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LAKE MEAD

NATIONAL RECREATION AREA / NEVADA

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HISTORIC RESOURCES STUDY
LAKE MEAD NATIONAL RECREATION AREA, NEVADA

by

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A NOTE ON METHOD

As has been noted already, this project to identify the historic resources of the Lake Mead National Recreation Area was cooperative in nature and many persons participated with great willingness.

The contract focused on the history of ranching and mining with Mike Belshaw as principal investigator and Ed Peoplow, Jr., devoting himself to the nonfield elements of mining. The assignment was, unfortunately, a brief one and, both literally and metaphorically, a lot of ground had to be covered in the nine months of the project's existence. Sites to be examined were scattered over 2,500 miles and at times were difficult to locate, even with the aid of maps. In the case of some mines, even when a shaft, headframe, or shack was located, there was no evidence to indicate the mine's identity. To complicate matters, a rancher on the Shivwits Plateau locked a gate on the only road giving access to many sites and immediately after a temporary truce had been negotiated, the wettest winter on record began. Fearing to get caught in a winter snowstorm one hundred miles from pavement, the PI had to double back in retreat. Several times field trips were cut short by weather and penetrations had to be repeated at a later date.

The poor weather was, to some extent, a blessing in disguise however. In May, a small group hiked out Separation Canyon in order to get a better understanding of the problems faced by the men who left Powell's party in 1869. The winter rains gave us the benefit of flowing water in much of the canyon when normally--in recent years, that is--there would have been none.

In the process of searching out ranching and mining sites, and conducting oral history interviews, the PI became aware of the importance of several historic trails within the Recreation Area. Basic research was done on these and, since they all extend beyond the NRA into lands administered by the Bureau of Land Management, it is clear that a joint NPS-BLM research effort would be beneficial for the identification and preservation of these historic resources.

A cursory examination of the bibliography should indicate that literature bearing upon the Recreation Area is scant. Enquiries made to archives yielded very little. Fortunately several persons still alive participated in events that shaped the region's development and most of these cooperated marvelously. The reader is especially recommended to listen to the Englestead tape if the opportunity arises.

While there is no doubt that further time and effort would yield more information, especially on the Shivwits, the PI believes that the historical essence has been captured. Only one major puzzle needs to be resolved--that of the Dunn Inscription--although the report makes recommendations for further research of a somewhat lower order of priority.

PART ONE

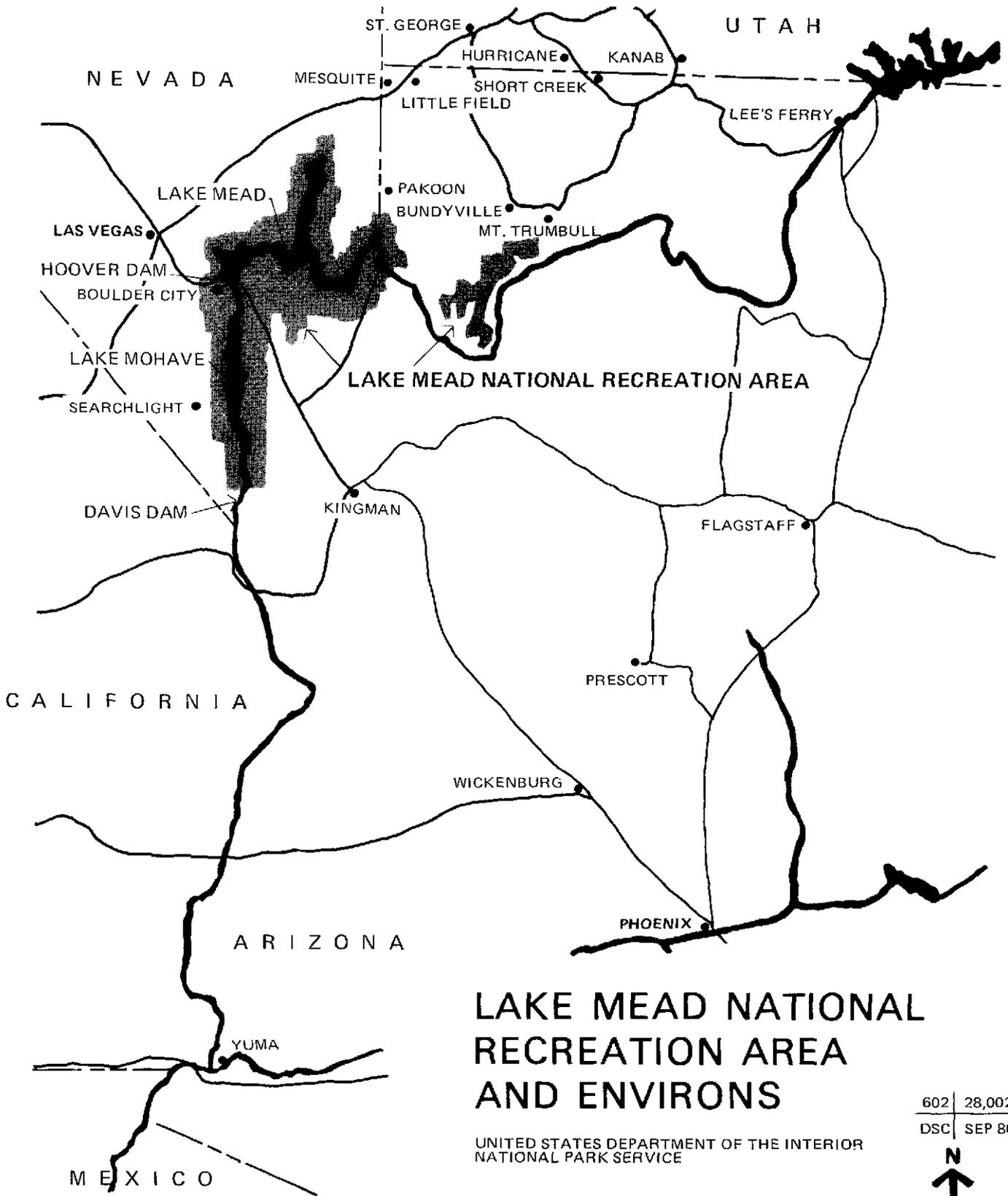
HISTORY OF THE LAND AREA OF THE LAKE MEAD
NATIONAL RECREATION AREA

INTRODUCTION

High among the peaks of the Rocky Mountains, the Colorado River rises in perpetual birth. From here it falls to the sea, gathering on its 1,700 mile journey other streams such as the Gunnison, the Green, and the San Juan which are major in their own right. Together they call waters from seven states in the United States and from one in Mexico--Wyoming, Colorado, Utah, New Mexico, Arizona, Nevada, California, and Sonora--and drain some 246,000 square miles.

Most of the terrain through which the river flows is harsh and arid with little vegetation to hold the scarce rains. Thus, the abrading silt that the waters collect contribute to the creation of mighty canyons that confine the river for one thousand miles as it goes. These canyons, both those of the river and from its tributaries, deposit the rocks and create the falls that make navigation difficult or impossible.

The climate of the region, although arid, cannot be taken for granted. Indeed, the vast size of the drainage area and the pronounced changes in elevation--from sea level to over 14,000 feet--imply many climates. Searing heat at Yuma is likely to be simultaneous with snows in the mountains anywhere from Arizona to Wyoming. Seasonal variations occur, mainly in the form of severe winter storms leading to a spring runoff in May and June--paradoxically the driest months in the southern desert regions--and summer thunderstorms which often cause flash floods. It is perhaps the annual variation which is most problematical. At Yuma reported flows range from a dribble of 3,000 second feet to an uncontrollable torrent of 380,000 second feet.



LAKE MEAD NATIONAL RECREATION AREA AND ENVIRONS

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In 1905, one such torrent found a weakness in its banks where a canal had been excavated to carry Colorado waters to the farming settlements being established near the Salton Sea. The river followed the canal, and continuing flash and spring floods pushed aside human efforts to return it to its original channel. The Southern Pacific Railroad, in part to protect its interests in the Imperial Valley, and in part relying on a promise of reimbursement from the Federal Government, spent over \$3,000,000 of its own funds to establish dikes and check dams. Finally, in February 1907, the river was caged, but not tamed. Some means of controlling it would have to be found.

Much of the credit for the final solution resides with Philip David Swing, a California attorney and congressman, by whose persistence the Swing-Johnson Bill (H.R. 5773), the Boulder Canyon Project Act, was signed by Coolidge in 1928. Prior to that, in January 1919, the Governor of Utah called the seven states to discuss the Colorado River waters and, as a result, the "League of the Southwest" was formed. The League presented resolutions to the President and before Congress, and, in November 1922, the Colorado River Compact was signed in Santa Fe. This divided the river into Upper and Lower Basins and apportioned 7.5 million acre feet to each.

Work was begun on the Boulder Dam in 1931 by a consortium of contractors called the Six Companies and was completed in 1935. In September 1936, Boulder Dam, later renamed Hoover Dam, was inaugurated by President Roosevelt. Waters backed up some 105 miles behind the dam to form Lake Mead. In the process, historic and prehistoric sites were inundated, but dangerous floods below the dam were harnessed, irrigation waters were assured for large areas, and hydroelectric power was generated in time to make a significant contribution to the conduct of the Second World War. A

major land and water recreation area came into being, giving considerable summertime relief to residents of Nevada and Arizona.

However, the creation of Hoover Dam did not resolve the special problem of Mexico's claims to the waters of the river. As Frank Waters writes, by 1943:

The various works of the Colorado River Project were completed. Immense amounts of water were diverted through the All-American Canal and the Los Angeles Aqueduct. Boulder Dam was backing up the river. And 1,312,000 acres were under irrigation in the Upper Basin states, an 1,323,000 acres in those of the Lower Basin.

In Mexico similar changes were under way. It had been proposed to open up to development both the Mexicali Valley and the Mexican Delta of the Colorado River just as the United States had opened Imperial Valley years before. . . . But now the Mexican farmers woke up to what was happening. . . .¹

After a series of negotiations, Mexico and the United States signed a treaty in 1944 which among other things, allocated water to Mexico and committed the United States to build the Davis Dam to regulate the diversion of water to Mexico. This dam was completed in 1950, and Lake Mohave, 67 miles in length, filled in behind it.

The Lake Mead National Recreation Area, established in 1964, encompasses some 2,500 square miles of water and terrain and

1. Frank Waters, The Colorado, Holt, Rinehart, and Winston, N.Y., 1974 edition, p. 361.

surrounds both Lake Mead and Lake Mohave. Its southerly point of beginning is at Davis Dam from which it extends in a northerly direction to Hoover Dam, and from there to the northeast following the course of the Virgin River, and to the east, following the Colorado.

CHAPTER ONE

PREHISTORY, EXPLORATION, RIVER CROSSINGS, AND SETTLEMENT

THE SETTING¹

A. Topography

There is very little of the area under the jurisdiction of the Lake Mead National Recreation Area that cannot be described as rugged. Elevations range from 517 feet above sea level at Davis Dam to 7,072 at Mount Dellenbaugh on the Shivwits Plateau. Between these extremes, one is hard put to find a level patch of ground of any usable extent. Lake Mohave, which extends northward from Davis Dam, is only four miles across for a short distance at its widest location, and elsewhere is narrowly confined between abrupt canyon walls. These are penetrated by side canyons in only a few places. The general impression is one of barren, heaving mountains in any direction as far as one can see.

Lake Mead, at an elevation of 1,229 feet when full, is the largest manmade reservoir in the United States, and although wider in most places than Lake Mohave, is still confined throughout its length by cliffs and mountains. In some locations--in Overton Arm, for example--gentle detrital flood plains slope down from a distance. More generally, the lake offers a sense of confinement rather than space.

1. This section is not intended as a definitive discussion of the subjects covered, but only to give the background necessary to an understanding of the events discussed in the text.

Several important washes reach the lake, among them Las Vegas, Detrital, Grand, and Hualapai. Two live streams, the Muddy and the Virgin, enter at the head of Overton Bay. However, the lake fulfills its purpose by capturing and holding the waters of the Colorado River which reach it after disgorging from the Grand Canyon. Lake Mead has the capacity to contain two years flow of Colorado average runoff.

Before the construction of the dams, only one ford existed in the entire length under consideration. This was Ute Crossing just below the mouth of the Grand Canyon. At low water, the river at Scanlon Ferry was about a quarter of a mile across and cattle could be swum there safely.

One important feature of the area, just to the west of the Grand Canyon, is Grand Wash. This is a wide basin that enters from the north, and on its east side high cliffs, in a series of two steps, raise the terrain from lake level (1,200 feet approx.) to the Shivwits Plateau (6,000 feet approx.). The portion of Shivwits under the jurisdiction of LMRA is the southernmost tip of the Arizona Strip, an isolated and sparsely settled cattle range. The plateau extends in long points down towards the Grand Canyon. Its rim is abrupt and steep, and places of access are few.

B. Climate

The variations in elevation are associated with variations in temperature. Summer temperatures at lakeshore levels often exceed 100 degrees, whereas temperatures at, or below, freezing can occur less than ten miles distant on the plateau from September through May. Similarly snow is exceptional and rain infrequent in the lower elevations, but are more likely above 5,000 feet.

Thunderstorms, most frequent in July and August, can be intense and can precipitate flashfloods which rush down arroyos with an irresistible wall of water killing the unwary and unfortunate in their path. Rains and snows can make roads and trails on Shivwits impassable. Travellers and ranchers can be marooned for very lengthy periods. One learns to treat the weather with respect and to exercise great prudence.

C. Vegetation

As elevation, exposure, and the contours of the land create microclimates, vegetation adapts in great variety and variation of concentration. Much of the land appears extremely barren with only a light cover of creosote bush. Unless the rains are exceptional in lower elevations, grasses are likely to be found only near springs and washes. Cactus of various kinds are common and in some locations such as Hualapai Wash and Grand Wash, there are forests of Joshua trees.

At higher elevations, the piñon-juniper association begins, increasing in density as the Shivwits Plateau is reached. There, the forests are interspersed with savannah and sage. Near Mt. Dellenbaugh, thickets of ponderosa have at times been sufficient to support sawmills. The only other large trees are cottonwoods at the occasional oasis.

D. Fauna

Nevertheless, animal life is abundant. The lakes harbor many species of fish, and waterfowl are common, especially in the Overton State Wildlife Management Area. Lizards, snakes, mice, packrats, cottontails, and jackrabbits, or their evidence, persist over the entire land area. Similarly the coyote is omnipresent, but not necessarily visible. Other species tend to be more selective in their habitat. The feral burro is common near the lakeshore and

its tracks gouge hills and washes. Mule deer, on the other hand, inhabit higher reaches and the Arizona Strip is famous for these. Mountain sheep are dwellers of the high cliffs and are rarely seen.

Early Anglo explorers were attracted to the river by abundant beaver. Fairchild reports,

At that time there were many beavers along the Colorado River, and at night when my boat was tied up to a snag in the stream, at times these intelligent animals would be tantalizing. They had a peculiar habit of coming to the surface while swimming, elevating their flat tails with a peculiar twist and plunging it into the water making considerable noise--as 'plunk, plunk.' At times they would playfully dive beneath the boat and in 'plunking' spatter water upon me. On several occasions, when this became annoying, I turned loose my shotgun upon them, and not many moments elapsed after the report in each instance until the 'shoop' of astonished Indians could be heard. To prevent their locating me for an early call, I would cast my boat adrift, float several miles down stream and fasten to some newly found snag. There were a few ducks upon the river and large flocks of egrets (*ardea agretta*) in those days.²

E. Prehistory

Viewed from our current perspective, the prehistory of the area is essentially that of a hunting and gathering continuum upon which is superimposed the 700 year florescence of the pueblo

2. Mahlon Dickerson Fairchild, Pioneer Reminiscences: To The Colorado River 1862-1863, Ms. from Mohave Pioneers Historical Society. Written in 1904.

period. The Virgin and Muddy Rivers near the present town of Overton were the site of considerable habitation now called the Lost City. Most of the remnants were inundated by Lake Mead although some sites, consisting of stone rooms, are visible on benches above the waters. Other pueblo sites exist on the Shivwits Plateau.³

The key to the new way of life was agriculture. The domesticated plants offered a stable and reliable source of food; population could increase wherever food could be raised. Permanent dwellings, public works, a strong religion, great skill in old and new handicrafts, and great elaboration of design and form--all were possible when food was assured through farm or garden crops.⁴

Strictly speaking, pueblo dwellers practiced horticulture rather than agriculture. In other words, cultivation was by hoe or digging stick instead of with a plough. However, a technological shift was apparently occurring about the time of Anglo penetration, possibly as a result of a mediated cultural contact with the Rio Grand pueblos. Hamblin describes how the Santa Clara Shivwits used an ash stick with a wide point and how they pushed this through the soil in such a manner as to construct a continuous furrow as does a plough.⁵

The prolonged drought of 1276 to 1299 was associated with the abandonment of pueblo facilities. It is of interest that the

3. Interview with Mack Miller, Temple Bar, 26-12-77. An extensive site was seen by the author to the east of Blue Mountain.

4. Jesse D. Jennings, "Early Man in Utah," Utah Historical Quarterly, Vol. XXVIII, #1, Jan. 1960, p. 12.

5. Pearson Harris Corbett, Jacob Hamblin - The Peacemaker, Deseret Book Co., Salt Lake City, 1952, p. 53.

Piedes had a legend of how they forced the Moquis (Hopis) to leave the region, which may reflect a cultural memory of the exodus.⁶

Whatever the circumstances, the effect was the return of hunters and gatherers to predominance. These people, although living at a significantly lower material level than the pueblo dwellers had the resiliency to adapt to, and utilize more closely, the animal and vegetative environments. The great variety of these, even in the desert setting, was alluded to in the preceding discussion. A nomadic existence precluded fixed habitations or anything that could not be carried from one hunting or scavenging site to another.

Thus, the physical evidence is scant. Petroglyphs are found in many localities in the area and yam pits exist in a number of places including Nevershine near Tasi.⁷ The Englestead brothers vividly describe the Indians' marginal existence:

Homer Englestead: This Squaw Wash. We named . . . the shepherders named it Squaw Wash. There's an old squaw lived there alone. She lived off the land. She find rattlesnakes or anything she would eat and turkey, uh, turtle. If she found a turtle, she would, just put him in the pot and boil him alive. The turtle's a great thing for their food stuff and lasts for quite a while. And she lived there all that spring, but the next year when we went down, she wasn't there. But, they went in there by the herds in winter. You see over here to Overton, there was about ten thousand of those Indians lived there and they were progressive people. They'd

6. Ibid., p. 61.

7. See transcription of Englestead interview, p. 14.

only let one family have maybe five or six acres of ground and they were farmers. And, uh, and industrious people.

Earl Englestead: The Indian through here, they just lived on the land. And in the summer time you'd go up on the mountain and you'd find arrowheads almost any place you'd go. Because . . . and they'd always camp quite close to the water. They wouldn't camp on the water to contaminate it. They had their codes and they were pretty good to live right off the land.⁸

Although some of the Indians, as this squaw, lived a solitary existence, the usual social and economic unit among the Shivwits was the nuclear family. The families would join to become bands when antelope or rabbits were hunted. The Mojaves to the south were somewhat more sedentary and sub-tribal groups of several families tended to congregate. Fairchild describes how these people would hunt the mountain sheep:

And, by the way, it may not be inappropriate here to say something about the Big Horn--Ovis Montana. At that time they were quite numerous among the mountain ranges bordering the Colorado River, and occasionally they could be seen at the brink of the stream quenching their thirst. Sometimes a dozen in a herd would be startled from some watering place in the hills, when off they would go, with incredible fleetness, up to the steep mountain slopes heading for the most prominent peaks. Upon arriving at the top of some lofty cliff they would

8. Ibid., pp. 14, 15.

halt in silhouette against the clear sky and watch the departure of their disturbers until gone from sight. It was a wonder to me how they could gallop up these shingly inclinations with so little disturbance of loose rock which laid over the entire surface, and with so little noise. In hunting mountain sheep in those days the Indians had no firearms of any account, and had to depend upon their bows--using poisoned arrows. In preparing arrows for such use they usually took the liver of a hare, get a rattlesnake and enrage it, and cause it to strike the raw liver a number of times with its fangs. After doing this they let the liver lie in the sun until it became putrid when they would crush it to a paste and daub the points of the arrows with it. Thus provided, a score or two of hunters would start out. Those with the poisoned arrows--sharp shooters of the tribe--would go to the highest peaks within the scope of the country to be hunted over and station themselves at the most favorable places for concealment, near the run-ways of the Big Horn, and there abide the time until the quarry came. All such points of vantage would be patrolled for miles around. Then the skirmishers would start out and with great din scare the game and get it running, knowing it would hasten to some of the heights upon which the bowmen were waiting. When an Indian succeeded in piercing the flesh of an animal with one of his poisonous darts, the chase after that particular animal ceased, but the following day scouts would be placed upon its track and the trail followed until the carcass was found--all knowing that after the chase was abandoned a wounded animal would lie down and die from the effects of the poison. There being no hesitancy upon the part of the

Indian about eating the flesh of the animal killed in this manner, was proof that its toxic effect was harmless to their stomachs.

It was during the forenoon of September 24th that we broke camp and resumed our march under guidance of 'Hook-Nose.' Previous to starting he had had earnest conversation with a number of his tribesmen, and it seemed to refer principally to us, we were wary, for we were distrustful. Following the bank of the river eight or ten miles, our guide by pantomime made us understand that we were to leave the river and take to the mountains once more. In doing this we found a very rough trail, but there were several watering places, and we saw quite a number of mountain sheep. At each place where there was water would be heads of several Big Horns--still retaining the horns some of which being immense for so small an animal--and also shells of the large land tortoise, left by Indians after feasting upon their bodies.⁹

The gathering of vegetable products was critical to Indian survival. Acorns, yucca, grass seeds, and so on, had to be gleaned and it was the destruction of such habitat by cattle that led to hardship and conflict. (See Chapter Six)

Floodplain agriculture was practiced without the sophisticated irrigation works of the pueblo people. Jed Smith reported a "Pautch" Indian farmer working on the south side of the Colorado River opposite the junction with the Virgin when he made his first trip (1826).¹⁰

9. Fairchild, op. cit., pp. 15, 16.

10. Melvin T. Smith, The Colorado River: Its History in the Lower Canyon Area, Brigham Young University, Ph.D. Dissertation, August 1972, p. 105.

Pre-contact Indians engaged in mining, both for trade and their own use. Jed Smith commented on the salt mines near Overton (now under water). Clay and turquoise were also mined.

Several methods of mining were employed in working deposits of turquoise and varicolored stones. Open pit and outcrop mining was used at a site between Boulder City and Hoover Dam. Other sites required underground mining. There were conditions when aboveground exposed rock had to be heated by fire, then shattered by dousing it with water. Stone picks and hammers were the only tools used, thus the particles of gemstone had to be removed by hand. Tailings were carried to dumps in wicker baskets.

Considering the value of the product and the energy expended, turquoise was the most logical mineral the Indians could mine. A system of barter was used to distribute turquoise from Eldorado Canyon to the Southwestern United States and Mexico. The Athapascan and Pueblo cultures of these areas valued this gemstone highly. As a trade article, or even a medium of exchange, turquoise was well adapted to the early Great Basin Indians' primitive transportation methods. Light and compact, the stones were worth many times their weight and size. This attribute alone encouraged the development of trade in turquoise.¹¹

11. Melvin T. Smith, The Colorado River: Its History in the Lower Canyon Area, Brigham Young University, Ph.D. Dissertation, August 1972, p. 105.

Indians were skilled traders. Had their contact with Europeans been limited to trading, they could undoubtedly have enhanced their position.

F. Early Exploration¹²

To Jedediah Smith goes the honor of the first recorded penetration of the area of concern. That others--Spaniards or Mexicans from the south--preceded him is quite likely.

The possibility of Spanish mining in Eldorado Canyon is an intriguing question that has been challenging historiography in Southern Nevada for over a century. Folklore, statements of reputable residents and authentic artifacts make it necessary to mention this undocumented activity primarily for the reason that rumors about it still persist, and because no one has proven that it did not occur.

Francis Church Lincoln, former dean of the University of Nevada, Mackay School of Mines (1914-24) states: "Mining operations in Nevada were conducted on a small scale by the Indians and the Franciscan Fathers prior to the advent of the Argonauts," and later, "With the assistance of their Mexican converts, the Franciscan Fathers worked placer mines and turquoise deposits in

12. The sections on exploration depend heavily on Smith op. cit. The literature on exploration, by land and river, is so extensive that little purpose is served by repetition. This, then, is an overview. Contours will be highlighted when warranted by some need for emphasis.

what is now Clark County, Nevada, and left interesting relics in some of the mines."¹³

In the fall of 1826, Jed Smith came in from the north, down the Virgin to the Colorado, hence to the Mojave villages below Black Canyon, and finally out to California. Below the confluence of the Virgin and Muddy Rivers, Smith obtained a supply of salt at the caves. Where he crossed the Colorado is not known, but, once over, he did have considerable difficulty with the rugged and waterless terrain. Their meeting with the Mojaves was beneficial in contrast to that of the following year at which time the Mojaves killed many of Smith's men as they were crossing the river.¹⁴

In 1827¹⁵ James Ohio Pattie joined with others, including Ewing Young, George C. Yount, and Thomas L. Smith, to trap the Colorado. The Mojaves claimed the furs that the group had

13. James M. Greene, Life in Nelson Township, Eldorado Canyon, and Boulder City, Nevada, M.A. Thesis, University of Nevada, Las Vegas, 1975, p. 21. Another story reported by Greene is of some Mexican visitors in 1882 who came to Eldorado Canyon with a very old map which marked the site of the Wall Street Mine. The possibility of white penetration prior to 1826 should be allowed.

14. It is customary to attribute Smith's change of fortune either to conniving Mexican authorities who "ordered" the Mojaves to repulse the Anglos or to rough handling by Pattie's party. While the rough treatment is indisputable, it seems unlikely that the Mojaves would recognize Mexican authority. Another explanation may be of interest which mirrors the experiences that Fairchild had with the Mojaves and which can be generalized to other tribes as well. Most tribes are not a tightly woven group who follow a party line. The bands are quite independent and are likely to react as temperament or circumstances suggest. This is one of the reasons that Indians and non-Indians both broke treaties with frequency.

15. I yield to Smith on this date rather than 1826. Enough controversy about Pattie exists already.

collected, which claim the trappers were disinclined to recognize. Hostilities ensued to the eternal anguish of several Indians who, having no firearms, were at some disadvantage.

From the Mojave villages, the trappers travelled to the north. The Young and Yount parties then swung to the east below the point where the Colorado bends to the south. Pattie and Thomas L. Smith continued up the river, following a route that is uncertain:

To begin with, they apparently continued together up the Colorado on its south bank into the Grand Canyon itself. On Spencer Creek three men from the Pattie party left the main body and were murdered and mutilated, probably by the Yavapai; the foul deed was discovered two days later, March 27, 1827. After burying the remains, the trappers turned down river retracting their route out of the canyon, where the parties may have divided, with the Pattie group crossing the Colorado near what became Pearce's Ferry. From that point they could have swung west into the Grand Wash Cliffs onto the Shivwit Plateau. Other authorities maintain that both parties remained on the south side of the river until they reached the Virgin confluence, then crossed. Since they were concerned with trapping, this latter water route seems more likely.

