexico and subject to Spanish authority. Although the Hopi mostly rejected full reincorporation within that authority, they acceded

without protest to the repatriation of Rio Grande refugees to pueblos actively under Spanish jurisdiction (and of Hopis who accompanied them), and expressed acknowledgment of Spanish suzerainty in the 1740's. After conflict broke out with the Navajo in the 1770's, Hopis sought Spanish assistance, and actively protected Spanish missionaries against Navajo threats, again suggesting some continuing acknowledgment of Spanish authority.

*The 1770s: Escalante and Garces*

Spanish desire to completely reconquer and convert the Hopi persisted, although after Lezaún, there was a hiatus until the mid-1770's when this was resumed. The 1770's saw several important records of Hopi, especially those by Fathers Escalante and Garces. In 1766, Nicolas de Lafora, Captain of the Royal Spanish Engineers, was sent by King Carlos III to New Mexico with the Marques de Rubí to map the northern frontier of the Spanish provinces and recommend locations for the establishment of presidios against Apache incursions (Kinnaird 1958, Thomas 1932, 1941). Lafora and Rubí's information was put to direct use, and Don Hugo de Oconor was placed in charge of implementing Rubí's recommendations to control the Apaches. In this connection, Captain Juan Bautista de Anza undertook an exploratory trip from Santa Fe by way of the Gila River to California in 1774:

...and it was desired that in connection with his second expedition the region between the Gila and the Moqui towns should be explored.... To find a way to Moqui was deemed important, especially as it was proposed, if possible to occupy the Gila Valley and some of its branches. The New Mexican friars were called upon for their views, and Padre Escalante [the missionary at Zuni] developed much enthusiasm on the subject (Bancroft 1889:260-61).

Six years later, Anza, now Governor (since 1777) of New Mexico, undertook this second expedition

to the Hopi villages to try to persuade more people to return to the Rio Grande, especially in view of a drought that afflicted the Hopi at that point. But the military intent had diminished and his orders were not to engage the Hopi by force (see below).

In the meantime, Father Silvestre Velez de Escalante and the alcalde (sheriff) of the Zuni Province visited all the Hopi towns over eight days in June-July 1775. Escalante's account of Hopi is the most important historically until the late 19<sup>th</sup> century, providing more details of the Hopi economy, of water uses, and practices, than anything to date. Taking the usual trail from Zuni, Escalante recorded the springs they passed by, the last at "El Ojo de Cañutillo," four leagues (ten miles) from Walpi, perhaps a spring near Awat'ovi:

On the twenty-fifth before they rounded up the mounts, I sent two Indians to Gualpi [Walpi] to greet the caciques and captains of these three pueblos [Sitso'movi had evidently been recently established; there is no allusion to a third pueblo on First Mesa in Lezaún's account of 1760] and to give them the news of my imminent arrival (Adams 1963:122).

Escalante was greeted by the chief of Hanoki and the War Chief of Walpi.:

They themselves made their people take the saddles and other appurtenances of the Alcalde's horse and mine to the lodging they had already prepared for me with order and cleanliness. They escorted us to it and gave us a very affectionate welcome.... I admonished them not to neglect their sowings, which they had not yet finished, in order to celebrate my arrival with dances....

Escalante spent another day at First Mesa and records numerous Hopis coming to visit with him. The following day, while preparing to depart for Orayvi, he is warned by a representative from Walpi that some one hundred Navajos (who have just arrived) are planning to kill the Spanish party on their return journey to Zuni. Again this suggests a sense of Hopi alliance with Spanish interests, an alliance that was to grow with increasing Hopi conflict with the Navajo. The next day, Escalante left

First Mesa for Orayvi, passing across the Wepo Wash, and crossing Second Mesa north of the recent ruin of Payupki. He recorded some springs along the route:

On the twenty-seventh, I set out to the west northwest for Oraybi, accompanied by the Alcalde, three Zuñis, and the interpreter. And after travelling two and a half leagues over a very troublesome stretch of sand, we entered a little pass with many rocks, beside which, half a league to the south, is the mesa where the Tiguas who are now Christians at the pueblo of Sandia formerly lived. There are still traces of their houses on the mesa. The pass has some difficult patches. On either side of the road at the beginning of the descent [on the east side of the Oraibi Valley], which is short, there are three small watering places with good water. From here I sent two Indians to Orayribi [sic] to advise the cacique and the other that I was on my way to visit them. After travelling a league and a half, also very sandy [across the Oraibi Wash], we reached Oraybi shortly before eleven o'clock in the morning (Adams 1963:124)

Escalante's reception by the Orayvis was not so cordial, although they did provide him with lodgings. He engaged in a spirited debate with the leaders, who summarily dismissed his missionary intentions (cf. Whiteley 1988a:23-25). The Orayvis were nonetheless interested in trading with Escalante and "many came to see me out of curiosity" (Adams 1963:127). Escalante was eager to learn the route to the Havasupai villages, since he had been told of two visiting Havasupais at Walpi. Instead, the Orayvis offered to show him the route, the interpreter's uncle "telling me that he had gone to Cojnina [Havasupai] many times and that he would inform me better than anyone else of all he knew" (ibid:126). This man and another accordingly gave Escalante "an extensive account of everything" pertaining to the country between Orayvi and Havasupai (ibid.).

Escalante "devoted the afternoon of this day to viewing the pueblo [Orayvi] at my leisure, including the watering places from which they get their daily supply and the ascents to the mesa" (ibid:126). Towards evening, Escalante visited the house of the interpreter's uncle (the informant for the route to Havasupai) in Orayvi; he refused conversion, expressing fear of Orayvi leaders, but, "if the

father could bring Spanish people, build a church, and remain here, I and most of the pueblo would become Christians because many of us wish it. Perhaps it will be God's will that fathers come" (ibid:126). This expression of interest (whether wholly sincere or not) again shows that although the Hopi desired to retain their autonomy, there was a serious acknowledgment of the ongoing inclusion of Hopi within the Spanish sphere. And consent to allow Escalante to observe their town and its water sources again suggests that he and the alcalde (representing the Spanish civil regime) were acknowledged as diplomatic emissaries.

The following day, they passed to Second Mesa and were more warmly welcomed at all three villages (the first historic mention of Supawlavi, founded in the first half of the 18<sup>th</sup> century, by name in the documentary record), with offers to supply provisions, but no promises of conversion. Again, Escalante made a point of recording the "watering places and entrances" at Songòopavi (ibid:129), and inspected all three pueblos personally. Returning to Walpi, Escalante learned a Havasupai delegate had come to meet him (in fact a whole Havasupai party had gone to Orayvi, only to discover that he had departed). Escalante engaged him in conversation about his country:

And so he began to answer all my questions through the interpreter. After we had conversed for nearly two hours he made me a rough but clear map of the road that goes from Oraybi to his land, indicating turns, stages, and watering places, the area his people occupies and inhabits, the distance from the last rancherías to the Rio Grande [the Colorado] and the direction in which it flows, and the bordering tribes. He drew all this with charcoal on the sudadero [blanket] of a saddle. I do not reproduce the map now because I hope that God is going to allow me to do so after I have already seen all this (ibid:131).

Escalante's geographic interest in the Hopi area and beyond evolved into the survey he undertook with Fray Francisco Atanasio Domínguez throughout northern Arizona and Utah over the next two years, leading to the first good maps of the region by accompanying mapmaker Bernardo Miera y Pacheco

(Auerbach 1943, Bolton 1950, Wheat 1957-63, I: 94-116).

Escalante's acute interest in Hopi was more than geographic; based on specific observations, he recorded a credible population estimate, and provides some ethnological insights into Hopi life, as well as a record of economic activities. He was clearly motivated also by the military intentions to survey for presidios noted above, and his record was designed to provide intelligence to the civil authorities. He recommended a presidio be established at Hopi as the only means to secure Hopi conversion (Brew 1949:35), in accord with Oconor's plans to build such defensive centers throughout New Mexico. Motivation aside, Escalante's observations substantiate Hopi social and cultural presence more specifically than any other previous record, and, for the present purpose, are thus worth quoting in extenso:

...I will tell about Moqui first. But because I must set down the approximate number of families each pueblo has, I note that the Indians of these provinces mean by a family mother, father daughters, husbands and children of the daughters, because the mother and not the father bestows the surname. The origin of the house comes from them, as well as everything else that stems from the masculine trunk with us. And so when they marry, the daughters and granddaughters do not leave the mother and grandmother, even if they come to have many offspring. Therefore, three, four, and sometimes five married couples compose a single family, and the families I enumerate are of this kind.

MOQUI: There are no more than four and a half leagues from the first pueblo of this small province to the last, which is Oraybi. Today there are seven pueblos. The first three are on the mesa, or peñol, of Gualpi. The first of these [Hanoki] consists of Teguas and Tanos who have been living there since the general uprising [of 1680]. Their language is all one, but different from the Moqui language. This pueblo is located upon the very pass which divides the peñol from the mesa, and it has about 110 families. It has its two captains and the cacique, who is an apostate Christian and is called Pedro. The second pueblo [Sitso'movi] is of Moqui Indians. It does not have its own government because it is like a hamlet of Gualpi. It has two small tenements and about fifteen families. The third pueblo is Gualpi [Walpi], and it must have at least two hundred families. The people of these three pueblos have no watering place for their daily supply except the one which lies at the foot of the peñol and on the east side right on the only road by which the mounts can go up to the pueblos [probably Tawapa or Isva]. The water

is bad tasting and so scarce that the Indian women take turns to get it and usually stay there several hours before their turn comes to fill their water jars or gourds. There is another watering place west of the peñol at the foot of a little hill, but it is farther away and serves only for the stock. A little more than a mile away on the plain to the northwest of the pueblos, there are three small springs of perennial water [probably Kohkyangwva and Tuveskya]. To the northeast in a canyon at the foot the mesa, there is a more abundant spring of better water [perhaps Sikyatki]. On this side mounted men can climb the mesa, but only up to the pass, and if necessary cut off fugitives here. A mounted troop can reach all these watering places and defend them without its being possible to attack them with arrows or stones from any eminence.

There are three more pueblos on two arms of another mesa to the west of the above-mentioned. On the north, Mossajnabi [Musangnuvi] and Xipaolabi [Supawlav]. The former has about fifty families and the latter fourteen, because the inconvenience of the site has forced its inhabitants to move to the south arm of the mesa. On the east side of Mossajnabi, on the road which goes from Gualpi and already on the plain, is the water supply of these two pueblos. And it consists of three abundant wells of good water [probably Toriiva and Lemeva: Escalante seems to have got his directions slightly confused upon reaching Second Mesa], one of them perennial and running. There are three entrances, even on horseback. One on the east northeast, and this one is hard going for riders. Another on the south is not very bad. And the third along the mesa itself from Xongopabi [Songòopavi]. There are several footpaths. The ancient pueblo of San Bartolomé de Xongopabi has been rebuilt on the south arm. Today it keeps only the name Xommapabi (those who are not Moquinos [Hopis] say Xonogopabi). It has three well-arranged but not very large tenements and about sixty families. The only watering place which supplies this pueblo is on the north skirt of the mesa [probably Qòtsatspelvi]. They have two more nearby on the plain [probably Songòopa and Masiipa]. One toward the south and this is perennial [Masiipa]. The other to the east and this is a middle-sized well which usually dries up [Songòopa]. The mesa has two ascents for mounted men. One is on the west and has some difficult stretches. The other on the east northeast, and this one is good even for pack animals, but it is easy to defend it, even with a very small force.

The third mesa is to the west northwest. The pueblo of San Francisco de Oraybi (just Oraybi today) is on it. It has eleven rather large and well arranged tenements, with streets to all directions, and there must be at least eight hundred families. It is governed by two captains and a cacique. It has two main entrances, one on the east and the other on the northwest. Both are easy, even for people on horseback. At the beginning of the first are two watering places of bad water which serve only for the animals, but it is necessary to draw it from the wells so that they can drink from some depressions which the people of the pueblo have made in stones [patnis]. At the beginning of the second about a mile to the north of the pueblo, is a spring of good water [probably Leenangwva]. This is the one which, although small, supplies the pueblo. Very near to the pueblo on the west they have six large cisterns in which a great deal of water can be collected when it rains or snows, but when I saw them they were dry.

All the pueblos have an abundance of sheep, whose wool is usually black. They also have some cattle, and there is much more of this at Oraybi. This includes a good herd of horses. They plant maize, frijoles [beans], chile, and cotton. Of this they make very fine textiles in their style, and they weave the wool to trade and to clothe themselves. the fruits here are melons, watermelons, and peaches. At a considerable distance they have piñon.

They dress like the Christian Indians of this kingdom [i.e., the Rio Grande Pueblos]....

They told me that one day's journey north of Moqui there is a middle-sized river with good meadows [perhaps Laguna Creek]. There is another west of Oraybi, whether large or small I do not know, and it cannot be very far because the Oraybis use it to irrigate some plantings they make on its banks [Mùnqapi] (Adams 1963:133-35).

Escalante also includes ethnographic observation on Hopi religion, including the Snake Dance and Kachina dances. Again, his reception at Walpi seems to have been particularly cordial, and there was concern to protect his party from rumors of Navajo attack:

On the third day of July we left Gualpi for Zuñi by a different road than the one we took when we came. Although I tried to avoid it, the captain of Gualpi sent forty armed men to find out whether some smokes that had been seen in the direction where we were going were of the Navajos who planned to kill us. I was most grateful for this action. After travelling about five leagues we reached a site called Aguatobi [Awat'ovi]. The watering place is at the foot of a little hill right on the road [probably Lemova]. It is a middle-sized spring of good water sufficient to provide for many people and horses. There are many peach trees near its source. We remained here until five o'clock in the afternoon in order that after drinking at this hour the horses would be able to reach the next watering place, which is about twenty-two leagues from this one. At the said hour we went on, and as soon as we had climbed the hill we sighted the ruins of the old mission of San Bernardino [sic] de Aguatobi. It was on a height a little more than a quarter of a league to the south of the place where the said spring rises (Adams 1963:136).

Returning to Zuni, Escalante stopped at the two principal springs along the road (Ojo de la Jara [perhaps Toyei, known by early Anglo-Americans as White Rock Springs in Steamboat Canyon]), and Ojo del Almagre). In another record of this journey, Escalante emphasized Orayvi's "good horse herds, droves of sheep and some cattle" (Brew 1949:35). He concluded, "The Moqui are very

civilized, apply themselves to weaving and cultivate the land, raising abundant crops of maize, beans, and chile. They also gather cotton but not much [NB he did not travel to Mùncapi]. They suffer from scarcity of wood and good water” (ibid). Escalante provides a population estimate (that multiplies his count of 1,249 families noted above by six): 7,494 in all (ibid.). This may be fairly reliable, although his description of family form would suggest six is rather a low multiplier; this total is nonetheless close to Lezaùn’s estimate of 8,000 in 1760.

A year following Escalante’s visit, Fray Francisco Garcés, using Pai guides (whom he refers to as Yavapais, although he may have used this term to include Walapais and/or Havasupais), approached the Hopi towns from the west, having come from the vicinity of Bakersfield, California, via the Mohave villages along the Lower Colorado River. Garcés’s descriptions of his route are more haphazard than Escalante’s, and are not always parsible. But Garcés’s chronicle is another important indication of Hopi land and life, and complements Escalante’s two records of 1775-76. His exact route into Orayvi, the first major Hopi settlement he reached, is not entirely clear (e.g., Coues 1900, II:356, n 37), but it seems he traversed the Moencopi Wash, and noted Orayvi’s gardens at Mùncapi. Elliot Coues (first editor of Garcés’s journal) infers he crossed the Little Colorado River near its confluence with the Moencopi Wash. Close by, he was greeted by two Hopis (ibid:357). Along the Moencopi Wash (that Garcés terms the “Rio San Pedro Jaquesfla,” a term he also intended for a section of the Little Colorado itself), Garces noted a “half-ruined pueblo”:

I asked what that was, and they answered me that it had been a pueblo of the Moqui, and that some crops which were near to a spring of water [probably Mùncapi spring] were theirs, they coming to cultivate them from the same Moqui pueblo [Oraibi] that is today so large. The river runs little and it was yellowish; having crossed it and ascended some hills, I entered upon some very wide plains [probably on the Moencopi Plateau], without one tree, though there is some

small grass; and having gone six leagues in the same direction I arrived at some pastures where the Moquis keep their horseherd. These pastures are of difficult entrances and worse exit; there are found some scanty aguages [pasturages]....

July 2. I went three leagues eastsoutheast, and yet other three east; (Coues here footnotes, suggesting Garcés's course lay across the Dinnebito Valley and around the tip of Oraibi Butte: "This course is over a nearly level plain to near its end, the most conspicuous object being the isolated mesa on Garcés's right [perhaps Padilla Mesa], rising to 6,500 feet from the general level of 5,500 to 5,575. On nearing Oraibi, when about 5 m. due W. of that pueblo, the road rises 250 feet to the level of 6,000 feet, and at this elevation rounds Oraibi Butte [Apoonivi], which rises to 6,750; it then sinks again to the general level, and finally rises abruptly to the butte or mesa on the edge of which is Oraibi, at an altitude of 6,250") whereupon I arrived at the pueblo the Yabipais call Muca, and this is the (Pueblo) de Oraibe (ibid:357-59).