Once over the river, they moved up the Virgin hunting for furs. After a day or two the Pattie group swung east (if they indeed had not crossed above Grand Wash earlier) through St. Thomas Gap into the Grand Wash drainage, and then onto the Shivwit Plateau, where they pursued an easterly course past Mt. Trumbull and over

the Buckskin Mountains. Very likely in one of these locations they were caught in an eighteen-inch snow fall in April.

Another alternative route for the Pattie expedition would have kept them on the South Rim of the Grand Canyon as far east as Kanab Creek, where they may have crossed the Colorado River and climbed out on the North Rim. However, this route seems unlikely in view of several facts: the difficulty of getting to the Colorado River from the South Rim, the purpose for crossing at that point, and the sudden return to the Colorado after crossing the Buckskin Mountains. This writer admits Pattie's account is sketchy, but believes the party crossed near the Virgin River and then moved east, north of the Colorado.¹⁶

Jed Smith returned to the area in the summer of 1827 and followed much the same route as previously except for transit up Detrital Wash to avoid the difficulties of the Black Canyon. One of his party was Thomas Virgin after whom the river was named. The Mojaves, smarting over their treatment at the hands of the trappers who had passed through earlier that year, attacked Smith's party, killing ten and capturing two Indian consorts. Smith fled across the desert to California.

Trappers were apparently determined men, for both Pattie and Thomas L. (now Pegleg) Smith returned to the area shortly. Pattie lost his furs near the mouth of the Colorado in a tidal bore and his father died in a California prison from illness. Pegleg Smith,

16. Smith, op. cit., pp. 113, 114.

along with some Ute braves, found more profit in stealing horses from the Californians, which practice they continue until 1840.

Reports of the area's rich furs attracted others in the years 1829-1830. Among these were Peter Skene Ogden of the Hudson's Bay Company, Ewing Young, and Kit Carson.

Traders followed trappers closely, the first of these being Antonio Armijo who left Abiquiu in 1829, bound for California. His party crossed the Colorado River above Lee's Ferry at the Crossing of the Fathers, apparently the first non-Indians to do so since Dominguez and Escalante passed that way in 1776. His route by way of Vegas Springs skirted the area of our concern somewhat to the north, and opened trade in New Mexico sheep and woolens in exchange for California horses and mules. These trading caravans persisted on a yearly basis almost until the end of the Mexican era in the Southwest. Nevertheless, activity was so sporadic that one can assert a virtual vacuum in activity, especially in the Black Canyon area, for two decades.

G. Transcontinental Trails

A number of events including the awakening of California, the approaching war with Mexico, and the tension between Utah and eastern United States awoke official interest in the lower Colorado in the 1840s and later. John Frémont passed to the north of our area of interest in 1844 on his way to Las Vegas Springs, but did not enter. Gen. Stephen Kearny passed to the south in 1846 and did not enter the area. Neither did Col. Philip St. George Cook who crossed at the confluence of the Colorado and Gila in 1847.

The first official entry into the area was by Capt. Lorenzo Sitgreaves in 1851, who was exploring what is known as

the 35th parallel route, later the thoroughfare occupied by the Santa Fe Railroad and Highway 66--at least as far as Kingman. The river was crossed, possibly in the vicinity of Eldorado Canyon, and Sitgreaves headed south to Fort Yuma.

In 1853, Francois Xavier Aubry reversed the usual order of things and crossed below Black Canyon possibly at Eldorado Canyon:

Aubry's men soon built a raft of driftwood, cut by beaver, and commenced to ferry goods over and swim the horses. The presence of Mojave Indians caused the men to work with haste and Aubry to proceed with caution. Five days were used in crossing the river and recruiting the animals. About one mile east of the crossing a Mexican boy discovered signs of gold, which also detained the party. They did not leave the river until July 30.¹⁷

Within the year, Lt. A. M. Whipple crossed above the Needles while conducting a transcontinental railroad survey. Lt. Edward Beale, with his camels, crossed at the same place in 1857.¹⁸

Reaching the river on October 18, Beale began the 'questionable' task of crossing the river. To ferry his wagons and supplies, the Lieutenant had brought India rubber boats, which proved adequate. However, several mules and horses were drowned while being swum across the stream. Beale had been warned that the camels could not swim; however, confident they could, he hazed a

17. Smith, *op. cit.*, p. 103.

18. *Ibid.*, p. 151.

strong male camel into the water, which as soon as 'he found himself out of his depth struck off without hesitation for the opposite shore, swimming high and with perfect ease.' The others were crossed without hesitation.¹⁹

As an extension of his trip upriver in the Explorer in 1857, Lt. Joseph C. Ives also examined an overland route to Fort Defiance, then in New Mexico but now in Arizona. To this end, Ives had a shore party with mules pace the Explorer as she moved upstream. The presence of these two groups, and especially their communicating rockets, caused great concern to Jacob Hamblin who happened along at the time. A "Mormon War" was bubbling and Hamblin was convinced that he was witnessing a serious threat from the south. Instead, Ives left the Explorer and led his packtrain overland to the east through Gold Road Pass near present day Oatman.

The report of Lieutenant Beale on the feasibility of the 35th parallel route excited interest, but with tragic consequences. In 1858, several emigrant wagon trains attempted the difficult trip from Albuquerque to the river. This the first train reached on 28 August only to find themselves surrounded by Mojave braves who openly killed and ate some of their stock. On the 30th, the emigrants were attacked by some 250 Mojaves. The emigrants lost most of their stock, several persons were wounded, and one was killed. One family (Bentner), some distance away, was wiped out. The emigrants returned to Albuquerque, gathering with them as they turned back other trains who had been following them.

As a consequence, troops were stationed in the area at both Fort Mojave and Eldorado Canyon.

19. Ibid., p. 203.

With the improvement in security, Lieutenant Beale had the responsibility of constructing the wagon road which was done in 1859. Although the road was completed from Albuquerque to the river, it did not reach beyond into California. For this and other reasons, it saw little traffic but did assist in developing alignments for later rail and highway routes.

H. Up From the Sea of Cortez²⁰

In the year 1851 George A. Johnson arrived at the mouth of the Colorado River with the schooner Sierra Nevada carrying supplies for Fort Yuma. He immediately recognized the opportunity for commerce and next year brought in the steamer General Jesep with a contract to carry supplies from the river mouth to the fort. During the next several years Johnson accumulated considerable river experience and proposed to the government that he receive a contract to explore the river. However, when, in 1857, Congress allotted funds to the Army Corps of Engineers for the exploration of the river as well as an overland route to the east, Lt. Joseph C. Ives was chosen to command.

Johnson, however, had been requested to assist Lieutenant Beale in crossing the river at Needles and, in the course of doing this, he took the General Jesep all the way through Black Canyon and, on his return in January 1858, passed Ives in his Explorer laboring upstream.

The Explorer was constructed in Philadelphia, and not very well apparently, because additional structural supports had to

20. This section is based upon Smith, op. cit., and Frederick S. Dellenbaugh, The Romance of the Colorado River, Rio Grand Press Reprint, Chicago, 1962.

be supplemented to the hull in San Francisco. These were added outside the hull and effectively reduced the draft by six inches. When fully loaded, the Explorer had only six inches of freeboard and was in danger of being swamped several times. The Explorer was pieced together at Robinson's Landing, a mud flat at the mouth of the Colorado, and chugged upstream only to be upstaged by the General Jesepe.

The Mojave guide Ireteba was engaged at the villages and the Explorer continued into the Black Canyon to hit a rock which thus determined its high point of navigation. While his vessel was being repaired, Ives continued upstream as far as Vegas Wash in a skiff. He then returned, met his packtrain at Pyramid Canyon, and proceeded overland to the east by way of Diamond Creek and the Hopi villages.

I. The "Mormon War"²¹

There were several reasons for Mormon interest in the lower Colorado. The State of Deseret, an empire unto itself, was growing rapidly by immigration and natural increase, and the long transcontinental trek was a hardship and hazard; especially, given the continuing hostility that was harbored in the East. An outlet to the sea could perhaps offer the Saints easier access to their Great Basin haven. Furthermore, commerce and investments beyond the seas were contemplated, among them plantations of sugar cane on the Hawaiian islands.

Additionally, the region of the river was inhabited by Lamanites among whom missionary work was needed. Later, as real

21. This section is based on Smith, op. cit., and Corbett, op. cit.

and imagined hostility between Deseret and the States intensified, a threat from the south was perceived and, of course, substantiated by the rumors about Ives.

As early as 1855 a mission was established at Las Vegas Springs. From that place, Rufus Allan was called by Brigham Young to explore the river below Vegas Wash and to determine its navigability. They travelled downstream, but were forced away from the river at the head of Black Canyon. At that point, judging from the smooth flow of the current, they deemed the river to be navigable. The expedition traversed the west side of the river, probably as far as Eldorado Canyon from which they returned to Las Vegas.

In 1856 several Vegas missionaries searched in the other direction to take a census of the Indians and inventory of resources. From Vegas Wash the group, as before with an Indian guide, went upriver to Boulder Canyon at which point they went cross country to the Virgin River, thence up the Muddy and back to Vegas. By this time the Mormons had explored the areas near the Colorado but had never been on the river itself. Their 1855-1856 reports to Brigham Young on the navigability of the river were not optimistic.²²

In 1857, the Mormons, understandably sensitive as a result of the brutal treatment that they had received at Nauvoo as well as other harassment, and learning of Ives' land and river thrusts up from the Gulf, were nervous and needed to acquire intelligence. The military authorities, for their part, felt that they

22. Smith, op. cit., p. 149.

had reason to believe that the Mormons were inciting the Indians against them.

Lt. James White, with some troopers, was sent north with Johnson to investigate. Although real dangers were encountered, the stage was set for a comic opera.

Jacob Hamblin at that time, shortly following the Mountain Meadow Massacre, was escorting Gentile wagon trains along the old Spanish trail. In response to the rumors of invasion, he dispatched two of his missionaries, Ira Hatch and Dudley Leavitt, to the Colorado tribes in December of 1857. In Cottonwood Valley, the men with their Paiute guides, were captured by Mojaves and, trapped in the rear of a wickiup, found themselves condemned to death. Their bravery and prayer impressed the Mojave chief who allowed them to leave.

Shortly thereafter, Hamblin took Thales Haskell, Levitt, and Knight on another reconnaissance. On seeing the Explorer, they determined to send Haskell on board as a spy with a concocted story about a new route to California to avoid Indian depredations. The other three were to remain in hiding. They did not know their horses' hoofprints had been seen or that Haskell would be recognized by troopers who had seen him in Salt Lake City. On board the Explorer, Haskell was told of the true purpose of the voyage, but was not thoroughly convinced. Ives interrogated Haskell about Mormon intentions, "and was assured they would not interfere with his explorations, as they were fully occupied in the north and east."²³

23. Ibid., p. 256.

After further investigation during which he saw soldiers and rockets being fired, Hamblin felt confirmed in his suspicions of an invasion. He prudently returned to Vegas. As a result, a third expedition was mounted in April 1858 under the leadership of Apostle Amasa M. Lyman. This expedition was expressly to determine the limits of navigation and a location for a defensive site. After leaving Las Vegas, the group went through Railroad Pass, El Dorado Valley, Cottonwood Canyon, and finally to Pyramid Canyon from which they were able to identify a good site for defense. This, despite the rockets, proved unnecessary. As far as navigation was concerned, they reported that Eldorado Canyon seemed to be a feasible limit.

J. Eldorado Canyon: The Early Years²⁴

As previously mentioned, mining in Eldorado Canyon significantly predates the historic period. Indians extracted turquoise in the area and it is likely that Mexican or Spanish miners, possibly padres, worked what later became known as the Wall Street Mine. And in 1855, a Mexican (or Californian) travelling with Aubry discovered traces of gold there.

Greene²⁵ notes that Sitgreaves in 1851, and Whipple in 1854, met prospectors in the area, but does not report their finds, if any. Soldiers, camped in the Canyon in 1859, came upon ore samples of sufficient value to excite prospectors and a claim, the Honest Miner, was staked.

24. This section deals briefly with the early years of Eldorado Canyon, with the sole intention of weaving it into the larger mosaic. The canyon, generally spelled Eldorado, but sometimes El Dorado, and pronounced Eldoraydo rather than Eldorahdo, is significant in the history of the Lake Mohave area. As has been done by others, it warrants, in itself, volumes of script.

25. Greene, op. cit., p. 23.

Very shortly, other claims were made--the Nash. Piet, January, Morning Star, Wall Street, and Techatticup among them. The activity led to the establishment of what was called the Colorado Mining District. Because of its remote location and lack of machinery, only high grade, easily worked ore was mined. In 1863 Elmer Vinyard established a ten stamp mill powered by steam on the river. Bullion, both gold and silver, was then shipped downriver by steamer to seagoing vessels in the Gulf.

Merle Frehner, whose father freighted to Eldorado, talked of him swimming in the river:

And one time he had to dive in and he didn't hesitate to do it. He said he packed lots of gold bars in, uh, in the mill there, they retort it, you know. Make a bar out of it, y' know. . . . That boat had come up from the Gulf and we laid it down the . . . we walked a plank out there 10 or 12 feet or longer, and he'd walk out on it. One day he was going out there and he dropped this gold bar in there in river. He went right in after it. I don't know how deep it was, probably 10 or 12 feet down, but, he said, I got the gold out, the bar.²⁶

By 1865 the population of Eldorado Canyon was perhaps 1,500 persons. By 1865 over 760 mineral lodes and 850 mining deeds had been recorded.²⁷ Even with the inevitable dips and surges of mining activity through the years, Eldorado Canyon continues to be worked to this day. Such activity had to be supplied and

26. Transcription of interview with Merle Frehner, 11-1-78, pp. 7, 8.

27. Greene, op. cit., p. 24.

Frehner and others brought supplies from Kingman and produce and salt from the Moapa Valley. (See below, River Crossings)

The canyon saw a turbulent history after the soldiers left in 1868. Much of this will be detailed below in Chapter Three.

K. Take Up Your Mission

In this section we deal briefly with three Mormon settlements: Callville, St. Thomas, and Rioville, all of which now lie beneath the waters of Lake Mead.

When settlement of the region began, all of it, including Las Vegas, Eldorado Canyon, and the Muddy-Virgin settlements, was in the now vanished Pah-Ute County of Arizona. Speaking of that time, Bufkin wrote:

The history of settlement in the northwestern corner of Arizona Territory lying generally north and west of the Colorado River, with the exception of the mining ventures principally in El Dorado Canyon, was coincidental with Mormon attempts to consolidate a corridor of communities between Utah and points to the southwest in California.

One of the important features of the Mormon concept of 'Deseret' foresaw the desirability of a seaport on the Pacific Coast. Such a port would not only serve as an outlet for the goods produced in the Mormon heartland and a route of supply for needed importations, but would also provide a much needed alternate route to that of the rugged, expensive, and often inhospitable trip overland from the East Coast. . . .²⁸

28. Donald Bufkin, "The Lost County of Pah-Ute," Arizoniana, Vol. V., #2, pp. 12, 14.

In addition, conditions in Utah's Dixie in 1864, principally the settlements of St. George, Santa Clara, and Washington, were serious due to catastrophic winter floods. "Something had to be done or Dixie would die. Also, something had to be done or possible resources in settlement sites, freighting routes, and control of the southwest area might be lost to gentile merchants and miners. . . . The 1864 movement by Mormons to the Colorado River was motivated by several factors--the Callville Landing, control of the lower Virgin River area, and acreage on which to grow cotton."²⁹

Late in 1864, Anson Call explored a route from St. George to the river, identifying along the way, sites for a number of settlements. Below Boulder Canyon, Call selected a site for a landing and a warehouse. Following this, he trekked to Hardyville below Black Canyon to order the necessary supplies. On his return to what became Callville, the site was surveyed, lots were laid out, and, while he returned to St. George by the Grand Wash route, James David and Lyman Hamblin were left behind to dig the warehouse foundations.

The warehouse settlement, and road construction were financed by the Deseret Mercantile Association which was apparently heavily supported by the Church. Simultaneously, large orders were placed with California merchants for delivery by way of Callville. In anticipation of the route's visibility, "Mormon leaders instructed their agents to buy a large Hawaiian plantation where 'members' could produce cotton, sugar cane and other products which could be exported to San Francisco and to Utah via the Colorado Rivers."³⁰

29. Smith, op. cit., p. 266.

30. Smith, op. cit., p. 283.

In January, William Hardy made delivery by barge of the goods previously ordered. The Esmeralda, owned by a rival company, followed shortly in an effort to reach Callville. The attempt may have been sabotaged. They claimed that their boilers were fouled, that logs were thrown into the river ahead of them, and that firewood was destroyed. In Black Canyon, they met persons from Callville who reported that the landing had been abandoned. Captain Trueworthy turned back.³¹

Fortune of this kind did not cause Callville to flourish. Despite its being honored by a post office from 1867 to 1869 and some salt being transported to the mines from there, the hazards of river navigation, the miserable condition of the roads from St. George, and the coming of the transcontinental railroad to Salt Lake City were obstacles that could not be overcome. It was abandoned in 1869.

Saint Thomas at the confluence of the Virgin and Muddy Rivers was abandoned--twice--despite the fact that it was a viable agricultural community which performed a vital role supplying the mining camps. In 1865, Thomas S. Smith led a group of Mormon pioneers to establish the town. Land was cleared, the church and homes constructed, and crops were planted. Initially it was believed that Saint Thomas was in Utah Territory and later (1868) in Pah-Ute County, Arizona, of which it became the county seat in 1869. However, a survey conducted in 1870 placed Saint Thomas within Nevada. The Nevada legislature then dealt the settlers a hard blow demanding not only back taxes, but also that these taxes be paid in gold coin. This latter requirement was especially

31. Ibid., pp. 285, 286.

difficult for an agricultural community that customarily paid its taxes in kind.

Despite the petitions of the settlers, Nevada took a hard line and arrested some persons. With the support and consent of Brigham Young, the settlers were released from their mission. Only Daniel Bonelli remained.

By 1877, Mormons began to return, among them those with families whose names are memorialized in the area's history--Bunker, Gentry, and Whitmore in particular. The population of this highly productive community eventually reached 2,000 persons.

Again disaster struck. On 11 June 1938, the waters of Lake Mead entered the town's precincts. Five days later, the postmaster hurled the cancellation stamp from the post office window and St. Thomas was abandoned for the last time.

Daniel Bonelli, who came to St. Thomas with Smith, had twice been flooded out, once at Santa Clara and again at Beaver Dam:

He planted fruit trees, a vineyard, fields of alfalfa, and garden crops on his St. Thomas allotment. A strong family man, he built a five-room adobe house, thatched with tules from the swamp, and finished with lumber whip-sawed in the Sheep Mountains and hauled 70 miles across the desert. The floor was hewed cottonwood limbs held down with pegs. That house was still standing when Lake Mead submerged St. Thomas on June 11, 1938.³²

32. Don Ashbaugh, "Ghost Towns of Nevada--Rioville (Bonelli Ferry)," Las Vegas Review Journal, 28 July, 1957.

Bonelli remained in St. Thoms to supply the mining towns with farm produce. This, and the traffic down the valley, made him aware of the need for a secure river crossing. To serve these needs, Bonelli established a ferry site on the east side of the Virgin-Colorado confluence and an irrigated farm on the west side. Despite difficulties with the irrigation system,

He succeeded in raising hay, which along with vegetables from his St. Thomas fields and meat from his herds, supplied the mining camps at Eldorado, White Hills, Chloride and Cerbat--all busy mining camps in those days.

He had filed on the various salt locations which were abundant and one of his major sources of income was from furnishing this much needed chemical to the mines in every direction.

Rioville became such an important place in the mining economy of this area that river steamboat captains who had solved the problem of surmounting the Roaring Rapids of Black Canyon by using ringbolts imbedded in the rocky shore, brought their paddle wheelers all the way through Boulder Canyon to haul back supplies, particularly the rock salt needed in large quantities to flux the ore in the mills.³³

As a center for production and trade, and as a river ferry, Rioville was active through the remainder of the nineteenth century. Decline began with the turn of the century. Upriver

33. Ibid.

farmers so depleted the waters of the Virgin, that Bonelli could no longer irrigate and ferry traffic was diverted to the railroads. Bonelli died in 1904, and the post office that had been established there in 1881 closed in 1906.

L. Later Exploration

Early exploration of the area now under the jurisdiction of the Lake Mead National Recreation Area was to the west and south of the Virgin River. It was motivated by interest in communication between Salt Lake and the sea, military reconnaissance, transcontinental travel, and the discovery of gold. The forbidding terrain to the east of the Virgin saw little penetration between the time of Pattie's transit of 1827 and the 1860s. When exploration began, its roots lay in Mormon military necessity and curiosity about the unknown.

One of the most incredible and self-sacrificing men to walk the lands of the Southwest was Jacob Hamblin who was driven by a mission, both self imposed and commanded by the church, to bring peace between the settlers and migrants, on the one hand, and on the other, the Lamanites, as the Mormons called the Indians. Preaching the gospel as he believed it, teaching skills of value to the Indians, setting example by his fortitude, skill and courage, he merits the credit and admiration that John Wesley Powell and others bestowed upon him.

Having demonstrated his diplomacy and leadership in Utah, he was chosen to lead a mission to the Moquis in 1858. The route chosen was direct from St. George to the Hopi villages, and the Colorado was forded at the Crossing of the Fathers, although the Paria River crossing was used later. This was not a secure route. There was hostility between the Hopi and Navajo, and Navajo and Ute bands harassed the missionaries and settlers. Accordingly,

Hamblin was directed to locate an alternative route which geography dictated had to be below the mouth of the Grand Canyon.

In 1862 Hamblin led a party down Grand Wash and, using a small skiff that had been brought along for the purpose, crossed the Colorado at the mouth of the wash. Hamblin traversed the plateau below the canyon, visited the Hopi, and returned by way of the Crossing of the Fathers.

The exit from the river at Grand Wash was difficult, and so when Hamblin retraced his steps in 1863, he rowed upstream from Grand Wash to a more convenient crossing, which eventually became Pearce Ferry. Smith reports:

Access to the new crossing from the north was up Pigeon Wash to Snap Canyon, down it several miles, then east across the ridge into Pearce Wash and up along the river to the crossing. This site allowed a smooth crossing and an easy ascent from the river up Grapevine Wash. Their crossing is the first recorded use of Pearce's Ferry."³⁴

Hamblin returned to Saint George by essentially the same route. The locale was not seen again until 1867 when James White drifted down the Colorado.³⁵

34. Smith, op. cit., p. 379. Pigeon Wash does not intersect Snap Canyon. However, access across bench between the two is possible and is used today.

35. It is neither productive nor necessary to enter into the controversy surrounding James White. We assume, until a convincing alternative is offered, that the thrust of his account is valid and that, in the course of his misadventure, he floated past both Pearce Ferry and Grand Wash.

The following year Evastus Snow with a small party which included Jacob Hamblin, examined a route from St. George that took them up Mokiatic Canyon to what became known as Wolfe Hole, thence to Grand Wash. They reported that the route would allow relatively easy road construction and that good grass and water were available. Once at the river, Jacob Hamblin and two others rowed downstream to Callville. Their report was apparently quite accurate and used by Powell the following year for the final portion of his journey.

Powell and his party passed through the lower reaches of the Grand Canyon towards the end of the summer of 1869. On the 28th of August, three of his party left to walk out what became known as Separation Canyon. They were not seen again by whites and the events surrounding their disappearance are confused by controversy which will be examined in the next chapter. Powell, and the remainder of his party, reached the mouth of the Virgin two days later and were greeted by "three white men and an Indian hauling a seine. . . . As we came near, the men seem far less surprised to see us than we do to see them. They evidently know who we are, and on talking with them they tell us we have been reported lost long ago, and that some weeks before a messenger had been sent from Salt Lake City with instructions for them to watch for any fragments or relics of our party that might drift down the stream."³⁶ So ended the first phase of Powell's important endeavor.

We now conclude this section on exploration with reference to other events. In 1871, Lt. George M. Wheeler surveyed as far as

36. J. W. Powell, The Exploration of the Colorado River and Its Canyons, Dover, N.Y., 1961, p. 287.

Diamond Creek, travelling upriver from Fort Mojave. He passed through Boulder Canyon, Virgin Canyon, and Iceberg Canyon to the ford at Ute Crossing. Meanwhile a land party under Lt. Daniel Lockwood traversed St. Thomas Gap and passed Pakoon on its way to St. George. It returned down Grand Wash and crossed the Colorado and the Pearce Ferry site. From the river it went on to Truxton and returned to the Colorado at Diamond Creek where it was to meet Wheeler coming upriver. Wheeler encountered great difficulty after he entered the Grand Canyon and Lockwood's party left the rendezvous before Wheeler arrived. For our purposes, the main significance of Wheeler's survey was his recommendation that Pearce Ferry be considered as a site for a railroad crossing.

M. River Crossings

Several important river crossings should now be discussed.³⁷ These are, beginning at the mouth of the Grand Canyon: Pearce Ferry, Scanlon/Gregg Ferry, Bonelli Ferry, and Eldorado and Cottonwood Crossings. Of lesser significance are Ute Crossing and Grand Wash.³⁸

In 1863, Jacob Hamblin, having circumnavigated the Grand Canyon the year before, received instructions from Elder Erastus Snow to make a second trip to the Moqui Villages by the

37. Treatment of the trails to these crossings will be reserved for Chapter Five--Trails, Freight Roads, and River Crossings. These trails, except for that to Bonelli's, remain above water and should, therefore, be considered for nomination.

38. Ute Crossing was a dyke between Pearce Ferry and the Grand Canyon. It could be forded at low water. Grand Wash was used only once when Jacob Hamblin crossed in 1863. He cached a skiff there on his way to the Moqui villages, but considered the cliffs on the south side of the river too hazardous for regular travel.

southern route so that the hazards of Navajo territory could be avoided. Elder George A. Smith, in a letter to Snow, dated February 15, 1863, gave detailed instructions for Hamblin. He was to make a wagon road with watering places and pasturage, and was instructed that the way stations for the herders should be fortified stone houses.

A substantial ferry-boat should be established at the Colorado, the best, as well as the ferry-men, protected by a block, or stone house. The location desired beyond the Colorado, is one that contains good soil, mill power and good timber together. If the mill power cannot be found without going too far from the river, and other qualities are satisfactory, it may be necessary to send to California for portable engines for the cutting of lumber. In building a fort, a stockade of timber might be sufficient by cutting trees some 15 or 18 feet long, splitting them halfway; it might be best to put the top ends into the ground, as the American Agriculturist insists they will last as long again that (they would) if placed butt down, or generally, securing the upper ends of the logs by a cap or pin on the top of each post.