Garcés proceeded into Orayvi:

In order to surmount the mesa whereon stands the pueblo there is a quite a steep ascent and very narrow pathway. On the same ascent there was a sheepfold (corral de ganado menor), of which there kept here about three atajos [flocks]. The ewes are larger than those of Sonora, and the black ones have a finer color. Having ascended the slope I commenced my journey over the mesa, and passed through some sandy places (medanos) until I reached a small spring of water which is in front of the pueblo.

This spring may have been Leenangwva, Orayvi's principal spring to the west of the town in the valley below. If so, the sheep corrals Garcés refers to were some distance from Orayvi, indicating no fear of Navajo theft at this point; five years later that had changed (below).

In the cañadas at this place there are many peachtrees [see Titiev 1944 for a map of Orayvi's orchards as of 1933]; and though the soil is sterile, since no grass grows, nor any other tree than the peaches they have planted, it is well cultivated, and on the very border of the spring of water I saw some gardens or inclosures containing onions, beans, and several other kinds of garden-truck which have evidently cost much labor to produce. Descending and turning about, I suddenly found myself in sight of the pueblo (Coues 1900, II:361:62).

Garcés proceeds to describe Orayvi and his unwelcome stay there. Towards evening, "...I saw entering the pueblo the men who were coming from work, and they brought their hatchets, dibbles and hoes" - indicating ongoing Spanish trade in these items with the Hopi. Coues (1900, II:464) reports

annual visits to Orayvi in the 1770's by a blacksmith. Garcés's reception was even harsher than that of Escalante's, and the Orayvis evidently feared that, since he came from the direction of the Colorado River (which had never occurred with any prior Spanish party), he would communicate information to their enemies, the Chemehuevis. He was summarily shunned, although his guides were invited into Orayvi houses. So Garcés tried to reach the other Hopi towns:

...Having completed the descent of the declivity entered upon a plain of sandy soil, to which on the south no end was visible [the Oraibi Valley]. On one side and the other of the road there were many fields of maiz and beans, and therein various Indians working at their respective employments.... (ibid:382).

Garcés proceeded to ascend Second Mesa but was warned away from approaching the villages by some Hopi women, so he returned to Orayvi. Here he noted:

Within this pueblo I saw no water; but at the edge of the bluff on the east I saw a very copious spring of water, though I did not observe that it was running; the descent thereto is by some steps well formed of stone, and all round it is a curbing of the same material (388).

This appears to be one of the same springs Escalante noted on the eastern road into Orayvi. Following a confrontation with Orayvi leaders, Garcés gave up his plans, and departed along his same route of ingress. Leaving even before his Pai guides were ready, he got lost on top of Oraibi Butte, noting that he was, "...taking the road that goes to the Yutas [probably north across Black Mesa] who live north of Moqui and are enemies only of this pueblo of Oraibe and of the Moqui concave" [Mùñqapi] (ibid. 393).

Garcés also provided a list of the Hopi towns, as given by his guides:

The names of the Moqui pueblos, according to the way the Yabipais pronounced them to me, are: SesePaulaba [Supawlavi]; Masagnebe [Musangnuvi]; Jano [Hanoki]; Gualpa [Walpi]; Muqui concabe [Mùñqapi]; and this pueblo of Muca which the Zunis name Oraybe, and it was in this that I was. The Yutas, enemies of the last two pueblos, live on the one and the other side

of the Rio Colorado in the very confluences of the two rivers that compose it (ibid: 393-95). It is noteworthy that at this juncture, Orayvi's principal enemies were the Ute, rather than, as later, the Navajo. From two Hopis he meets, Garcés learned the correct route to the west, and was soon joined by his guides coming from Orayvi. He recorded another meeting with a Hopi shepherd and two others driving horses from horse pastures (inferentially on Moencopi Plateau) (ibid:398-99). Garcés returned to the Moencopi Wash and back to the Pai camp further on, where his hosts expressed regret at his treatment in Orayvi, and feasted him on beef, of which he noted a significant presence in the area. It is likely that some of the cattle, if not all, belonged to Orayvi. Orayvis herded their cattle throughout Black Mesa and west, south and southwest to the Little Colorado River (e.g., Godfrey 1988b). "Cow Springs" in the Klethla Valley is a literal translation of the Hopi place-name, Wakasva. Although this cannot be determined beyond reasonable doubt, it is likely that the name applied to Black Mesa during the Mexican period, Mesa de la Vaca, reflects the presence of these Hopi cattle herds.

This interpretation gains support from Escalante's next visit to Hopi the following year, from the northwest. The Domínguez-Escalante expedition went northwest from (modern) New Mexico into Utah, and followed a circuit back towards Hopi, crossing the river near Lee's Ferry (the "Crossing of the Fathers," after Domínguez and Escalante). They learned of the route to Orayvi from San Juan Southern Paiutes southeast of the crossing. On November 12<sup>th</sup>, five miles northeast of modern Kaibito (Chavez and Warner 1976:106), the party noted a stopping place for the Havasupais en route to visit Paiutes farther north. A little farther on:

We found several small dwellings or deserted camps and indications that many herds of cattle and horses had been pastured hereabouts for some time. We kept on along the same course, and after we had gone a league and a half southwest, night came and we halted without water,

naming the site San Jacinto (Chavez and Warner 1976:106).

Chavez and Warner (editors of the expedition records) infer they were “on the center of a small butte about four miles east of Preston Mesa” (ibid.). This appears to be Middle Mesa, or Mariiya in Hopi, that Hopis still refer to specifically as a place they used for spying out their horse and cattle herds ranging in the broad vicinity. The next day, the party continued south-southwest “over good terrain on woods and abundant pasturages,” identified as near Standing Rock Well (ibid.n 422).

The day after, they reached Pasture Canyon (note 425), “where four springs of good water emerge” (ibid. note 426); these springs probably include those the Hopi designate Sa'lako and Aymavoko in Pasture Canyon. At this point, Escalante describes an area of farms he attributes to the Havasupai, but that were in all probability the same irrigated terraced fields cultivated by Hopis from Orayvi, noticed by numerous subsequent travelers:

We traveled along it [the canyon] half a league to the southeast and arrived at a small farm and some ranchos of the Cosninas [Havasupai], which were very beautiful and well arranged. This farm is irrigated by the four springs mentioned and two other large ones which rise near it [probably Mũnqapi spring and Susungwva]. This year the Cosninas planted maize, beans, calabashes, water melons and cantaloupes on it. When we arrived they had already gathered the harvest, and judging from the refuse or remains of everything which we saw of everything, it was abundant, especially the beans, for if we had stopped here we could have gathered half a fanega [approximately seven bushels or 400lbs] of them. The farm was surrounded by peach trees, and besides several huts made of branches, there was a little house very well made of stone and mud. In it were the baskets, jars, and other utensils of these Indians. Judging from the tracks, they had been absent for several days, perhaps to seek pinon nuts in the high sierra close by toward the south-southwest [the San Francisco Mountains] (in Bolton 1950:230-31).

As Anthony Godfrey (1988a:90) has concluded about these observations, “The “beautiful” and “well arranged” farms, the pattern of November harvesting to return to Oraibi, and the architecture of the dwellings indicate that Escalante and Domínguez had encountered an Oraibi summer farming area.”

Judging by the description, especially of the two large springs, it is likely that this is the same area still cultivated by Mùnqapi Hopis adjacent to and fed by their two principal springs (Mùnqapi spring and Susungwva).

Escalante and Domínguez then proceeded:

...beyond the river [Moencopi Wash] we climbed a mesa [Coal Mine Mesa/Moencopi Plateau] where there was a small lake and several banked pools of rainwater, and they serve as ponds and watering places for the Moqui cattle which we were already beginning to see in numerous herds (ibid:108). They spent the night at “Cuesta de los Llanos” [the edge of the plains], named thus “because from here begin the spreading plains and countryside having no mesas, woods, or sierras, but very good pasturages which extend southeastward far beyond Moqui (ibid:108).

Chavez and Warner infer they were near the head of Coal Mine Canyon, but they were more likely a little farther west. The “lake” and banked pools of rainwater correspond to Paqlö, ‘the water hollow’ (“Bakalo” or “The Hollow Place” on local maps), a place towards the western edge of the Moencopi Plateau, and Paqlöhoya, ‘little water hollow’ a little to the south, where Hopis have long pastured livestock (especially cattle and horses), and farmed several large fields, drawing on the landscape’s bowl-like qualities to funnel moisture into the center (cf. Godfrey 1988a).

Domínguez and Escalante spent the next night at the “Cañada de los chicos,” that Chavez and Warner infer was on the right bank of Dinnebito Wash. The party noted large cattle-herds; some in their number wanted to kill a cow, but the priests dissuaded them, not wishing to incur trouble with the Hopis (thus confirming that these were Hopi cattle). When they reached Orayvi, in contrast to the situation encountered the year before, Escalante noted the Hopis had been raided by Navajos who, “had killed and captured many of their people.... They were wishing for the arrival of some padres and Spaniards, through whom they might beg the lord governor for some aid or defense against these foes.”

The Orayvis refused the price of conversion, however. Again the record shows the Hopi as both jealously guarding their independence at the same time as maintaining a sense of belonging to the colonial province: “begging for aid or defense” suggests Hopis recognition of Spanish suzerainty.

In a brief report of the journey on November 25<sup>th</sup>, 1776, Father Domínguez summarized the trip from the Crossing of the Fathers, confirming Escalante’s account, and specifically identifying the cattle and horse herds as Hopi:

From here we went toward Moqui. We traveled by extensive plains on which the herds of cattle and horses of Moqui graze, and after three days, which was on the sixteenth of this November, we reached Oraybi, where we were well received, although the populace detained us for a short time at the entrance to the pueblo. we went to all the pueblos. We preached the Gospel to all, and none of them is willing to receive it (Adams and Chavez 1956:288-89).

Following the expedition, the cartographer Miera y Pacheco produced the first reasonably accurate maps of the farther reaches of New Mexico. In a series of maps, Miera indicated the Hopi Province in a way that conforms to the overall dimensions of Hopitutskwa, the traditional area of Hopi land. [Miera Map]

#### *1780-1821: Anza in 1780; the Navajo Treaty of 1819*

With the intelligence gathered by Escalante, and in pursuance of the military plans outlined above, Governor Juan Bautista de Anza set out for Hopi in 1780. Learning too that the Hopi towns were suffering from a famine so severe as to impel some to take up temporary residence at Zuni, Havasupai and elsewhere, Anza sought to bring relief and to persuade some to return with him to the Rio Grande (Thomas 1932, 1941). Prior to setting out, Anza forwarded to Teodoro de Croix, Commandant General of the Internal Provinces of New Spain, a letter Escalante had written in 1775 to

Governor Mendinueta, in which he states “Although rebels, [the Hopis] are really vassals of our sovereign” (Thomas 1932:150-58). This was the general and official opinion. In reply, Croix emphasized, in accordance with two royal decrees concerning the campaign, that Anza should not use force against the Hopi: “I shall have the most especial pleasure if your grace attains completely the important ends to which your zeal may conduct you, converting the Moqui by kindness to religion and vassalage, and re-peopling that province” (Thomas 1941). If Anza could not convert the Hopi, Croix held out another possibility that demonstrates the manner in which the Spanish continued to regard the Hopi as part of their dominions:

But I shall also be content if your Grace wins their opinion and makes them view kindly the conservation of our friendship, and their reunion in their pueblos so that they may receive with manifest gratitude the gifts for the alleviation of their present indigence, so that they may open frankly their trade with our settlements and so that they may be pleased to allow some establishment of Spaniards in their country, as I understand that these benefits would supply with less time the rest which ought to be sought in worthy observation of the service of God and of the King (Thomas 1941).

In short, Croix did not insist that the Hopi overtly submit to Church doctrine or direct civil rule in order to be included within the purview of the Spanish state, merely that they “view kindly the conservation of our friendship.” As Brew notes:

His insistence on a peaceful conversion of the Hopi may have saved them from defeat at a time when they were apparently weaker than they had ever been since the Rebellion [1680] and when, for the first time, the Spanish civil and military authorities had developed a real interest in the Hopi country (Brew 1949:36)

Despite official concern for the fate of the Hopis, in reality the Spanish were also motivated by fear of Hopi strength in alliance with the Apaches. Brew (1949) points out that the official correspondence contains contradictions:

The correspondence preliminary to the Anza expedition...refers repeatedly to weakness in the Hopi caused by the inroads of famine and pestilence and by constant fights between the Hopis on the one hand and Utes and Navajos on the other. But in other statements, and in provisions made, one seems to sense a somewhat different situation [in which]...“if this undertaking fails of success the alliance of the Moqui and the Apaches would be more certain and fearful; that this nation reenforced we would suffer greater hostilities...” (Brew 1949:39, quoting Croix to Anza, 12-31-1779).

Anza spent three days in Hopi country, and produced a population estimate, 796, that despite the reported drought and pestilence, Brew (1949:37) finds “ridiculous,” a reflection of the brevity of Anza’s visit, and that it was the height of the harvest season, when most Hopis are out gathering their crops and not present in the villages. On September 23, 1780, Anza discussed matters with the chief of Orayvi. The latter was willing for those of his people who wished to follow Anza to the Rio Grande where they would receive land to build and to live, so long as they submitted to the Christian faith:

...on his part, neither in the present or in the future would they be impeded; that with regard to the opening of trade he esteemed that very greatly of me and that they would enjoy coming and carrying it on in our country, if some day they succeeded in re-establishing themselves well; that he held it impossible because of the extermination of his nation and so much of their goods which they suffered because of lack of rains and pastures in addition to the continuous war which the Utes and Navajos made on them. Of these he complained to me bitterly (Thomas 1932:234ff).

Anza was convinced that Croix’s second condition of securing Hopi friendship had been fulfilled. The Hopis were definitely interested in opening trade. While encamped at Awat’ovi, “a considerable number of Moqui joined us, the larger part from Oraibe, seeking the opening of trade” (Thomas 1932:236). And Anza received word on the point of his departure that the Walpi and Orayvi chiefs had agreed that, should their difficult circumstances continue, they would relocate to the Rio Grande (Brew 1949:40). Brew is skeptical of the sincerity of these assertions, but they do again suggest that the Hopis still looked to Spain as a sovereign and an ally, while determined to maintain their

autonomy. The expedition was deemed a success, and Anza brought out 200 Hopis, though the fate of forty other families attests to the seriousness of Navajo depredations: the two hundred, “voluntarily left without opposition of their chiefs, and on allotted land they are now happy in the New Mexican settlements. Unfortunately, forty other families who desired a similar life were murdered by the Navajo Apache” (Thomas 1932:109)

Subsequent to Anza’s visit, two other reports discuss Hopi in general terms: that of Fray Agustin de Morfi in 1782, and that by Lt. José Cortés in 1799. Both draw upon the insights of Garcés, and Escalante and Domínguez. Morfi’s geographic description of New Mexico reported of the Hopi Province as follows:

Moqui: Forty-six leagues to the west of Zuni with some inclination to the northwest are the three first pueblos of the Province of Moqui, which today in the small district of four and on half leagues has seven pueblos on three mesas or peñoles which run in a direct line from the east to the west.

Janos [Hanoki]: On the western point of the first mesa and on the narrowest place on its eminence are situated three, the first of which is that of Los Janos (there they say Teguas [Tewas]). Its dwellers have a particular idiom different from the Moqui. it is a regular pueblo with its plaza in the center and with streets laid out. It has one hundred and ten families.

The second pueblo [Sitso’movi] is distant from the preceding about a stone’s throw. It is of recent foundation and composed of some fifteen families which went away from here.

Gualpi [Walpi]: Gualpi which is a musket shot distant from the preceding is the largest and more populous than the two above mentioned. It has up to two hundred families. These three pueblos have small horse-herds and few cows but large sheep-herds.

Mosasnabi [Musangnuvi]: To the west of this mesa and at one and one half leagues is the second. In the intervening space is a sandy soil which thrusts a little ways into the mesa and divides it into two arms. On the northern which is the closest to Gualpi there are two little hills, distant from one another about a stone’s throw. On the top of the first is situated the pueblo of Mosasnabi composed of fifty families, more or less.

Xipaolabi [Supawlavi]: On the summit of the second little hill was founded the fifth pueblo called Xipaolabi which has only fourteen families; it is almost deserted because its settlers have moved to the eastern arm of the mesa and formed the sixth pueblo called Xongopabi [Morfi's account here, like Escalante's, is in error, Songdopavi being the mother village to Supawlavi].

Xongopabi [Songdopavi]: This pueblo enjoys the best situation of all the rest. It has three squares very well arranged and in them about sixty families. These three pueblos [of 2<sup>nd</sup> Mesa] have more horse-herds than the first and many small flocks.

Oraybe [Orayvi]: Two and a half leagues to the west of this mesa is the third and on its summit the last pueblo which is called Oraybe. It is like the capital of the province the largest and best arranged of all and perhaps of all the Interior Provinces [i.e., of northern Mexico and New Mexico]. It has eleven squares or blocks quite long and arranged with the streets open to all winds. Its population approximates eight hundred families. They have good horseherds, many sheep and asses and some black cattle, although they do not boast more than a little fountain of good water a mile distant from the pueblo to the north. They have constructed to supplement this scarcity on the mesa itself and very close to the houses six large cisterns where they catch water from rain and snow.

This province is bounded on the east by that of Zuñi and Navajo; on the west and northwest by the Cominas [Havasupai]; on the north by the Utes; and on the south by the Apaches whom in new Mexico they call Mescaleros and in Moqui Iochies and Tasabues. They are the Gila Apaches themselves and the Pimas.

In this direction [south] and in that to the west there is a great abundance of black cattle and wild horses or mustangs of which the people of Oraybe know how to make use. The Moqui still maintain the civilization and orderliness which they attained before their rebellion and apostacy and devote themselves a great deal to the cultivation of their wool and their lands. They raise ample crops of maiz, frijol and chile when the rains favor them because they have no irrigated fields. They suffer a scarcity of water and wood (Morfi 1782, in Thomas 1932:107-08).

In 1799, Lt. José Cortés summarized the Hopi situation:

The Moquinos [Hopis] are the most industrious Indians of all those who inhabit and have been discovered in that part of America. They cultivate the land with great dedication: they harvest the same grains as among all the civilized peoples of our provinces; they take care never to lack vegetables; they have as many fruit trees as they can obtain, with a particular abundance of peach trees; and in all their fields they make use of the proper tools for cultivation. They possess and raise with meticulous care both large [i.e., horses, cattle, burros, and mules] and small [i.e., sheep and goats] livestock. They have looms for the coarse weavings that they wear.

They are very jealous of their freedom. They do no harm to the Spanish who pass through their pueblos, but they are very careful to see to it that they leave immediately (John 1989:99).

Following Anza's campaign, conflicts between the Spanish and the Navajo increased (Reeve 1960, 1971). Direct Spanish contact with the Hopi diminished; the last record of moment occurred in 1819 during a campaign by New Mexico Governor Facundo Melgares against the Navajo. When some Navajos tried to hide near the Hopi Mesas, the Hopi sent emissaries to meet the alcalde at Zuni:

...there presented themselves to the said Justice [of Zuni] five gentile Indians of the Hopi Pueblo, making known the oppression that the Navajo Nation has finally put upon them, as a result of having settled with all their goods at a distance of two leagues [five miles] from the same Hopi Pueblo [First Mesa], and consequently asking that they be aided on our part to free them from the damages that they suffer... (Correll 1972:11, citing a letter of Interim Governor Antonio Cordero, 2-16-1819; inserts by Correll).

In response to this Hopi request, Melgares:

...attacked the Navajos in two pueblos of this [Hopi] tribe. Guaype and Tewa [Walpi and Hanoki],... killed several and drove them very far away, making the Hopis see the frankness and promptness with which their well-being and tranquility is attended to...(Correll 1972:12, citing Melgares 3-1819).

In August, 1819, Melgares negotiated a treaty with the Navajos that explicitly acknowledged Hopi rights as subjects of the Spanish king. The treaty required that the Navajos:

...respect the persons and property of the Moqui Pueblos, because this government takes them under the protection of its amiable Sovereign, in whose shadow they have been placed (Correll 1972:12, citing Melgares 8-21-1819; cf. Reeve 1971:236).

The treaty was ratified by the Viceroy of New Spain in October 1819: eight copies were sent to the New Mexico Governor in Santa Fe, six of which were distributed to the Navajo chiefs (Correll 1972:12, Reeve 1971: n 34). Thus at the very close of Spanish rule, Hopi status as recognized subjects of the King was reaffirmed, and Hopi rights that flowed from that relationship were correspondingly

recognized. Even though the Hopi had functionally maintained their independence for 140 years, they were still accorded official privileges deriving from colonial rule. This treaty is thus an important precedent to the rights that the Hopi acquired in the Treaty of Guadalupe Hidalgo under the United States (below).

*The Mexican Period, 1821-1846*

Hostilities between the Mexican regime and the Navajo prevented much intercourse with the Hopis. Governor Vizcarra's campaign of 1823 (see my report on *The Navajo and Black Mesa*) passed through the Hopi towns. The 1820's marked the beginning of Anglo-American encounters with the Hopi. Members of James Ohio Pattie's fur-trapping party met some Hopis in the vicinity of the San Francisco Mountains:

They had also met a tribe of Indians, who called themselves *Mokee*. They found them no ways disposed to hostility. From their deportment it would seem as if they had never seen white people before (Flint 1930: 140).

Two trappers, Thomas L. Smith and Maurice Le Duc, appear to have spent some time at Hopi in 1826 (Wilson 1965:50); Bill Williams also resided there in 1827 (Yount 1942:195), and in the same year Richard Campbell evidently passed through the Hopi villages with a party of thirty-five men en route from Santa Fe to San Diego (McNitt 1964:160-61). Williams was in a party that visited Orayvi's gardens (possibly referring to Hotvela) in 1834; when some of the fur-trappers raided the gardens, Hopis protested and fifteen-twenty of them were shot (Donaldson 1893:24).

From a happier interaction in 1828, George C. Yount reported on his stay, apparently at First Mesa:

The people came out and flocked around us, unpacked our animals and gave them water with great prudence & precaution lest they might drink to excess, then gave them food, and invited us into their dwellings and spread a sumptuous feast before us.... Our animals were next led off to pasture & the families vied with each other in bringing to our apartment food & luxuries... We were feasted daily. Their food consists of meat well cooked bread of parched corn, honey & dried fruits....They are not rich, neither is their land very productive. They have no means of irrigating their lands, but must depend chiefly on the rains from heaven. Rain however is frequent there, except in occasional seasons of drought. Both sexes labor with great industry.... They spin, weave, make blankets and garments....Their graineries and storehouses are immense and filled to overflowing. They never raise nor use horses - other bad people, they say, would steal them... (Yount 1942:194-95).

Yount's remarks about Hopi horses contrast strikingly with the observations of Garcés and Escalante in 1775-76, though perhaps this indicates (in the reference to "bad men") the great increase in raiding that had taken place since then and that was particularly severe during the Mexican period. Yount also noted the presence of sheep and goats in the Hopi economy, and gives a brief description of Hopi rabbit hunting.

Perhaps the most notable effect of the Mexican period was the extension of citizenship to the Pueblo Indians. In 1821, even prior to formal independence from Spain, the Plan of Iguala made all inhabitants of New Spain (Mexico) citizens, without regard to race or origin. In April 1821, in pursuance of Spanish laws specifying equality, Governor Melgares indicated that the "minority" of the Pueblo Indians had ended, and that thereafter the Pueblos "should be regarded as Spaniards in all things" (Hall and Weber 1984). Since the Hopis were considered Pueblo Indians, and as we have seen had formally had their rights recognized under Spanish authority in 1819, the rights of citizenship also included them. Pursuit of lawsuits over control of their lands and resources by Cochiti, Pecos, and Isleta Pueblos during the Mexican Period all reaffirmed Pueblo rights of ownership against settlers seeking to infringe on those rights - decisions that historian John Kessell notes were "surprisingly

unequivocal” (Hall and Weber 1984).

*The American Annexation of New Mexico, 1846-50*

In 1846, General Stephen Watts Kearny’s Army of the West took possession of New Mexico. Kearny immediately solicited a report on the Indian population from Charles Bent, appointed Governor of the unorganized Territory. Bent had for two decades been involved with New Mexico, as a trader, and was quite familiar with its social contours. Of the Hopi, he reported:

The Moques are neighbors of the Nabajoes and live in permanent villages, cultivate grain and fruits, and raise all the varieties of stock. They were formerly a very numerous people, the possessors of large flocks and herds; but have been reduced in numbers and possessions by their more warlike neighbors and enemies, the Nabajos. The Moques are an intelligent and industrious people; their manufactures are the same as the Nabajos. They number about 350 families, or about 2450 souls (Bent 1846: 244).

Acting under instructions of the Secretary of War, Kearny established a series of laws pro tem (the Kearny Code), that guided affairs in New Mexico: these laws that were in effect reaffirmed in the Treaty of Guadalupe Hidalgo in 1848 and the formal creation of New Mexico Territory by Congress in 1850. As regards water rights, the Code stipulated:

Water Courses, Stock Marks, etc. Section 1: The laws heretofore in force concerning water courses, stock marks, and brands, horses inclosures, commons, and arbitrations shall continue in force except so much of said laws as require the [ayuntamientos, councils]...of the different villages to regulate these subjects, which duties and powers are transferred to and enjoined upon the alcaldes and Prefects of the several counties (Hughes 1848).

The “laws heretofore in force” were the ordinances on land and water of the Laws of the Indies, which had carried over from Spain to Mexico. The latest edition had been published in Mexico City in 1842 (Rivera 1842).

In short, the United States specifically acknowledged those laws in its assumption of responsibility in the territory, an acknowledgment that was reaffirmed in the Treaty of Guadalupe Hidalgo and in acts by the first Superintendent of Indian Affairs for the Territory (1849), and first civil Governor (1850), James S. Calhoun. In 1852, Governor Calhoun, still doubling as Superintendent of Indian Affairs for New Mexico, had a copy of the *Laws of the Indies* translated for his use, further indicating the continuity of its legal provisions into the American regime (Abel 1915).

The Hopi formally came under the jurisdiction of the United States with the Treaty of the Guadalupe Hidalgo (1848). That treaty stipulated rights for Mexican citizens, a category, as noted above, that included the Hopi. Article VIII guaranteed property rights in the United States for Mexican citizens who returned to Mexico. Article IX addressed the rights of Mexican citizens who wished to remain in the United States:

Mexicans who, in the territories aforesaid, shall not preserve the character of citizens of the Mexican republic, conformably with what is stipulated in the preceding article, shall be incorporated into the Union of the United States, and be admitted at the proper time (to be judged of by the Congress of the United States) to the enjoyment of all the rights of citizens of the United States, according to the principles of the constitution; and in the mean time shall be maintained in the free enjoyment of their liberty and property, and secured in the free exercise of their religion without restriction (United States 1848).

Thus the United States protected the property rights (including water) of the Hopi as recognized in Spanish and Mexican law.

First contact of U.S. officials with a Hopi man was probably at Canyon de Chelly during treaty negotiations with the Navajo in 1849, at which Superintendent Calhoun was present. On September 9th: “There was a Moqui Indian present at the council this morning as a spectator, and a more intelligent, frank-hearted looking fellow I have seldom beheld” (Simpson 1852: 81). Calhoun’s interest

in the Hopi was piqued:

The Indians informed me at Jemez, there were seven Pueblos of Moquies, six having a language of their own, and differing from all others, and one the language of the six, (first) before mentioned [i.e., Tewa]. The best information I could obtain, in relation to these people, induces me to locate them about one hundred miles west of Zuni, in an excellent country.... They are supposed to be decidedly pacific in their character, opposed to all wars, quite honest, and very industrious.... I deeply regret that I have not been able to visit these, and all other Pueblos in this country -- that I might be able to lay before you information, of a character, more precise and accurate (Calhoun 10-13-1849, in Abel 1915).

The recognition that the Hopi constituted “pueblos” like those in more direct contact with the American regime reaffirms the sense that the legal status of the Rio Grande Pueblos was shared by the Hopi pueblos in western New Mexico (Hopi remained part of New Mexico until the creation of Arizona Territory in 1863). Calhoun was “extremely anxious” to visit Hopi, with a view to sending an Indian Agent there, “but it would be unsafe to do so, without a sufficient escort, as the Apaches are upon the left, and the Navajos on the right in travelling from Zuñi to the Moquies - the Pueblo Indians, all, are alike entitled to the favorable and early consideration of the Government of the U.S.” (Calhoun 3-29-1850, in Abel 1915).

*Hopi Delegations to Santa Fe, and a Diplomatic Communiqué to President Fillmore, 1850-52*

Despite their remote position and the dangers posed by Navajos, in October 1850, four Hopi representatives appeared in Santa Fe to meet with Superintendent Calhoun:

The seven Moqui Pueblos sent to me a deputation who presented themselves on the 6th day of this month [October]. Their object, as announced, was to ascertain the purposes and views of the Government of the United States towards them. They complained, bitterly, of the depredations of the Navajos -The deputation consisted of the Cacique of *all* the Pueblos, and a *chief* of the largest Pueblo, accompanied by two who were not officials. From what I could learn from the Cacique, I came to the conclusion, that each of the seven Pueblos, was an

independent Republic, having confederated for mutual protection....

The following was given to me as the names of their Pueblos -

1. Oriva [Orayvi]
2. Somonpavi [Songòopavi]
3. Juparavi [Supawlavi]
4. Mansana [Musangnuvi]
5. Opquive [Walpi]
6. Chemovi [Sitso' movi]
7. Tanoquevi [Hanoki]

I understood further they regarded as a small pueblo Zuñi, as compared with Oriva. The other Pueblos were very much alike Zuñi and Santa Domingo. They supposed Oriva could turn out one thousand warriors. I desired and believe it to be important to visit these Indians.... They left me, apparently, highly gratified at the reception and presents given to them.

These Indians ought to be visited at an early day (Calhoun 10-12-1850, in Abel 1915) .

Calhoun attempted to visit Hopi but was denied the necessary military escort (Calhoun 8-31-1851, in Abel 1915). A year later, another party of thirteen Hopis visited him in Santa Fe:

THE SEVEN MOQUI PUEBLOS. Thirteen Indians, from these Pueblos, visited me on the 28th inst [August]. Their object was to ascertain, whether their Great Father, and they supposed me to be him, would do anything for them. They complained that the Navajos had continued to rob them, until they had left them exceedingly poor, and wretched, indeed, did they look. They had heard of a *priest*, but never had see [sic] one; and requested me to see one for them, and to deliver to him some *feathers*, and a powder, they called, as it was interpreted by a Santa Domingo Indian, their "Big Medicine," and to beg the priest to pray to the Great Spirit to send them rain, and to make their corn grow, that they might not perish.... The Navajos having exhausted, or nearly so, the supplies of the Moquies, are now at peace with them, and will remain so, until the Moquies increase their stores to an extent that shall awaken their cupidity. More than twelve months ago, I made an effort to visit the Moquis, but then , as now, an escort was not allowed me... (Calhoun 8-31-1851, in Abel 1915).

The Hopi supposition that Calhoun was their "Great Father" suggests that Hopis recognized the succession of Spanish authority to the United States. Calhoun clearly gave the Hopi to believe they

were accommodated by U.S. authority. Additionally, in 1852, Calhoun arranged for delivery to President Fillmore of a Hopi diplomatic packet, that offered the President “friendship and intercommunication; and opening, symbolically, a road from the Moqui [Hopi] country to Washington” (Schoolcraft 1851-57, III: 306). The packet contained a symbolically coded message that was explained by Calhoun’s private secretary to President Fillmore. In part, the message proposed a meeting between the Hopi leaders and the President at Fort Defiance (Schoolcraft 1851-57, III:308). These Hopi initiatives of 1850, 1851, and 1852 indicate the Hopi looked to the Americans as an official source of protection as they had looked to the Spanish, notably in 1780 and 1819. But aside from Calhoun’s stated interest, there was evidently little effort by the U.S. to open formal relations with the Hopi.

In March 1852, an exploring party from Fort Defiance was sent to try to find a wagon route to the Hopi Mesas, and to determine whether the Hopi were willing to sell the army forage or supplies (Schroeder 4-11-1852). Accompanying this party was Peter G.S. Ten Broeck, Assistant U.S. Army Surgeon, who kept a diary:

March 31st, 1852. Between eleven and twelve today we arrived at the first towns of Magui [= Moqui]. All the inhabitants turned out, crowding the streets and house-tops to have a view of the white men. All the old men pressed forward to shake hands with us, and we were most hospitably received and conducted to the governor’s house, where we were at once feasted upon guavas [sic; should be *guayaves*, piiki bread], and a leg of mutton broiled upon the coals. After the feast we smoked with them, and they then said that we should move our camp in, and that they would give us a room and plenty of wood for the men, and sell us corn for the animals....

In the course of the “talk,” the principal governor [of Walpi] made a speech, in which he said, - “Now we all know that it is good the Americans have come among us; for our great Father who lives where the sun rises is pacified, and our great mother, who lives where the sun sets, is smiling; and in token of her approbation, sends fertilizing showers (it was snowing at the time),

which will enrich our fields, and enable us to raise the harvest whereby we subsist” (Schoolcraft 1851-57, IV: 81-86).

*American Exploration of the Area and Accounts of the Hopi*

While some military and exploratory visits occurred in the mid and late 1850's, no substantial visits by Indian Agents seem to have occurred until Pueblo Agent John Ward spent some time in the Hopi villages in 1861. In 1851, Antoine Leroux, guide for the Sitgreaves expedition down the Zuni and Little Colorado Rivers, reported a visit to Hopi and gave total population as 6,720 (Whipple 1853-54:13). But in November 1853, the Whipple exploring expedition learned from three Zunis who had visited recently of a severe smallpox epidemic at Hopi. Agent Ward's population estimate of 2,500 in 1861 may reflect the impact of that epidemic (even though Ward's figure is not notably different from Bent's 1846 estimate).

In 1858, Lt. J.C. Ives led a Corps of Topographical Engineers expedition to the Hopi villages. Their route (from the Lower Colorado River) led via the southern flanks of the San Francisco Mountains to the “Flax” or Little Colorado River. Ives's description of the country and of Hopi farming practices, grazing, etc., is the earliest reasonably thorough description by an American observer. Together with Escalante's description from the previous century, both offer a picture of Hopi country, its water sources, and springs, that are not truly surpassed until the surveys of allotting agent Mayhugh in 1892-93, and especially Daryll Forde's survey of First and Second Mesas in 1929 (Forde 1931; Forde's account takes us up into the 20<sup>th</sup> century, and is a subject of other reports). Ives's description is particularly valuable for its confirmation of Hopi presence and use of the area from the Hopi Mesas

to, inferentially, the Little Colorado River, and for its record of the presence and modification of Hopi springs throughout the area, of Hopi gardens, and of farmlands in the valleys. Like Escalante's and Garcés's reports, it is worth reviewing at some length. Baron von Eggloffstein's accompanying map to the report map details the route clearly. Passing eastward from the San Francisco Peaks, the party approached the Little Colorado or "Flax" River a few miles downstream from modern Sunrise:

Camp 85, Flax river, May 2. - The wide valley of Flax river could be recognized a long way off by the line of cottonwoods that skirt the banks of the stream. The river is smaller than the Colorado, but at this season, when the water is becoming high, much resembles the other at its low stage.... [Ives notes the poor condition of his pack animals.] I am loth, however, to forego a short exploration of the country to the north, if only to visit the towns of the Moquis, which cannot be more than seventy or eighty miles distant. The impassable cañons west of the territory of these Indians have thrown out of the line of travel and exploration, and there has been no record concerning them since the accounts of the early Spanish missionaries, who visited the country, and described the "seven cities" which they found there. (Ives 1861:115-16).