As a further security building, a block house to defend the entrance would be sufficient for the present to protect the mission from any hostile incursions of the fierce Navajo or Apache war parties. The enclosure could be laid out in lots, so as to form the nucleus of a city, and when it should become crowded, another similar work could be formed as another ward of the city.³⁹

39. Letter from Smith to Snow, quoted in Corbett, op. cit., pp. 217, 218.

Without such attention to detail, Mormon settlements would never have achieved their justified renown. Pearce Ferry was never to gain much distinction as a settlement, however. It is ironic that today it is the best known of the crossings below Lee's Ferry, possibly because of promotion of the area as a recreational haven. Nevertheless, its use during the historic period was desultory.

While Pattie apparently saw the area in 1827 and may have forded the Colorado River at Ute Crossing, Hamblin's visit to the Pearce Ferry site is the first of record. After passing down Grand Wash, he crossed the river on a raft and recovered the skiff that had been cached the previous year. With this, he travelled up river until Grapevine Wash was reached on the south shore. From there he led his group to the Moqui villages and returned, almost immediately, again using the skiff to cross the river. Hamblin and his party were then the first known persons to use what became Pearce Ferry. Although James White and John Wesley Powell passed by the crossing in 1867 and 1869 respectively, the next crossing, as such, was made by Wheeler in 1871 when he used his boats to assist Lockwood and the ground party across.

Although mining developments below the river stimulated some interest in the Pearce Ferry crossing, a more important factor was Mormon colonization of the Little Colorado River and the Salt River--principally such communities as St. Johns and Show Low on the plateau, and Mesa in the torrid valley. When Hamblin reached the river in December 1876, Harrison Pearce was already at work there building the ferry boat:

Meanwhile, Harrison Pearce, who, with his son, John D. L. Pearce, had been called, "to establish a ferry on the Colorado River," continued to prepare the crossing

for use. How large and effective their skiff was is uncertain, but apparently it could handle wagons and general supplies, but not livestock. At first, at least, it was propelled by oar power only.⁴⁰

The ferry was apparently soon ready, for, by the 19th of March of the following year a fairly large emigrant party crossed in Pearce's skiff.⁴¹

Use of the ferry remained light. The reasons, according to Smith, were several. In particular, the crossings at Lee's and Bonelli's were more reliable and reached by better roads. In 1887, David P. Kimball was a member of a party that travelled from St. George to Mesa. He kept a careful log which was reported in the Deseret News.⁴² Another group led by Bishop N. R. Tuttle and John W. Tate crossed in 1880. By this time, apparently, Pearce had become a little relaxed in his responsibilities for the company had to build their own boat with which to cross the stream.⁴³

In 1881, another group comprising of J. E. Stevens, Swenn Neilson, Peter Nasstrom and their families, crossed at the location but without the assistance of Pearce. In 1882, yet another group, intending to use the ferry, were turned away by Pearce because the river was in flood.

In December of that year, Pearce himself threw in the sponge and wrote to President John Taylor asking that he be released from his call:

40. Smith, op. cit., pp. 385, 386.

41. At least 26 persons according to Smith, p. 387.

42. Ibid., p. 392.

43. Ibid., p. 395.

During his entire six years at the river, Pearce's business remained marginal at best . . . he estimated the ferry was worth \$3,000.00 and with slight improvement the road would allow a good business. His son, James, who had settled in Taylor, Arizona, was in St. George to take him home with him "where he can make my declining years a little more easy and comfortable."⁴⁴

His release was apparently granted soon after. Although some incidental use of the ferry site is reported after 1883, to all intents and purposes, its function as a ferry had ceased by that time.

The next ferry site below Pearce Ferry lay between Virgin Canyon and Iceberg Canyon, and two ferries were located at the same site. At this location the river was wide, shallow, and relatively slow moving. While these conditions made for a fairly easy crossing, they were largely negated by problems of access, particularly on the north side where a dugway had to be constructed.

The stimulus for a ferry was probably the establishment of the mines around Gold Butte to the north, and others on both sides of Hualapai Wash to the south. The problems associated with Pearce Ferry may have diverted some travellers to this location.

By the mid-eighties most traffic into the Grand Wash area probably swung west as it neared the Colorado to descend to the river at Scanlon's Ferry. A second route from the

44. Ibid., p. 401.

Gold Hills led directly south down "Scanlon Dugway." This was a later and more precarious route. On the south an easy ascent was made from the river into Hualapai Wash for travel to the White Hills or points south.⁴⁵

Scanlon established his ferry in 1881, but, as Smith reports, only three recorded crossings are known: these were a single team and outfit (no name given) in 1885, Nutter's crossing of 5,000 head of cattle in 1893, and Slim Waring in 1916.⁴⁶ Smith also reports that Mormon farmers in Mesquite and Bunkerville used the crossing to freight farm produce to the mines. Undoubtedly, it was also used by the miners themselves travelling from White Hills to Gold Butte.

About 1900, Gregg, who had been operating a ferry above Scanlon, bought out Scanlon's ferry and farm. The ferry under Gregg's ownership apparently had little use and plenty of neglect. Merle Frehner tells of an occasion when his brother, Harvey, attempted to use it.

Uh, my older brother . . . when he was 18 and, long with three other outfits from, uh, St. Thomas, crossed at Gregg's Ferry. They were going to Kingman, uh, Gold

45. Ibid., p. 406. How travellers would get from Grand Wash to the ferry site without using the dugway is a puzzle. The topography in the vicinity of Iceberg Canyon is tortured to say the least.

46. See Smith, pp. 407-11. The date given to Smith for Nutter's crossing was 1890. See "Cattle Baron" regarding Nutter in Chapter Two, and Chapter Four, "Ranching," regarding both Nutter and Waring.

Roads the other place up there and some of those other mines. They were going to haul ore to Kingman where it would be shipped on the railroads. And, uh, they were there for a number of months. Uh, they went . . . that's where they crossed at Gregg's Ferry. And, uh, he tells quite a bit about that. Uh, he said they, uh, they were quite perturbed when they pulled in there. This old, uh, old ferry boat, he said, they worked on it; nailed boards and fallen apart pretty badly, I guess. It hadn't been used much, and, uh, finally they got it so they got their teams on it one at a time, you know. Well, he says, he . . . though they, most of them, was pulling a team and four head of horses each, uh, I mean two teams and a wagon. If they could hold that many. And, uh, they had to row the thing. They would take it way up the river. I think with a team and, uh, get it started, and row it to the other side, and get where, uh, they could take it up far enough so they could get the place to pull out.⁴⁷

Merle Frehner believed that the river at the ferry was, perhaps, 300 yards wide and that it could have been forded near the sand hills that lie slightly to the east. He mentioned that, in addition to Nutter's crossing of the river in 1893, "George Hartman and his cowboys brought a herd of cattle and horses . . . across. He came . . . through Hackberry and drove them up the Scanlon Dugway country and over into Bellevue and when he got across the river, he was in his own range."⁴⁸

47. Merle Frehner, transcription of interview, p. 11.

48. Ibid., p. 12.

Judging from the scant reports of its use and the fact that Gregg did not operate it for Harvey Frehner, the ferry was incidental to the livelihood of both Scanlon and Gregg. The south shore was irrigated from a stream and both ferrymen grew such warm climate fruits as figs, dates, grapes, and pomegranates, as well as raising livestock. Their activities were reported by such travellers as Stanton and the Kolb brothers.⁴⁹

Merle Frehner was there in 1919 to haul out a tractor and reports that Gregg was farming at that time.

We found the coils, the four coils, made the ignition for the old Ford, but that there, uh, the job box, the metal box in back of the . . . right in front of the driver was empty. So, uh, the . . . that trip, we had a shotgun and we fired that shotgun. We went up on one the foothills there, and my dad could yell real good. I got . . . There was two ladies on the other side in the house over there that had big cottonwoods, and, uh, two ladies come out on the bank of the river. They had to come through a lot of brush before ya could even see 'em come out on the bank, and, uh, they said that Gregg was down in the field. You could hear him, I believe, with his mowing machine down in there on the other side, a big field of alfalfa. Said he'd be up in the evening and they'd come over. So the three of them come over in a little row boat and, uh, said what they were after, and, uh, but the four coils, the four coils was gone out of the tractor and, uh, they wanted to know if he might be able to fix us up. He said, uh, well, I think I might be able

49. Smith, op. cit., pp. 408, 410, 411.

to. So, uh, he went back and he came with the four coils that by messing around with the adjustments on it, we got it going and then they started off the next morning to back up, but ol', uh, Scanlon Dugway was pretty washed up condition.⁵⁰

Travellers also reported sporadic efforts at placer mining in the river sands near the ferry.⁵¹ The prospects were sufficient to stimulate Burt Mill and Company to establish a mill in the area. It is possible that a foundation still in place in Scanlon Wash just above the present lake level was for a stamp mill worked by that company. Nearby is a very large fresno which could have been used to remove the alluvium and carry it to the mill.

On the west bank of the confluence of the Virgin and Colorado rivers a ferry was established in 1871 which became known as Stone's Ferry. The origin of the name is not known. Wheeler reported that two settlers were at work at the ferry site when he passed through. One was James Thompson, and the other may have been someone by the name of Stone.⁵²

This ferry continued in operation until 1877 when it was purchased by Daniel Bonelli. From 1871 to 1877 a number of uses of the ferry were recorded including a large band of sheep moving to Arizona in 1875 and a group of eighty-three emigrants in 1877.⁵³

50. Frehner, op. cit., p. 1.

51. Smith, op. cit., p. 410.

52. Smith, op. cit., pp. 420, 421.

53. Ibid., p. 421.

The saga of Daniel Bonelli has already been recounted in part above in the section "Take Up Your Mission." As the sole occupant of St. Thomas following the exodus of 1871, he was aware of the demands for produce, feed, and salt that were created by the mines downriver, as well as, need for a reliable river crossing. With these in mind, and while retaining his farm in St. Thomas, as well as the salt mines nearby, he purchased Stone's Ferry and moved it to the east side of the confluence. There, Rioville was established. A substantial stone house and many outbuildings were constructed, and water from the Virgin River was channelled to irrigate fields of alfalfa, vegetables, and fruits:

From the north the road from St. Thomas came down the west side of the Virgin River to near Echo Wash where a crossing was made and continued to Bonelli's ranch. The road then descended to the river a little east of the house itself. Bonelli often employed Indians to pull the boat upriver two or three hundred yards so that they could row across the river and strike the south bank above the steep gravel banks of Detrital Wash. The exit on the south, even so, was often steep and difficult.⁵⁴

Bonelli was not above touting the merits of his ferry above those of his competitors, especially if the claims had some validity. Pearce, backed by St. George interests, persuaded travellers to use his route. In one such instance in 1882, Pearce refused to cross travellers over the flooded river. The travellers had to retreat and finally crossed at Bonelli's. They praised the route and the treatment that they had received in a letter to the Silver Reef Miner:

54. Ibid., p. 428.

The significance of this re-routing was not lost upon Daniel Bonelli at Rioville. In a letter to the same paper a week later, he impuned [sic] the judgment of those persons sending people through a desert region when they could not assure them ferry services upon reaching the river. According to Ferryman Bonelli, other parties had also had to traipse from Pearce's Ferry to his own and when high waters prohibited a crossing at the former site.⁵⁵

In addition to serving as a ferry for travellers, Rioville functioned as a post office from 1881 to 1906 and, as such, was a way station on the north-south mail route. Harry Gentry of St. Thomas ran a stage line through Rioville on his route from Pioche to Hackberry. River vessels such as the Gila and the Southwestern carried salt, hay, firewood, and other supplies from Rioville and Moapa Valley down to the mines at Eldorado.

Merle Frehner recalls some of the agricultural enterprises that helped Bonelli to prosper:

Yes, people come from St. Thomas, come right down the Virgin River and right the . . . right to the mouth of the river was, uh, Bonelli's. They even had that little, uh, camp down there. They called it Junction City. And, uh, Bonelli had, uh, field there and I can remember when, uh, real early we went down and they filled it up with hay down on. . . . We went down the road and along under them little foothills and right underneath

55. Ibid., pp. 399, 400.

there was men working two and three cutters and piling hay and hauling it. Yep, uh, he raised hay and grain both fer the, uh, fer the Nelson. The freight teams of Nelson took . . . my dad would cross down there, and, uh, come up on the east side of the river. There's a canyon right above the Nelson, couple of miles up the river, real narrow. Why I took my dad one time down there in a boat and he said there's the canyon now . . . I had no idea that we could go out on top the mountain, see, and . . . he could take his whole outfit up Bonelli's there and load it with hay and grain and, uh, come back. And then he also would haul supplies and groceries from Kingman. That was quite a trip in itself. They got through Sacramento Valley. They went, oh, right through there to Kingman. And Santa Fe Railroad was through there. And that, uh, again made, uh, that was the closest point to the railroad tracks through there long time to get into Southern California.⁵⁶

About the turn of the century, as St. Thomas, Bunkerville, and Mesquite upriver continued to grow and expand their irrigated lands, the water for Rioville correspondingly diminished and it was increasingly difficult for Bonelli to produce his crops. Simultaneously, railroads and improved roads elsewhere diverted traffic. Bonelli died of a stroke in 1903, the center of activity withered and the post office was closed in 1906. Another river crossing ceased to function.

Below the bend in the river, in what has now become Lake Mojave, two ferries were established and ran intermittently.

56. Interview with Merle Frehner, op. cit., pp. 8, 9.

For several reasons these ferries tended less to serve the long distance traveller than did the upriver ferries. For one thing, they served the mining communities in their localities and were not distant from population centers as were the others. The difficult approaches to these crossings, especially to the east, discouraged travellers who were not bound specifically for Eldorado, Nelson, or Searchlight, or their associated mines. Furthermore, crossings in the Mojave Valley were distinctly more placid than any we have so far discussed and, thus, attracted a more steady flow of travellers. Finally, the river in both directions was navigable so that Eldorado, for instance, could send its ore downriver by steamer and get salt, hay, and firewood from the Virgin River settlements upstream. Nevertheless, in part for reasons of cost, some overland freighting took place and, for that coming from Rioville or Kingman, the river had to be crossed.⁵⁷ This apparently was done using the labor of Indians and a boat, the ownership of which is not known. This ferry must have been privately owned--at least by the inference of the following quotations from Smith and Emery:

A report in the Mojave County Miner (1916) noted a ferry in operation at El Dorado Canyon; nevertheless, the ferry had limited use. Finally, in 1919 a major flood washed out the ferry carrying the barge three miles down river and piled it up on the sunken gold dredge. Murl Emery recalls the event of these words:

"This was no cause for sorrow. It would keep the El Dorado Ferryman from starving and give us (Dad and I) some more business, and it did,

57. As we have seen above, Frehner freighted from both of these places as did Harry Gentry.

possibly one car, maybe a team and wagon,
horse and rider more to us a week."

This flood apparently ended the El Dorado Ferry's
story.⁵⁸

Below Eldorado, only the crossing at the mouth of Cottonwood
Canyon had significance.⁵⁹ Because of the large island in the
river, a permanent Indian settlement preceded white penetration,
and because of access up Cottonwood Canyon to the west and Union
Pass to the east, the topography would have permitted a more
heavily travelled route than actually came into being.
Intercontinental and interregional traffic favored the easier
crossings of the Mojave Valley to the south.

The first recorded crossing in the area took place in 1858 in
an incident already referred to in the "Mormon War" above. A
member of Jacob Hamblin's small party crossed to spy upon Ives in
the Explorer and found himself espied in turn.

Mining near Cottonwood was late in coming, relative to
Eldorado. However, the island was used first as a source of feed
and fuel to the miners and as a pasture for cattle. In 1864, it was
fired on and farms were established that provided the miners with
garden produce.

The area saw greater life as the result of the first boom in
Searchlight to the east which began in 1898 and peaked in 1907.

58. Smith, op. cit., o. 451. Quote's letter from Murl Emery dated
15-1-72.

59. This section is based entirely on Smith, op. cit., pp. 453-56.

In 1900, a railroad was built from Searchlight to a mill that was established by the Quartette holdings. By 1916 a gasoline powered ferry was in operation to be succeeded in the following year by another owned by Jim Cashman which was operated by Murl Emery and his father. These ferries carried automobiles and other vehicles.

After 1920, Cashman moved his ferry downstream and shortlived ferries were then operated by the town of Chloride and Mohave County. In the late twenties, William Brown built an aerial tramway for vehicles and ore.

None of the crossings discussed exists today. All lie beneath waters impounded by the dams that divert the traffic from earlier patterns of flow.

CHAPTER TWO

THE UPPER LANDS

A. Dunn and the Howland Brothers

High above the Colorado River, and remote from it and the other lands of the Lake Mead National Recreation Area, rests the forest clad Shivwits Plateau which is part of a huge, isolated part of Arizona called the Arizona Strip.

The Arizona Strip is that portion of the state which is bounded by the Colorado River to the south and east, the state of Utah to the north, and the state of Nevada to the west. Except in the Grand Canyon itself and in the Grand Wash, its elevation exceeds five thousand feet. Its major subregional divisions are formed by mountains and escarpments running in a generally north-south direction. Between two of these--the Grand Wash Cliffs to the west and Hurricane Cliffs to the east--lies the huge subregion of Main Street Valley. The southwest segment of this is the Shivwits Plateau, the eastern and northern boundaries of which plateau are indefinite. The western boundary is the rampart of the Grand Wash Cliffs and, to the south, the plateau extends long fingers into the Grand Canyon.

It is these points of land that comprise the portion of the Shivwits Plateau under the jurisdiction of the Lake Mead National Recreation Area. Our discussion will focus on these peninsulas, particularly the largest which terminates in Kelley Point. Most of the settlement and activity of historic interest took place in the northern sector which is known as Parashaunt.¹ Some reference

1. Parashaunt is an Indian term meaning "Lots of water." Notes written by Lloyd Swapp, BLM, St. George, Utah.

will necessarily be made to places and events outside of the Lake Mead National Recreation Area which lie in Parashaunt. These, such as Oak Grove and the Wildcat Ranch, are identified on the base map.

The first likely penetration of Shivwits was by James O. Pattie in 1827. This has already been noted, but Smith's account is worth repeating here:

Once over the river, they moved up the Virgin hunting for furs. After a day or two the Pattie group swung east (if they indeed had not crossed above Grand Wash earlier) through St. Thomas Gap into the Grand Wash drainage, and then onto the Shivwit Plateau, where they pursued an easterly course past Mt. Trumbull and over the Buckskin Mountains. Very likely in one of these locations they were caught in an eighteen-inch snow fall in April.

Another alternative route for the Pattie expedition would have kept them on the South Rim of the Grand Canyon as far east as Kanab Creek, where they may have crossed the Colorado River and climbed out on the North Rim. However, this route seems unlikely in view of several facts: the difficulty of getting to the Colorado River from the South Rim, the purpose for crossing at that point, and the sudden return to the Colorado after crossing the Buckskin Mountains. This writer admits Pattie's account is sketchy, but believes the party crossed near the Virgin River and then moved east, north of the Colorado.²

2. Smith, *op. cit.*, p. 114.

Even if Pattie were to have traversed Shivwits there is no certainty that he would have intercepted the boundaries of the National Recreation Area. Indeed, if he had passed through St. Thomas Gap, the logical route would have carried him directly east to Mount Trumbull and far to the north of the NRA boundary. If he had passed up Grand Wash, he could have been led to Pigeon Canyon which also heads north of the boundry. Had he attempted to traverse the Grand Canyon benches below the rim, the difficulties would have forced him to top out, and he might then have entered the area. But the logic of the terrain argues against this. All that we are in a position to say is that Pattie probably was the first non-Indian to penetrate Shivwits, but that it is unlikely that he entered the Shivwits boundaries of the National Recreation Area. That Mormon missionaries may have entered the Plateau is suggested by the following quotation from McClintock. No certainty attaches to this, however, since Pearce may have encountered the band elsewhere:

That the Shivwits were susceptible to missionary argument was indicated about 1862, when James H. Pearce brought from Arizona into St. George a band of about 300 Indians, believed to comprise the whole tribe. All were duly baptized into the Church, the ceremony performed by David H. Cannon. Then Erastus Snow distributed largess of clothing and food. Ten years later Pearce again was with the Indians, greeted in affectionate remembrance. But there was a complaint from the Shivwits they "had not heard from the Lord since he left." Then followed fervent suggestions from the tribesmen that they be taken to St. George and be baptized again. They wanted more shirts. They also wanted Pearce to write to the Lord and to tell Him the Shivwits had been pretty good Indians.³

3. James H. McClintock, Mormon Settlement in Arizona, A Record of Peaceful Conquest of the Desert, Phoenix, 1921, p. 67.

We can be reasonably certain that members of Powell's expedition reached the Shivwits Plateau late in the summer of 1869. On the 28th of August, three men, Seneca Howland, O. G. Howland, and William Dunn, left the expedition at what became known as Separation Canyon. Although it is not necessary to discuss the factors that led to the separation, we cannot avoid probing into subsequent events since they bear upon sites on the Shivwits Plateau. It is impossible to solve completely a murder that took place over one hundred years ago. One can only hope to narrow the range of error.

Let us first deal with the known. When the party left the river on the 28th day of August, they carried with them guns and little else:

Two rifles and a shotgun are given to the men who are going out. I ask them to help themselves to the rations and take what they think to be a fair share. This they refuse to do, saying they have no fear but that they can get something to eat; but Billy, the cook, has a pan of biscuits prepared for dinner and these he leaves on a rock.

The three men help us lift our boats over a rock 25 or 30 feet high and let them down again over the first fall, and now we are all ready to start. The last thing before leaving, I write a letter to my wife and give it to Howland. Sumner gives him his watch, directing that it be sent to his sister should he not be heard from again. The records of the expedition have been kept in duplicate. One set of these is given to Howland; and now we are ready. For the last time they entreat us not

to go on . . . each party thinks the other is taking the dangerous course.⁴

The three men trekked up Separation Canyon, climbed onto the Shivwits Plateau, and were killed by members of the Shivwits band of Pai-ute Indians.

Despite the isolation of the area and its great distance from settlements, news of the killing reached Jacob Hamblin early in September, only days after the men left the river.⁵

How long it took the men to climb out to the rim is the first of many questions. A clue may be found in an account of Separation Canyon given by Chet Bundy.⁶ In April of 1931, Iven Bundy, twenty-three years of age, drowned in the Colorado and his body lost. Chet Bundy, Pat Bundy, and Floyd Iverson searched for him using an old boat which finally sank as they lowered it down Separation Rapids. Low on food, they had no alternative but to hike out:

Separation Canyon has a little stream coming down it, though today it sinks out of sight before reaching the river. We took off up that canyon at five o'clock in the afternoon and walked until ten that night. Next morning, we filled a little quart canteen--all we had--and went

4. J. W. Powell, The Exploration of the Colorado River and Its Canyons, Dover Publications, Inc., N.Y., 1961, pp. 280, 281.

5. Corbett, op, cit., p. 267.

6. Nellie Iverson Cox and Helen Bundy Russell, Footprints on the Arizona Strip, Horizon Publishers, Bountiful, 1973, Chapter XV, "The Story of Iven."

upstream until we came where three canyons branched off. We were getting pretty weak, wanting to hold on to our last mouthful of food. So instead of eating, we took turns going up the canyons, figuring we were done for if one of them didn't lead us out.

Pat said, "I'll take my turn first and go up this west canyon. You fellows stay here until I get back." After about one hour, he returned. "A bird would have to go straight up to get out of that," he declared.

Floyd said he would take the middle one. A hour or two later he came back, saying that not even a bird could get out of it.

I thought for a few moments and then said, "You fellows might as well go up this other canyon with me. Because, if we don't get out of it, we are done for--we will never get out at all."⁷

It took the rest of the day to climb out the east fork. "We found a bird's nest and sucked those eggs right now." On top they intercepted the old road to the Snyder Mine and refilled their canteen at Kelley Seeps. They killed a jackrabbit with a six-shooter and then walked north, by chance running into two cowboys, Luther Swanner and Tyne Hecklethorne.⁸ They helped themselves to food at Waring's Horse Valley Ranch, which was empty. "We were ready for another meal, though, when we reached the Mathis Ranch. An old fellow staying there asked us where we

7. Ibid., p. 101.

8. Pat Bundy, in a conversation 21-4-78, corrected this to Luther Swanner and Ed Johnson.

had been, and when we told him, he said, 'Anybody crazy enough to go down the Colorado River looking for a dead man ought to starve!'"⁹ After that rebuff, they continued on to a more hospitable reception at Penn's Valley. To reach Penn's Valley from the river had, with detours, taken three nights and two days. If no detours had been made and no night hike was involved, the time would have been about the same.

The distance from the river to Kelley Tank on top is about ten miles and the change in elevation is from 1,300 feet to 6,000 feet. If Powell's men had guessed right at the canyon intersections, they could well have reached the plateau by the end of their first day.

The distance from Kelley Tank to Mount Dellenbaugh is about eighteen miles. A three mile an hour walk could have taken them well beyond it in the second day. Putting the matter another way, if all had gone reasonably smooth, the men could have been to the north of Mt. Dellenbaugh by the 30th of August, 1869.

This estimate is highly optimistic, however. At two o'clock in the afternoon of May 2, 1978, the author and three companions left Separation Rapid to hike to Mount Dellenbaugh with the goal of better understanding the problems faced by the three men.¹⁰ This expedition, which had the advantages of modern maps, adequate food, and a cache of water, required three days of travel. It was possible to avoid making a mistake at a major intersection and, once on top, to travel a dirt road. Even with the maps, some problems were encountered in finding a route out the Redwall and onto the Esplanade.

9. Cox, Russell, *ibid*, p. 101.

10. The party consisted of Gene Sternberg, Jr., Bill Burke, Bob Burke, and the author. An informal account is given in Appendix A.

The Dunn-Howland party would probably have required at least three, and possibly four, days to reach the vicinity of Dellenbaugh. Not only were they hampered by a complete lack of maps in the confusing maze of canyons, but they were also at a serious disadvantage with regard to food and water. Food was also a problem to the Bundy party.¹¹ Our quartette saw a total of two jackrabbits, three squirrels, and two sets of deer tracks. In 1869, game, not having to compete with cattle for forage, may have been more abundant. Water may have been available in the canyon itself, depending on the summer thunderstorms. On top, it would have been very difficult to find water since it occurs only at seeps and springs which lie below the rimrock in a few places. The clue to these locations is stands of ponderosa on the plateau, and from a vantage point such as Blue Mountain, these might have been located from a distance. It would have been logical for the men to head for Blue Mountain once they topped out. From its summit they could trace a route to Mount Dellenbaugh which would avoid side canyons, but take them past Penn's Pocket and Green Spring. Again, Mount Dellenbaugh would be a likely objective since they had an obvious need to gain such heights from which they could work out a course to the Mormon settlements to the north.

Ambush Water Pockets, the location said by Dellenbaugh to have been the murder site, is twelve miles north of Kelley tank. Dellenbaugh claims that the men were killed the morning after their night at that location.¹² Our party reaches this point, also known as Penn's Pocket, after two and one-half days' travel. The earliest that the three could have reached that location would then be the

11. Pat Bundy reported that two of his group shot at the jack-rabbit but that they could find no bullet hole when they skinned it.