Having crossed the river (which the mules had to swim), Ives's party struggled up the slopes leading from the east banks. At the top of the plateau:

Camp 89, Flax river, May 6 - ...The summit being attained, a vast extent of country - sweeping from the Flax river around to the northeast - was brought into view. It was a flat table-land, from which wide tracts had been eroded to a moderate depth, leaving exposed lines of low bluffs and isolated fragments of the removed stratum (ibid:117).

Unable to find water, and despairing over what seemed a desolated landscape, the party returned to the bottomlands of the Little Colorado and headed upstream for twenty-five miles, looking for an Indian trail. The abundance of the bottomlands contrasted with the aridity of the plain, and it is no coincidence that Ives struck a trail that led from the Hopi villages in this rich environment:

The bottom is filled with black-tailed deer. A buck was killed today measuring six feet from the nose to the base of the tail. The venison was of delightful flavor, and, though not in season, quite tender. Ruins of ancient pueblos have been passed [probably in the Homol'ovi area].... At

noon today we came to the object of our search - a well beaten Indian trail running towards the north. Camp was pitched at the place where it strikes the river.... Nearby are several salt springs, and scattered over the adjacent surface are crystals of excellent salt. This accounts for the position of the trail, for it is doubtless here that the Moquis obtain their supply of that article.

Camp 91, Pottery Hill, May 9 - The Indian trail pursued a straight line almost due north [slightly east of Winslow, near the confluence between the Little Colorado and the Cottonwood Wash], and had been sufficiently used to form an easy, well-beaten path, which could be travelled without difficulty or fatigue. Eighteen miles brought us to the line of bluffs by which the valley slopes are bounded.... (ibid.)

The party passed via the Hopi Buttes north toward Second Mesa:

The march having extended to twenty-five miles, and darkness approaching, we were completed to camp just before reaching this land of promise.... [The next day] We gladly left the desert and ascended the slope. While advancing the Blue Peaks [Hopi Buttes] rose up in front, like ships approached at sea - some in cones and symmetrical castellated shapes, and others in irregular masses. We had made six miles, and were looking out eagerly for water when we reached a little spring issuing from a rock by the side of the trail. At the foot of the rock was an artificial basin nine or ten feet in diameter, which was filled with clear and sweet water (ibid.).

This may well have been either the Hopi spring Siipa (modern Seba Dalkai) or Comar spring. Hopis have always maintained such springs at some distance from the Hopi Mesas with modifications by inclosures and walls. The party passed eight miles farther north (now forty miles north of the river) probably just short of the Jeddito Wash. They proceeded on May 10<sup>th</sup>:

Three miles from camp, while passing through some hills that exhibited every indication of dryness and sterility, we found, at the bottom of a ravine, a growth of young willows surrounding some springs, and a patch of fresh green grass [probably on Jeddito Wash]... [Thirteen miles further on] As the sun went down..., I discovered with a spy-glass two of the Moquis towns [Musanguvi and Supawlavi], eight or ten miles distant, upon the summit of a high bluff overhanging the opposite side of the valley.... When darkness fell, camp fires - probably those of the Moqui herdsmen - could be seen scattered along the further side of the valley (ibid:119).

The next day, on the way into the Second Mesa towns, the party is approached by two Hopis on a

horse “shouting vociferous welcomes” (ibid.)

I asked the leader to be directed to water, and he pointed to a gap where a ravine appeared to run up the bluff rather behind the pueblos, and signified that there we would find an abundance [probably Toriiva springs]. He further informed me that there was an excellent grass camp at the same place.

While passing up to Musangnuvi, thirty or forty other Hopi men come running out to greet the party:

Large flocks of sheep were passed; all but one or two were jet black, presenting, when together, a singular appearance. It did not seem possible, while ascending through the sand-hills, that a spring could be found in such a dry looking place, but presently a crowd was seen collected upon a mound before a small plateau, in the center of which was a circular reservoir, fifty feet in diameter, lined with masonry, and filled with pure, cold water [probably a pond {*tsöqavö*} fed by pipe from Toriiva]. The basin was fed from a pipe connecting with some source of supply upon the summit of the mesa. The Moquis looked amiably on while the mules were quenching their thirst, and then my guide informed me that he would conduct us to a grazing camp. Continuing to ascend, we came to another reservoir, smaller but of more elaborate construction and finish [Toriiva proper]. From this, the guide said, they got their drinking water, the other reservoir being intended for animals. Between the two the face of the bluff had been ingeniously converted into terraces. These were faced with neat masonry, and contained gardens, each surrounded with a raised edge so as to retain water upon the surface. Pipes from the reservoirs permitted them at any time to be irrigated.

Peach trees were growing upon the terraces and in the hollows below. A long flight of stone steps, with sharp turns that could be easily defended, was built into the face of the precipice, and led from the upper reservoir to the foot of the town.... We were joined by a pleasant-looking middle-aged man, with a handsome shell suspended to his neck, and a kind of baton in his hand, whom I supposed to be a chief (ibid:120).

Ives comments on the lack of available pasturage for his animals, but is led up into the village by the chief, and hosted on piiki bread. He inquires about the geography of the area, showing the chief a map:

I pointed out our route and the places with which I supposed they were familiar. They seemed to comprehend, and the chief designated upon the map the positions of the six Moquis pueblos. I told him that we wished to go further to the north, and he signified that four days travel in that direction would bring us to a large river [the San Juan]. Whether there watering places between it was difficult from his signs to determine. I then asked for a guide.... (ibid: 121)

Ives then went out to survey the view, which from Musangnuvi reveals what he appropriately calls “a

magnificent panorama”:

The San Francisco Mountain, the valley and cañon of Flax river, and the plateaus to the north and east were all visible, the most distant objects appearing distinct and well defined through the transparent atmosphere. Several trails radiated out from the foot of the bluff in perfectly straight lines, and could be traced a long way over the level surface. One conducted to the cañon of Flax river [Grand Falls] and doubtless to the Yampais [Yavipai] village; another, the chief told us [following a line from west to east as seen from Musangnuvi], was the trail of the Apaches [Gila or Western Apaches]; another that of the Coyoteros [Apaches]; a fourth came from Zuñi [doubtless the same taken by Spanish explorers and officials over the previous three centuries], and still further east was the Navajo trail leading Fort Defiance.

We learned that there were seven towns; that the name of that which we were visiting was Mooshahneh [Musangnuvi]. A second smaller town was half a mile distant [Supawlavi]; two miles westward was a third [Songòopavi], which had been seen from camp the evening before. Five or six miles to the northeast a bluff [First Mesa] was pointed out as the location of three others; and we were informed that the last of the seven, Oraybe, was still further distant, on the trail towards the great river [Colorado].

From these heights, the ascent to which is so difficult and so easily defended, the Moquis can overlook the surrounding country, and descry, at a vast distance, the approach of strangers. The towns themselves would be almost impregnable to an Indian assault. each pueblo is built around a rectangular court, in which we suppose are the springs that furnish that furnish the supply to the reservoirs (ibid:121-22).

In the last observation, Ives is mistaken, but the rest of his account rings true. He proceeded to

describe the Hopi towns:

The strength of the position unfortunately does not protect the animals upon the plains below, and our friends informed us with rueful faces, that the Comanches and Navajoes had driven off a great deal of their stock during the previous year (ibid.).

The Musangnuvi chief agreed to guide the party to Orayvi where their reception was cooler. Along the way, the party passed Supawlavi, noting “two more reservoirs, and several gardens and peach orchards” (ibid:123). A few miles farther on, they descended towards the Oraibi Valley:

The country now traversed was the most promising looking for agricultural purposes of any yet seen. It had nearly all been under cultivation. Immense fields were passed, and our guide

stopped constantly to gossip with his neighbors [from Orayvi] who were busy planting corn.

Their method of doing this was very primitive. With a sharp stick a hole was punched in the ground a foot deep, and the corn dropped in and covered up. No women were engaged in the labor. Unlike other tribes of Indians, the men do the out-of-door work, leaving to the females the care of households.... At the end of a few miles, Oraybe came in sight; it was larger than the other pueblos (ibid.)

At this point, the party had to stop again to rest their animals, and did not pass on to Orayvi until the following day:

The Oraybe reservoirs are a mile or two distant, but we shall pass one to-morrow and be able to water the animals and fill the kegs as we go by. A large number of the citizens came to see us. I subsequently learned that one of them was the chief, but he did not accost any one nor seem desirous of making acquaintances (ibid:124).

The chief from Orayvi persuaded the Musangnuvi chief not to guide the party north. The Musangnuvi chief indicates a water hole a "long day's journey off where we could get a small supply" (ibid), to which he would guide them:

...and there was a trail beyond which could be followed as well without guidance as with it. He persisted that there would be a march of three or four days without water before reaching the river. As nearly as I have been able to judge, they consider a day's march thirty miles (ibid).

With this information, Ives abandoned the plan to head for the San Juan. But a precise Hopi knowledge and active use of the broader landscape and its water sources is suggested in this account. The party spent some time in Orayvi, and then headed northeast up the Oraibi Valley. They were joined by a guide, sent from Orayvi, "to conduct us to the next water:"

Eight or nine miles brought the train to an angle formed by two faces of the precipice. At the foot was a reservoir, and a broad road winding up the steep ascent. On either side the bluffs were cut into terraces [probably Paaqavi gardens], and laid out into gardens similar to those seen at Mooshahneh, and like them, irrigated from an upper reservoir. The whole reflected great credit upon Moquis ingenuity and skill in the department of engineering [NB Ives is with the Army Corps of Engineers]. The walls of the terraces and reservoirs were of partially

dressed stone, well and strongly built, and the irrigating pipes conveniently arranged. The little gardens were neatly laid out. Two or three men and as many women were working in them as we passed. The steep hill completely broke down the animals and we had to camp upon the brink of the mesa above [modern Paaqavi]....

While on the road to-day the guide pointed out a place where the Navajoes had recently made a descent upon the Moquis flocks. He had himself been herding at the time, and showed me two scars upon his sides from wounds received in the engagement. The herders had been utterly routed, and retreated to their pueblo, while the conquerors made off with all their stock....

Camp 97, Oraybe gardens [Paaqavi], May 15.- No Indians came again to camp. The guide, before leaving, had told a Mexican that the distance to the river was more than a hundred miles, and that the only watering place was about twenty-five miles from Oraybe (ibid:124).

Ives decides nonetheless to try marching further along the path without a guide:

The top of the mesa on which we had encamped proved to be very narrow, and before we had travelled a mile we came to its northern edge, where there were the usual precipice and foothills forming the descent to a broad valley [Dinnebito Valley]. Here also the bluffs had been formed into terraced gardens and reservoirs [Hotvela gardens]. The descent was steep and difficult. The valley furnished better grass than any seen since leaving Flax river, but the soil was soft and the travelling laborious (ibid: 125).

The party proceeded to a watering place, perhaps Dinnebito spring, and then sent two of its members to seek water farther north. But having apparently reached Big Mountain or vicinity, they reported back a waterless desert (ibid: 126), and Ives decided to return to Orayvi. At Oraibi Gardens, he was again approached by the Orayvi chief, with whom relations now improved, and who provided a guide to show them the "best route to Fort Defiance." Ives further remarked on these Orayvi gardens:

Several of the tribe have been working in the gardens and tending the sheep during the day. In the former labor the women as well as the men assist. The walls of the terraces and the gardens themselves are kept in good order and preservation. The stone and earth for construction and repairs they carry in blankets upon their shoulders from the valley below. The soil is of a poor character, and the amount which they extract from it speaks well for their perseverance and industry. Both turkeys and chickens have been seen in the pueblos. They have the material for excellent subsistence if they choose to avail themselves of it (ibid.126).

The next day, the Orayvi guide led them across the Oraibi Valley, up Second Mesa:

Beyond was a valley nine or ten miles wide [Wepo Valley], and upon the opposite side a plateau with three Moquis towns standing in a line upon the top [First Mesa]. We camped three miles from them sending the mules to their reservoir for water. The valley was well covered with grass. Large flocks of sheep attested to the wealth of the citizens of this department of Moquis. Almost the entire population came to see us, evincing the greatest curiosity at everything they witnessed (ibid:126).

Ives describes the dress of the First Mesa people, noting some use of cotton “which they grow in small quantities” (ibid:127). The next day, the party evidently passed south of First Mesa, guided by a chief from Hanoki, probably toward Keam’s Canyon:

Crossing the valley in a nearly easterly direction, at the foot of the bluff upon the opposite side we reached a large and excellent spring [probably the spring today referred to as Tsilvasa in Keam’s Canyon] about the time our friend had indicated.

The ravine is the prettiest spot seen for many a day, covered with rich turf, shaded by peach trees, and surrounded by large gooseberry bushes. The water is clear and cold; the trail from Tegua [Hanoki] has been plain and deeply cut, showing constant travel (ibid 127).

The party was later joined by the Tewa chief and nine others who guide them to Fort Defiance, stopping first at Steamboat Canyon, the next water hole. Here they were joined by numerous Navajos, who by that point (1858) were living as far west as Steamboat Wash.

In sum, from Ives’s observations, we see Hopi society in the decade following U.S annexation in a similar condition to later reports. There are seven Hopi villages, on three mesas, sustaining themselves by a mixed economy that depended in large part on agriculture fed by precipitation, and by modified springs that irrigate a series of well-tended gardens throughout the area, some at significant distances from the villages themselves. Hopis were growing corn beans, squash, and cotton, and

cultivated “immense” fields; peach orchards dotted the mesas, and Hopis had a large number of sheep. The horse and cattle herds seem to have declined drastically since Escalante and Garcés’s observations in the 1870’s, although Ives did not penetrate west from the Dinnebito Valley towards M̀̀nqapi where he might have observed animals from Orayvi, as well as larger cotton fields.

*Mormon Visits, 1858-1873; Records of Hopi Farming and Residences at M̀̀nqapi*

1858 also marks the beginning of Mormon visits to the Hopi towns from Utah, led by Jacob Hamblin. Over the next fifteen years, the Mormons sent “no fewer than fifteen official missions to the Hopis” (Peterson 1971:181; cf. Whiteley 1988a:33-36), mostly to Orayvi on Third Mesa, since that was their point of entry after crossing the Colorado River at Lee’s Ferry. Several missionary parties were left for extended periods at Hopi, and provide some useful, if brief, observations. The presence of Orayvi’s farms at M̀̀nqapi was repeatedly noted. In 1859, Hamblin’s party left two missionaries in Orayvi, including Thales Haskell, for the winter. Returning to Utah, Haskell recorded:

Travelled 18 miles and arrived at the Movincopy [Moenkopi Wash] this is a small stream where the Oribes raise cotton and they recommended it to us a good place to build a mill and for the Mormons to make a small settlement (Brooks 1944:94)

The Mormons were anxious to take up this invitation, though they could not do so until the 1870’, when they first established themselves at M̀̀nqapi, building a mill to produce cloth. The Hopi clearly had a permanent set-up at M̀̀nqapi before the Mormons moved there however. In an affidavit taken in 1898, a Navajo man, Hosteen Be-co-de, who had moved onto the Dinnebito Wash after release from Fort Sumner in 1868, noted, “When the Navajos were returned from Fort Sumner, the Moqui Indians were farming on Moen coppı Wash, raising cotton, corn and melons; at that time there were five families of

them and the Indians have lived on this Wash ever since” (Brosius 10-17-1898, quoted in Godfrey 1988a:19).

When John D. Lee moved to Moenave, taken from the Hopi place-name Mawyavi, in 1873, he described Hopi farming on the Moencopi Wash. He initially thought the farms were made by Hopis, Navajos, and Paiutes together:

a little after Sunrise brought us to the Farm of the Native, including oraves [Orayvis], Navajos, & Piutes, of whom Tuba [Tuuvi] is the Princeple. Their Farm was neatly laid out with Judgment and Taste in terresses & in the highest state of cultivation, not a weed nor a spear of grass to be seen among their crop. The Farm is in a narrow fertile vally, watered by springs of good cold water, abundance of grass in the vally for their use - wire, Bluejoint, and Nimblewill. They have a heard of sheep & goats, also Asses, all of which they heard & corral at Night. They have also chickins, Dogs and catts. Their houses are built of stone, flat Roofs & situated on the Top of a Plattou Some 500 feet above the level. They are saving, Equanomical & industrious; they are also courteous & kind. They have corn fir to eat (Roasten years), Mellons about grown (Lee 1955:270-71).

Subsequent entries in Lee’s diary indicate difficulties in Hopi-Navajo relations, and it is apparent that the farms described were in fact Hopi. When the Mormons established a settlement at Mùnqapi in 1875, they noted the presence of the Orayvi farms. Traveling from Moenave on October 30<sup>th</sup> 1875:

We traveled 8 miles to the Mo-an-coppy.... There is a body of good land here but the water is limited.... The land is now occupied by the Moquis Indians of the Oriba villiage (sic). They raise wheat, corn, squash, potatoes, carrots, and some fruit....

[November 1<sup>st</sup>] This morning at day break we heard distant singing.... The voices graduially drew nearer till a large party of Oriba Indians came sight. They had come from their villiage about 35 miles distant to gather the remnant of their crops (Journal of Anthony Ivins, quoted in Godfrey 1988a:23).

In the 1930's, a Hopi man from Mùnqapi named Frank Tewanimptewa, who had been born in Orayvi ca. 1863, recorded the history of Mùnqapi farming from is own experience:

Teuve [Tuuvi] first settled at Moencopi and then built a log cabin at the spring Tuba, named

Teuve. He encouraged the Mormons to move near him, but later Teuve returned to the site of Moencopi. The Mormons had built a spinning house here. Tuba City was originally called Kotsatewa [Qötsatuwa] or White Sands, when the Oraibi people came here to plant their cotton.... The Mormons came, developing the spring and three reservoirs [in Pature Canyon]. They also made an outlet for the water in Pasture Canyon bringing water down to the present farmlands at the end of the Canyon. Moencopi Wash was then a broad plain with cottonwood trees, having no deep gully as now runs through it.... At this time no Navajos lived anywhere around this countryside. Very rarely a few appeared to trade, but they returned again to their homes to the northeast. Lololoma [Loololma, the Kikmongwi of Orayvi] asked his associate chiefs and ceremonial headmen to volunteer to settle Moencopi, the summer farming place of Oraibi (McGregor 8-6-1938, quoted in Godfrey 1988a:25).

Again in the 1950s, Tewanimptewa added some further detail to this account

For many years the Hopis from Old Oraibi traveled to what is now Moencopi and Pasture Canyon. The first crops were cotton and wheat, later on we planted corn, beans, and melons. When I first moved to Moencopi, I helped build the first five houses in the village. For many years the Moencopi Wash was very shallow and the water was diverted by small dirt diversions (quoted in Godfrey 1988a:24-25).

Despite early good relations, in 1879, continuing to the time of Mormon expulsion from the area in 1903, the Hopi conflicted with Mormon settlers over water and land use (e.g., Godfrey 1988a:28-42, and see below).

*The 1860's: U.S. Guarantees of Hopi Rights, Hopi Initiatives to U.S. Representatives, and the Establishment of the Hopi Indian Agency*

In February 1861, another U.S. treaty was negotiated at Fort Fauntleroy (Fort Wingate) with the Navajos, who sent more headmen to the negotiations than to any previous treaty signing (see my report on *The Navajo and Black Mesa*). Inter alia, the treaty, negotiated by Lt. Col. E.R.S. Canby specified that the Navajos were to establish permanent communities in the vicinity of Fort Fauntleroy - well east of Hopi land. The first article stipulated:

It is distinctly understood that the inhabitants of New Mexico, the people of Zuni, Moqui, and all the other Indian Pueblos and Indian Tribes that are now or may hereafter be under the protection of the United States are embraced in the terms and stipulations of this treaty, and any act or hostility against these will be a breach of faith and act of hostility against the United States (McNitt 1972).

In the same year, Pueblo Agent John Ward visited the Hopi towns, noting they were badly in need of government assistance (Donaldson 1893). In 1865, Ward reported the names and population of the Hopi towns, evidently on the basis of this earlier visit:

Oraiva [Orayvi].....	800
Sho-mon-pa-vi [Songòopavi].....	600
Tano [Hanoki].....	250
Ci-cho-mo-oi [Sitso'movi].....	100
O-pi-ji-que [Walpi].....	300
Mi-shan-qu-na-vi [Musangnuvi]...	250
Sha-pan-ia-vi [Supawlavi].....	200

(ARCIA 1865).

In 1862, three Hopi leaders accompanied Jacob Hamblin returning from Orayvi to meet Brigham Young in Salt Lake City. The meeting was evidently very successful, and Young made plans to establish Mormon settlements in Hopi territory: “he declared his intention of building forts on the East side of the Colorado, and place [sic] sufficient missionary force there to protect Lamanite [i.e., Hopi] industry, should they see proper to be gathered under the wings of Israel’s Eagles” (Journal History of the Church 2-15-1863, quoted in Whiteley 1988a:35). This was to lead ten years later to the beginnings of Mormon settlement along the Little Colorado, especially as invited by Tuuvi, an Orayvi

leader, in the vicinity of Mùnqapi. Again, the Hopi were partly motivated to seek an alliance to protect their resources from Navajos. After the Territory of Arizona was created in 1863, Charles Poston was appointed as Superintendent of Indian Affairs. En route to his post from the East, he stopped in Salt Lake City, and noted:

3 Moqui chiefs from my Superintendency had recently visited his excellency to ask for protection against the Navajos, who were continually committing depredations on their stock, which induced them to seek a closer alliance with the Americans. The Moquins are peaceable and friendly, and from their isolated positions...and the curiosity their stone cities excited among the early Spanish explorers are Indians of more than ordinary interest (Donaldson 1893:).

Elsewhere Poston offered a summary of his new Hopi charges:

The Moquins are one of the most interesting tribes of Indians in Arizona. They have almost a classical reputation from the extravagant stories that were told about them by the early Spanish explorers and the interest they excited in Europe.... They found very interesting aborigines living in good stone houses, cultivating fields of maize, beans, peas [sic], melons, and pumpkins, and tending their flocks and herds. They wove blankets from the wool of their sheep and made cotton cloth from the indigenous staple, which was fine enough to paint the pictures of their beasts and birds....

The Moquins have continued to live in their mountain homes, cultivate the maize, tend their flocks and herds, and make themselves comfortable blankets for the winter and cotton for the summer. Their numbers are variously estimated at from 4,000 to 7,000 (Donaldson 1893:).

Though initially puzzled by their assignation to a new superintendency away from New Mexico, the Hopi soon began to send representatives to Prescott, the new Territorial seat (Whiteley 1988a:38). Drought and Navajo depredations hit the Hopi towns especially hard in 1864, and many Hopis walked through snows 300 miles to the Pueblo Agency in Peña Blanca, New Mexico, seeking assistance (ARCIA 1865). Succeeding years of drought were not ameliorated by a raid upon the Orayvi flocks in December 1866 by New Mexican slavers, who “killed three [Hopis], wounded four, drove off 558 head of livestock, and carried into captivity five girls and six boys” (Bailey 1966:122).

In 1869, following the return of the Navajo from Bosque Redondo, and the establishment of the Navajo Treaty reservation centered at Fort Defiance, a special agent from the Indian Bureau was sent to Hopi prior to the assignation of the first Hopi Agent Palmer (originally assigned in 1868) in that year:

There is a good trail, and there could easily be made a good wagon road, from Fort Defiance, west through the Navajo country, to the villages of the Moquis, 100 miles. The country is well wooded, and with the aid of irrigation much of it could be made productive.

The scarcity of water is the greatest drawback. The Moquis are particularly interesting as being the descendants of the ancient Aztecs.... [T]hey are in nearly all respects as far advanced in civilization as their brother Pueblos of the Rio Grande valley.... Their pottery, blankets, dresses, ornaments, and the construction of their houses are similar and equally as good.

They received us with great rejoicing, 1,000 or 2,000 of them, men, women, and children, turning out of their houses and welcoming us with cheers as we mounted the rocky cliffs, on the top of which their villages are constructed. They have large flocks of sheep and goats, which they drive up to their pens for safety on top of the cliffs by the side of their own habitations nightly. They cultivate many acres of corn, wheat, beans, and have peach orchards in the valley below. Having no other weapons than bows and arrows and the wooden boomerangs, they live in constant fear of the better armed Apaches and Navajos, their neighbors. There are seven villages of them, and they number about 4,000. They ought to receive mor attention from our government, and I am happy to learn that the honorable Commissioner of Indian Affairs has sent an Agent, Major Palmer, to see to their wants (Donaldson 1893:35-36).

At the same time, Lt. Col. Rodger Jones, Assistant Inspector General of the U.S. Army, produced another report on the Hopi:

They subsist by the chase, the culture of fruits, such as peaches and apricots, and cultivate the soils sufficiently to supply their own wants. They also make blankets, inferior, to those, however, made by the Navajos in fineness and closeness of texture. At certain seasons of the year they range as far south as Prescott and in a southeasterly direction to Zuni, on the borders of New Mexico, but these expeditions are mostly for the purpose of trading.... Although they have been for years plundered by the Navahos and occasionally by the Apaches, who, however, rarely venture so far north, they still own a number of horses and cattle and extensive herds of sheep. They are not a warlike race, but claim they can defend themselves from attack and punish the aggressors. Their proximity to the powerful tribe of Navajos compels them to keep at home for the protection of their families and property. They possess a few muzzle-loading guns, and procure their ammunition from Zuni. They are at peace with the whites, and, it

is believed, with all other tribes except the Navajos and Apaches (Donaldson 1893:35).

*The 1870's: Hopi Agency Developments, Navajo Trespass, and Relations with Mormons at Mùnqapi*

Visits to Hopi increased after this time, including notably by Major John Wesley Powell in 1870 and 1872. Powell was well received, spending two months at the Hopi towns (Powell 1875, 1895). Manning of the Hopi Agency at Keam's Canyon from 1873 forward was intermittent throughout the 1870's. A series of Agents 1870's built a school, and made recommendations for the establishment of a reservation for the Hopi, particularly since Navajos were trespassing on Hopi lands in increasing numbers, away from the 1868 Navajo Reservation.

In 1873, the Orayvi leader Tuuvi assigned a Mormon colonizing party "ten or twelve acres of land to farm" at Mùnqapi (Whiteley 1988a:36), and shortly thereafter, hiding from U.S. forces seeking him out for his role in the Mountain Meadows massacre, John D. Lee came to live at Mùnqapi and later at Moenave, where Jacob Hamblin had first built a farm in 1873, from 1873-74 (ibid; Lee 1955). Lee reports Hopis traveling to St. George, Utah, to trade for horses, confirming long term Hopi interests in horse-raising. Lee also probably introduced some crops to Hopis that they had not encountered before, including peas, potatoes, beets, radishes, lettuce, alfalfa, turnips, wheat, and barley, and possibly onions (though these may have been present earlier (Whiteley 1988a:36). The initial Mormon settlement at Mùnqapi failed, but they returned in 1875, and in 1876 moved a short distance away to establish Tuba (i.e., Tuuvi) City. This was the area Hopis term Qötstatuwa ('white sand'), where the Orayvi Hopis planted especially their cotton fields (Godfrey 1988a). Some sixty-five Hopis planted with the

Mormons who tried to establish a colony in 1877 at Sunset Crossing [Winslow] on the Little Colorado River (Peterson 1974:192). From these farms the Hopi harvested 400 bushels of wheat (Godfrey 1988a:138). The following year, the farms were washed out by floods, and there are no records so far located of Hopis continuing to farm there. But this example simply represents the persistence of an age-old Hopi practice of taking advantage of farming areas throughout the Little Colorado River watershed in their traditional homelands; in this case very close by the old Hopi settlements at Homol'ovi.

Expansion of Mormon colonies throughout northern Arizona grew from these cooperative associations with the Hopi. But in the early 1880's, and persisting up to their ejection by the government from Tuba City in 1903, relations between Hopis and Mormons deteriorated, with conflicts over water and farmland along the Moencopi Wash and in Pasture Canyon (cf. Whiteley 1988a:37).

#### *Establishment of the 1882 Hopi Reservation*

My report on *The Navajo and Black Mesa* details the recency of Navajo arrival on Black Mesa and the Hopi Washes. The present report is primarily concerned with the historical demonstration of Hopi presence, use and occupancy within their traditional lands, but it is impossible to exclude entirely Navajo encroachment upon those lands and waters, permitted by government inaction, despite repeated Hopi protests. The Hopi Reservation, established in 1882 after several years' recommendations, was partly a response to the encroachment of Navajos on Hopi land and water resources, that began in earnest after the Navajo return from Fort Sumner in 1868. Hopi use of water was dramatically impacted by that pattern.

Following his appointment as special agent to the Hopis in 1869, A.D. Palmer reported to the

Commissioner of Indian Affairs:

They [Hopis]...were at one time contented and happy but bad seasons, sickness, and the thieving propensities of their immediate neighbors and hereditary enemies the Navajos and Apaches, have made and kept them poor...

They appear to be contented with their country and desire to remain there, if they can be assured of protection or of the means of protection, against their above named enemies. I shall endeavor to make a treaty between them and the Navajos...

They have no arms but their bows and arrows; the Navajos are well armed with various kinds of firearms and the [Hopis] say, that until they can acquire or receive fire arms, they have no hope of improving their present condition, as their crops, their animals, and themselves, are continually at the mercy of their enemies (Palmer to Commissioner of Indian Affairs [hereinafter CIA] 11-30-1869, quoted in Stephens 1961:61).

Three weeks later, Palmer recommended against establishing the Hopi Agency at Fort Defiance, inter alia, because of "the hostility existing between the Moquis [Hopis] and the Navajos, which though not open or general, shows itself in occasional murders and frequent thefts" (Palmer to CIA 12-20-1869, in *ibid.*). By April 1870, Palmer was reiterating a request that firearms be distributed to the Hopi:

Application has been made (since approved) to Gen. G.W. Getty, U.S.A. for (20) twenty stands of arms, and suitable ammunition and accoutrements, to be used for protection, alone, of the property and lives of the Moquis Indians and of persons connected with the Moqui Indian Agency from hostile Navajo and Apache Indians. The arms will be issued under my personal supervision and not until I shall be satisfied of the reliability of the Indians to whom they shall [be] given.... As pertinent here, I would mention that I have learned that several years since, the Zunis, a tribe similar to the Moquis, were intrusted with some (300) three hundred stand of arms to be used against the Navajo, who were then hostile...and it is said to have had an excellent effect on the conduct of the Navajos toward them. During my visit last fall, I did not see a single serviceable firearm in the Moquis Villages. I attribute their present reduced condition to the fact of their want of arms (Palmer to CIA 4-23-1870, in *ibid.*).

Palmer's recommendation was put into effect during the tenure of the next Hopi Agent, W.D. Crothers:

"During the month of May, 1871 the [Hopi] villagers killed six Navajos for stealing or attempting to steal livestock from their pueblos" (*ibid.*:62).

Crothers's successor, W.S. Defrees, established the Hopi Agency at Keam's Canyon in 1873, and was instructed to "determine the limits of a Hopi Reserve" (ibid:63). Defrees's proposal for a Hopi reservation extended far to the west of Mũnqapi, thence "east to the present Moqui Villages" and "including the Colorado Chiquito, a desirable place and, I think, sufficiently large to accomodate [sic] the... Indians" (Defrees 4-8-1874, in ibid.). Defrees's recommendation, similar to W.R. Mateer's six years later, encompassed a substantial portion of the Little Colorado River and all the Hopi Washes. Defrees was partly motivated by concern over Mormon expansion, but his designation of this area as Hopi territory is a significant reflection of use and occupancy, nonetheless.

In the meantime, hostilities between Hopi and Navajo persisted, and the government's commitment to the Hopi wavered: plans were made to disestablish the Hopi Agency. Recommending against this, Agent W.B. Truax (1875-76) noted that if the Agency were abolished:

The Navajo Indians would very soon drive them [the Hopi] from their best agricultural and grazing lands on the East and in various ways impose upon them. They have for some time manifested a disposition to do this, but have been restrained by the presence and influence of the agent. The Mormons are also encroaching upon them on the West and Southwest (Truax to CIA 9-25-1876, in Stephens 1961:65).

Truax (1876:6) reiterated this position in his annual report, with new recommendations for a Hopi Reservation:

They [the Hopi] have no reservation or title to the country they are now occupying, consequently they are virtually without homes. This fact being known, they, being a peaceable, inoffensive class of people, are liable to be imposed upon in various ways. The Navajo Indians, immediately on the east, have for some time manifested a disposition to encroach upon their best grazing lands, and have only been restrained from doing so by the presence and influence of their agent. On the west and southwest, within the last twelve months, about 400 emigrants [i.e., Mormons] have settled not far from the lands claimed by this tribe, and I understand several hundred more are expected in less than a year. This being the state of the case, I would most respectfully and earnestly recommend that a reservation, of sufficient extent (say thirty

miles square, so as to include all their villages and grazing lands) to meet their wants, be at once set apart by the Government for them, before any further encroachments be made upon the domain which they have so long occupied (Truax 1876:5-6).

Truax's recommendations were not acted upon, and although his proposal for a Hopi Reservation was significantly smaller than Defrees's proposed area, and much smaller than aboriginal Hopi lands, it is noteworthy that Navajos were still being described in September 1876, by an Agent resident at Keam's Canyon since 1875, as "on the East" of the Hopi.

Truax notwithstanding, the Hopi Agency was abandoned until 1878. In the interim, Navajo Agent Alex G. Irvine assumed charge of the Hopi from Fort Defiance. Irvine also recommended a Hopi Reservation, of fifty miles square, or 2,500 square miles (Stephens 1961:65). In February 1878, the Hopi Agency was re-opened by W.R. Mateer:

He...reported encroachment of the Navajos on Hopi farms and grazing lands and requested a reservation. Due to illness, Mateer resigned (August 31, 1879) but stayed on until after the Hopi wheat harvest, the pueblos fearing the Navajos would destroy their crops around Keam's Canyon if he left before.