12. Frederick S. Dellenbaugh, The Romance of the Colorado River, Rio Grande Press, Chicago, 1962, pp. 227, 228, 229, 230.

30th of August, with the killing occurring on the 31st. A later date at Ambush Water Pockets or at Log Springs--one additional day's travel--is more likely.

At about the same time that Powell's men were leaving the river, Jacob Hamblin was moving his family from Santa Clara to Kanab:

In a few days Jacob got word from an Indian runner that three white men had been killed in a remote place on the northwest side of the Colorado; that these men had belonged to a strange party of river explorers. This information, although scanty, greatly aroused Jacob's interest.¹³

Who dispatched this runner is not documented. Hamblin, although on excellent terms with the Paiutes, had not yet travelled far below the Vermillion Cliffs and had not been in Shivwits or Uinkaret country. For that matter, how was it known that he was in Kanab or did the runner go first to Santa Clara? One can only speculate that, after the Shivwits had accomplished the killing, the news was passed on to the Uinkarets in the Mt. Trumbull area, who then passed it on to the Kanab Pai-uites, who, in their turn, advised Hamblin. Hamblin received the information no later than the 6th of September, since 7 September was the first date line on the news reported by the Deseret News in Salt Lake.¹⁴

13. Corbett, op. cit., p. 267.

14. Smith, op. cit., p. 170, indicates that reports on the incident were carried by The Deseret News on 7, 8, and 15 September, 1869. Attempts to confirm this by correspondence with Smith, The Deseret News, and the Salt Lake City Library (12-3-78, 31-3-78, and 9-4-78 respectively) have not been successful. The only response received was from The Deseret News which referred the

The Shivwits Plateau is over eighty miles from Kanab by direct air distance, and well over one hundred miles by road or trail. If one assumes urgency, which one should not, the news could have reached the Uinkarets rather slowly and more rapidly from there to Kanab. At the very least, two days were required from there to Kanab. At the very least, two days were required and probably four or more.¹⁵ The outer time limits within which the killing took place are between 31 August and 4 September, a five-day period. Five days would have been sufficient time for men to reach St. George, and it is thus probable that the killing took place around the first of September 1869.

To examine questions of place, motivation, and circumstances, let us look at several reports in addition to the one already quoted.

In 1870, John Wesley Powell travelled to the southern part of the Arizona Strip partially in an effort to find out what happened to his men. Uinkaret Indians at Mount Trumbull sent for the Shivwits:

author to the Salt Lake City Library. The information would have been wired to The Deseret News via the Deseret Telegraph which had reached Rockville by the end of 1868. Kanab to Rockville would have required a hard day's travel by horseback. 6 September is the very latest that Hamblin could have received the news. On the other hand, it could not have been much earlier since Hamblin had taken four and one-half days to reach Kanab from Santa Clara which he left "on a bright, sunny morning sometime during the forepart of September, 1869." Corbett, op. cit., p. 266.

15. The following year when Powell was at Mt. Trumbull looking for evidence concerning his men, a runner left for the Shivwits in the morning of 17 September. In the evening of 19 September, the Shivwits came in. The distance from Trumbull to Dellenbaugh is about 30 miles. We also note that the Powell-Hamblin party took over two days to travel from Kanab to Mt. Trumbull.

Mr. Hamblin fell into conversation with one of the men and held him until the others had left, and then learned more of the particulars of the death of the three men. They came upon the Indian village almost starved and exhausted with fatigue. They were supplied with food and put on their way to the settlements. Shortly after they had left, an Indian from the east side of the Colorado arrived at their village and told them about a number of miners having killed a squaw in drunken brawl, and no doubt these were the men; no person had ever come down the canyon; that was impossible; they were trying to hide their guilt. In this way he worked them into a great rage. They followed, surrounded the men, in ambush, and filled them full with arrows.¹⁶

A slightly different version is given by Little in his book on Hamblin:

I commenced by explaining to the Indians Professor Powell's business. I endeavored to get them to understand that he did not visit their country for any purpose that would work any evil to them; that he was not hunting gold, silver or other metals; that he would be along the river next season with a party of men, and if they found any of them away from the river in the hills, they must be their friends, and shown them places where there was water, if necessary.

They answered that some of their friends from the other side of the river crossed on a raft and told them that

16. Powell, op. cit., p. 323.

Powell's men were miners, and that miners on their side of the river abused their women.

They advised them to kill the three white men who had gone back from the river, for if they found any mines in their country, it would bring great evil among them. The three men then followed, and killed when asleep.¹⁷

Yet another version is given by Dellenbaugh:

Howland's obligation certainly was to go on as if he were an enlisted soldier, and he evidently failed in his duty.

When the river party were [sic] ready to start the three deserters helped lift the two boats over a high rock and down past the first fall.

They climbed up on the mighty cliffs to the summit of the Shewits [sic] Plateau, about fifty-five hundred feet, and that is a hard climb I can testify, for I climbed down and back not far above this point. At length they were out of the canyon, and they must have rejoiced at leaving those gloomy depths behind. Northward they went, to a large water-pocket, a favourite [sic] camping-ground of the Shewits, a basin in the rocky channel of an intermittent stream, discharging into the Colorado. The only story of their fate was obtained from these Utes. Jacob Hamblin of Kanab learned it from some other Utes

17. Little, James A., Jacob Hamblin: A Narrative of His Personal Experience, as a Frontiersman, Missionary to the Indians and Explorer, Juvenile Instructor Office, SLC, Utah, 1881, p. 97.

and afterwards got the story from them. They received the men at their camp and gave them food. During the night some of the band came in from the north and reported certain outrages by miners in that country. It was at once concluded that these whites were the culprits and that they never came down the Colorado as they claimed. In the morning, therefore, a number secreted themselves near the edge of the waterpocket. The trail to the water leads down under a basaltic cliff perhaps thirty or forty feet high, as I remember the spot, which I visited about six years later. As the unfortunate men turned to come up from filling their canteens, they were shot down from ambush. In consequence, I have called this the Ambush Water-Pocket. The guns, clothing, etc., were appropriated by the Shewits [sic], and I believe it was through one of the watches that the facts first leaked out. I have always had a lurking suspicion that the Shewits were glad of an excuse (if they had one at that time) for killing the men. When I was there they were in an ugly mood and the night before I got to the camp my guide, a Uinkaret, and a good fellow, warned me to be constantly on my guard or they would steal all we had. There were three of us, and probably we were among the first whites to go there. Powell the autumn after the men were killed went to the Uinkaret Mountains, but did not continue over to the Shewits Plateau. Thompson went there in 1872.¹⁸

18. Frederick S. Dellenbaugh, The Romance of the Colorado River, Rio Grande Press, Chicago, 1962, pp. 227, 228, 229, 230. Almon Harris Thompson was a member of Powell's second expedition.

We have yet another perspective that has currency in the Strip today. Wally Mathis, Jr., the grandson of rancher Wally Mathis, who entered the Parashaunt area in 1902, interviewed Jimmy Guerrero, who was a cowboy for Preston Nutter. Mathis, Jr., questioned Guerrero about a renegade Indian by the name of Toab:

Jimmy Guerrero: I think he helped to kill them Major Powell people. That what ya looking for?

Wally Mathis, Jr.: I think so. Yeah.

Jimmy Guerrero: Well, I don't know. Tone Ivins wanted me to go out there. I've gotta go. He's dead. But I promised to. . . . If I go, I'll go sometime. Right across the knoll where they burned them people, he says, I used to couldn't try to ride my horse up over that knoll, he says, I couldn't get them horses more than half way up over it. He said, they was bucking, they was back down. . . . I said, did ya beat him and try him. He says, no, I never whip my horses, but, he says, I try to coax 'em up over that knoll, he says, I just couldn't get them over. . . . He says, you know, they buried everything that the white man's got. . . . And while I was talking to ol' . . . Toab, he used to come there. Oh, he used to come there pert near ever' winter and fool around there. He's eat the guts and the head and things, ya know, we wouldn't ever be eating', ya know. Well, we all fed the ol' bugger and fed him good. Give him plenty of meat and he's settin' there one day and he started telling me about it. And I just can't stand to have people tell me about torturin' thangs, ya know; especially, people. He begin to tell me, he says, I was a little bitty boy. He says, when that happen. He says,

they jest cried and begged and cried and begged. Oh, he was tellin' me and laughing all the time. Finally, I says, Goddam you Toab, I says, you was anthing but a little boy. I was a little boy. I says, you was a big boy. You was the first one that struck the match in their face. No, no, no, little bishop . . . talk, talk, talk, none talk.¹⁹

These accounts clearly conflict. When we explore the question of motivation, we find none given in the initial report to Hamblin (1869), but that one year later, the Shivwits are claiming that they were incited and led to believe that the men were miners not river runners. It is possible that, given a year in which to reflect, the Shivwits were able to concoct a story that partly exonerated them. But surely Hamblin, receiving the news in 1869 and being with Powell at the "Treaty of Mt. Trumbull" one year later, would have observed the inconsistency. If he did, was it diplomatically expedient to overlook it?

Powell was told at Mt. Trumbull that the information regarding the miners came from an Indian from across the river. Mining had been carried on at Eldorado Canyon over one hundred miles away during the decade, but that would seem to be rather remote to be of great interest to the Shivwits. If one reads prospectors for miners, the possibility becomes more plausible. Again, the river crossing to carry such information raises some doubts. The Ute Crossing above Pearce Ferry was used by Indians for raiding and trading, but why a solitary Indian from the south would be motivated to cross the river and carry the news to unrelated tribes is on the thin edge of probability. Dellenbaugh reports that the Shivwits were incited by members of their own band who reported

19. Transcript of Jimmy Guerrero interview by Wally Mathis, Jr., pp. 8, 9.

outrages to the north. However, there is no evidence of any mining activity "to the north" in any proximate location at that time. The nearest mine, the Grand Gulch, was not located until 1873.²⁰

Before concluding this examination, we should look into the character of Toab briefly. He was apparently quite a rogue and Guerrero said that Toab had killed a squaw at Wolf Hole.²¹ Merle Frehner tells of another incident:

We called that area Parashaunt up in there quite a bit. And I believe they were camped with an oak . . . with the freight teams, uh, this was my older brother, now deceased, Harvey Frehner. And, uh, they were camped, I think, at Pigeon. Now at this time, I don't know whether it was morning, noon, or evening camp, but I am quite sure it was the daylight and, uh, Toab, the first glimpse they had . . . they were getting ready to eat and, uh, Marty was cooking over a fire, you know, the camp fire, and, uh, my older brother looked up and here was Toab with a big rock in his hand, you know, about to land it on Marty's head. And Harvey yelled at him and run over there and he, uh, the . . . it took the . . . he wasn't . . . he wasn't too mean about it. They subdued him all right and took the rock away from him and they set him down and gave him something to eat. I guess he was starved. And, uh, got to talking to him. Asked him what he wanted to do that for and he said he was hungry and, uh, he was afraid of the, and,

20. Claim on file, Bureau of Land Management, Phoenix.

21. Mathis, op. cit., p. 10.

uh, but he . . . he got talking quite a bit with them and they fed him good and they . . . Well, that was the run-in they had up there with him, but, uh, he was reportedly one of the men that was in on the killing of a Powell expedition.²²

Under the circumstances of Shivwit's marginal existence, murder for robbery has to be given high probability and is consistent with the first story given to Hamblin that does not require the Shivwits shifting responsibility. Toab, although sometimes so credited, is unlikely to have been able to commit the murder alone, but his history gives credibility to his participation in it.

The location of the killing is also in doubt. Dellenbaugh states with assurance that it took place at Ambush Water Pockets, while local tradition places it at Log Spring. There is some question as to whether the Shivwits would be near Ambush Water Pocket at that time since late summer and fall would see them in areas where the crops, or the wild seeds and fruits would be. The plateau near Ambush Water Pocket is a ponderosa, pinon, juniper mix that is not especially productive of vegetable food sources except for the pinon nut which matures late September or October. Deer can be found there, but these were hunted in solitary fasion. A jackrabbit drive might have been underway, but it seems unlikely at that time of year for reasons already given. The Shivwits are more likely to have been in the north based on their hunting and gathering patterns.

22. Transcript of interview with Merle Frehner by Mike Belshaw, pp. 12, 13.

Ambush Water Pocket was examined by the author in May, 1978. The basaltic cliff referred to by Dellenbaugh does not exist although there are steep banks of basalt and earth. There are large pools of water, but the interbasin flow was a trickle of about two gallons a minute, and that after exceptionally heavy winter rains. The existant vegetation does not suggest native food supplies in the month of August. One unidentified bush may yield berries.²³

Almon Harris Thompson was apparently the first white other than Dunn and the Howlands to enter this area. His diary records,

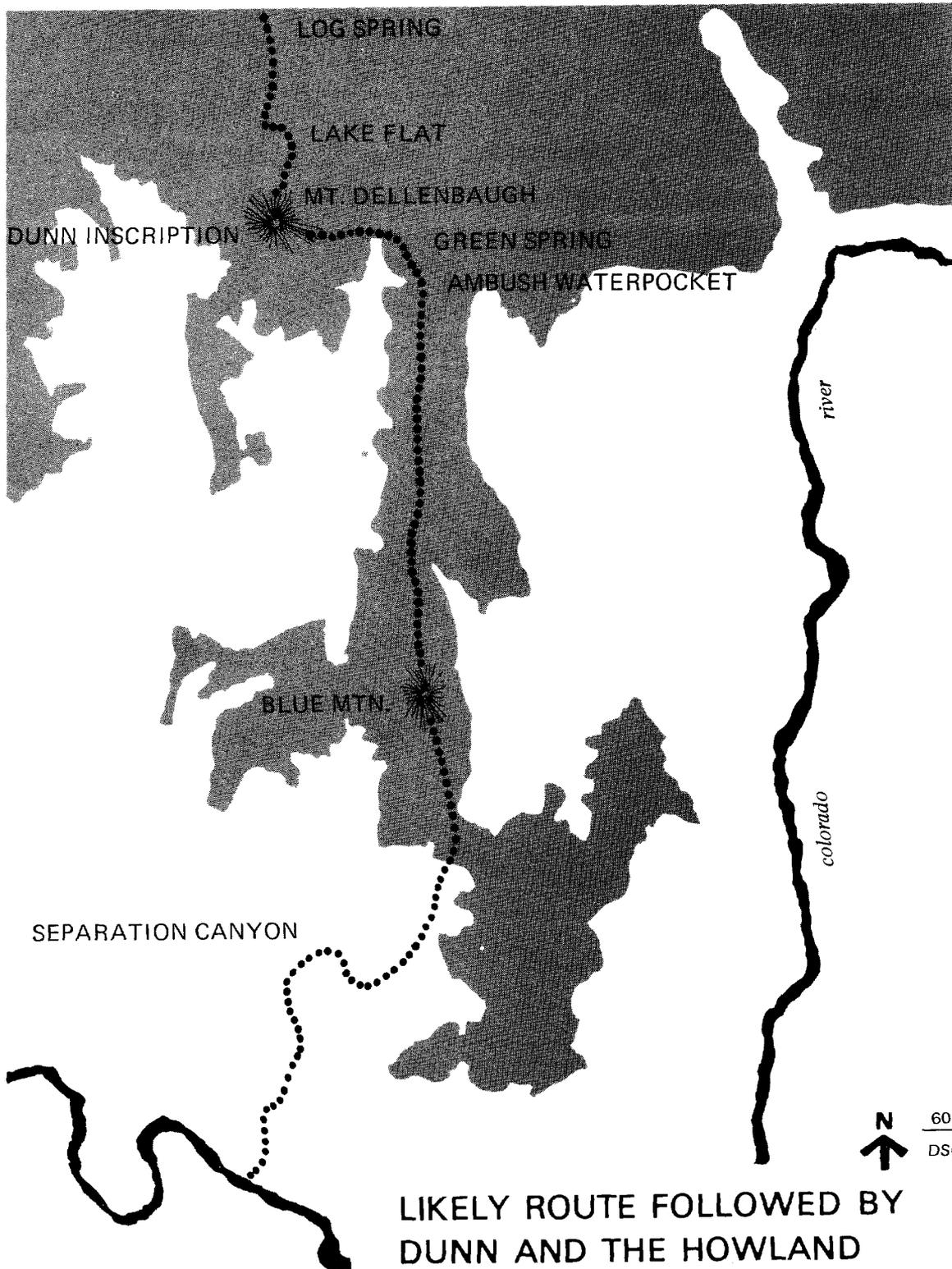
Thursday, November 14th [1872]--camp near head of a canon [sic] a little east of south from Dellenbaugh's mountain, distant perhaps five miles.

Friday, November 15th--moved our camp about 1½ miles this morning, then Pa-an-tung and I went some eight miles to the south Pa-an-tung says that some 'no sense' (cat-i-sure) Cherriots killed three American men where we are camped.²⁴

This quotation is somewhat confusing. The first campsite "a little east of south of Dellenbaugh's mountain" would place the camp on Suicide Point. Ambush Water Pockets, however, is southeast of Mt. Dallenbaugh by about five miles. The second campsite, one and a half miles from the first, and where Pa-an-tung said the killing took place, is even harder to pinpoint. Presumably, it is to the south of the first campsite since Thompson went eight miles

23. An anomaly at the site was a large patch of sweet peas.

24. Herbert E. Gregory, ed., "The Diary of Almon Harris Thompson," Utah Historical Quarterly, 7 (1939), pp. 104, 105.



LOG SPRING
 LAKE FLAT
 MT. DELLENBAUGH
 DUNN INSCRIPTION
 GREEN SPRING
 AMBUSH WATERPOCKET
 BLUE MTN.
 SEPARATION CANYON
 river
 colorado

N
 602 | 28,001
 DSC | SEP 80

LIKELY ROUTE FOLLOWED BY
 DUNN AND THE HOWLAND
 BROTHERS
 LAKE MEAD NATIONAL RECREATION AREA

south that same day. This would place the second campsite in an unidentifiable location on the peninsula below Ambush Water Pockets. No springs are found there. Green Springs are four miles slightly south of east of Mount Dellenbaugh and Ambush Water Pockets are two miles slightly east of south of Green. If Thompson had given a rather different set of directions, he would have come up with Ambush Water Pockets as a candidate site. It is difficult to understand how Thompson, a careful observer, could appear to have so garbled coordinates and distances.

One has even less confidence in Ambush Water Pockets as the site of the killing when one considers the informants. Dellenbaugh apparently based his judgment on Hamblin who never visited the site, but learned of the killing first from Pai-utes and later from the Shivwits themselves. We have no record of what he was told specifically regarding a site, but feel it necessary to discount his authority in the absence of familiarity with the area. Thompson's Pa-an-tung was not a Shivwits and apparently looked with disfavor on the band. This is not a situation that gives one assurance in him as an informant.

We cannot, with complete confidence, discount Ambush Water Pockets as the killing site, but considerable doubts are raised concerning it.

Near the summit of Mt. Dallenbaugh an inscription has been made upon a rock which reads:

W. DUNN
1869

W A T E R



It is barely legible in contrast to other inscriptions of later dates nearby. The arrow below the word WATER points in the direction of Lake Flat some three miles distant. The intermittent lake was clearly visible in May, 1978. The lake is the headwaters of

Parashaunt Wash, and the gap, through which the wash runs, is clearly visible to the north. Five miles from the lake, north of Castle Peak, the normally dry wash breaks out at Log Springs, which, in May 1978, showed a flow of between fifty and one hundred gallons a minute. Considerable evidence of Indian habitation surrounds the spring which was identifiable by a local rancher as the site to which local lore assigns the killing.²⁵ A certain plausibility attaches to the Log Spring site, however. One might reconstruct the events somewhat as follows: that on the last day of August or first day of September, 1869, Dunn and the Howland brothers reached the base of Mt. Dallenbaugh hungry, exhausted, and, perhaps, with empty canteens; that Dunn volunteered to climb the mountain which they had seen two days before and report on a route out; that as he reached the rimrock just below the summit, he looked north to see the lake and the way out; that his caution and training caused him to inscribe his name and the clue WATER in case he should miss his companions; that they did rejoin, resupply themselves at the lake, and head north to the spring where they encountered the Shivwits who were gathering seeds in the open lands beyond or harvesting corn that they had planted in the wash;²⁶ that members of the band, aware of the men's diminished strength and coveting their few possessions, took them by surprise and killed them. Only a watch carried by the men later showed up. It is possible that they had expended their ammunition and abandoned their guns and were, thus, defenseless.

25. It does not fit Guerrero's description, however. The two stories agree only in that the killing took place to the north of Mount Dellenbaugh.

26. That they farmed the washes is a supposition based on the practices of other Paiutes. Dr. Robert C. Euler, who surveyed the area for archeological remnants, discussed this question in a telephone conversation, 18-5-78, found no evidence of Shivwits horticultural practices, but pointed out that the evidence would, by nature, not be long lasting.

It is clear that further research is required. An attempt should be made to verify the inscription by comparing it with others in the same location, but showing different dates. The first sighting of the inscription should be determined. More history of Toab should be gathered to evaluate his testimony. Several alternative sites outside the Recreation Area should be examined. Finally, a close analysis of Paiute hunting and gathering patterns should be overlaid against known, probable, and possible sources of food.

B. Opening Shivwits

Following the tragedy of Dunn and the Howland brothers the first fully documented penetration of Shivwits was made in 1872 by Almon Harris Thompson who was a member of Powell's second expedition, and whose diary has been referred to above.

Powell himself did not visit the Shivwits Plateau and Dellenbaugh's visit came several years after that of Thompson. Powell nevertheless left his mark there by naming a prominent feature after Dellenbaugh:

Once when we were in the Uinkaret country Powell came in from a climb to the summit of what he named Mt. Logan, and said he had just seen a fine mountain off to the south-west which he would name after me. Of course I was much pleased at having my name thus perpetuated. The mountain turned out to be the culminating point of the Shewits [sic] Plateau. None of us visited it at that time, but Thompson went there later, and I crossed its slopes twice several years afterwards. On the summit is a circular ruin about twenty feet in diameter with walls remaining two feet high.²⁷

27. Dellenbaugh, Romance, op. cit., p. 310.

Although it lies neither upon the Shivwits Plateau nor within the Lake Mead National Recreation Area, the Grand Gulch Mine must be discussed briefly since it influenced Shivwits development and was responsible for a major road within the National Recreation Area. We preface this by a quotation from Billingsley:

Mining on the Arizona Strip and the North Rim was mainly in the hands of the so-called Dixie Mormons, about whose activities not much has been recorded.²⁸

The point is amply and immediately demonstrated when we try to establish the date of discovery of the Grand Gulch deposits:

More success was attained at the Grand Gulch copper deposits, first discovered in the western canyon area in 1853 by Richard Bentley, Samuel S. Adams and others.²⁹

Billingsley's source was the following:

According to Mr. Callaway [S.R. Callaway, mine supt., ed.] the Grand Gulch ore deposit was discovered about 1853 though it seems probable that it was known to the Indians before that time. The prospect was bought from the Indians for a horse and some flour by a Mr. Adams, employed by Bishop Snow, of St. George, Utah. Adams patented No. 37. For a number of years the ore was hauled to St. George. In 1870 an adobe smelter was built, which evidently did not meet with marked success,

28. George H. Billingsley, "Prospector's Proving Ground: Mining in the Grand Canyon," Journal of Arizona History, Vol 17, No. 1, Spring, 1976, p. 71.

29. *Ibid.*, p. 73.

as the small slag dumps have since been shipped for their metal content. An adobe and stone stack now standing near the shaft does not seem to have been used.³⁰

Now consider the following contradiction written by the manager and part owner of the mine in 1910.

The Grand Gulch Mine was discovered by a Shiwits [sic] Indian about the year 1871. He made known his discovery to men living at St. George, a small Mormon settlement in the southern part of Utah, about eighty miles north of the discovery. The extreme high grade of the ore excited considerable attention. It was worked in a primitive way for several years. Several attempts were made even to smelt the ore.³¹

However, according to Notice of Location on file with the Phoenix office of the Bureau of Land Management, the Adams Lode in the Bentley Mining District was located on 23 June, 1873.³² The mine was acquired by the Jennings brothers in 1890 and worked intermittently by them until 1906 after which it operated continuously for a decade and then intermittently through the present. The freight road out to St. Thomas was constructed, or

30. James M. Hill, "The Grand Gulch Mining Region, Mohave County, Arizona," U.S.G.S. Bulletin, Contributions to Economics, 1913, Part E., G.P.O., Washington, D.C., 1915, pp. 42, 43.

31. W.P. Jennings, "Grand Gulch Copper Mine," Mining and Scientific Press, 18 February 1911, p. 269.

32. The claim was signed by Richard Bentley, Benj. H. Paddock, A.R. Whitehead, W.H. Branch, Sam'l Cunningham, James Pierce, Sam'l S. Adams, Erastus Snow, Frank Soughery (?), Joseph Burch, Sam'l O. Crosby, and Walter E. Dodge.

more probably reconstructed, in 1906.³³ The mine contributed to the opening of Shivwits both by its demand for lumber and by its need to feed its workers. Some of its fifty employees worked at the sawmill that was established in Twin Springs Canyon near Oak Grove. This was managed, at least at one time, by Tom Gardner.³⁴ Hill also reported:

The timbers used at the Grand Gulch Mine are obtained from the Shivwits Plateau, 25 miles east of the mine, where there is said to be an open forest of "jack pine" with some "red-pine" trees, some of which are 3 to 4 feet in diameter. This timber, square sawed for mining use and laid down at the mine, is said to cost \$30 a thousand feet.³⁵

In 1879, the Parashaunt Ranch of the Canaan Cattle Company was established at Oak Grove, in part to supply the needs of the Grand Gulch Mine.³⁶ Oak Grove lies three miles to the north of the NRA boundary and four miles to the northwest of Mt. Dallenbaugh. A number of structures exist at the site, principally, a frame shack which was homesteaded by Murray Stutzneggar, and the collapsed remains of two log cabins which were the first non-Indian structures in Shivwits.³⁷

33. This will be discussed in Chapter V.

34. Interview with Reed Mathis, St. George, 15-11-77.

35. Hill, op. cit., p. 42.

36. Andrew Karl Larson, I Was Called to Dixie, Deseret News Press, Salt Lake City, 1961, p. 243.

37. The information on Stutzneggar was provided by Reed Mathis, interviewed 15-11-77. This is possibly the same Stutzneggar who left an inscription on the summit of Mt. Dallenbaugh in the 1930s. Since this section is concerned only with a brief overview of Shivwits, further discussion will be found below Chapter II, Ranching.

The Cannan Cattle Company, known also as the Canaan Cooperative Stock Company, was established by Erastus Snow at Toquerville in 1870.³⁸ The Cooperative

was incorporated for \$100,000 at one dollar a share. Many people paid their tithing with cattle so the church was the largest stockholder with \$10,000 worth. Anson P. Winsor was the next largest stockholder with \$3,000 worth and Brigham Young had \$2500 in shares. The rest were owned by just small stockholders. The church used their interest in the herd quite extensively as a subsidy plan for the construction of the Tabernacle and the Temple. Much beef was slaughtered for the consumption of the workers on the buildings.³⁹

In November 1879, the board of the Canaan Cooperative authorized President Erastus Snow and Secretary Woolley "to employ a suitable man to take charge of the Parashont [sic] Ranche [sic] and run a dairy there."⁴⁰

The suitable man was found in Albert Foremaster who carried on dairying activities there at a compensation of \$50 per month and half of the dairy products. John D.L. Pearce became manager of the Parashaunt Ranch in 1881

38. Larson, op, cit., p. 237. The company was a product of the United Order, a brief attempt at communal ownership and operation of enterprises and, in some cases, social organization. It ran counter to nascent individualism and was dissolved in 1885.

39. Florence Foremaster, History of Albert Charles Foremaster, 1853-1919, St. George, 1977, p. 5, mimeographed. Courtesy of Barbara Price, Arizona Strip District Office, Bureau of Land Management, Saint George.

40. Larson, op. cit., p. 239.

after Foremaster's period of service and he continued the dairying activities. Very little farming was attempted because water irrigation was limited.

When Albert became foreman of the Canaan herd at Parashaunt in the Spring of 1880, he hired his brother Eph to help him. They milked 25 head of cows and made butter and cheese which they sold in St. George. They also had pigs which they turned loose to fatten on acorns. Daddy said that when they first moved to Parashaunt it was like a meadow everywhere, but over grazing has changed that picture today.⁴¹

In 1883 the Canaan Company sold the dairy to B.F. Saunders,⁴² and in that same year, Anthony (Tone) Ivins and Andrew Sorenson established themselves in Parashaunt.⁴³ La Berta Sorenson mentions how there was a breezeway between the two cabins and that cheese would be placed there to cure. They traded with the Indians for pine nuts, which were then sold in St. George. Mention is also made of a windmill at that site.⁴⁴

Tone Ivins purchased Oak Grove from Saunders in 1886 and he and Heber Grant purchased 600 head of cattle from the Canaan herd

41. Foremaster, op. cit., p. 5. The farm also supplied the Grand Gulch Mine. Larson, op. cit., p. 243.

42. Larson, op. cit., p. 245.

43. La Berta Sorenson, "Andrew Sorenson" from family Book of Remembrance, Provo, Aug., 1971. La Berta was the daughter-in-law of Andrew. The Book of Remembrance was kindly loaned by Mrs. Dale Gubler, of Santa Clara.

44. There was a spring just above the cabins. Apparently it failed for there is evidence of an attempt to dig it deeper.

to establish the Mojave Land and Cattle Company in the Parashaunt. Albert Foremaster was made foreman of this herd. Ivins befriended the Shivwits band and recognized the pressure that the cattle were placing on traditional Indian food supplies. In 1891, Ivins, acting for this purpose as an agent of the government, arranged for the acquisition of land near Santa Clara to become a reservation for the Shivwits. In 1895, coincident with a severe drought in the Strip, Ivins was called to serve as president of the Juarez Stake in Mexico that was organized in December of that year.

Ivins sold his interests to Saunders who, because of the drought, sold out to Preston Nutter (see next section, below). Saunders used the proceeds to acquire the original Canaan Ranch which lies on the Utah-Arizona border near Short Creek.

Other cattlemen followed the United Order Pioneers. Foremost among these was the cattle baron Preston Nutter who entered in 1893 and who gained, by various means, predominant control over Main Street Valley, Shivwits, and Grand Wash. One of his principal weapons for outmaneuvering other claimants to the area was the use of scrip to acquire title to the few waters of the arid region.⁴⁵

That the battle was continuous and that Nutter did not always triumph, is verified by the fact that some early claimants, or their descendents, still have holdings in the area. One of these is the Mathis family. Wally Mathis entered in 1902 initially in Pigeon Canyon near to the Grand Gulch Mine. He sold beef to the mine and also drove a hackney from there to St. George. He later

45. Within the NRA, these are reported to include Green Springs and Ambush Water Pockets, according to Slim Waring in an interview 18-10-77.

established himself at Lake Flat outside the NRA, but close to the present fire camp. Another prominent cattleman was Slim Waring who filed on Horse Valley in 1916 and from that base, expanded to control most of the peninsula to the south.

Sheep were also run in the Parashaunt, principally by Ray Esplin. Although the country was open range prior to the Taylor Grazing Act and sheep competed successfully with cattle, goats, domestic horses, and mustangs over most of the Strip, the cattlemen were able to keep the sheep out of Parashaunt and contained behind Poverty Mountain for some time.

Ray Esplin leased Santa Fe railroad (sections) in the Parashaunt area and moved sheep into the area. Prior to this time Poverty Mountain was the deadline for sheep.

It was reported Ray ran 10,000 sheep on the Strip at one time. Most of these sheep stayed on the Strip year long. There was a great influx of sheep from Utah during the winter months. They would cover most of the Arizona Strip. Pakoon was the spring range for thousands of sheep, also Beaver Dam Slopes, and the slopes of the Virgin River.⁴⁶

Two documents in the files of the Arizona Strip District Office of the Bureau of Land Management throw some light on the short period during which a portion of the Shivwits Plateau, including the area presently under the jurisdiction of the Lake Mead National

46. Lloyd Swapp, typewritten notes on Arizona Strip history in Arizona District Office, B.L.M., St. George, Utah, p. 5.

Recreation Area, was in the Dixie National Forest.⁴⁷ An item in the Washington County News of 16 April 1908, provides background:

The news that stock are dying on the Canaan range is everything but encouraging, especially so early in the year. Sheep have practically cleaned the range of feed and cattle are having a hard struggle for existence. This brings home to us the importance of the forestry service, which regulates the range and does not permit overgrazing. While this service was looked upon by many at first sight as a hardship imposed upon them, it is gradually dawning upon them that it is a good thing, and we believe time will emphasize this.⁴⁸

In October of 1908, Angus M. Woodbury entered the Forest Service at St. George, and, in July of 1909, took up his duties as ranger at the Wildcat Ranger Station two miles north of Parashant.

July 7. Took possession of house without doors or windows (unfinished).

10-17. Routine work and work on house, putting in doors and windows. Went to sawmill and to Green Springs. Took my wife from Green Springs east to the

47. These are: Summary of Diaries of Angus M. Woodbury on Dixie National Forest, Utah, 1908-1913, prepared in 1956, and a Memorandum of historical information prepared for the Forest Supervisor by Irwin Johnson in 1940.

48. Johnson, op. cit., p. 1. Quoted from Washington County News, 16 April 1908.

brink of the Colorado River Canyon (July 13) to get a 50 mile view of the Canyon.⁴⁹

In October of 1909, Woodbury surveyed the north boundary of Parashaunt Division which he began at Parashaunt Wash, thence to Andrus Canyon, across Andrus Canyon by triangulation, from Andrus Canyon to Penn Valley, thence to Parashaunt Pasture, following which a line was run to Snap and Savanac Canyons. On 28 November he left for St. George and did not return to Parashaunt.

No further activity is recorded for the Parashaunt Division until 1916, at which time it was opened for homseteading. On 10 May 1916, President Wilson signed a proclamation:

The effect of which is to exclude from the Dixie N.F. in Arizona and Utah over one half the lands therein. Eliminations, which total 588,520 acres are all made from the two Arizona divisions of this Forest. The area known as the Parashaunt Division, consisting of a block of land approximately 25 miles square, bordering the Colorado River, is abolished and this entire area restored to the public domain.⁵⁰

Compared to other portions of the Arizona Strip, notably Main Street Valley and Mount Trumbull, homsteading in Shivwits

49. Woodbury, op, cit., p. 2. The sawmill referred to was apparently the mill just to the south of Oak Grove being operated by the Grand Gulch Mine.

50. Swapp, op. cit., p. 7. Quoting the Washington County News of 25 May 1916.

appeared to be light and, of those who did enter, only Slim Waring remains. Other homesteads and their claimants can be identified in some cases. In a few locations, for instance in McDonald Flat north of the NRA boundary, there are some remnants of dwellings. Undoubtedly, many who entered failed to prove up. Others were cowboys who filed and proved up in collusion with ranchers who then acquired the holding. One of these (outside the NRA) was Ed Johnson who proved upon the section where the Forest Service Ranger Station was located.⁵¹ He turned this over to Nutter. It was acquired by Hale and Vader on the dissolution of Nutter's holdings after his death. Vader and Hale sold it to Jack Wiggins who also proved up on Wildcat. These two claims were sold to Waring in 1942.

Of more immediate interest are the claims reportedly filed within the NRA. These are:

Horse Valley	by	Slim Waring
Pine Valley	by	George Howard Pemberton
Shanley Tank	by	Jack Spencer
Green Spring	by	Preston Nutter (Water only)
Penn's Pocket	by	Preston Nutter (Water only)

That more settlement was not attempted is directly attributable to the lack of reliable water supplies. The area remains remote and lonely. In Waring's words, "There's nothing up there. What is the National Park Service trying to do? There's no water there to support dudes!"⁵²

51. Johnson figures in several feuds of importance. See Chapter IV.

52. Interview, 17-10-77. See also Part II, A, Water Sources and Ranches.

C. Cattle Baron

Although many actors made their appearance in the Arizona Strip during the years of open range prior to the Taylor Grazing Act, the leading role was played by one who, himself, rarely ventured on stage for reasons that will become apparent.

Preston Nutter was born in 1850 of Christopher Nutter and Catherine Pugh Nutter in Clarksburg, West Virginia.⁵³ He was orphaned at nine and headed west when only thirteen. His drive and energy were clearly manifested early for, by about his twentieth year, he had attended a business college in San Francisco with \$5,000 that he had received from the sale of a mining claim.⁵⁴ His life was active and adventurous.

Among other incidents was an exploration into the San Juans with Alfred Packer, the Man Eater. He had the good fortune and judgment to heed the advice of Chief Ouray and quit the party before winter set in. Nutter became the chief witness at Packer's two trials on charges of murder and cannibalism.⁵⁵ Nutter served in the Colorado legislature and established a successful freighting business that served Colorado mining communities. In 1886 he acquired a large range in northeastern Utah and began there two practices that he would use to advantage in the Arizona Strip. One of these was to upgrade his stock. In Utah he exchanged range

53. Obituary, Salt Lake Tribune, 28 June 1936. Preston Nutter married Katherine Fenton in 1908. She died in 1965. Salt Lake Tribune, 18 July 1965.

54. Virginia N. (Nutter) Price and John T. Darby, "Preston Nutter: Utah Cattleman, 1886-1936," Utah Historical Quarterly, Summer, 1964, Vol. 32, #3, p. 234. Virginia Price was Nutter's daughter. She died on 29 October 1977. Obit. Utah Cattleman, December 1977.

55. Price, Darby, op. cit., p. 235, 237.

steers for 1,000 Hereford cows and bulls, the first blooded stock in that part of the country. And he also freely and deliberately used outlaws--"Butch Cassidy" among them--as his hands.⁵⁶

Nutter's entry into the Arizona Strip was inadvertent. In 1893 he negotiated a lease on Strawberry Valley, west of Ouray, Utah, and south of the Duchesne River, and was ready to stock it in September.

He sent word to cattlemen in Arizona, informing them that he was in the market for 5,000 head of cattle and that he would take delivery on the north side of the Colorado River near Scanlon's Ferry He made Hackleberry [sic], Arizona, his headquarters for dealing and contracting. As soon as the cattle were on their way, he wired Bishop Franklin Johnson in Kanab, asking him to send the Nutter outfit to Scanlon's Ferry and have them pick up more good men along the way.

The bulk of the Arizona Stock came from south of Kingman, some as far south as 300 to 400 miles, along the Bill Williams, the Santa Maria, and the Big Sandy Rivers. In all there were 15 Arizona ranchers who agreed to deliver cattle. The various herds ranged from 25 to 900 head.

The ferry at Scanlon's was small and impractical for handling any large number of livestock. The Colorado was wide and the water was swift in the area. However,

56. Ibid., p. 237. Arizona Strip cattlemen also used this and other means to sidetrack the proclivities of rough characters. See Chapter IV.

by the time the cattle arrived Nutter had found a place that was reasonably flat and smooth. When a final tally was taken, it was discovered there were 4,652 head. Some 400 head had been lost in the hot desert crossing from Arizona.

As cattle converged on the river, Nutter and his cowboys bunched them and commenced the hazardous and unprecedented job of pushing them in to swim to the north side. Time after time Nutter, his riders, and the Arizona men plunged their horses into the silt-laden Colorado to point and wing the swimming steers. It was a three day operation with men, horses, and cattle fighting to stay alive. Amazingly, neither a man nor an animal was lost in the crossing.⁵⁷

After leaving Scanlon's, Nutter's herd drifted north along the Virgin and were exposed to a water shortage, heat, and squalls of snow that heralded the approach of winter. Some cattle were lost, and Nutter decided to winter in the Strip rather than risk the higher elevations in Strawberry.⁵⁸

Nutter saw the good range and mild climate of the Strip were well suited to breeding operations, and he put in motion a variety of moves which eventually gained him control from the Hurricane Cliffs to the Nevada line. In arid country, control of water is control of the range. Nutter deftly outmaneuvered the water usufruct that local ranchers had enjoyed.

57. Ibid., pp. 242, 243.

58. According to Rudgar Atkin, interviewed by the author in December, 1973, Nutter was caught in a snowstorm in Fort Pierce Wash a few miles to the southeast of St. George.

Several cattle and sheepmen from around St. George were using the Strip, but they were doing so without valid government titles.

B.F. Saunders, a large owner and dealer in cattle, claimed a number of springs in the Strip. Anthony Ivins, an apostle in the Mormon Church and owner and manager of the Mohave Cattle Company, claimed several of the springs. Nutter was hard pressed to find water for his cattle. Outsiders were not accepted, and the men who used the Strip backed up their claims with the theory that 'might makes right.' However, Nutter was not easily discouraged. He developed water holes of his own, and then took necessary steps to acquire legal titles on some of the land and springs, using preferred Indian scrip that he bought in Washington, D.C., at a premium price.⁵⁹

The "premium price" that Nutter paid for the scrip was, according to Reed Mathis, \$2 per acre.⁶⁰ Each water hole, seep, or spring that was preempted by scrip was usually surrounded by a claim of forty acres. Nutter claimed eleven waters that can be identified, although more may have been added up to a total of

59. Ibid., pp. 243, 244. We should note that Ivins was not an apostle of the church at the time he was defending himself against Nutter, although he was able and highly respected. In the 1920s, he was a member of the Church First Presidency. Nutter, although Utah's largest cattle grower at the time, was not Mormon. Neither, apparently, were his associates or cowboys.

60. Quoted in Cox, op. cit., p. 13.

thirty.⁶¹ Either way, \$880 or \$2,400, the price was right for control of so vast a domain.

That local ranchers reacted with "might makes right" is perhaps understandable:

Preston Nutter, one of the biggest stock holders in Utah, slipped in and placed a government script on the springs at Ivanpatts and New Springs where Eph and Albert (Foremaster) had put in so much hard work improving them. He also put a government script on Antelope. He then decided he better leave the country. This surely did make the Foremaster brothers angry when they found out there was noting they could do about it. They returned the money they had received from Andrew Sorenson, Albert made the remark that Preston Nutter ought to be shot. The word got back to Nutter that Al Foremaster was going to kill him. Nutter didn't dare show up for a number of years.

Finally after things had cooled off, Nutter sent an invitation for Albert and Eph to come to Salt Lake with all expenses paid to settle the affair. I don't believe they went to Salt Lake but they did settle it by giving up Ivanpatts and New Springs for Antelope.⁶²

61. The identified waters are Black Rock, Wolf Hole, Rock Canyon, Big Spring, Ivanpatch, New Spring, Whitmore, Hidden, Andrus, Green, and Penn's Pockets. *Ibid*, p. 13. A newspaper report (unidentified) in Sharlott Hall Museum, dated 10 June 1937, notes that G.W. Hale and George Veater purchsed 7,000 acres of Nutter holdings and more than 30 patented water rights.

62. Foremaster, *op. cit.*, p. 7.

Nutter also acquired control by outright purchase, sometimes, apparently, exploiting the problems of the smaller ranchers:

Andrew (Sorenson) sold Parashaunt to Preston Nutter. Prior to this time Ivins had sold his holdings at Parashaunt to the same man. There had been heavy droughts [about 1895, ed.], cattle were dying and Preston Nutter offered to pay twenty dollars a head for every animal that could be gathered. At this time, Andrew had about as many horses as cattle, but Nutter refused to take the horses but stipulated they must be removed from the range.⁶³

According to Price and Darby, in the spring of 1896, Nutter bought,

The cattle, improvements, and all rights and titles claimed by Anthony Ivins. The following year he bought Mr. Saunder's claims and improvements for \$3,000, and a small spring called "Wolf Hole" from M.W. Andrus for \$500. The next year he bought Mr. Foster's range rights, one-half interest in Big Spring, and 2,000 head of his cattle. At about the same time he bought Andrew Sorenson's cattle, about 500 head, and all his range rights and claims. Before the turn of the century, he had acquired most of the cattle outfits on the Strip. He improved upon the land and springs, but the Strip was lawless, rugged country that continued to plague him to the end.⁶⁴

63. Sorenson, op. cit., no page number.

64. Price and Darby, op. cit., p. 244.

Another common device used on the Strip, and elsewhere, to gain control of land was to hire a cowboy to file on a homestead, prove up on it, and then to turn it over to the big outfit. For example, Nutter hired Ed Johnson to homestead some land near Wildcat. After Johnson had proved up, Nutter bought the land and thirty-five or forty calves and paid Johnson expenses and wages.⁶⁵

The opposition that Nutter's actions engendered forced him to hire Texas cowhands and "deputize them to protect his cattle and springs."⁶⁵ Ed Johnson was one of these cowboys, who, as the following story told by the Englestead brothers demonstrates, took his duties seriously:

Homer Englestead: Very likely, when Ed . . . Ed was a smart man. When Ed started Wildcat, he set for days and look out the window and go like that (thumping on the table) on the table. I wondered why.

Earl Englestead: I don't know. Another time old Ferguson brought a load of salt there and told Ed, he said, now don't let anybody take any of this without a note from me. He said, I don't give a damn who he is, don't let him have it. This Howard Ingle went up there to get . . . I think he had four or five mules, and he was going to get a bunch of rock salt. Ed told him, he said, give me the note that Ferg give you. He said, I haven't got no note from Ferg. Well, he said, you're not getting any salt. My orders are not to let anybody have any salt unless they have a note. He was quite a big

65. Cox, *op. cit.*, p. 203.

66. Price and Darby, *op. cit.*, p. 244.

guy. He said, just try to stop me. Ed said, don't think I won't. So Ed walked back up to his house and got his gun, and this is what Ed told me, he said, I'd 'ave hit the son of a bitch right between the eyes, but the dirty bastard turned his head and it just went around, and he said, he dropped and I just went back in the house. He said, I didn't give a Goddam how long the son of a bitch layed out there. He said, here come . . . I don't know, a St. George guy that must have happened by and seen that mule sleeping and rode over to see old Ingle laying there. Then they went and got somebody fairly close with a car and they took him to St. George, but he had been shot and he couldn't walk.⁶⁷

Nutter was not close enough to oversee his range properly and, according to several informants, ran a sloppy outfit; "his closest workmen were his worst enemies."⁶⁸ "Nutter's cowboys saw how loose his outfit was and many started taking his calves. Some of Nutter's men were local, but only if he didn't find out. He preferred to bring them in from the outside."⁶⁹

One important result of the friction that existed between Nutter and the St. George ranchers was his refusal to trade there. To avoid this, he went to the expense of building a road from the Strip to St. Thomas. This began in Hidden Canyon (T30N, R13W), descended into the Grand Gulch down a cliff face on what became known as the Nutter Twists, and thence generally in a

67. Mike Belshaw, transcription of interview with Homer and Earl Englestead, 14-11-77, p. 3.

68. Chloe Bundy, to Mike Swernoff, May, 1974.

69. Ward Esplin to Sharon Rule, May 1974.

southwesterly direction to where it intercepted the Grand Gulch Mine Road at Cottonwood Wash, two miles south of Pagoon. This road was used to transport supplies from St. Thomas and salt from the mines to Nutter's operations in the Strip.

Had Nutter less drive and energy, and more concern for the rights and efforts of others, perhaps his empire would have been less extended but the road to St. Thomas would not have been necessary and the "lawless, rugged country" would not have "continued to plague him to the end," which came in 1936. Ironically, 1936 was the year that the Taylor Grazing Act came into effect in the Strip. Had it arrived earlier, Nutter's consolidation would have been difficult to challenge, and his empire could be intact today. The Nutter holdings, purchased by Veater and Hale in 1937, are now divided among many smaller claimants; ironically, many of whom are St. George Mormons descended from those at odds with Nutter in an earlier day.

This section should close with reference to Nutter's actions in the area of National Recreation Area jurisdiction. As already noted, Nutter allegedly gained control of Green Springs and Penn's Pockets (Ambush Water Pockets) by the use of scrip. A fence crossed the peninsula at Penn's Pockets running two miles in a generally southeasterly direction. Nutter used this to keep his steers to the south. When Slim Waring and Bill Shanley settled the country, they moved Nutter's steers out and branded the mavericks. In the northern part of the range that Waring was trying to establish, Ed Johnson set up a brush fence for his own pasture. Waring countered by setting it on fire. Thereupon, Johnson, gun on saddle, started to hunt Waring down. Waring managed to keep out of his way until things cooled down. Waring said later, "Nutter sent Johnson down to kill everybody off."⁷⁰

70. Earl Cramm interview with Slim Waring, no date.

CHAPTER THREE

MINING IN THE LAKE MEAD NATIONAL RECREATIONAL AREA

A. Purpose of the study

Within the boundaries of the Lake Mead National Recreational Area there are a great many old mine workings: shafts, tunnels, pits, and the occasional building or building remnant. Most of these constitute dangers to the public using the Recreation Area; but some of them could represent valuable historic resources.

For the protection of the public, those workings which have no historical significance should be sealed. On the other hand, for the enrichment of the cultural treasury of the United States, those which have distinct historical significance should be identified and protected by some means, such as inclusion in the National Register of Historic Places.

The purpose of this study, therefore, is to identify those mine workings which have historical significance and those which have not.

B. Criteria

Production can be used only loosely as a criterion. If a mine had virtually no production, it is unlikely to have had any real historical significance. On the other hand, large production does not necessarily mean the mine was historically significant. Nor does small production preclude historical significance.

Influence on the history of the surrounding area, the building of trails and roads, the begetting of settlements, meaningful participation in the trade union movement, encouragement of the

building of a fort, substantial influence on the passage of legislation--these and other considerations must be weighed.

It would be important to know that a given mine had introduced a new mining technique, a new milling process, a unique system of transportation, a metallurgy that gave unprecedented recoveries, and so on.

If at a given mine there had been a battle with Indians, or a shoot-out between lawmen and outlaws or between two rival gangs, or a Civil War battle, that would be important to know.

In other words, it is not just a matter of tonnages or the lack of them that matters; it is what happened at or because of that mine that imbues it with local, regional, or national historical significance.

C. Approach

First an effort was made to gain an overall knowledge of the general history of the area covered in the study. Since the history of both Nevada and Arizona from the time of the Spanish conquistadores through the early part of the 20th Century is largely the story of mining, that study was inevitably interwoven with the history of the mining in certain areas and districts.

Second, an effort was made to locate every known mine in the Lake Mead National Recreation Area. For this purpose the primary tool was the U. S. Geological Survey's quadrangle maps covering the entire LMNRA. These were supplemented by maps appearing in reference works; by the very detailed series of maps of Mohave County, Arizona, as prepared and published by the Arizona Highway Department in 1968; the map of the Lake Mead National Recreation Area, Arizona-Nevada, Map No. X-300-772, published

November 1972 by the United States Department of the Interior, Bureau of Reclamation; and the Mineral Resource Map of Clark County, Nevada, by E. H. Pampeyan and Ben Bowyer, prepared cooperatively by the U. S. Geological Survey and published as Plate 2, Bulletin 62 by the Nevada Bureau of Mines in 1965.

Next those mines which were identified by name on such maps were listed. A search was made of the literature (publications of the U. S. Geological Survey; the U. S. Bureau of Mines; the Nevada Bureau of Mines; the Arizona Bureau of Mines; the Arizona Department of Mineral Resources; the U.S. Department of Mineral Resources; the U.S. Department of the Interior; trade journals; histories; unpublished manuscripts; local "historical" publications; and whatever other materials came to hand) to pinpoint in so far as possible the histories of those mines.

At the same time note was made of other mines mentioned as being near those identified in an effort to find the names and histories of those mines marked on the maps but unidentified.

The Arizona Department of Mineral Resources has been for about two years associated with other agencies in "The Mohave County Custom Mill Project," an undertaking aimed at determining whether the combined potential of mines in Mohave County could support a custom mill, and whether the existence of such a mill would make economically feasible the reopening of mines in the county.

A necessary first step in the project was to research the histories of all known mines in the county. Through the good offices of John Jett, Director of the Arizona Department of Mineral Resources, Jerry Irvin, Tucson field engineer for the Department, was made available to check the list of mines we submitted as lying

within the boundaries of the Arizona portion of the Lake Mead National Recreational Area. Irvin checked this list carefully and supplied us with all the information he had gathered on each from the literature, from Department records, the records of the Arizona Bureau of Mines, and all other sources he had available to him. These findings have been incorporated in this report.

In addition we engaged the services of Glenn A. Miller, another of the Department's field engineers, who is a specialist in such research as that we have been engaged in for this report. Miller's assignment has been to double-check our results and to try to ferret out additional information where ours seemed inadequate. His assistance has been very productive and valuable insurance that every possible base was covered.

D. The Research

"The pioneer prospectors and miners were too busy overcoming obstacles, struggling against hardships and celebrating occasional periods of good fortune to write about their experiences, even if able to do so. Few authentic records of most of the earlier camps exist. Available statistics are often far from reliable, and good judgement is required to separate the true from the false." Gold Placers and Placering in Arizona, by G. M. Butler, p. 9, August 15, 1933; Bulletin No. 168, 1961; Arizona Bureau of Mines.

Dr. Butler's statement applies just as much to lode mines as to placers, and just as much to Nevada as to Arizona. The unreliability extends from the earliest mining activities up to World War I. It accrues from the factors Butler mentions and also, in considerable part, from one he does not mention.

This is not to disparage the efforts of such men as Bancroft, Hinton, Hamilton, Farish, and other historians, nor those of such

giants as Schrader, whose works are the base on which so much in the field has rested. But the facts are these:

From its inception, mining in what is now the Lake Mead National Recreational Area and surrounding areas was conducted in circumstances of extreme hardship and highly charged emotion. The county was forbidding, the creature comforts virtually nil, the mechanical aids primitive, and rewards meagre.

Yet the men who populated the region suffered that primitive, age-old, and ineradicable disease, gold fever. One of its manifestations is that ultimately it's not the finding but the search that fascinates; men have sold obvious bonanzas for pittances to be on their way again. Values were very ephemeral things.