Just before Mateer resigned he received a request from the Commissioner of Indian Affairs for information upon the establishment of a reservation. Among other things the Commissioner wished to know the extent of Navajo encroachments and the approximate area of land occupied by the Hopis (ibid:65-66).

Mateer (1880) proposed Hopi reservation boundaries, and presented a well-delineated map. The area proposed accorded in large part with Defrees's recommendations in 1874, except Mateer's limit was closer in to the Hopi villages on the west. Mateer's proposed Hopi boundaries followed the Little Colorado River from its confluence with the Rio Puerco of the West down to and including the Moencopi Wash. Thence the boundary Moencopi Wash to a point on Black Mesa, and turned due eastward following a straight line of latitude. The eastern boundary following a longitudinal line back to

the Puerco-Little Colorado confluence. Mateer's implicit assignment of all the Hopi Washes to the Hopi, except for the northern reaches on Black Mesa (where the boundary, simply delineated by a straight line suggests less awareness of this area on Mateer's part), is especially noteworthy. Significantly, Mateer's boundary, in encompassing the lands and waters all the way to the Little Colorado, went considerably farther south than the southern boundary of the Hopi Reservation as established in 1882.

Mateer was succeeded by a flurry of Hopi Agents. In March 1880, his second successor, Galen Eastman recommended a reservation particularly to guard against Mormon encroachment. Eastman's proposed area is not so well informed as Mateer's; he simply suggested a rectangle:

Commencing on the west line of the Navajo Indian Reservation where the 36 [degree] parallel of latitude intersects the 110 [degrees] of west in the Territory of Arizona, thence due west 48 miles, thence due south 24 miles -- thence due east 48 miles to the west line of the Navajo Indian Reservation, and thence north along said line to the place of beginning... (Eastman to CIA 3-20-1880, in Stephens 1961:66).

These dimensions are clearly rationalized cartographically, consisting of eight adjacent Map Sections (1,152 square miles).

Further recommendations for a reservation that would include both Hopis and Navajos living west of the then Navajo reservation were made by C.H. Howard to the Secretary of the Interior. A primary reason for including these Navajos in his proposal was persistent Navajo raiding of nearby settlers:

The complaints of citizens more or less contiguous to the reservation as to depredations of the Indians and the encroachments by their flocks are so numerous and strenuous that something ought to be promptly done.

I am disposed therefore at once to recommend some general policy which shall at least put in

motion agencies to remove the evils. First, instead of there being some half dozen parties off the Reservation as represented by Governor Sheldon, such bands should be counted by hundreds. They consist both of roving families or tribes who are doing little in the way of agriculture and who live by herding and others who have mixed farms and have lived upon them for 2, 3, and even as long as 9 years. After very careful inquiry of all persons best informed and after visiting different parts of the reservation on horseback so as to reach land that would otherwise be inaccessible and after going over large tracts of country extending 50 miles or more to the West of the Reservation I have come to the conclusion that considerably upwards of one half the entire Navajo people are living off the reservation.

There are at least 8,000 Navajos off the Reservation in Arizona. Second, I also made careful inquiry of the capacity of the Reservation to sustain all of these Indians.... [T]here is not any too much grazing land on the present Reservation to support the herds and flocks now located there and...if the present rate of increase goes on, a more diversified industry will become necessary or pasturage must be sought elsewhere.

Third: At the same time it seems to me a necessity that all those Navajos who are off the Reservation to the North, to the South and to the East and who live exclusively by pastoral habits and especially as they are pretty likely to couple with them more or less of stealing of cattle and sheep from the whites and are very certain to come in contact with whiskey saloons - - always to be found outside the Reservation -- should be compelled to return to their Reservation.

Fourth: I would recommend that a new reservation be set apart for the Arizona Navajos, extending 100 miles to the West of the present Reservation and contiguous thereto, its northern boundary to be the boundary between Utah and Arizona, its Southern boundary to be the continuance of the Southern boundary of the present Reservation, its Western boundary to be a straight line parallel with the Western boundary of the present Reservation. It should be distinctly noted that this new Reservation would include the seven villages of the Moqui Indians. In my full report of recent inspection I shall dwell particularly on the wants of these Indians and especially the necessity of including them in some Government Reservation unless the Department is willing that the farms that they have tilled for many years -- even centuries -- shall be taken from them by the encroaching white settlers, their rights constantly over ridden by their more powerful Navajo neighbors, and they be crowded back from self-support to a pauperizing dependency upon the Government for food (Howard to Secretary of the Interior 7-14-1882, in Stephens 1961:67-68).

Howard clearly recognized the spread of Navajos west from the 1868 Navajo Reservation, and the threat posed by both whites and Navajos to Hopi resources. His recommendations, that would have

located the Hopi in the middle of a Navajo reservation, were not acted on directly, although they did lead to the expansion of the Navajo Reservation westward.

In November 1882, the Commissioner of Indian Affairs instructed Hopi Agent Jesse Fleming to identify boundaries for a Hopi Reservation.

Describe boundaries for reservation that will include Moquis villages and agency and large enough to meet all needful purposes and no larger. -- forward same by mail immediately (CIA to Fleming 11-27-1882, in *ibid*:71).

Between the time of Agent Mateer's map in 1880 and Fleming's instructions, the status of the lands adjacent to the Little Colorado River, within the area Mateer would have assigned to the Hopi, had changed:

The summer of 1882 brought a crucial change: tracks of the Atlantic and Pacific Railroad advanced west from Gallup, and then west from the Painted Desert towards the San Francisco Peaks and a raw new lumber town that would be named Flagstaff. In the wake of the road gangs the towns of Holbrook and Winslow sprang up, at once serving as supply centers for the entire territory, north and south (McNitt 1962:188).

The Railroad was to assert claims to a huge area (including the Hopi villages), but that history lies beyond the present scope. In the meantime, it was clear that recommendations for a Hopi Reservation should not interfere with lands occupied by and close to the railroad itself.

On December 4th 1882, Fleming proposed the boundaries that became the 1882 Moqui [Hopi] reservation. Fleming emphasized:

The lands most desirable for the Moquis, and which were cultivated by them 8 or 10 years ago, have been taken up by the Mormons and others so that such as is enclosed in the prescribed boundaries, is only that which they have been cultivating within the past few years....

I am greatly encouraged by the hope of securing this reservation as it will render the condition of this people more settled and protected.

In addition to the difficulties that have arisen from want of a reservation with which you are familiar, I may add that the Moquis are constantly annoyed by the encroachment of the Navajos, who frequently take possession of their springs, and even drive their flocks over the growing crops of the Moquis. Indeed their situation has been rendered most trying from this cause, and I have been able to limit the evils only by appealing to the Navajos through their chiefs, maintaining the rights of the Moquis. With a reservation I can protect them in civilization. Being by nature a quiet and peaceable tribe, they have been too easily imposed upon, and have suffered many losses (Fleming to CIA 12-4-1882, in Stephens 1961:72).

The reference to Mormons taking over Hopi lands probably refers to Mùnqapi, Tuba City, and Moenave ('Mawyavi'), though as noted, Hopis also planted at Sunset in the 1870's, that had now taken over by Mormons. Commissioner of Indian Affairs Price drafted an Executive Order for the Moqui Reservation "for the use and occupancy of the Moqui Indians, and such Indians as the Secretary of the Interior may see fit to settle thereon:"

I have the honor to transmit herewith, a draft of an Executive Order withdrawing certain lands, in the Territory of Arizona, from the mass of the public domain, for the use and occupancy of the Moqui Indians, and such others as the Secretary of the Interior may see fit to settle thereon and to request that the same be laid before the President for his signature.

In this connection, I would respectfully state that the conditions are such, that it has been found impossible to extend to these Indians the proper and needful protection to which they are entitled....

Having no vested title to the lands they occupy -- which fact it seems is well understood, they are subject to continual annoyance and imposition, and it is not difficult to see, that it is only a question of time, when, if steps are not taken for their protection they will be driven from their homes and the lands that have been held and cultivated by them for generations, if not centuries, will be wrested from them, and they left in poverty without hope (CIA to Secretary of the Interior 12-13-1882, in Stephens 1961:74).

As Julian Scott, Special Agent for the 1890 Census, indicates in his report on the Hopi, the sources of "continual annoyance and imposition" (in Commissioner Price's terms) were well-known:

This reservation [Hopi] ... was to give the United States authority over the Moquis and to protect them from white people and the Navajos (in Donaldson 1893:178).

President Chester Arthur signed the Executive Order in December 16th, 1882 for the Moqui Reservation (2,499,558 acres), and Fleming was informed by telegram on December 21st:

President issued order dated sixteenth, setting apart land for Moquis recommended by you. Take steps at once to remove intruders (CIA to Fleming 12-21-1882, in Stephens 1961:74).

The intruders referred to were two whites living in a Hopi village whom Agent Fleming had earlier sought to remove. President Arthur's clear wording "land for Moquis" is especially noteworthy in view of the Healing vs. Jones court's historically revisionist decision that "such other Indians" was an implicit reference to Navajos already present in the area. As Stephens (1961:75-79) makes clear, such language was standard in Executive Order Reservations of the time, designed to allow administrative room in the event the Government sought to remove other Indians and consolidate them on established reservations.

Following establishment of the Hopi Reservation, several attempts to move Navajos off occurred over the next few years:

The decade following the Executive Order of 1882 saw many quarrels between the two tribes. Agent John H. Bowman in his annual report for 1884 charged that this was due to "careless herding of the young Navajos, who allow their herds to overrun these outlying [Hopi] gardens. The Navajos are almost invariably the aggressors." In 1886, the Navajo Agent, S.S. Patterson forced Navajos to return stolen stock; at the request of Patterson, troops were sent as far as Moencopi in an effort to halt Navajo depredations against both Hopis and Whites. Finally Agent Patterson made the following suggestion: "As a means of preventing these occurrences it might be better if the Navajos could be excluded from the Moquis country altogether, but this would be a difficult thing to do" (Stephens 1961:82, quoting Annual Reports of the Commissioner of Indian Affairs for 1884, 1886, 1887, 1888).

In 1888, Herbert Welsh, head of the Indian Rights Association, set forth existing conditions on the Hopi Reservation after a month-long visit of inspection with Navajo and Hopi Agent C.E. Vandever. For the Hopi, Welsh's most prominent concern was Navajo appropriation of Hopi water

sources, agricultural produce, and livestock:

At each of the [Hopi] communities mentioned the complaint of the people was the same, -- the injuries which were inflicted upon them by the continual intrusions and depredations of the Navajos who steal their corn, their melons, their horses, and who in many instances have settled upon their reservation, and treat the Moqui lands as though they belonged to them, making use of the Moqui water, springs and driving the lawful owner from them...For years they have received assurances from the government that the Navajos shall be restrained but without result (Welsh to Secretary of the Interior 9-26-1888, in Stephens 1961:82-83).

In response, on October 10, 1888, the Secretary of the Interior sent troops to remove Navajos from the Hopi Reservation. Charged with carrying out the orders, however, Colonel E.A. Carr was persuaded against doing so by Chee Dodge, the influential representative of the Navajos (Stephens 1961:84). Carr responded:

The Zunis complain as much as the Moquis, but the citizens of the region complain much more loudly and they will soon make themselves heard by the Government. Navajos live and roam far to the south-east and west of here and are accused not only of consuming the grass and injuring the timber, but of living on the cattle and stealing the horses of the settlers. Should the Recommendation of General Grierson in his annual report be observed, there will be little trouble in corralling them, but if they are to be all brought within the bounds of their present reservation, I would give them this winter to deliberate and decide where the families outside should be located within its limits, which will I assure be a difficult problem; [we should] assemble a considerable force in sight of the Navajo so that bloodshed might be averted (Carr to Assistant Adjutant General for Arizona 11-15-1888, in *ibid*:83-84).

There was thus a failure of U.S. will to protect Hopi rights on the Hopi Reservation. Basically, the Hopi and their reservation became the sacrificial lamb in the government's desire to appease settlers. Evidently, it was politically expedient to allow Navajos to expand onto and appropriate Hopi resources (including water), rather than to protect these for Hopis. The on-the-ground military decision favored the settlers, whom, it was thought, would be more vulnerable to Navajo threats, if the area encompassed by the Hopi Reservation were protected from Navajo incursions. In subsequent years,

the Hopi attempted to negotiate with the government to protect their territorial and property rights by withholding compliance in numerous Government-sponsored programs. In 1889, the government Boarding School at Keam's Canyon opened, and as Stephens notes:

From the very beginning the Hopis attempted to use this school as a political weapon. Their philosophy was simply this: "If the government will protect the Hopis against the encroachments of the Navajos, we will send our children to school; if not, we won't" (ibid:85, quoting Thomas Keam to CIA 1-15-1890).

In 1890, Navajo Agent C.E. Vandever also warned Navajos to stay out of Hopi areas:

A constant source of bickering between them [the Hopi] and the Navajo are the encroachments of the latter. I have given this matter a great deal of careful attention, and have time and again restrained the Navajo from these intrusions, warning them not to approach with their herds within certain specified limits which would give the Moqui ample room for grazing, if they were not too timid to use it (Vandever 1890:170).

To conclude, establishment of the 1882 Hopi Reservation, which includes much of Black Mesa and the Hopi Washes, had as a principal intent to protect Hopi interests in land and water resources against Navajo and Anglo encroachment. The government's signal failure to follow through with this intent, for fear of producing more trouble with settlers and Navajos, eventuated decades later in the Healing vs. Jones case and its aftermaths.

It would be well to recapitulate contemporary observations on the subject by Thomas Donaldson, U.S. Special Agent for the Hopi and Pueblo Indians in the Census of 1890:

The Moquis are not reservation Indians in the general acceptance of the word. They were not wild Indians, roaming at will over the country, gathered up by the government and placed on a reservation to protect the whites from them. They have been town dwellers and cultivators of the soil since the Europeans first came to the country, and how many hundred or thousand years before no one can tell.

The definition of their reservation by the President December December 16, 1882, was for the purpose of drawing the line over which the Navajos were not to cross. This was also done on

the case of the Zunis. *Water was protected by this action, and the President increased the area of the reservation to save it.*

The United States has never had a treaty with the Moquis. It has never assumed any direct control over them other than the naming of an agent for them and presenting them with a few useful articles from time to time. It has, however, agreed, through the agents, to keep the Navajos from murdering and robbing them (Donaldson 1893:43, emphasis added).

In the 1890's, and long after, these conflicts persisted. The 1882 Reservation did prevent Mormon settlement any closer to the Hopi villages. But it did not settle conflicts between Hopis and Mormons. In 1891, Special Allotting Agent John S. Mayhugh was sent to allot the Hopi Reservation in accordance with the Dawes Act of 1887 (Whiteley 1988a:81). On the 1882 Reservation, his allotment efforts were abandoned in 1894 owing to Hopi protests (ibid.), but Mayhugh did allot nine Hopis at Mùnqapi in 1893 (Godfrey 1988a). These allotments were not initially confirmed, and the allottees faced harassment by Mormons in the area (ibid.), who effectively drove off some of the Hopi who were allotted. In 1899, eleven Hopis were re-allotted at Mùnqapi, allotments that were confirmed by the Government (ibid.).

#### *Ongoing Hopi Protests over Loss of Water and Other Resources, 1890-1900*

In June 1890, principal Hopi leaders journeyed to Washington to discuss various problems with the Commissioner. Again, they complained of Navajo encroachment:

Our horses are stolen by the Navajos and the agent can hardly help it. *The Navajos encroach on our water.* The stealing of horses is a great trouble both to us and to the Agent (Moquis Chiefs conference minutes 6-27-1890, in Stephens 1961:86, emphasis added).

The Commissioner refused to guarantee them the requested protections. Returned to Hopi, the leaders' response was clear:

The Hopi people bluntly told Ralph P. Collins, superintendent of the boarding school, that as long as the government permitted the depredations of the Navajos, the school would not be filled (Collins to CIA 10-17-1890, in Stephens 1961:86).

Shortly thereafter, in October 1890, Commissioner T.J. Morgan visited the reservation in person, with the Commander of the Department of Arizona, Brigadier General A.D. McCook. They met with Hopi leaders at Keam's Canyon:

La-lo-la-my [the chief of Orayvi] said that the Navajos trespassed so much upon their watering places that it was difficult for them to find sufficient water for their own herds; that the Navajos were stronger, and took advantage of them by not only appropriating the water of the springs but often stealing their corn, melons, and other fruit, their sheep, goats, and even horses; that the Navajo agent, Vandever, had repeatedly promised to drive the Navajos back upon their own reservation, but his promises were always forgotten, at least never fulfilled. He was assured that the Navajos would be compelled to move off across the Moqui line and to remain upon their own territory, and then, through Chee [Dodge, the Navajo representative], notice was given to those Navajos who were present that they must not interfere with the rights of the Moquis in any of the things complained of (Donaldson 1893:56).

Despite these guarantees by the Commissioner and the Department Commander, shortly after the delegation's departure Navajos recommenced depredations and encroachment. Keam's Canyon School Superintendent Ralph Collins reported a month later:

I wish to state concerning the Navajoes that notwithstanding your orders, they have been moving their herds out among the [Hopis] ever since you left. Until now they have eaten the last vestige of the [Hopis] corn stalks and the most of their winter grass. They are a standing insult to the Government and robbers of the weak and the complaints of the [Hopis] are not only just but call for most decisive action on the part of the Government.

I certainly think that troops should be sent at once to drive the Navajo herds from among the [Hopi] even though the department should not be ready to deal with the whole Navajo tribe (Collins to CIA 11-28-1890, in Stephens 1961:87).

Collins's telegram brought Agent George W. Parker who, after an investigation, endorsed Collins's recommendations for troops: "[These] should be sent at once to remove trespassing Navajos

from among the [Hopis] and arrest rebellious Oraibis [over their refusal to send children to school]....Any further delay will work irreparable injury to the whole work among the Hopis” (Parker to CIA 12-14-1890, in Stephens 1961:88). Stephens takes up the story:

On December 18, Commissioner Morgan informed the Secretary of the Interior that troops were being sent to the Hopi villages to enforce the school attendance policies and protect Hopis from Navajo depredations. He also ordered that Navajos should be removed from Hopi country.

Lieutenant Charles H. Greerson with troop K of the 10th Cavalry arrived on December 24, 1890. The Hopis did not resist and sent their children to school. The Navajos also became more reasonable, driving their flocks and herds to areas more distant from both the Hopi villages and the protecting cavalry troops (Stephens 1961:88-89).

Greerson turned his attention to removal of Navajos from the Hopi Reservation, but before he could proceed, his orders were modified by General McCook, since the Reservation’s boundaries were not surveyed. McCook recommended:

...that the line of demarkation between the Navajo and [Hopi] reservations be distinctly marked by indestructible monuments upon the natural elevations along the line, and that the water in the neighborhood of the line and lying east thereof be reserved for the Navajoes, and that to the west for the [Hopis]. Until this is done I do not deem it wise to use force to prevent the Navajos from grazing near the [Hopi] reservation.

The Navajoes or [Hopis] do not know where the line between their reservations is, nor do I; hence any coercive action on our part would not be wise until the line is definitely settled.

The presence of troops near the [Hopi] villages would certainly prevent Navajoes from using personal violence against the [Hopi], or plundering from or destroying their crops, and it is my intention to take necessary action to prevent this (McCook to Morgan 1-3-1891, quoted in Stephens 1961:89-90).

A few days later a temporary boundary was established within a sixteen mile radius of Musangnuvi on Second Mesa. The Navajos agreed to withdraw their flocks beyond this line by January 19th (ibid:90-91). While the troops remained, this agreement lasted, but by February 1892:

...Ralph P. Collins complained of trespasses by Navajos. The next year Special Agent John S. Mayhugh reported the presence of Navajos at Jeddito Spring, well within the sixteen mile limit, and the destruction of the boundary markers (Collins to CIA 2-12-1892; Mayhugh to CIA 7-19-1893, in *ibid.*).

In the meantime, “Hostile” Hopi leaders from Orayvi were incarcerated at Fort Wingate for eighteen months for their actions against Allotting Agent John S. Mayhugh’s allotment survey of the Hopi Reservation and for refusal to send their children to school (Whiteley 1988a:78-80). Similar events in 1894 led to the incarceration of nineteen Orayvis at Alcatraz for almost a year (Whiteley 1988a:86-88). Clearly a major source of frustration was the Government’s failure to act to protect Hopi lands and waters.

Mayhugh attempted to protect Hopi farms at Mũnqapi and elsewhere in the Tuba City area by issuing nine homestead allotments there to Hopis in 1893 (this area was still not included on any reservation). Mayhugh became aware of the problem Hopis were experiencing with Mormons in June 1892:

The Oraibis claim that their families once owned all of the land at Tuba City and used all of the water and the Mormons came there about 20 years ago and commenced driving them gradually from the best land and have taken the water until they have little or none – they further state that one Lot Smith a leading Mormon plowed up this spring the planted crop of corn, beans, and melons of one family.... [Lot Smith had just in fact been killed by a Navajo man in a dispute over pasturage]. Supt. Collins [of the Hopi Sub-Agency] believes a great injustice has been perpetrated upon the Oraibi village of the Moqui tribe in this particular by the Mormon settlers, in which opinion I concur. It is believed that if the west boundary of the this reservation [i.e., the 1882 Hopi reservation] was established that most of the land would be within the limit of the Moqui Reservation (Mayhugh to CIA 6-22-1892, quoted in Godfrey 1988a:32).

Mayhugh’s idea that the land fell within the Hopi reservation was in error, but in making this recommendation he echoed earlier and later official sentiment to extend the western boundary to incorporate Mũnqapi, the Moencopi Wash, and the surrounding area. Mayhugh proceeded to allot 601

acres to nine Hopis along Moencopi Wash, and 167 acres to three Navajos (Godfrey 1988a:34).

Troubles persisted with the Mormons, however, and Mormons continued to forcibly appropriate active Hopi fields. In 1896, Acting Navajo Agent Constant Williams came from Fort Defiance to investigate (the Hopi were included as a sub-Agency under the Navajo Agent from 1883-1899). As Godfrey reports:

He [Williams] confirmed that several Mormons had taken from the Hopi the dam and ditches around Moenkopi, and had falsely obtained a decree from local courts awarding them, as prior and original appropriators, all the waters of Moenkopi Wash. Major Williams recommended an extension of the 1882 [i.e., Hopi] Reservation to include the entire Tuba City area (Godfrey 1988a:36).

The following year, in response to William's recommendations, Indian Service Inspector James L. McLaughlin was sent to investigate and report on extending the Hopi reservation boundaries (*ibid.*). McLaughlin reallocated the lands (to eleven Hopis and five Navajos), and began a process that led to the establishment of the area in reservation status:

On January 8, 1900, by executive Order, the Moenkopi Wash and the surrounding area west of the 1882 reservation were "withdrawn from sale and settlement until further orderd." The Executive Order did not spell out whether the area would be attached to the Navajo or Hopi reservation and there were differing opinions on which tribe should benefit (Godfrey 1988a:39-40).

As Godfrey points out, a number of recommendations were that the area should be added to the Hopi Reservation, and all the Moencopi Wash should be included. In 1900, Commissioner of Indian Affairs William A. Jones, recommended this, as did Hopi Agency Superintendent Charles Burton, who noted that Hopis at Mũnqapi were also "residents of this [1882 Hopi] Reservation and are exceedingly anxious that they be brought under the control of this Superintendent" (quoted in *ibid.*:40-41).

Complications over farming and water rights in the Mũnqapi persisted for a long time. But what

is eminently clear is that Hopis had used this area since prehistory for farming a variety of crops, including still in the late nineteenth century, cotton.

By 1900 Navajo encroachment on the Hopi Reservation had not been resolved, and Navajos had not removed their livestock from within the sixteen mile limit around Musanguvi. Agent Burton reported in 1899:

*Trespassing. Many Navajos from the Navajo Reservation have settled along the water courses and at the watering places on Moqui land. Why this has been allowed I cannot understand, as the Navajo Reservation is the largest in the United States and the Moqui Reservation is comparatively small. These places taken by the Navajoes are the very best ones on the reservation and control most of the water supply. The two tribes are bitter enemies, and there is constant friction, stealing of horses, destroying of each other's crops, fighting, and murder going on among them.*

...I earnestly recommend that...the Navajo be returned to his own reservation or placed under the control of the superintendent (ARCIA 1899:382-4, emphasis added.)

Again in 1900, Burton noted:

The Hopi are a very submissive and law-abiding people and seldom give any trouble save when the Navajo, who are domineering and aggressive, seek to impose on them. The Navajo have been allowed to encroach upon the Hopi Reservation for years, taking possession of the best watering places, best farming and best pasture land, and a great deal of trouble grows out of this. It should not be tolerated for a day (ARCIA 1900).

Subsequent government inaction is reflected in a 1914 inspection report by H.F. Robinson, Superintendent of Irrigation for the Indian Service:

In connection with the development of underground water for the Hopi Indians, a condition of affairs has been discovered that, unless corrected is bound to spell disaster for these Indians.

I refer to the continued encroachments of the Navajo Indians upon the limited grazing lands and upon the springs and water holes that belong rightfully to the Hopis.

With the development of water by wells and improving the springs, and the natural increases of their flocks, together with the wornout condition of the grazing near their mesas, they [the

Hopis] now desire to move out further with their flocks, and find that the thrifty and pushing Navajos have preempted their land and water [on the 1882 Hopi Reservation] and by gradual but continued encroachments has hemmed them in, and their area is now so restricted that they are only able to work out a very short distance before they encounter the flocks of the Navajos with their aggressive disposition, who drive the Hopis back toward the mesas and prevent them by force, from grazing their flocks on their own lands which have been preempted and are now occupied by their neighbors and enemies.

To make the matter worse, it seems as though the government was assisting the Navajos to crowd the poor and peaceful Hopi to the wall, for I am informed that there has been some 300 allotments [never ratified] of Navajos made within the boundaries of the Hopi reservation and many of these allotments include the good springs, and most of the available water in the reservation, and even should the Navajos not resort to force, as they have done, to prevent the Hopi flocks from using the grazing land, the fact that they occupy and control the water holes and springs would be sufficient, as the control of the water naturally gives control of all the surrounding country.

It would appear that the situation is one that merits some action and immediate attention from the Office, because the situation is continually growing worse. The characteristics of the Hopi will cause him to suffer in silence, and in his capacity for accepting punishment and oppression quietly and submissively is far in advance of the Quakers.

When told that they should go to the Superintendent at Keams Canyon, they will drearily and hopelessly say that "it is no use, the Superintendent will not help us. The Government will do nothing, and in the mean time the Navajos take another spring and a little more grass land. If the Government wants to help us why does it allot our land and our springs to the Navajos, and back them up in every quarrel?" With the exception of a few individuals they are hopeless in the matter, and feel that they are being crowded to the wall, and the only ray of light or hope they have, has been given them by our service in developing additional water for them.

As the Navajos are rapidly increasing in numbers and their flocks are also increasing, it will be but a short time before they would again encroach upon the Hopis, and the Department would have to be vigilant to prevent their return (Robinson to CIA 5-26-1914, in Stephens 1961: Appendix A, 204-207).

Again in 1920, Agent Daniel, noted:

the Navajo population has encroached upon the Hopi Indians...the Hopi is gradually being deprived of his water, land and pasturage. Unless positive corrective measures are taken by the Government the Hopi Indians will soon be a charge upon the Government, or objects of charity for the public to consider (quoted in James 1974:176).

And lastly General Hugh Scott, in a report partly quoted above, noted in 1921:

There were undoubtedly a few Navajos living on this land before the reservation was set apart for the Hopi,... but the many Navajo who have come in since, in defiance of orders, should be put off and kept off the Hopi Reservation by force, and the Hopi protected in their rights (Scott [Board of Indian Commissioners] to Chairman George L. Vaux, cited in Stephens 1961:101).

*Records of the Hopi Economy at the Beginning of the Reservation Period*

Even throughout this period of conflict over resources with Navajos and Mormons in the late nineteenth century, the industriousness of the Hopi economy, noted repeatedly by visitors since the 16<sup>th</sup> century, actively persisted. Hopi production during this period remained at a high level. In 1890, Navajo and Hopi Agent C.E. Vandever produced the most comprehensive annual report by an Indian Agent to date on Hopi life. Vandever's report amounts to a survey of the gross domestic product of the Hopi economy, and provides a significant insight into Hopi production at that juncture. Again, however, it should be borne in mind that the Hopi population Vandever reports in 1890 was significantly lower than earlier reports in the century, one fifth the size of estimates in the mid-18<sup>th</sup> century, and perhaps a mere 7.5% of its pre-contact level (using Upham's figure of 29,305). Vandever foregrounds contrasts between Hopi and Navajo approaches to resource use and production:

The Navajo cherish an inherent scorn for manual labor, planting only in an amateur sort of way, and consume much of their field products before the harvest season has well ended. The Moqui are of a stock long inured to toil, and delight in field labor, persistently cultivating their sandy valleys; they are prudent as the Navajo are improvident, and few of their houses but contain sufficient provisions to last between harvests....

The nearest flowing stream is more than 40 miles away from the villages, but several springs at the base of the cliffs afford them ample water. They do not practice irrigation [see my remarks querying the application of this term], but the sandy valleys retain enough moisture to germinate the planted seeds, and barring an exceptionally dry season they generally secure abundant crops of corn and Indian vegetables, squash, beans, and melons. In a limited way they make small terrace gardens on a slope near a convenient spring and irrigate them with small streams, but twenty acres would probably cover all the ground they now cultivate in this way [a significant underestimate: see Scott below]. In a limited way they also cultivate cotton and wheat, although according to tradition their cotton fields were formerly very extensive. But their most inviting product is that of their numerous peach orchards, which are set out everywhere around their villages, except in the valleys. On the high mesa summits, and in the almost vertical sand dunes which cling to the mesa sides, thick clusters of peach trees grow luxuriantly with but the scantiest care, and yield delicious fruit in abundance.

I estimate their field products as follows:

Planted in corn:	Acres
East mesa [1st]	900
Middle mesa [2 <sup>nd</sup> ]	700
Oraibi	1,000
Total	2,600

which at 15 bushels per acre equals 2,184,000 pounds.

Disposed of in this manner	Pounds
Consumed	800,000
Bartered to Navajo for say 300,000 pounds mutton and other objects	700,000
Sold to traders	100,000
Fed to animals and wasted	50,000
Surplus stored	534,000
Total	2,184,000

There are about 1,200 acres planted in melons, squashes and beans, and their scattered orchard groups must comprise an area of perhaps 1,000 acres, and especially within the last few years the custom of setting out new seedling orchards has become very common. From a very ancient time the practice of allowing some of the arable stretches to lie fallow for several years has also been customary. Probably three-fourths of the peaches are consumed while fresh, the remainder being spit open and dried upon the rocks and housetops for future use, and this dried fruit is of most excellent flavor. They begin eating their melons from the time they first

come in blossom, but the yield is generally so abundant that they hold melons stored in their cellars until well into January and even February.

They graze their flocks in the valleys, not far from the villages, and nightly drive them home, shutting them up in walled pens along the ledges of the mesa cliffs. They number about as follows, the largest herds being at Oraibi:

	Sheep	Goats
Rams	500	160
Wethers	3,300	340
Ewes	10,000	2,800
yearling increase	1,200	200
Lambs	3,000	800
Total	18,000	4,300

They consume about 1,800 of their own sheep, and 650 goats, and something over 300,000 pounds of mutton and goat flesh bartered from the Navajo.

A constant source of bickering between them and the Navajo are the encroachments of the latter....

The Moqui resources and income may thus be tabulated:

	Value	Sold during year	
		No.	Amount received
Horses, 1,200 at \$10	\$12,000	50	\$ 500
Burros, 3,000 at \$4	\$12,000	125	\$ 500
Sheep, 18,000 at \$2	\$36,000	.....	.....
Goats, 4,300 at \$1.50	\$ 6,450	.....	.....
Cattle, 800 at \$18	\$14,400	50	\$ 900
Wool, 24,000 lbs at 9 cents			\$2,160
Wool manufactured, 13,500 lbs )			
Cotton fabrics, basketry, etc. \$ 1,500 )			\$3,500
On hand:			
Silver ornaments	\$ 4,000	.....	.....
Coral and turquoise	\$ 2,000	.....	.....
Corn, etc.	\$5,340	.....	\$1,000



drink, or wear, except coffee, tea, sugar, and some spices. These they buy from the traders. they have considerable personal property in the way of silver, jewelry, turquoise, household furniture, blankets, etc. Silver is preferred to gold for jewelry or ornamentation.

The amount of cotton raised and made into cloth is not estimated, but the Moquis used to spin and weave enough cotton to make light summer clothing for their people; of late years they wear but little clothing of their own manufacture, as they can buy cloth cheaper of the traders than they can raise the cotton.

#### THE ANNUAL FOOD SUPPLY OF THE MOQUI PUEBLOS.

The Moqui Pueblos contain 1,996 people ["Oraibi partially estimated"]; to properly feed and clothe so many people requires thrift and labor, especially when the barren country in which they live is taken into consideration. In 1890 and 1891 the corn crops were as follows:

	Acres
First mesa	1,000
Second mesa	1,000
Third mesa (Oraibi)	1,600
Total	3,600

The yield per acre is about 12 bushels, and there are about 56 pounds to the bushel, so that in the 3,600 acres there would be-

Bushels	43,200
Pounds	2,419,200
	POUNDS
Home consumption	919,200
Bartered to Navajos for sheep, goats, etc.	650,000
Sales to traders	150,000
Surplus stored	700,000
Total	2,419,200

The above, of course, is an estimate made from information gathered at the trading posts and a general observation of the land under cultivation.

The peach orchards and vegetable gardens yield ample fruit and small vegetables and melons. The onion garden at Weepo [Wipho], used in common, is of great service to the

people. There are about 2,000 acres planted in vegetables between the 7 villages that are tilled by the Moquis collectively, distributed thus:

First mesa	500
Second mesa	500
Third mesa (Oraibi)	1,000
Total	2,000

There are fully 1,000 acres in peach trees, distributed as follows:

First mesa	300
Second mesa	200
Third mesa (Oraibi)	500
Total	1,000

The peach orchards are located among the sand hills at the foot of the mesas, with the exception of 2 on the first mesa, 1 on the 2<sup>nd</sup> mesa, and about 20 on the third. Oraibi is built on one of the lower "benches" of the third mesa. The sands have drifted over the bench toward the north and northwest, forming large hills, which have all been covered with peach trees. The peach, vegetable, and melon crops are worth at least \$10,000 per year. The Indians eat great quantities of peaches when ripe and dry the remainder for winter use.

#### VALUE OF THE MOQUI REALTY.

The total estimated value of the Moqui realty is \$188,000. This only includes the area they now use. There is water enough to irrigate 6,000 acres more of agricultural land, which would be worth \$40 per acre; or \$240,000.