Another is the hope that amounted to sure conviction that in the next wash, up the next rise, across the next ridge lay El Dorado, the mother lode, the ultimate. It amounted to a real sickness of which uncounted thousands of men died after being catapulted by it through a short but intense life. It was not, therefore, deliberate deception but self-delusion that led such men to exaggerate grossly the worth of their findings. Next to prospectors fishermen are paragons of truth.

And for many years there was an army of men waiting not only anxious to believe the prospector's and miner's claims but to embroider upon them. As mentioned in the previous chapter, the number of promoters (confidence men) was legion, and back East they had suckers lined up begging to dump their money into get-rich-quick mines. At times Oatman, Chloride, and Kingman were virtual stock exchange centers for mining properties.

It is little wonder, then, that the early records prove almost totally unreliable. Even the work of such a conscientious and able man as Schrader must be used guardedly. It was literally, physically impossible for him to visit personally every one of the hundreds upon hundreds of prospects (all called "mines" by the promoters) in every remote district that came to his attention.

Necessarily he was in the same dilemma as today's mining historian. He was forced to take a large proportion of his information from the most reliable source he could find and pray it was reasonably accurate. If, from 1902 to 1918 and later, the truth in field was rarer than bonanza gold mines, Schrader and his colleagues were as much victims as the unwary widows in the East who were gulled by the same hyperbole.

As for men like Hinton and Hamilton, they were much more commercial writers than historians, and they were capitalizing in their own way on the intense interest easterners had in the west. Newspapers that featured the West sold like hotcakes; speakers who talked about the West packed auditoriums; and books about the West sold printing after printing. But all were constrained to supply what the buying public wanted to hear--that the West was the land of opportunity, the land of unclaimed wealth, the land of dreams. If, therefore, Hinton's and Hamilton's works read sometimes like unmitigated promotions, they were simply fulfilling what was demanded of them.

Bancroft was a good and conscientious historian; but his reliability increased with the remoteness of the times about which he was writing. He worked with a stable of researchers and writers, a sort of assembly-line of history. Thus the sorting and appraisal of a plethora of recent and contemporary information could not be as careful and mature as the judgement of information to which time had lent perspective and given proof.

And Farish, again, was a conscientious but random workman. Mostly he seems to have proceeded from a multiplicity of sources, recounting in haphazard fashion what he knew, what he had read, what he had heard. His work provides many valuable insights; but it is safest practice to double-check each before accepting it as gospel.

Dunning, on the other hand, was a graduate and experienced mining engineer, a meticulous researcher with a dedication to accuracy, and a man of independent means who therefore was not unduly hurried by deadlines. His principal work, Rock To Riches, has been accepted since its publication as the standard in the fields of the history of Arizona mining.

In the introductory remarks to his chapter, "Compendium of Important Arizona Mines," Dunning says:

"There are more than 400,000 mining claims in Arizona, and probably more than 4,000 companies have been incorporated for the purpose of mining in Arizona.

"Obviously any description or record of individual mines can touch the highlights only. In this chapter of Rock To Riches the author has drawn the line at mines which have a recorded production well over \$100,000. A few exceptions are made where there are historical facts of special interest. . . ."

"In compiling this chapter, many sources of information have been used; but hearsay, rumor, and old timers' guesses have been strictly avoided."

Typically the mining man, Dunning chose production as his first criterion. A valid historian, however, he provided for exceptions "where there are historical facts of special interest."

Dunning, therefore, has been used as a reliable positive guide to significance. If he says a mine was important, his judgement has been accepted. On the other hand, the simple fact that a mine does not appear in his compendium has not dismissed it from further intensive investigation.

Only two outstanding technological advances were made in gold and silver mining during the era of the heyday of Mohave and Clark counties. One was the cyanide process. Invented in 1866-67 by J. S. MacArthur and R. W. and W. Forrest, it was first proved commercially in South Africa. Dunning records that it was introduced to Arizona at the Congress Mine in 1895. Its immediate success there stimulated its quick adoption throughout the area.

The other, Dunning says, also added to profits, "Up until this time, gold miners generally had attacked ore from above, then followed it downward. That is, the ore was mined out as the shaft was sunk. However, early in the 1890s, miners realized it would be much easier and faster to sink a shaft outside of the ore and run an adit to the vein and mine upward on the ore, thus enabling the miner to use the law of gravity to his advantage in handling the loose ore." (Rock To Riches, pp. 130-31.)

Neither of these two major advances originated in any mine within what is now the Lake Mead National Recreational Area, nor, apparently, did any other.

Two other facts have emerged from the research for this report. The quadrant maps of the U.S. Geologic Survey for the most part are meticulous in their attention to detail. As often as possible the name of a mine is printed by the symbol for it.

However, many mine symbols are unidentified. This accrues from a fine point in the definition of the word "mine."

A mine can be defined as a property developed for the purpose of recovering ore from a deposit at a profit. The difference between a prospect and a mine, therefore, becomes that between a hope (prospect) and an expectation.

The mining law of 1872, and many of those which preceded it, however, required that to keep a claim (prospect) valid the claimant must have a "discovery" of mineral ore and perform at least \$100 per year of annual labor or assessment work. This for many years consisted of digging a hole on the property. For example, the law required that location work be performed on each claim located by the prospector. Location work consists of sinking "a location or 'discovery' shaft on the claim to a depth of at least eight feet from the lowest part of the rim of the shaft at the surface or deeper, if necessary, to a depth where mineral in place is disclosed in the shaft. The shaft should have a cross section of at least 4 ft. x 6 ft. . . . An open cut adit or tunnel equal in amount of work to a shaft eight feet deep and four feet wide by six feet is equivalent as location work to a shaft sunk from the surface." (Verity: 1977 30-31) A claim could not be patented until \$500 or more of such work had been done. In the late nineteenth century and early twentieth, a lot of rock could be moved for \$500, leaving a big hole and a distinct scar on the landscape.

This, of course, presented the map makers with a problem. Here was clear evidence that someone had attacked this land with what appeared to be purposes of mining; they could not know, nor was it their responsibility to know, whether the property represented merely a claim or prospect on which annual labor and

location work has been performed on a mine. Indeed, in the case of most gold and silver properties, the distinction never existed clearly. Claims around the turn of the century were staked almost exclusively on the basis of surface expression; they yielded values from the beginning and thus qualified from the first day, technically, as mines. Yet in most cases the deposit was shallow and soon mined out simply in the process of development toward patent. When the claimant was satisfied he had gone "deep enough," he tried to sell his property and, failing that, simply walked away, leaving the evidences of his presence for later map makers and historians to puzzle over as they would. The significance of the property was purely personal to him and his associates.

Descriptions and evaluations of the mines, prospects, and mining districts within lake Mead National Recreation Area are in Part II of this study.

CHAPTER FOUR

RANCHING IN THE LAKE MEAD NATIONAL RECREATION AREA

National Recreation Areas, unlike National Parks, are multipurpose in function. Within them, recreational uses such as hunting, and commercial uses such as mining and ranching, are permitted. Although only two ranch headquarters are located within the boundaries of the NRA,¹ most of the area is allotted to grazing leaseholders. Cattle, horses, feral burros, mountain sheep, and rabbits compete for scarce forage, and burro trails form interlocking mazes down washes to the waters of the lakes.

As previously discussed, the vegetation of the lower desert is sparse with non-edible species such as a creosote bush and cactus predominating. The carrying capacity is low, and such grasses as are available are found mainly in washes at widely scattered locations.

On the portion of the Shivwits Plateau within the Recreation Area, the cover of ponderosa and pinon-juniper gives way to grassy meadows in a few locations. For the most part, stock browse upon scrub oak, cliff rose, and chapparal.

Water sources are scattered and are usually springs which have been opened, developed, and contained. As with elsewhere in the arid Southwest, the control of water is the control of land.

1. Tasi and Horse Valley. Slim Waring has moved his headquarters from Horse Valley to Wildcat, and so, Horse Valley is now used only as a line camp.

The history that we shall recount underlies this, for it is the water sources that were fought over, traded, and sold, and it was to them that people came to interact in ways that were, at times, hostile and, at others, hospitable.

We shall focus our attention on the two ranch headquarters-- Tasi and Horse Valley. However, while Tasi is the only habitation in the Grand Wash district of the NRA, Horse Valley has to share its story with other locales.

A. Tasi²

Tasi Springs, for which the Tasi Ranch was named, is located in Section 13, Township 33 North, Range 16 West, two and one-half miles east of the head of Grand Wash Bay. It is now approached by an unmaintained road down Grand Wash, which crosses a bench, and then turns down a parallel wash to its junction with Pigeon Wash at a place called the Box. The spring itself is on the west side of the wash about twenty feet above the dry river bed. It is a series of seeps and has a flow of 183,000 gallons per annum as registered with the Arizona Division of water rights.³

Both topography and the relief offered by the oasis, made Tasi an important stop on the Pearce Ferry Road. The ferry would be about fifteen miles distant from Tasi, a trip that was somewhat over a long day's travel by wagon.

It is possible that Jacob Hamblin and his party may have located Tasi on their return from the Moqui villages in 1863. However, lack of specific mention of it and the story of their

2. Pr. Tasseye.

3. Memorandum, 6-10-77, Bill Burke to Chief Park Ranger.

difficulties in finding water in the region, suggest that this is unlikely.⁴ However, both Hamblin and Pearce defined and established the road to Pearce Ferry in 1876, which was further explored and elaborated by Bentley and Cunningham in 1877 who guided a combined exploration-emigrant party. The party travelled in March of that year, leaving St. George on the 4th. On the 16th, they reached Tasi "where good water and some feed was located. While they lay over on the 17th a 'co-op beef' was killed and divided among the families. May Hunt reported the presence of two Indians at the spring and how delighted she was to see human habitation in such desolation."⁵

A later party travelling to Pearce Ferry, also reported Indians there in November 1880:

From that location (Black Willow Springs) they headed for Tasi Springs, but had difficulty locating the right road. However, on the 9th they arrived, watered and fed their stock. There were five or six Indian families living there at the time.⁶

The first claim of record to Tasi was made by O. B. Nay and H. M. Nay on 10 June 1903.⁷ The Nays, by this action, claimed the springs plus twenty surrounding acres for purposes of mining, milling, ranching, and stock raising.

4. Smith, op. cit., p. 380.

5. Ibid., p. 389.

6. Ibid., p. 395. The party included Bishop N. R. Tuttle and John W. Tate with their families from Toele County and a "large group from Cache Valley."

7. Recorded with Mohave County Records Office, 19 September 1903.

Merle Frehner accompanied his father to Tasi in 1917 when they were freighting supplies to a government survey team working in the area. Mr. Frehner was 15 at the time and has not been back there. His recall of details, however, is excellent:

Mike Belshaw: You still seem to have a pretty good recollection of it, as you described it last time, you recollected the catclaws and the mesquite and . . .

Merle Frehner: The cottonwoods.

Mike Belshaw: The cottonwoods and were able to . . . you said something . . .

Merle Frehner: And I can remember the pasture, the little alfalfa patch down below the house there and quail . . . the man was living there. I, uh, we didn't bring a shotgun with us on that trip and I asked him if he had a shotgun, and he said, yeah, I got a single barrel there and, uh, so, I walked around and I come back with a bunch of quail and cottontails, and I remember it was cold and stormy and, uh, we took . . . we took down there a side of beef, fresh beef. And it was right out. And we would take it and lay it out on top the wagon at night, right open, ya know, and so it would, uh, stay cold. It was . . . it was in quarters. We took that down to them and, uh, it rode fine shape. My dad was, uh, I was down with him, but, uh, he knew how to handle it. Got it down there in good shape and those boys down there, they had mules, beautiful mules, belonged to the government, you know. Well . . .

Mike Belshaw: Was anybody living at Tasi when you were there in 1917?

Merle Frehner: Yes. Yes. There was this man was there. One man, and I can't recall his name even though I learned it recently from Laura Gentry, but that he had a brother, she said, at that time they were there and, uh, but he . . . he was only one man that was there when we were there.

Mike Belshaw: And you said that he was living in a small log house? A, uh, above the water?

Merle Frehner: Uh, I think it was more rock than it was log. Yeah, I think it was above the embankment where one of the floods that would come down and on the edge of the hills--a place level, off up there. And it seems like he was under a big cottonwood tree up there.⁸

The Englestead brothers, who ran sheep in the area in the teens through the thirties, recall the stone house standing in 1918 on a bench above the springs. They stated that it was owned by Ed Thomas. The house referred to is no longer standing, and the stones were undoubtedly used by Ed Yates in 1938 to construct the present house. However, there is a remnant reinforced concrete slab with evidence of posts, which appear to have supported a porch roof.

The renegade Queho stalked Tasi while the Englestead brothers were there.

8. Frehner transcription, op. cit., pp. 22-24.

Homer Englestead: No. One night there we was getting supper ready and we sent one of the boys down after a bucket of water. And he come runnin' back, and, he said, I saw Quejo. And Quejo'd been around there and darn near scared him to death.

Earl Englestead: Quejo, we'd killed a mutton and Quejo just come and got a piece.⁹

Squaw Wash was nearby Tasi and was, according to the Englestead story quoted above,¹⁰ named after the old squaw living alone, who sustained herself with the creatures of the land. This may be the same lady mentioned by Ed Yates, whom he interrupted attempting to dissolve her marriage by giving her husband a premature burial.¹¹ According to Yates, the squaw's name was Tasi, and she is thereby memorialized in the springs of the same name. The springs were so called in 1877 when the first emigrants passed through, and Yates did not arrive until the 1920s. While the story is plausible, it does not seem likely.

One of the puzzles associated with Tasi is why Nutter did not lay claim to these useful waters. There is a statement in Footprints on the Arizona Strip that Henry Ferguson and Luther Swanner were working for Nutter at Tasi in 1921.¹² Nutter was clearly aware of the springs and may have been using the general area in the 1920s,

9. Englestead transcription, op. cit., p. 12.

10. See "Prehistory," Chapter One, above.

11. See Ch. VI, "Indians in Contact."

12. Cox, op. cit., p. 84. Nutter wintered his horses in the area. Englestead transcription, op. cit., p. 16.

as did others. However, it is also unlikely that he would not know of them before the Nay's claim of 1903. The St. George Mormons may have been keeping him so busy on top that he was unable to capture Tasi in time.

The next apparent claimants to Tasi were Fran and Tyne Hecklethorne, who saw that the springs were not without a redeeming economic value.

Homer Englestead: They claimed that they lived there when they were making that liquer. Now, they aren't the ones making the liquer, but they got a pay out of it. And . . . uh . . . these fellas that come in, hell, they'd make as high as five hundred gallons of the batch.

Earl Englestead: They had how many big tanks. . . . thousand gallon tanks that they'd put mash in.

Homer Englestead: It was a big concern. It was like Earl said, it was pure grain alcohol and they had brand new trucks would come in there and these fellas come in and load that stuff up was dressed like a king. They'd drive to Vegas and set this five gallon cans on the railroad and ship them all over.

Earl Englestead: Then when they raided them, they did two or three truck loads, and you find one of them, why it was yours.

Homer Englestead: You found five gallon cans all over there, for two or three years you'd run onto five gallon cans.

Earl Englestead: Hid up in the ledges, you know, man that stuff was potent.¹³

Another view on this same era introduces a new actor.

At Seven Springs, we found the Hermit, a tiny gnome of a man. He staggered to the door clad only in a pair of faded blue jeans, to welcome us with a polite flourish, ending on a hiccup.

"Scuse me," he mumbled, "been trying out a new batch I just run off. Pretty potent this time, I guess."

"Down at Tasi, the next water, some fellers had a still--not a measly little still--one that held a thousand gallons. Them boys was in big business. They had the Colorado guarded at Pearce's Ferry and this was the only way in. I was the lookout, and I kept my horse saddled and tied right behind that big boulder up there back of the house. One day I looked down and there's a car coming down the wash. . . . It was revenueurs all right, and I laid right behind that rock with my rifle trained on them while they ransacked my whole place. Old Betsy kept as quiet as a mouse and the minute they left, I jumped on her and galloped six miles overland to Tasi and beat them there--they had ten miles to go in deep sand. The boys just grabbed their guns and beat it to the river. They made it, but there wasn't much left of that still when the law got through."¹⁴

13. Englestead transcription, op. cit., p. 14.

14. Edna Calkins Price, Burro Bill and Me, Strawberry Valley Press, Idyllwild, California, 1973, pp. 94-95.

The next to reside at Tasi, apparently, were not there for very long, according to Earl Englestead:

There was a little couple come in there from Arizona about '34 or '35. And they didn't have . . . they didn't have anything. This . . . the girl was hunting Bill Durham sacks and she was making quilt top, and they had a brand book of Arizona, all the brands of Arizona, and she was crocheting them on this and making a quilt out of that Bill Durham sacks, and you know what Bill Durham sacks is. Well, that was the size of the block. But, anyway, they was about starved out.¹⁵

The couple's occupancy was followed shortly by that of Ed Yates, who moved to confirm his water rights and establish his residence. In the twenties, Yates had acquired Seven Springs from Frosty McDougal¹⁶ and was apparently the Hermit referred to by Price.

Yates cleaned and cemented the springs and applied for, and received, an Arizona Certificate of Water Rights in 1936. With this in hand, he ran off a "Mr. Hackleford"¹⁷ (Hecklethorne?) who had two thousand sheep there, and replaced these with 100 cattle. In an interview with the author, Ed Yates said that Hecklethorne helped him build the stone house in 1938.¹⁸ After the war, Yates sold Tasi to Eldon Smith, who was dispossessed when he did not keep up the payments. It was then resold to Jim and Dennis

15. Englestead transcription, p. 13.

16. Ibid., p. 12.

17. Conducted, 21-10-77.

18. Conducted, 21-10-77.

Whitmore in 1972. The Whitmore brothers are great-great-grandsons of Dr. James Whitmore, who was killed by Indians at Pipe Springs in 1865.

B. Shivwits

Although more sites were involved in ranching activities on Shivwits, than in Grand Wash, the information available for the portion within the National Recreation Area is sparse, perhaps, for the reason, "There's nothing there!" as Slim Waring says.

In terms of continuity, Slim Waring's tenure in Shivwits exceeds all others. He first entered in 1916 and remains active there to this time (1978). He was not the first to run cattle there for he was preceded by Preston Nutter in the 1890s. Undoubtedly, cattle from the Oak Grove headquarters of the United Order were drifting towards Kelley Point by 1880. According to Waring, B. F. Saunders who managed Oak Grove, watered his cattle at Green Springs.

Neither can a precise date be attached to Nutter's take over of the area, although he was well established by the time of Waring's entry. Nutter consolidated his hold by filing on Green Spring and Penn's Pocket, which were near the neck of the peninsula. He also cross-fenced the area at the neck with a line that began at Penn's Pocket and headed southeast for two miles until it reached the eastern rim rock. Steers were kept on browse down to Kelley Point.

In 1916, with the release of the Parashaunt Division of the Dixie National Forest and its return to public domain, a number of persons filed for homesteads on the Shivwits Plateau, both within and without present NRA boundaries.¹⁹ Outside the NRA, Jack

19. The headquarters of the Dixie National Forest in Cedar City has no records of the shortlived Parashaunt Division. The

Wiggins, who once freighted for Sheriff Ruffner of Prescott, proved up on Wildcat. This he sold to Waring in 1942, and it is now Waring's headquarters. Ed Johnson filed on the section previously occupied by the Forest Service Ranger Station. As previously reported, this was apparently in connivance with Nutter, who purchased it from Johnson when he proved up. Upon Nutter's death, this section was sold to Hale and Veater, who sold it to Wiggins, who, in turn, sold it to Waring.

Slim Waring came to Arizona from New York in 1912, and, after spending some time in Phoenix, went to work at the Vulture Mine in Wickenburg. In 1916, he filed on Horse Valley. Asked why he selected the location, he responded, "Because nobody was there!" Waring did not have much opportunity to settle in, for he was shortly called to military service. After his return, with the assistance of Lawrence Klein, who cut the logs, the log cabin, which still stands, was built.

Waring was in partnership with George Weston, until Weston filed on Penn's Valley outside the NRA and now owned by Afton Snyder. Waring also worked with Bill Shanley below the Penn's Pockets cross fence, and together they branded Nutter's maverick steers, an acceptable rangeland practice at that time. Nutter may not have thought so, and local folklore has it that Nutter had enough influence and ill-will to arrange for Waring's military service.

Forest Service personnel diaries of that era were obtained, in excerpt, from the St. George office of the Bureau of Land Management. The information in this section comes partly from them, but is based almost entirely on interviews conducted with Slim Waring and his wife, Mary, at their home in Flagstaff on 18-10-77 and 11-11-77.

Waring also felt that Nutter hired Ed Johnson to force out operators who challenged him. Johnson's volatile character has already been demonstrated in the incident already mentioned,²⁰ in which he creased a man whom he caught raiding Nutter's salt stock. He also drew a gun on Ed Yates at one time and bloodshed was avoided by the timely collapse of Johnson's horse.²¹ We have also referred to the incident concerning the firing of the brush fence, and the subsequent feud between Johnson and Waring. Nutter's daughter, Mrs. Price, said that "since he had not support from local St. George authorities, he was forced to hire Texas cowhands and deputize them to protect his cattle and springs."²² The smaller ranchers stood their ground against Nutter, and those he did not outmaneuver by placing scrip on their waters, or buy outright, managed to stick it out if they survived the frequent droughts.

One other homestead filing within the NRA boundaries is known. It was one by George Howard Pemberton who filed on Pine Valley. Jack Spencer is said to have proved up on a section surrounding Shanley Tank. Waring purchased both of these, and, in addition, sent Spencer, his son, to school in Provo. Waring was also able to purchase a number of sections of Santa Fe Railroad land within the area as well as Green Springs, which he bought from Hale and Veater after Nutter's death. In all, Waring had

20. See "Opening Shivwits" in Chapter Two, above.

21. Englestead transcription, op. cit., p. 1.

22. Price and Darby, op. cit., p. 224. The "local St. George authorities" could hardly have helped, since they had no jurisdiction over Arizona territory.

seventeen sections, and virtual control, by the time the National Park Service acquired his holdings.²³

23. Further information relating to Tasi and Shivwits developed after this chapter was prepared for typing. It will be reflected in Part IIA, "Water Sources and Ranches."

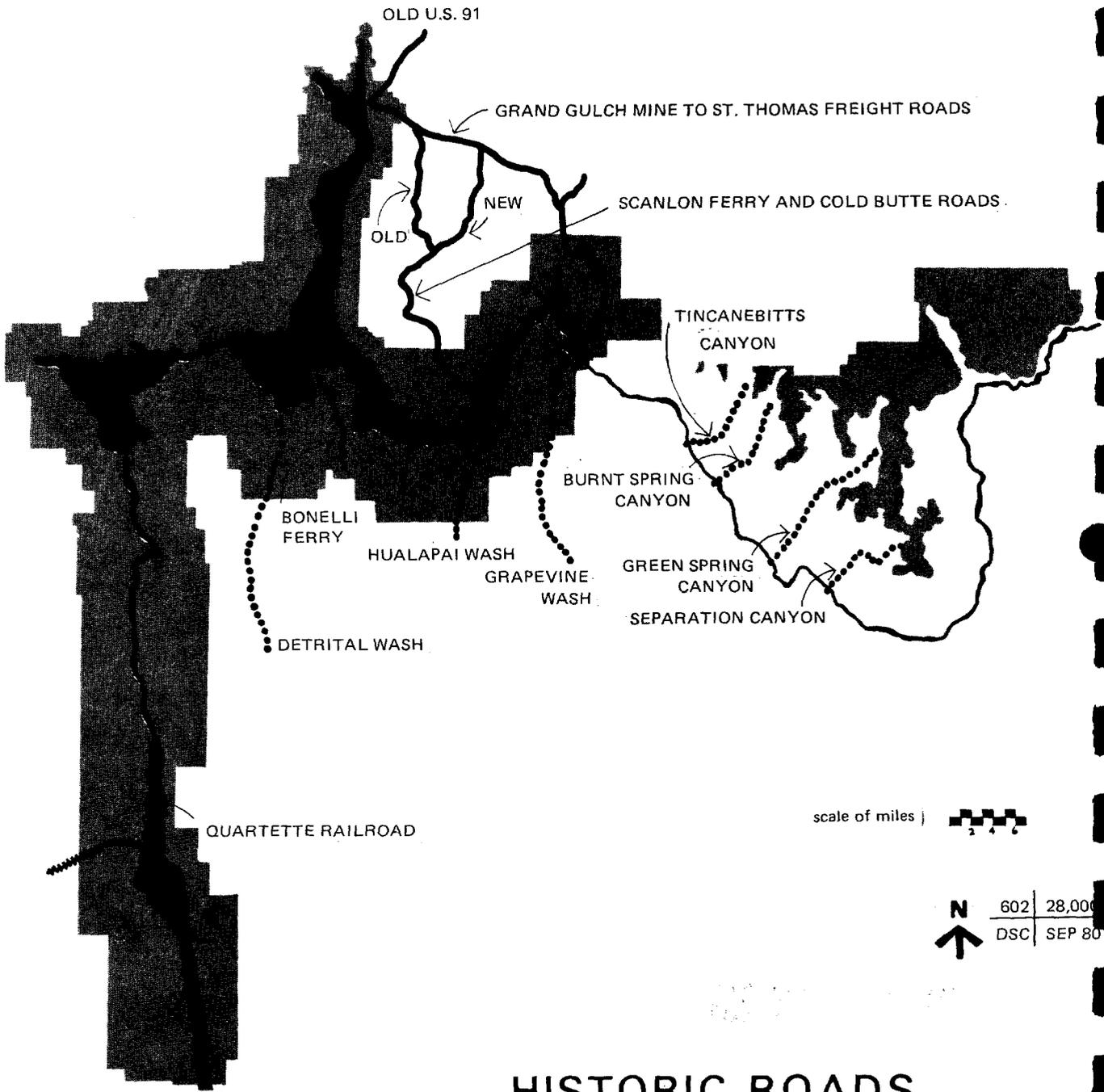
CHAPTER FIVE

HISTORIC TRAILS OF THE LAKE MEAD NATIONAL RECREATION AREA

A number of trails of historic significance intersect the Lake Mead National Recreation Area. Each was associated with a river crossing now underwater and our discussion addresses only those portions above the lake and within the NRA boundaries.

In an area as large as that covered by the National Recreation Area, and interspersed with as many scattered mining sites, it is natural that a large number of trails can be found. Most, it would seem, had an existence associated with specific mines, for they terminated at the shafts. Of these, we might cite, for example, the road from Detrital Wash that winds easterly for ten miles and halts abruptly at the Old Pope Shaft on Indian Pass. The name of the pass conjures up the expectation that there was something more to the road than mine service, at least to the Indians, but no clues to this have yet been found.

That the trails discussed lie to the north of Lake Mead is no accident, for that is where they have been best preserved. On one segment of the Grand Gulch Mine Road, we can say with confidence that it has not seen traffic since 1938, for, with the inundation of St. Thomas, this small section was isolated on a peninsula between two arms of the lake to the west of the Virgin Basin. To the south of Lake Mead, evidence of trails has become lost largely because of recent use. One instance is the southern extension of the Pearce Ferry Trail. Parts of what may be this trail can be seen to the west of the modern highway as it tops out the rim south of the ferry site.