The Moquis 3,600 acres of corn land. They have water for this, and these lands are cheaply estimated as of the value of \$30 per acre (*the water being the real value*), or \$108,000.

They have 1,000 acres of peach orchards of a value of \$20 per acre, or \$20,000, and 2,000 acres of garden land, at \$30 per acre, \$60,000 (*the water, making cultivation possible, is the real value*), in all \$188,000.

This estimate of value of the lands is based upon the common and average value of lands of like character in New Mexico and Arizona adjacent to the Moquis, and in view of the fact that considerable outlays for ditches and irrigation will be necessary. Similar lands with



wild “greens;” not to mention mineral resources, some of which are collected at great distances from the mesas). Shortly after Scott’s survey, Walter Hough, of the Smithsonian Institution, investigated the collecting practices in the Hopi economy:

The Hopi are assiduous collectors. A catalogue of the substances brought to their pueblos from long distances would awaken surprise....Every house is a museum of the environment, with specimens from the mineral, animal, and vegetal kingdoms, and every Hopi is a repository of knowledge as to places where materials may be secured. Time and distance are little thought of when it comes to procuring the materials desired (Hough 1900:465).

And, writing of a four-hundred mile round trip for moccasin-dye, Hough observes:

These journeys are common, for the Moki [Hopi] is no stay-at-home, but roams far beyond the widest view from the high vantage ground of his village, visiting the former seats of his people of by-gone centuries. Thus he knows the flora and fauna over a wide region, and is as much at home in the White Mountains as on the Great Colorado. In former times, he may have journeyed to the Gulf of California for precious sea-shells, to be used as ornaments and for ceremonial trappings, or made long quests for the much prized turquoise [possibly to the Kingman vicinity], just as he now goes to the Coconino canyon [Cataract Canyon] for baskets or deerskins. His face is familiar at Zuni, where he fares often on a neighborly visit (Hough 1898:138).

Thus Scott did not include any calculation of the water needs for these other Hopi economic practices, or for their religious uses and interests. His estimate of the springs was clearly very generalized.

#### *Hopi Water Resources at the Beginning of the Reservation Period*

In 1892, during a survey for allotments that were never ratified, Special Allotting Agent John S. Mayhugh recorded the first fairly well rounded list of springs distributed about the Hopi Mesas that includes notations of use, and also map coordinates (not included below). This list appears to have been part of a broader survey, that included the Dinnebito Wash and noted some springs along it. The list of springs and water sources below was clearly not intended by Mayhugh to have been complete.

Mayhugh reported:

In company with Superintendent Collins of Keam's Cañon Boarding School I visited and examined some forty springs at various points and places of the reservation on all sides of the three Mesas many of which are outside of the recent survey. Some of these springs discharge quite a volume of pure cold water particular the springs some fifteen miles to the north west from the present school Building [Wipho?].... Beside the above-mentioned water supplies I found in the neighborhood of the third Mesa some ten springs or watering places in close proximity to several large peach orchards belonging to the Oraibi's. These with other watering supplies... will increase the number of springs or watering places to 60, of which number there are about 18 or 20 that only supply sufficient water for one or two families, exclusive of the Non,ock,a,way [Munaqvi - Sand Springs, referring to the Dinnebito Wash] wash or chasm and also a reservoir or small lake of water that is situated some 20 odd miles south of the first Mesa where there are two large springs running out of the hill some 200 yards into a depression, this water lasts the entire year and is two miles north from the southern boundary of the Moqui Reservation 4-5....

Around the Oraibi's Mesa and vicinity there are some springs and I have no doubt but that other springs and water supplies may be found upon further explorations....7

With a view of discovering further water supply I visited and examined a certain wash or chasm known by the Indians as Non,ack,away [Munaqvi] which runs nearly north and south and carries water for the distance of eight miles and is situated at or near the 111<sup>th</sup> meridian or western boundary line of the Moqui Reservation being about 20 miles west from the Oraibi's Mesa to the point where the water in the wash or chasm makes its first appearance seemingly coming from both sides, and the bottom of the wash being very little at first but increasing as it flows southwards.... (Mayhugh 4-5-1892:4-8)

Mayhugh's listing of springs is arranged approximately from First Mesa to Third (with some deviations to Awat'ovi, Jeddito, and south of Second Mesa). The quality of information decreases as he moves west (the Orayvis, in particular, resisted the allotment survey). Nonetheless, his listing is useful (modern orthographic transcriptions have been inserted below each spring, when known):

- |                       |              |   |
|-----------------------|--------------|---|
| 1. Ease e bah         | Coyote Water | This water is a large pool and excellent water used for drinking water of the Tewa people |
| [Isva, Coyote spring] |              |   |

2. Ko kuong bah Spider Water  
Belongs to the Che chung gove  
[Sitso' movi] Village people for drinking  
water  
[Kohkyangwva, Spider spring]
3. To bes ke bah Hole Water  
Belongs exclusively to Walpi Village  
people for drinking water  
[Tuveskya, Pinon canyon]
4. Ong ah pillu lu Long hair water  
Water good and used by the Walpi  
people for domestic and stock use  
[Angapöiva, Long-hair katsina spring]
5. Tow wah pah Sun water  
Ceremonial or sacred water a deep  
pool of not very good water used for  
stock by Walpis  
[Tawapa, Sun spring]
6. Mung whee bah Big Chief water or pool  
Belongs to the Tewa Village People  
[Mongwiva, chief's spring]
7. Wu cot pah Big pool  
Ceremonial sacred water. Good water  
[Wukotpa, Big pool]
8. Tar pah Polacker's Well  
Good cold water well 12 feet deep  
[?]
- 9 & 10. Par wick pah Turkey Water  
Two small springs. Good water  
[Paawikpa, Duck springs]
11. Co nay lee bah Sheep water  
Large pool of water - also Peach  
Orchards  
[Kanelva, Sheep spring]
12. Wu coo bah Big water )  
13. We poo Water cress )  
These two Springs [13 and 14]  
reserved for  
School purposes and the Moqui  
Indians being necessary for the  
maintainance [sic] of those who have  
allotment of land in that locality and is  
also used for domestic purposes by the

Indians and they raise some vegetables such as onions, beans, chilles etc.

[Wukoova, Big spring; Wipho, Cattails spring]

14. Chille bah           Chille Water           Used for domestic purpose by the Indians who have allotments in that locality

[Tsiliva, Chile spring]

15. She hip pi yah   Cotton wood tree water   Good drinking water necessary for the also Tuk beu li wah   Hawk water - at Keam's storeallottees in that vicinity  
[Söhöpva, Cottonwood spring; and ?]

16. We shook bah   Bird with red head water, or Nar hay water, at Keam's Canyon   Used for domestic purposes by allottees

[Wisoqva, Buzzard spring; Ngahuva, Medicine water]

17. Wee ki be           Yellow stone or Grass water   very small spring, sufficient for one family

[?]

18 & 19. Ter te he be bah   Old House water at Awatobe   Contains two large springs fine water discharging 2½ inches [?] also a large Peach orchard - water very necessary for the use of all the Indians having lands allotted in that locality it being the only available drinking water at hand

[?]

20 & 21. Che chung go ve springs   Che chung go ve springs   dug by Che chung go ve people at Awatobi, two good springs

[Sitso'movi springs, at Awat'ovi]

22. Lay moong bah   Snow Water           affords a supply for 1 or 2 families

[Lemova, Hail spring]

23. He we bah           Dove or Pigeon water   affords a supply for 1 or 2 families

[Höwiipa, Dove spring]

- |   |                                   |   |
|---|-----------------------------------|---|
| 24. Chai chuch bah at Old ruins at Awatobi or Ke oye coi<br>[?; Kiiqö, ruins] |                                   | Small pools or seepages   |
| 25. Jetty Toe   | Deer or Antelope Water            | Good water and necessary for the Moqui Stock and Allottees in that vicinity |
| [Navajo name]   |                                   |   |
| 26. Hu cat we bah<br>[Hukyattwiva, Windy Point spring]                        | Many wind water                   | Small Spring  |
| 27. Hu hi bah<br>[Hövawpva, Gully spring (?); Pöpsö, Rincons wash]            | Crevice Water on Pipsy Wash       | A large stream of splendid water  |
| 28. Lai cot bah<br>[?]  | On Pipsy wash south               | Small stream of good water  |
| 29. Teel to chee  | Bird water called Navajoe Springs | This contains a large spring of very good water and is used watering stock  |
| [Navajo name]   |                                   |   |
| 30. Pipsy Bay whee<br>[Pöpsöva?]  |                                   | Small spring where Moquis raise vegetables                                  |
| 31. Co coke bah<br>[Wukoqva?]   | Big water                         | Used by Mashongove [Musangnuvi] people's stock                              |
| 32. Pu hoo bah<br>[Puhuva, new spring]  | New water                         | Used by Mashongove [Musangnuvi] people's stock                              |
| 33. Mo ree bah<br>[Moriva, Beans spring]                                      | Bean water                        | Small spring where Tewa raise beans   |
| 34. Lee coi bah   | Pinion Water                      | Situated to the northeast of Tewa   |

- [Löqöva, Pinyon spring] Village and probably about 7 miles; used by the Tewas for stock; necessary for stock owned by Tewas
35. Be sah pel ve Large pool used by Mashongove [Musangnuvi] people  
[Pisapelva, Sand dune slope spring]
36. Hoon in pah Small pool used by Mashongove [Musangnuvi] people; also Peach orchards  
[Hontöpöva?]
37. Tu ree bah Small pool used by Mashongove [Musangnuvi] people; also Peach orchards  
[Toriiva, Twist spring]
38. Non u cah bah Large pool used by She-pol ove [Supawlavi] people  
[Aqwpi?]
39. Nai she bah Large pool used by She mo po ve [Songòpavi] people also contains Peach Orchards raise vegetables such as Onions, chilles, and beans  
[Masiipa, Grey spring]
- 40, 41, 42. Mar tah be springs Burro Springs 3 small springs or seepages of poor water yet all there is in that vicinity for stock  
[Matövi, lit. "Pushing place" = Burro Springs, below Little Giant's Chair]
43. Pah itch bay wah Hoonane Springs Small springs of good drinking water  
[Pa'utsvi, 'Water enclosed place'; used by the late 19<sup>th</sup> and early 20<sup>th</sup> century Songòpavi leader, Honani]
44. Pah itch bay Hoonane Springs Good but small springs  
[Pa'utsvi, 'Water enclosed place'; used by the late 19<sup>th</sup> and early 20<sup>th</sup> century Songòpavi leader, Honani]

45, 46, 47.	Keam's Canyon Boarding School	School spring	Three Splendid Springs of good water
48.	Orabi Springs		Large pool used by the Orabi Village people also peach orchards
49.	Orabi Springs		2 large pools used by Orabi and School contains some 20 odd Indian houses built by Gov.
50.	Orabi Springs		Contains 2 large pools for watering stock also Peach orchards
51.	Oribi Springs		Large pool also peach orchards
52.	Oribi Springs		Large pool, contains peach orchards
53.	Lo lo lo my Springs		Contains 2 springs also group of houses built by Government for Indians

[Mumurva, Marsh spring, used by late 19<sup>th</sup> century Orayvi Chief Loololma and his family]

(Mayhugh 1892)

Again, this is obviously incomplete in its count of springs at and near Orayvi; it does not include the area of the Moencopi Wash (which, as noted above, Mayhugh did allot, principally to Hopis, during this period) since that did not fall within the 1882 Hopi Reservation; and it does not include more distant springs and water sources that anthropologists like Jesse Walter Fewkes were beginning to record during this period (like Siipa, modern Seba Dalkai, and Sakwavayu, Chevelon Creek). But this is nonetheless a good early indication of major Hopi water sources in use in 1892 around the 3 Hopi Mesas, at Keam's Canyon, Awat'ovi, Jeddito, and in areas south of First and Second Mesas.

### *Conclusions*

- 1) Since prehistory, Hopis have used the water and other resources of the Little Colorado River watershed, especially from its confluence with the Rio Puerco of the West to its confluence with the Colorado.
- 2) In 1540, at the time of first contact with Europeans, Hopis continued to use this entire area, and still when first recorded by ethnographers in the late 19<sup>th</sup> century, displayed knowledge and use of resources in a much larger area - from the Gulf of California to the Rio Grande, from the Verde River to the San Juan River.
- 3) Numerous Spanish records - of expeditions, missions, and explorations - from the 16<sup>th</sup> century to the 19<sup>th</sup> century record exclusive Hopi use and occupancy of this area, including the resources of the Hopi Washes and the Little Colorado River. Some presence of Havasupai and perhaps other Pai peoples was largely non-competitive with Hopi, and later reports of ethnographic centers for these tribes place them outside these immediate areas (on the Colorado River, and north of Black Mesa, respectively). Navajo raiding upon and trading with the Hopi towns begins in the 18<sup>th</sup> century, but the Hopi exclusively occupied the Hopi Washes late into the 19<sup>th</sup> century.
- 4) Spanish incorporation of the Hopi Province into New Mexico proceeded on the basis of codified Acts and Laws pertaining to the Indies that remained in force throughout the Spanish and Mexican periods. These laws explicitly protected pre-existing Hopi rights to water and other resources, and implicitly recognized traditional techniques of landscape-modification to enhance water-delivery to fields.
- 5) De facto Hopi independence from the Spanish state from 1680-1821 accompanied a repeatedly

articulated sense, by both Spanish officials and Hopi representatives, of continuing de jure Hopi inclusion within the Spanish state.

6) The United States explicitly succeeded to these guarantees of Hopi rights, since Hopis were citizens of Mexico, under the Treaty of Guadalupe Hidalgo in 1848.

7) Hopis persistently expressed interest in the protections afforded by their inclusion with the United States, by visits to Santa Fe in 1850-52, and in a diplomatic communiqué to President Fillmore in 1852. Subsequent representations of Hopi interests in their lands and resources are found in visits to Salt Lake City (1862, 1870 etc.), Prescott (1866 etc.), and Washington (1890).

8) Creation of the Hopi Reservation in 1882 followed several earlier recommendations, from 1874-1880, that explicitly recognized Hopi use of the Hopi Washes up to and including the Little Colorado River from the Rio Puerco of the West to the Moencopi Wash.

9) The 1882 Hopi Reservation was created to protect Hopis from encroachment by Navajos and white settlers.

10) The United States failed to uphold Hopi rights to resources in the 1882 Reservation despite repeated Hopi protests against Navajo encroachment.

11) The Government initially protected Hopi water rights in the Mùnqapi area, by assigning allotments there.

12) Hopi population as of 1900 was not a reflection of aboriginal Hopi population, or historic Hopi population, which was significantly higher. Hopi water resources guaranteed by the Spanish crown, resources that supported the Hopi economy and Hopi religious uses, were used historically by a significantly larger Hopi population.

13) The Hopi economy utilized water resources extensively and efficiently. All historic observers remark on the industriousness of Hopi production - of "immense fields." Reports of cotton fields identify the Hopi as historically the predominant producers of finished and raw cotton for the Western Pueblos and farther east also.

It may be fitting to close with some remarks by Theodore Roosevelt, who visited the Hopi Mesas in 1913. Against some existing policies, Roosevelt argued that the Hopi should be allowed to maintain their traditional culture. Describing the Snake and Antelope ceremonies, and echoing some of the first remarks by Coronado in 1540 concerning the Pueblo Indians' worship of water, Roosevelt emphasized:

These dances are prayers or invocations for rain, the crowning blessing in this dry land. The rain is adored and invoked both as male and female; the gentle, steady downpour is the female, the storm with lightning the male. The lightning stick is "strong medicine," and is used in all these religious ceremonies. The snakes, the brothers of men, as are all living things in the Hopi's creed, are besought to tell the beings of the underworld man's need of water... (quoted in James 1974:173).

In sum, Hopi interest in water resources is absolutely pervasive in Hopi culture: water is not merely an element of the economy, it is fundamental to the conception of Hopi being itself. That interest is graphically demonstrated from the records of the first Spanish observers up to the first years of American responsibility over Hopi lands, and indeed very actively persists into the present.

Appendix: Hopi Population Estimates 1520-1900

1520	29,305	Upham 1992:94
1582	12,000	Luxan 1929:39
1604	3,000	Escobar 1604 ("500" occupied houses; cf. Whiteley 1988a: 16)
1634	10,000	Hodge, Hammond and Rey 1945
1643	3,036	Scholes 1929:49
1680	16,500	Vetancurt 1692 (Hodge, Hammond and Rey 1945:298)
1745	10,846	Delgado 1745 (Hackett 1937, III)
1760	8,000	Lezaún 1760 (Hackett 1937, III:469)
1775	7,497	Donaldson 1893:15
1780	2,450	Donaldson 1893:15
1851	6,720	Sitgreaves (Whipple 1853-54:13)
1852	8,000	Donaldson 1893:15
1861	2,500	Donaldson 1893:15
1862-63	4,000-7,000	Poston (Donaldson 1893:15)
1863	4,000	Carson
1865	3,000	Donaldson 1893:15
1869	4,000	Donaldson 1893:15
1874	1,950	Donaldson 1893:15
1890	2,200	Vandever 1890:168

1905	2,100	Kunitz 1972:9
1930	2,752	Kunitz 1972:9
1940	3,444	Kunitz 1972:9
1950	3,528	Kunitz 1972:9
1968	6,000	Kunitz 1972:9

(partly taken from Rushforth and Upham 1992:109, with additions.)

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