HISTORIC ROADS AND TRAILS

LAKE MEAD NATIONAL RECREATION AREA

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

A. The Grand Gulch Mine--Saint Thomas Freight Road

In a very literal sense, the road that wound from the Grand Gulch Mine to St. Thomas saw the heaviest use, for along it plied wagon trains, two of which were hauled by twenty-horse teams. The trains consisted of as many as three heavily loaded wagons with a lighter commissary vehicle in tow.

The mine's isolation--eighty miles from St. George and forty-five miles from St. Thomas--made shipment of ore a significant obstacle in the first years after its being located in 1873. According to W. P. Jennings, mine superintendent and part owner from 1890 to 1912, an effort was made to smelt the ore in those early years.¹

Remains of the adobe smelter and stack can still be seen at the site. During the nineteenth century years of operation and into the first years of this century, the high graded ore was apparently shipped out by way of St. George. The ownership was St. George based until 1890 when the mine was sold to the Jennings brothers of Salt Lake City. Workers, also, came from St. George for the most part, about 50 being employed in 1913.²

1. Jennings, op. cit., p. 269.

2. Hill, op. cit., p. 42. Hill stated that St. George was 129 miles by road north of the mine. Undoubtedly, it seemed that far, but eighty miles, by way of Wolf Hole, is closer to reality. The Las Vegas Review Journal printed a story, "Ghost Towns of Nevada, No. 11, Grand Gulch," 8 April 1956, which showed an excellent photograph of the smelter, but also reported that "in its heyday there were 800 to 1000 persons living at Grand Gulch." This is out of the question, since such numbers could not have been supported, either by the mine, or by the water supply at Pigeon Spring which yielded "a stream of good water about a quarter of an inch in diameter." Hill, p. 41.

Wally Mathis, Sr., who established himself in Pigeon Canyon in 1902, operated a jitney service from the mine to St. George for a number of years and, also, supplied it with beef. Undoubtedly there was traffic between the mine and St. Thomas during the early years, but no record of this has come to light, although St. Thomas must certainly have been a source of salt and provisions.

The orientation to St. George began to waver about the turn of the century. In 1911, Jennings reported:

The high cost of fuel and fluxes, together with the poor facilities for transportation, were too much for even such highgrade copper ore as that of the Grand Gulch. About ten years ago the extension of the railroad to within 140 miles of the mine and an 18c copper market caused a revival of interest in the mine: the old company was reorganized and work resumed. For the next five years, with still a long wagon haul of 140 miles, the company, by shipping a product averaging about 48% copper, was enabled to do considerable development work. . . . When the Salt Lake route built through to Los Angeles, the wagon haul was reduced to 70 miles, and about that time copper moving up to about 25c, new life was put into the company.³

Transportation was the key to the mine's success, for, after 1906, when the road to St. Thomas was built, or improved, the mine operated at increasingly high levels of production which peaked in the latter years of World War I.

3. Jennings, op. cit., p. 269.

Jennings gives a good concise overview of the mine transportation as of 1911.

The company operates its own stageline between the mine and the nearest settlement, 45 miles where it connects with the stageline from Moapa, giving a weekly mail and express service to the mine. The freighting of ore to the railroad is done mostly by the farmers from the adjacent settlements. They freight when they are not busy putting in or harvesting their crops, and since they turn out in goodly numbers when they do come, they move all the ore the company cares to ship. Several six horse outfits, which are kept continuously on the road, keep some ore moving all the time and take care of all back freight. The roads, though long, are kept in good condition and are better than most freight roads of shorter length. The climate is ideal excepting in midsummer, when it is extremely hot, the thermometer registering from 110° to 120° in the shade, and not much shade. At present there is an excellent prospect of the Salt Lake route building a branch line down the Muddy River Valley, thus reducing the wagon haul from 70 to 45 miles. . . .⁴

The branch line was completed in 1912 and the cost of shipping ore fell from the high of \$32 per ton before the railroad reached Moapa Valley to \$10 per ton hauled to St. Thomas.⁵ Railroad service to St. Thomas on the San Pedro, Los Angeles, and

4. Ibid., p. 269.

5. Hill, op. cit., p. 41.

Salt Lake Railroad extended to St. Thomas only in the summer cantaloupe season. Apparently, ore was stockpiled there at other times.

Hill offers a description of the road as he saw it in 1913.

The Grand Gulch Mine is 54 miles by road east of St. Thomas. The road crosses Virgin River by a ford 2 miles east of St. Thomas, beyond which an ascent of 1,300 feet in 16 miles along the bottom of a narrow canyon carries it to the summit of Bitter Springs Pass over the Virgin Mountains. The road continues on the south bench of Black Canyon to a point about 2 miles from Grand Wash, which is crossed at either the Willow Spring or the Pakoon Well crossing. For about 16 miles east of the crossing the road passes over the low bench of Grand Wash to the base of the Grand Wash cliffs, 1,250 feet high, which are ascended by a tortuous but well-constructed grade, up a narrow canyon that opens to the north. The mine is about $2\frac{1}{2}$ miles south of the place where the road reaches the top of the first line of cliffs, but to avoid a deep canyon a detour of 4 miles is made to reach the camp.

For the most part these roads are rather sandy, and at the time of visit they were excessively dusty and cut by deep ruts and 'chuck holes,' owing to the lack of rain for many months. Freight teams take a week to make the round trip between the Grand Gulch Mine and St. Thomas, hauling from 8 to 12 tons, at the rate of \$10 a ton. From 6 to 10 horses are used and usually the freighters travel in pairs, so as to double on steep hills. During the summer of 1913 a Saner gasoline truck was

successfully operated between the Grand Gulch Mine and the east bank of the Virgin River, but it was taken off in the fall because of the poor condition of the roads and the cost of keeping up the tires.⁶

One of the early freighters was Harry Howell, a St. Thomas Mormon who was born in England. Excerpts from his privately printed Expressions are quoted here at length for they vividly portray the nature of the trail and the harsh conditions encountered by the freighters. We should note that, in retrospect, life on the trail was viewed with nostalgia.

St. Thomas was a quaint, little, old-fashioned village. This was evident by its old-fashioned church with the big belfry out in front. Many of the homes were old adobe buildings, like most of the early Mormon [sic] settlements throughout the country. Big cottonwood trees completely shaded the main streets where the sun never penetrated. Here the old freighters camped after a hard trip on the trail. They took the time to repair their outfits, shod their teams, and rest in the shade on the hot summer days.

Harry Gentry ran the store and post office in St. Thomas. Here the freight teams pulled up on the scales to weigh their loads and buy their supplies for the return trip.

After the harvest season was over many of the Virgin Valley boys put their stock on the freight roads. This

6. Ibid., p. 41.

seemed like the only close market they had for their crops. Through the winter months it seemed like one continuous string of freight outfits coming and going all the time. Long before daylight you would see the freighters taking care of their stock and making preparations for the days run. Most generally two or three outfits traveled together and long before the sun was up you would see them strung out along the freight road.⁷

The Grand Gulch Mine was east of St. Thomas. The first few miles of road went winding through big sand dunes until it came to the banks of the Virgin River. Here the freighters forded the river at the mouth of Bitter Wash.⁸

The freighters never knew just how they would find the old Virgin River. Sometimes the water would be deep on one side of the stream, the next time they would find it

7. Harry E. Howell, Expressions of Harry Howell, private printing. Copies available from Mrs. Boyd C. Sunderland, 1025 West State, Lehi, Utah, 84043, pp. 4-7. Freight was carried not only to Grand Gulch, but also to the mines south and east of the river. Despite the distances involved, the Virgin River communities area remained the closest source of produce and salt for the mines. When you ask any of the old freighters about it they all tell you they spent the happiest days of their lives following the freight roads of the west." p. 18.

8. Ibid., p. 13. The sand dunes referred to are no longer visible. There is no evidence of them on the exposed segment of the road on the peninsula and Howell does not specifically mention this segment. What Howell refers to as Bitter Wash may be what is shown on the Overton Beach Quadrangle as Mud Wash. It is probably that Mud Wash was an early segment of the route. It lies 1 to 5 miles south of the route that shows evidence of grading and considerable use.

all running against the opposite side of the river, or they might find it all running in the center of the channel. As the river changed its course it left soft peaks and bars of treacherous quicksand. This made it so the loaded freight outfits had to drop the trail wagons and pull only part of their load across the river. They would make two or three trips to get their loads across the stream.

When there was a flood in the river the outfits were tied up on the banks of the stream for days at a time waiting for the high water to run down so they could make the crossing.

One time Martie Bunker was driving an eight horse outfit loaded with ore. He started across the stream when the river started to raise. He tried desparately to make the bank, but when about twenty-five yards from the landing, he was in swimming water. His outfit was swept down the stream drowning all but the lead horses that happened to get free from the outfit and swim to shore.

Martie would have drowned with his outfit if it hadn't been for a cowboy who was riding along the river and saw the accident. He uncoiled his lasso rope and threw one end to Martie, who was struggling in the stream about twenty-five feet from the bank and pulled him to safety.⁹

9. Ibid., pp. 13, 14. Martie Bunker, it will be recalled, was the freighter whom Toab planned to deactivate in Pigeon Canyon.

After crossing the river the road followed up the Bitter Wash for several miles until it finally narrowed into a deep winding canyon. In places it seemed so narrow and crooked that it looked almost impossible for a big outfit to go through. There the skinner had to understand his business to make the turns in the canyon. In some places, it would require four and six over the chain at a time to make turns.¹⁰

Howell describes the Bitter Springs campground as one of the best on the trail, but "beware of that clear sparkling stream. For no laxative ever worked faster or more severe than one good drink of that. . . ." ¹¹

Shortly after leaving Bitter Springs the freighters came to a red sandstone valley where outgoing crews cached hay and grain in pockets high out of reach of cattle. To identify their stores, the teamsters carved or painted their names on the sandstone.

Mud Springs was the next campground and the purgative quality of the waters was severe, according to Frehner.¹² Mud was not an especially pleasant camp. There was neither protection against winter winds nor shade from summer sun. About one mile

10. Ibid., pp. 14, 15. Names used by the freighters and those appearing on Geological Survey maps do not always coincide. The Bitter Wash referred to is apparently what is named Mud Wash on the Overton Beach Quadrangle. Mud Spring appears to be now named Red Bluff Spring and lies outside the NRA at the base of Bitter Ridge.

11. Ibid., p. 16.

12. Frehner transcription, op. cit., p. 14.

from Mud Springs a branch of the trail cut to the south heading for Horse Springs, Gold Butte, and Scanlon Ferry. The Grand Gulch road continued on towards Grand Wash by way of Black Canyon. At the Grand Wash the trail crossed the St. George to Pearce Ferry Trail. Willow Springs was the last water before the climb through Grand Gulch itself to the bench upon which the mine was located. Frehner describes the time consuming task of filling water barrels at Willow to be used at the dry camp:

Mike Belshaw: Did . . . did you haul water to the mine or was that the water you took just for your own use.

Merle Frehner: No, no, uh, real oak . . . oak barrels. 50 gallon barrels and they usually in the middle wagon. That left it . . . they piled it . . . they didn't haul any water until they got to the Black . . . Grand Wash, and unless they knew they were going to camp in the dry camp in between sometimes, they make believe they wouldn't make to Mud or better sometimes they would camp in Black Wash. Something like that, but that was what they would call the Manger, was between the foot of the mountains and the Grand Wash Springs there back on the Willow. That had a wagon full of those barrels and, the Willow, it was a well, and they attached a plank that went off there about so far, 3 or 4 feet and the driver would stand on that plank and he would have a strap that would snap on about 3 or 4 gallon bucket and he would drop it in the . . . and he must have pulled it up at least 12 or 15 feet in the water by hand. And he pulled it up where he was by the side the wagon. Pull it over into a tub inside the barrel and he had a hose he would siphon from the tub into the barrels. The barrels just had holes, small holes in them.¹³

13. Ibid., pp. 20-21.

It was on the return descent through arduous Grand Gulch that the teamsters used rough locks to control their outfits.

This is a heavy shoe that fits on the tires of the rear wheels, fastened with a chain to a crossbar on the wagon. The chain is just long enough so that when you set the shoe on the ground in front of the rear wheels and drive up, the shoe is on the bottom of the tire. The wheel doesn't turn but slides down the mountain in the shoe, this makes a good brake without any wear on the tires. When they get to the foot of the grade they just back the wagon out of the shoe and hang it upon the side of the wagon and so on.¹⁴

When the outfits reached the mine, they descended into an excavated trough built so that the top of the wagon was just below grade.

There was a platform that extended out and they throw a plank or some piece there under the wagon . . . and dump it with the wheelbarrows right in. That would be high grade ore, too. Now most of that was hand picked and they would slip these little rubber boot(s) over several of the fingers or otherwise they would wear them out on those sharp rocks.¹⁵

14. Howell, *op. cit.*, p. 34. A shoe of this type is in Murl Emery's Museum in Nelson. The road through Grand Gulch must have been especially difficult to maintain since it lies in the bottom of a rock strewn canyon. It is today impassable to most vehicles. Pieces of copper ore that fell from the wagons lie wedged between the boulders. They are the only evidence of the trail's former use.

15. Frehner transcription, *op. cit.*, p. 16.

Freighting from the Grand Gulch Mine peaked as the First World War drew to a close.

Along in 1916, 1917, and 1918 the Grand Gulch Trail was the scene of much activity. Sometimes there were as many as thirty or forty different outfits on the road at a time. These were mostly six, eight, ten, and twelve horse outfits and the average load was figured about a ton to the horse.¹⁶

Frehner's team was one of the last two hauling from Grand Gulch.

Merle Frehner: I tell you, at last, before they quit hauling the freight teams, it got mighty slim pickins. Because I have seen one of probably the last trips that my folks make there. They had 12 horses, three big wagons and a driver, we furnished our own hay and grain and food for the driver and hauled the water and made the complete trip with . . . and the check was \$125. So you couldn't get rich with a week's work course you didn't have inflation in those days, but that . . . that's when we gave it up. We had to, we couldn't operate.

Mike Belshaw: Yes, from your point of view then it was not, uh, not very profitable towards the end.

Merle Frehner: No, you had to have \$150 and \$175 for those trips in those day, because, uh, your expenses

16. Howell, op. cit., p. 35.

were pretty heavy. We raised most of our own food and we couldn't have done it when we did.¹⁷

The draft animals used by the freighters were, for the most part, horses. Oxen were never employed on the Grand Gulch Road although they were used at an earlier time to haul lumber from Mt. Trumbull to the Temple, which was being built in St. George. Sometimes mules were used.

There was another fellow that they called Buck, also, that freighted out of Hazen to Tonapah and Goldfield, Nevada, along in 1903 and 1904. He had the finest twenty-mule team I ever saw. One day one of the wheel mules got killed in the freight yard by a switch engine. Buck looked the country over trying to find a mate for his other wheeler. One day an old farmer drove into town with just the mule he wanted. Buck tried to make some kind of trade, but the farmer didn't want to part with his mule. Finally, Buck told him that he would give him all the money he had in his money belt . . . and all the money he had in his money pouch for the mule. He counted out three thousand dollars, in twenty-dollar gold pieces. There is no doubt that Buck got the mule.¹⁸

Frehner reports that his family used mules as well as Clydesdales upon occasion, but generally used a "western draft

17. Frehner transcription, op. cit., p. 20. Because they were paid by the pound delivered at St. Thomas, the freighters were judicious in their use of ore missiles to heave at horses that were not pulling their weight.

18. Howell, op, cit., pp. 35, 36.

horse" of 1,600 to 1,700 pounds. These were geldings. Frehner remembers a famous stud by the name of Rube, who was drowned in a flash flood. Howell mentions this horse, too, and devotes a full page to the history of what must have been an exceptional animal. The horses were fed a high protein diet. The daily ration for ten head of horses was one bale of hay and two sacks of oats, fed in the evening. Since no significant pasture could be counted on, all feed had to be carried by the teams themselves. As Frehner pointed out, if the farmers had not raised their own feed, they would not have been able to afford the work.

As noted, there was an attempt during the historic period to haul ore by truck. The expense of maintaining the vehicle on the poor roads caused this experiment to be short-lived. Trucks were used, of course, during the mine's resurgence that occurred during and after World War II.

B. The Pearce Ferry Trail

Although Pearce Ferry is well known today, it was short-lived and only lightly used in its day. Remnants of access roads still exist, more to the north than to the south, because of the isolation of the Grand Wash Area. Church authorities hoped that the route from St. George to the south by way of Pearce Ferry would provide easy, direct, and safe access to the Little Colorado settlements and to the Salt River Valley. It was none of these things. Sand, lack of water, lack of forage, narrow trails, and a hazardous pass, made the trail difficult. It was less than direct to the Little Colorado settlements, which could be better reached by way of Lee's Ferry, and only slightly more direct than the more reliable Bonelli Ferry. Although the trail was not subject to the hazards of serious Indian attack, the crossing itself was dangerous at high water, and potential users sometimes had to back track and cross at Bonelli's.

The route that eventually evolved left St. George to climb the dugway up Mokiatic Canyon to Wolf Hole, thence to Grand Wash down which it passed until it intercepted Pigeon Wash, which was followed to Tasi Wash. From Tasi Wash, the trail crossed a bench to Snap Canyon near the mouth of which another bench was crossed leading to Pearce Wash. The original access to the south was up Grapevine Wash and into Hualapai Valley from which Kingman or Truxton might be reached.

Much of the history of Pearce Ferry has been recounted above in Chapter One, in "Later Explorations" and "River Crossings." Although some repetition is unavoidable, the emphasis in this section is upon the trail itself, and its evolution.

It will be recalled that, in 1862, Jacob Hamblin traversed the Grand Wash on his way to the Hopi villages, and that he found river egress below Grand Wash to be hazardous. In 1863, he retraced his steps and recovered the skiff. Smith writes: "Hamblin and Andrew Gibbons returned in the skiff to take the party over; however, reports reached them that a better crossing had been discovered upriver a few miles."¹⁹ The statement, by not identifying the sources of the reports, adds an element of confusion to the discovery of the ferry site. Apparently, the information reached Hamblin after he had recovered the skiff rather than when he was on his way down Grand Wash. The report(s) could have been made by members of his own party who had reconnoitered, or it could have come from Indians.

Nevertheless, the consequence of the information was the ferry site's use by Hamblin and others who followed. While Hamblin and

19. Smith, op. cit., p. 379.

Gibbons rowed the skiff upstream, his land party apparently pioneered this section of the route. According to Smith, "Access to the new crossing from the north was up Pigeon Wash to Snap Canyon, down it several miles, then east across the ridge into Pearce Wash and up along the river to the crossing. This site allowed a smooth crossing and an easy ascent from the river up Grapevine Wash. Their crossing is the first recorded use of Pearce's Ferry."²⁰

The main difficulty in understanding this description has to do with the passage from Pigeon Wash to Snap Canyon, since these two do not intercept. It would be logical to follow Tasi Wash out of Pigeon for a short way, but alternate routes exist across the bench between Tasi and Snap. Which of these would have been used is not clear. Hamblin's return trip followed the same route, at least in the vicinity of the ferry. "In Grand Wash, they found themselves without water, until a mule pawed a hole in the sand. Further digging produced water, which Hamblin later referred to as 'White Springs.'"²¹

The portion of the route from St. George to the mouth of Grand Wash was further explored by Erastus Snow in 1868. His route to Grand Wash was up Mokiatic Canyon to Wolf Hole, and from there to Grand Wash.

Wheeler's second survey, in 1871, included a land party, which reconnoitered both north and south of the crossing. Lt. Daniel W. Lockwood and Lt. D. A. Lyle travelled from St. George down Grand Gulch to its mouth and from there to the crossing.

20. Ibid., p. 379.

21. Ibid., p. 380.

While Lockwood followed the river on the last leg, Lyle traversed several miles inland. Once across the river, "Wheeler's land parties headed south up a broad wash, probably Grapevine Wash, on to the edge of the plateau, then continued south past Dinbah, Tin-ah-kah, at-too-bah Springs to the Beal Road at Truston [sic] Springs."²²

Although mining development on both sides of Hualapai Wash excited some interest in the Pearce Ferry route, the main impetus to its development came from the Mormon push for colonization below the Colorado. In 1876, Hamblin was instructed by Brigham Young to explore the route by way of the ferry that Pearce was at that time building. The Deseret News reports on Hamblin's trip stated, "the route was one of the best natural roads that Hamblin had seen with plenty of grass and water and no sand."²³

"Other men were called to help 'improve' a road to the river from St. George. Some tithing script (\$214.54) was expended on the 'Colorado Road account during the winter of 1876.' To whom this fund was paid remains a mystery, but apparently road work was done in the canyons leading onto the plateau south of St. George."²⁴

Some light on this may be thrown by a letter written to the Arizona Historical Society by Joseph Pearce.

In about 1873 my grandfather Harrison Pearce and my father James Pearce laid o[u]t and built a road from St. George Utah to the mouth of the Grand Canyon and

22. Ibid., p. 383.

23. Ibid., p. 387.

24. Ibid., p. 386.

established and operated the Pearce Ferry. They built a road to the ferry and built ferry boats and Harrison Pearce operated the ferry until 1883 when he sold his rights and came on to Taylor Arizona.

They laid out a road from the ferry to what is now Kingman. Hired Sheewits [sic] and Havasupi [sic] Indians to build the road.²⁵

That considerable effort was required to build the road is evident not only from its length, but also from the terrain. The old Mokiatic dugway on the west side of the canyon leaving St. George was several miles in length and snaked up a very steep hillside. In writing of the portion in Grand Wash, Howell has this to say:

Today the old trail is almost obliterated. Parts of the old trail have been completely destroyed by floods. Grease-wood, Joshua, cactus, and brush have grown over the old trail making it almost impossible to follow, but if you could follow it you would find stretches of road as straight as the eagle's homeward fly running through the country for miles. You would also see handmade dugways crossing deep canyons with their stone walls still standing as perfect today as they were the day they were built. . . .²⁶

25. Letter dated 1 March 1957, from Joseph Pearce to Arizona Historical Society.

26. Howell, op, cit., p. 25.

With the ferry in service, 1877 saw the beginning of the trail's use by emigrants. An expedition wagon train consisting of 26 people, ten wagons, horses, and cattle left St. George in March. They were led by Bentley (of Grand Gulch Mine association) and Cunningham. Their route took them up the Mokiatic to Wolf Hole and then to Hidden Springs above Grand Wash. Bentley and Cunningham reconnoitered from Hidden to Pigeon Canyon, but found that route impassable. Thus was confirmed the generally accepted trail from Wolf Hole to Grand Gulch. Stock were watered at Pakoon, Willow, and Tasi Springs.

As they left Tash (Tasi) on the 18th they hoped to reach the Colorado River before dark. The ascent up Pigeon Wash was fairly easy but the drive down Snap Wash was sandy and over the worst road some of them had ever driven. John Hunt broke his plow, hung on the side of his wagon, as he passed a large rock. The ascent to the ridge between Snap and Pearce Wash was steep, requiring double and tripple [sic] teams for nearly a mile. Harrison Pearce came out of their delays, they camped on the hill in sight of the Colorado two miles from the ferry. May Hunt lamented that such a vast quantity of water was so poorly distributed.²⁷

Once across the river the company found it necessary to build a portion of road between Iron Springs and the Hualapai Valley. The party's problems with inadequate water, lack of feed, and rough terrain caused them to discourage others from using the road.

27. Smith, op. cit., p. 389.

It was not until 1879 that another major use of the ferry was reported, this time by David Kimball. The table of distance and comments are of interest.

	Miles
From St. George to Mocase Springs	12
To Wolf Hole Springs	11
To Kane Springs	14
To Black Willow Springs (carry water)	28
To Tahshari Springs (via Mesa)	10
To Colorado River (Pearce Ferry)	12
To Running Creek (heavy grade and sand)	8
To Grass Springs (heavy, carry water)	14
To Iron Springs	6
To Granite Springs (via Granite Pass)	8
To Hackberry Springs (good road, carry water)	35 ²⁸

By this time the route had become established, although one variant from Saint George to Wolf Hole by way of Price City and Bentley's Pass was used by Tuttle and Tate in 1880. Another emigrant party--that of Stevens, Neilson, and Nasstrom--used the route without mishap, but had difficulties crossing the river. However, yet another group in 1882 was turned back by Pearce because of flood conditions. It was this party that had to resort to Bonelli Ferry, a circumstance that did little to prolong the life of Pearce Ferry. As previously noted, Pearce asked to be released from his call because of the paucity of business and this was done in 1883.

28. Adapted from Smith, op, cit., p. 392. The Tahshari Springs referred to is clearly Tasi. The comment, "via Mesa" indicates that the contemporary route was used rather than following Grand Wash to the mouth of Pigeon. Kimball goes on to give a log as far as Mesa, Arizona.

Smith reports occasional use of the ferry subsequent to 1883, usually by cattlemen. The historic period for Pearce Ferry spanned only twenty years--from 1863, when Hamblin first crossed, through the ferry's construction in 1876, to when Pearce left. The same can essentially be said for certain portions of the road that did not serve other purposes. Specifically, this would include the section up Grapevine Wash and that from Tasi to the crossing by way of Snap Canyon. Elsewhere, the road did not depend on river traffic. For instance, the Mokiatic Dugway for many years gave access to the Arizona Strip until a new road was cut in the same canyon.

C. The Scanlon--Gregg Ferry Road

As Smith notes,²⁹ documentation on the use of Scanlon--Gregg Ferry is inadequate, since its use was, apparently, local for the most part.

Some uncertainty exists as to the route to the ferry. Smith asserts: "By the mid-eighties most traffic into the Grand Wash area probably swung west as it neared the Colorado to descend to the river at Scanlon's Ferry. A second route from the Gold Hills led directly south down 'Scanlon Dugway.' This was a later and more precarious route. On the south an easy ascent was made from the river into Hualapai Wash for travel to the White Hills or points south."³⁰

The precarious nature of Scanlon Dugway is well established, but no clues exist as to an alternative route from Grand Wash that would avoid it. The terrain north of Iceberg Canyon is extremely

29. *Ibid.*, p. 407.

30. *Ibid.*, p. 406. Smith's source for this information was an interview with Water Iverson of Washington, Utah, in 1968.

rugged, and is labeled Hell's Kitchen on the U.S.G.S. map. (Iceberg Canyon quadrangle.) Hualapai Wash to the south would present little problem to the traveller, but evidence of historic use is virtually obliterated.

Scanlon built his ferry in 1881, irrigated the river bottom and constructed the dugway that bears his name. About 1900, Scanlon sold his ferry to Tom Gregg who remained there at least until 1919, at which time he was seen by Merle Frehner.

As just noted, the use of the ferry was essentially local. It served the transit of miners and their needs on both sides of the river. An example of this would be Harvey Frehner's crossing at the ferry on his way to Gold Hills. Frehner used the dugway on that trip.

The ferry and its access roads were convenient for the few cattle drives that had to cross the river. The most famous of these was in 1893 when Nutter crossed 5,000 head without losses of men or animals. Another drive of horses and cattle was made by George Harlman, who came through Hackberry, across the river, and up the Scanlon Dugway to his home range.³¹

Merle Frehner's own experience with the road to the ferry has been partially recounted. In 1919, he and his father were asked to haul out a tractor that had been left near the river. When they located the tractor, they found that the ignition coils were missing, but they were able to get replacement coils from Gregg who was working on his farm on the other side of the river. They got the tractor started and began the return trip towards Gold Butte.

31. Frehner transcription, op. cit., p. 12. No date given.

We made it, uh, the last two miles by hitching a heavy chain from the rear of the wagon to the front axle of the tractor. It could pull itself up there, but it couldn't steer itself. There was no weight on it . . . the front wheels would raise off the ground. And just bare ledge, rock ledge, and one would go to spinning and put it cross ways in the road and you looking a couple of hundred yards almost straight down off the dugway. Oh, my dad wouldn't let me try that very many times. He insisted on tying the front end so he could . . . turn that up the road, over the mountain. We made it over the top.³²

Mining activity on the north side of the river was served by the dugway at least until 1966 when the Joker was being worked. Other mines and prospects were the Jumbo, the Eureka, the Union, and the Lakeshore. The latter mine was post-historic, and its ore was shipped on barges along the lake by Murl Emery. Placer deposits were worked along the river itself and a mill was placed there in 1909 by Burt Mill and Company in this connection. It is likely that the huge fresno found there was used in connection with these activities.

The Scanlon Dugway today is severely eroded and extremely hazardous. Without reconstruction, it is inaccessible to vehicles.

D. Bonelli Road

The road to Bonelli Ferry north of the Colorado is underwater. A report has been received that portions of the southern portion

32. Ibid., p. 1.

are intact near Temple Bar. This will require field checks and validation.

E. Eldorado Canyon Trail

Eldorado Canyon, the site of important, but cyclical, mining activities from the 1860s to this day, saw sporadic transriver traffic for some years, but was bypassed as a major trade route because of competition with the easier Mohave Valley crossings. In addition, most mining supplies and extracted ore and bullion was carried by river vessels from the Gulf of California.

Such traffic as did traverse the district at this point would use Eldorado Canyon itself, and then cross upriver to one of two unnamed canyons. The first of these is about one and a half miles above Nelson's Landing, and the second is one half mile north of that. It is the second that better fits Frehner's description.

There's a canyon right above the Nelson (Landing), couple of miles up the river, real narrow. Why, I took my dad one time down there in a boat and he said, "There's the canyon!". . . . I had no idea that we could go out on top (of) the mountain . . . he could take his whole outfit up Bonelli's there and load it with hay and grain and come back and then he also would haul supplies and groceries from Kingman.³³

Of the two segments of the trail within the NRA, that on the west side of the river clearly was the more important and had the heavier usage, for that is the location of the mines. Aubrey passed down it in 1853, as did Amasa Lyman in 1858. John Moss

33. Frehner transcription, op. cit., p. 9.

and Joseph Good staked their claims in 1861, and a brief boom followed. During the period 1867 to 1869, bi-weekly through mail service from St. George to Los Angeles passed through Eldorado and was re-established from 1879 to 1907.³⁴

During the later period, the mail carriers were Edward Bunker, James Abbott, Walter Iverson, and Albert Frehner. Harry Howell wrote:

Another outstanding pioneer of southern Nevada was Albert Frehner. He was an old Pony Express rider in the early days when they carried the mail from Pioche, by way of St. Thomas, to El Dorado Canyon on the Colorado River. He was a good hand with stock and did quite a lot of freighting. In the early days everything was shipped into the valley by teams. He also owned and operated the only threshing machine the valley had until later years.³⁵

Speaking of Abbott and the circumstances of the mail route, Smith Adds:

James Abbott in 1887 traveled from Rioville to El Dorado to where a small shack was located on the east bank and picked up mail from Mineral Park. With a boat he then ferried himself and mail across. The following day he returned to the east bank and back to Rioville. Mail was also sent directly to Mineral Park and the White Hills.

34. Smith, op. cit., p. 446.

35. Howell, op. cit., p. 7.

Abbott reported meeting Albert Frehner, the mail carrier from that location. When Abbott reached the Colorado River, Daniel Bonelli ferried him and his horse over the river. After eating a lunch, Abbott saddled up another horse and returned to St. Thomas and Bunkerville.³⁶

Concerning the freight route from Rioville that Frehner and Harry Gentry used, Smith reports:

Daniel Bonelli would ferry the produce to the south bank of the Colorado at Detrital Wash (W.S. Mills, manager of the Southwest Mining Company, thought his \$2.50 per ton ferriage fee to the lower landing too expensive). From that point Gentry freighted the goods south, up Detrital Wash, across the Black Mountain to the east bank of the Colorado River. At this point Indians were hired for \$2.00 per day to move the salt and goods over the river in the "Boat," at a cost to the company of approximately fifty cents per ton.³⁷

The crossing and eastern segment saw even less use after 1900 as the Searchlight Ferry at Cottonwood Canyon and the railroad to Searchlight better served local needs.

F. Searchlight-Cottonwood Canyon

The Searchlight-Cottonwood Canyon crossing was not established until relatively late, and its vitality was directly proportioned to the level of activity in Searchlight itself. River

36. Smith, op. cit., p. 450.

37. Smith, op. cit., p. 448.

access on both sides is relatively easy. Cottonwood Canyon to the west and Union Pass to the east have long, but gentle, grades. As with Eldorado, traffic at Cottonwood was essentially local since the Mohave Valley crossings better served regional and national needs.

The identity of the first non-Indian to cross at Cottonwood has not been established. It could have been Ewing Young in 1829, or Aubrey in 1853, or any of a number of trappers or traders between. As Smith points out, the first recorded crossing occurred at the meeting of Lieutenant Ives and the Hamblin party in 1858.

Activity, and undoubtedly crossings and travel, came to Cottonwood Canyon and Cottonwood Island as the area became a focal point to supply the burgeoning mines. But it remained sporadic until the mining activity in Searchlight took hold. Ferries were established as a result of this, particularly, to service the flow from Chloride and Kingman to Searchlight by 1916. The travel time from Kingman to Searchlight was about four hours by automobile. Most of the ferries were the result of private initiative, although, both the town of Chloride and Mohave County also filled in when private ferries waned. The ferries, the last of which was an overhead cable affair, and their associated traffic, lasted into the 1930s at which time the traffic was diverted to Boulder Dam.

The only railroad to enter the NRA during the historic period operated down Cottonwood Canyon from the Quartette Mining Company's holdings in Searchlight to a 20 stamp mill erected on the Colorado. This mill was constructed and completed in 1900.³⁸ The

38. Mining and Scientific Press, LXXXI, #23, 8 December 1900, p. 576.

narrow gauge railroad was constructed in 1901, the distance from the mine being reported in various issues of the Mining and Scientific Press as 12, 13, 14, 16, 17, and 18 miles. At the time of its construction, a large flow of water was encountered in one of the mine shafts, and plans were made for a 20 stamp mill in Searchlight to utilize this water.³⁹ The railroad was completed in 1902, and for the month of July it was reported that:

The Quartette Co. milled 800 tons of ore, which netted \$23 per ton. The total cost of mining, transportation over 16 miles of railroad and milling was \$3.60 per ton. The railroad is now making two trips a day and hauling seventy tons daily to the mill.⁴⁰

The locomotive was fired by oil, and an 11,000 gallon oil tank was built to supply it. The loaded train ran to the mill by gravity and returned the empty ore cars and flat car loaded with water barrels. Early in 1904, the railroad was shut down, but returned to service later in the same year.⁴¹ By early 1906, the mill at the river was being dismantled for reconstruction in Searchlight. Water sufficient for milling requirements had been developed at the mine, and the Colorado mill and the railroad that serviced it were no longer required. The mill reconstruction was completed by early summer 1907, and, presumably, the railroad service ended at that time.⁴²

39. M & SP LXXX:24, 15 June 1901, p. 276.

40. M & SP, LXXXV:5, 2 August 1905, p. 66.

41. M & SP, Vol. LXXXVII:8, 20 February 1904, p. 129, and Vol. LXXXIX:15, 8 October 1904, p. 24.

42. M & SP, XCIV:17, 27 April 1907, p. 519.

CHAPTER SIX

INDIANS IN CONTACT

By the time of the first Anglo contact in 1826, the Indians in the area of concern to us had long since abandoned the sedentary, pueblo-style way of life. Those in the upper part of the area, principally in the quadrant that lies north of the Colorado and east of the Virgin, were hunters and gatherers, some of whom probably practiced a form of riverine cultivation in transition from horticulture to agriculture. As previously discussed, their existence has to be described as tenuous and marginal, and required of them both constant movement and a sensitivity to environmental exploitation. How many bands roamed this area has not been determined. Perhaps, the Shivwits was the only one. Nevertheless, reports mentioned contact with small groups and individuals below the Plateau, principally at Tasi.

To the south, on Cottonwood Island below Black Canyon, bands of the Mojaves were established, engaging there in hunting and non-irrigated horticulture. Presumably, their more established settlement was greatly facilitated by fishing in the river.

The first observation of Indians was made by Jedediah Smith in 1826. At the confluence of the Virgin and Colorado, he looked across the Colorado and saw a lone Indian farming on the south bank. No contact was made, although a short time later, Smith met with a band of the Mojaves who were friendly and helpful.

Early next year, James O. Pattie encountered circumstances that were quite different:

Soon after the trappers encountered the Mohave Indians and new problems. At first the Mojaves wanted to trade. Several trappers tore old shirts into strips, so great was the Mojave demand for cloth. But hostility developed. Still, even though the trappers were contentious and poorly organized, they had sufficient numbers to defend against the Mojaves. However, when the Mojave Chief claimed their furs, since they had been trapped in his river, and asked payment from the trappers, conflict came. Pattie states the Mojaves first attacked March 7, but were repulsed. A few days later the Indians attacked a second time and several were killed. The following day the chief appeared on horseback, and from a safe distance motioned the trappers to depart. Cautiously they moved on.

On Spencer Creek three men from the Pattie party left the main body and were murdered and mutilated, probably by the Yavapai; the foul deed was discovered two days later, March 27, 1827. After burying the remains, the trappers turned down river retracing their route out of the canyon, where the parties may have divided, with the Pattie group crossing the Colorado near what became Pearce's Ferry.¹

Later in 1827, as Jed Smith retraced his steps, he not only found the Indian farmer in the same location, but, as a result of the stiff encounter between Pattie and the Mojaves, lost the majority of his men in a trap that the Mojaves set up.

1. Smith, op. cit., pp. 110, 113.

It was not until the 1850s that the Indians began to feel the first hints of pressure, and even this was largely to the north along the Mormon trail which passed from Santa Clara to the Vegas Mission. Indians attempted to plunder wagon trains and snuff-out stragglers on that road. However, one serious event did occur within NRA boundaries. That was the emigrant train massacre of 1858 noted above.² In that incident, a large number of Mojaves killed and wounded several emigrants and made off with most of their stock. This incident and the discovery of gold in Eldorado Canyon brought a new pressure upon the Indians. Far to the north and east, the killing of Dr. James Whitmore at Pipe Springs in 1865, the killing of the Berry family at Cane Beds in 1866, the other depredations and threats by Navajos and Utes, moved both the Mormons and the United States Government to bring about peace. Jacob Hamblin and other Mormon missionaries on the one hand, and military pressure on the other, accomplished this.

The Indians had first contended with the mountain men, not all of whom were of the charity of Jed Smith, then with migrants moving through, and next with the military. None of these would necessarily have preempted the Indians. It remained for the miners and, especially, the settlers to do this.

Mahlon Fairchild was, as his literate biography demonstrates, a miner of some education. His writings reveal a sensitive perception of Indian life at the time of contact, and also indicate the considerable tension that existed:

Towards the evening two Chemehuevus joined us, and as it began to get dark we anticipated some coup upon their

2. See Transcontinental Trails, Chapter One.

part--more so because we were apparently remote from water. Long after dark, however, our animals and ourselves hungry and weary, were led into a gorge--a sort of cul de sac--where there was a little water. Here we were not long in selecting the most favorable location for defense, unpacking and securing our animals, concentrating our effects as snugly as we could, eating our jerky and drinking our coffee, and then lying down--not to sleep, but to watch the movements of the red men. Our vigilance baffled any attempt at mischief the Indians had planned, but it was evident from their actions, and as subsequent events confirmed, that they were up to devilment of some sort.

Later in the day:

Our camp was made close by the Colorado River where there was excellent feed for our animals. Scarcely were our effects unpacked before a number of Mohave visited us. They were of both sex, young and old, which satisfied us that they had no hostile intentions. They were far more comely in appearance than the members of any other of the tribes we had seen. As a rule the men were of large stature and fine figure. As they had no clothing but a strip of cloth attached to the waist and hanging down front and back, their physical proportions were advantageously displayed, and generally they had intelligent countenances with an agreeable expression. Their long coal-black hair hung down their backs in two braids. Occasionally these would be daubed with clay mud, the purpose of which we surmised was to kill certain troublesome parasites. The women were of perfect

form--particularly those who were not aged. The elder ones, though not unshapely were given to embonpoint. The only article of dress worn by the women was a short skirt reaching from the waist to the knee and was worn quite gracefully. It was made from the inner bark of the willow or cottonwood with an occasional cord of twisted wool interspersed--these latter being dyed a very dark blue color. Children under age of puberty were entirely nude. Their playful manners and their physical condition indicated a happy, well fed race. The manner in which the little babies were cared for was remarkable. Those very young were disposed of by tying them in a wooden contrivance that could be carried by hand as readily as a cane, and at the same time, if necessary, suspended to the limb of a tree. As the pappoose [sic] became older it is released from such confinement and carried at the mother's waist, sitting astride the bark garment and by digging its plump fingers into the fat sides of the mother retaining its equilibrium. In this position a baby could often be seen nursing--having only to elevate its mouth at a slight angle to reach its "bottle" always well supplied.

The Mohaves brought beans, corn, squashes and watermelons to barter, and in exchange preferred tobacco to the bright half dollars offered them. Supplying ourselves with everything needed in the vegetation line, at nightfall the Mohaves left us, and the only Indians in camp were "Hook-Nose" and his two tribesmen. Contact with the Mohaves, and the excellent quarters we were enjoying, had a soothing effect upon some of the members of our little party who became less wary of the Chimehuevus. Having the silver to look after, and

besides, having from former experience with Indians adopted a rule that I must at all times be vigilant while near them, myself and Dan Waitt selected a place to spread our bedding where, if any disturbance came, it must necessarily be from the front. Our effects were so placed that no one could remove them without walking over us. The other members of the party were advised to do likewise, but they thought precaution unnecessary. All were weary, and in good time laid down too and slept. About midnight Rogers became chilled by the fresh breezes which wafted up the river and reached out for an extra cover where he supposed it would be from its position when he retired. There was no blanket there. He reached for his heavy overcoat, but that was not where he had placed it before lying down. This more fully awakened him. He arose in a sitting position and exclaimed "Boys, my blanket and overcoat are not where I put them last evening, which of you has them?" This awakened the entire party, and Joe Miller after glancing around exclaimed "Why, my valise is gone too." By this time Dan Waitt and myself were upon our feet and we yelled "Yes, and those damned Chimehuevus are all gone, too." The next thing to learn was if our animals were safe--and they were. There was no more sleep that night in our camp, but curses galore, and plans for our future movements. An inventory was taken of the articles stolen, for the three Indians had gone away pretty well loaded. We were in the territory of the Mohaves, and to them would appeal for redress, as another tribe had been the aggressors. Iritabe was principal chief of the Mohaves, and had been to our camp. Roger spoke Spanish fluently, and with English, Spanish, and Ongen mixed, with considerable pantomino, we were enabled to

make Iritabe comprehend the situation, and he brought us two active scouts both of whom fortunately had seen the three thieves in our camp the previous day. We explained as nearly as possible, by comparison, every missing article, and told the Mohaves that upon their restoration each would be given twenty pieces of silver at the same time showing them the new half-dollar.

The two Mohave scouts started for the Chimehuevus country forthwith. They appeared to be proud of their mission, for theirs was a natural antipathy existing between them and their rascally neighbors; besides, the theft having been committed upon Mohave territory, the property must be recovered by them to maintain Mohave integrity. Pending the return of the scouts, all we could do was to exercise patience and bide our time. Meantime Indians thronged our camp, and though to all outward appearances friendly, we were careful to guard our property, as its too open display might even be too much of a temptation for the honesty of the Mohave. Not knowing our exact status, we furthermore made plans for escape in the event of any hostile movement against us, the most feasible of which we decided would be to construct a raft and float down river. With this in view we collected a number of dry cottonwood and willow sticks from five to ten inches in diameter, and sixteen to eighteen feet long, and placed them upon the bank of the stream where they would be instantly available in an emergency. To fasten together, we prepared our lariats and packropes, thereby forming a raft sufficient size to carry ourselves and goods. With these preparations we felt as though escape were possible in the event of an attack.

Our commissary was kept constantly supplied by Indians with green corn which we roasted, and with good sized squash that were very sweet when baked, which was done by burying them deeply in the ashes and earth under the fire. This was done at night just before retiring, when the squash would be unearthed, finely cooked for breakfast in the morning. On one occasion of this kind when I think we had so fixed the prize squash of the whole Mohave Valley, just before dawn, when the smouldering embers of our camp fire had somewhat cooled off, and we were snoozing unconcernedly around it, one of our burros came into camp undoubtedly cloyed upon the rich grasses he had been wallowing in for the past day or two, and hankering after some old sack to which clung the odor of bacon, was disturbed by his search for it by a flying boot cast by one of the party who had been aroused by the visitation, in making a sudden turn and leap to avoid the flying missile, landed squarely with both fore feet plump into the center of the mound of ashes underneath which, in a delicious state of perfect baking, reposed our toothsome breakfast squash. It was a hot place to plunge into, and the frightened ass gave another bound accompanied by a characteristic kick, and lo, and behold, ashes and juicy pulp of savory squash filled the air in the immediate vicinity of that campfire leaving a nasty precipitation upon everything lying near. There was no squash for the inner man that morning.

Just at dusk of the third day our Mohave scouts had been gone, from away down the river came the report of a gun. As we had seen no firearms with the Indians, we surmised that a party of whites must be approaching, and we kept anxious watch in the direction whence came the

sound. Before long we heard shouts from Indians, and in another short interval we could see through the fast fading twilight the forms of two Indians approaching. They were our Mohave scouts. When they came up to us they made gleeful manifestations of triumph in pantomime. They had recovered nearly everything which had been stolen by the Chimehuevus and the shot we heard came from the derringer pistol that was among the things in Joe Miller's valise. Their good luck and promptness enlisted our admiration and we gave them additional compensation. They reported that two of the thieves had been severely chastised by them. As to "Hook-Nose," well, we all vowed to make it hot for him in case opportunity should ever occur. Subsequently, I travelled down the Colorado River and learned that the diversion over the rough mountain trail was unnecessary and therefore had proof positive of the treachery of "Hook-Nose." Eleven months after this I unexpectedly came face to face with him, but he escaped with a much lighter punishment than I had intended to inflict.

The next day we hired one of our scouts to pilot us upon our way, believing he might prove faithful to the end. Traveling about six miles we came to a point upon the river immediately opposite Fort Mohave. It was not much of a "fort," only a rickety lot of structures made of willow poles set on end and daubed with mud and having thatched roofs--sufficient perhaps for a defense for armed soldiers trained to war, against Indians with only bows, arrows and clubs. It had not been occupied for several years and was fast going to decay. Later on, in that same year, however, it was garrisoned by California

volunteers stationed there to watch the movements of possible secessionists.³

Fairchild recounts other attempts at treachery and also the retrospectively amusing details for his righting things with "Hook-Nose." Useful lessons could be learned from the Indians:

When the time came to build a fire to cook our evening meal the wind was blowing so furiously that we were in danger of exhausting our supply of matches, seeing which our guide gave us a lesson which in after life at times was useful. He took a small twig of dry willow, scraped some of the inner bark from it, placed the lint upon a block of dry wood, in the midst of it threw a little dry sand and then taking the willow twig and setting it upright on the block in the lint and sand began twirling it rapidly in both hands. In a few moments there was smoke, and in a few moments longer the lint was blazing and the end of the twig was a coal of living fire.⁴

Fairchild has another observation that is of interest concerning Indian diet:

Rodents and bats were at that time abundant in the deserts. Rats formed an important food article with most of the Indian tribes, and my own experience is that when properly cleaned and cooked, the flesh of a wild rat is delicious--that is when the appetite is whetted by long

3. Fairchild, *op. cit.*, pp. 15-22.

4. *Ibid.*, p. 25.

fasting--for it feeds strictly upon seeds and vegetation and should be wholesome as squirrel meat. One of the most disgusting exhibitions in gourmandizing I ever witnessed, however, was at an Indian camp where old bucks were squatted around a large vessel in which they had cooked a mess and were eating it. Its principal contents were rats. These had been thrown in the hot water just as they were killed--with no dressing or cleaning at all, when the hot water had done its work of scalding them through, each Indian would reach into the vessel with his fingers and fish out a rat. With the other hand he would partially strip off the slipping fur and then, placing it between his teeth, tear off and bolt the flesh--entrails and all. When it came to the head, of course the brains were too toothsome to be lost, and it was placed upon some hard substance and crushed with a stone, and when well broken, into the old heathen's mouth it would go, hair, ears, eyes and all to be drawn clean of succulent brain. This sight caused an upheaval of stomach at the time, and even now, as I write, and in memory hear the satisfactory smacks those old chaps gave with their begrimed lips, I retch.⁵

To the Indian, prospectors, or any other individuals travelling in small groups, were fair game. In 1863, while returning to Eldorado from California, Fairchild encountered two miners who had been robbed by Indians near the San Francisco Peaks; in rags and on foot, they had made it as far as the Mojave River before being met by Fairchild and receiving succorance.⁶

5. Ibid., p. 34.

6. Ibid., p. 29.

Whether miners or prospectors incurred any special hatred on the part of the Indians is not clear. Hamblin, at the meeting at Mount Trumbull with the Uinkarets and Shivwits, was careful to explain that Powell and his men were not prospectors. The inference is either that prospectors were an especially undesirable breed of whites or that the precious metals were of value to the Indians. Since the Indians did not themselves mine gold or silver, one is inclined to the former interpretation. Nevertheless, as already noted, such considerations did not stop a member of the Shivwits band from telling St. George Mormons about the Grand Gulch copper deposit.

Settlers provided the Indians with yet another set of circumstances. In some cases such as at Santa Clara and Kanab, settlers were apparently welcomed for their offered prospects of trade and new skills. In other areas, however, cattle were a real threat to Indian survival, their great numbers driving out the game and clearing the grasses from which Indians extracted seeds.

Tone (Anthony Woodward) Ivins, who ran cattle in the Parashaunt for a number of years beginning in 1886, was one who understood the Indians' position:

James Guerrero, a cowboy in the early 1900s, also knew Anthony Ivins and many of the red men of that day. In 1970, when he was eighty-five, he said, "When they started putting cattle out on the Strip, Tone Ivins said the Indians should have the right to kill some and eat them, since it was their grass that was being eaten, and it was their game that was being frightened away. Tone could see there was going to be trouble, so he went to see Old Shem, the chief. Shem asked him where his gun was, and Tone said he didn't need one, since he had just

come to talk. Then he asked if Shem would be willing to move his people to the Foster farm out along the Santa Clara Creek, if he could get it for him. Shem nearly had a fit he was so tickled. So Tone took an option on the land, and in six weeks had the Indians settled there. Even Old Toab moved in when he saw the others were being well-treated. (This was in 1891, with additional land being added in 1916, to a total of 26,800 acres.)"⁷

Ivins secured the first appropriation for the Shivwits and was, for two years, government Indian agent to them.

Prior to their moving in 1891, the Shivwits had to adjust to the few settlers and many cattle that were moving in. The interaction was mixed, sometimes tense, sometimes amicable, as the following quotations suggest. The first of these is from Daniel Nelson Pearce who was interviewed in 1970 at the age of ninety-eight.

My dad, Thomas Jefferson Pearce, got Ivanpatch (ten miles north of the NRA boundary, ed.) in a trade with the Indians, and we had our cattle there and at Parashaunt at the same time that Anthony Ivins and the Saunders and Sorensens were there. We had trouble with To-ab, though, as he tore out the trails leading into the spring, causing the cattle to choke. My dad caught him and told him he would whip him if he came around there again. A couple of years later, two prospectors hired To-ab to guide them through that country. He was scared of my dad and didn't want to, but they persuaded

7. Cox, op. cit., p. 10.

him to do so. When Dad saw him there, he tied him to a tree and gave him the promised whipping.

There were about thirty Indians at Parashaunt when I was a kid. They used to cut the hair ropes I made, for pure meanness. A little Indian boy was staying with us, and he was so scared of his own people that he would hide whenever they came around Wildcat.⁸

La Berta Sorenson writes of a somewhat more positive interaction:

I have spoken of the Indians out to Parashaunt and that they were about the only playmates the Sorenson boys had. Andrew and Amanda, in fact the entire family, were always very good to these people and the Indians loved and trusted them.⁹

Subsequent to the 1870s, the Indian-White relations were peaceful, at least in the sense that no raids or massacres took place. But, well into the twentieth century, problems of a different order resulted from the depredations of individual, maverick Indians.

Not all Indians lived in groups or bands with their fellows. A number of loners have been identified, some of whom were cold-blooded killers. Others may have been hermits by nature or rejected by their group.

8. Cox, *op. cit.*, p. 9.

9. Sorenson, *op. cit.*, no page.

Perhaps the squaw mentioned by the Englestead brothers was one of these.¹⁰ She may also have been the one mentioned by Ed Yates, who had, at least at one time, a blind husband whom she would lead horseback to Overton. She must have gotten tired of this dependency situation for, said Yates, he came upon her one day burying her husband. Yates said she allowed herself to be dissuaded from this uncharitable act.¹¹

Toab, who has been mentioned frequently, was, to all accounts, apart from his band, and thoroughly treacherous. Apparently few who knew him doubted his participation, and likely leadership, in the Dunn-Howland killing. This will never be proven, of course, and it may be that Toab perversely enjoyed the notoriety he received. It is indicative that no other names have been associated with the killing even though it is unlikely that Toab could have accomplished the deed himself. Other tales corroborate his vicious character--the damage to Pearce's water hole just mentioned, the attempted killing of Marty Bunker in Pigeon Canyon, and the allegation that he had killed a squaw at Wolf Hole.

Another renegade by the name of Mouse began a two-year spree of killing and thieving at Bonelli's in 1897. The story is a lengthy one and will not be recounted here. In the end he made a fatal mistake; he raided a squaw's garden and stole her largest cabbage. She recognized his tracks and Bonelli sent a Paiute by the name of Redeye and a posse off on a two week hunt that cornered Mouse and ended his career.

10. Englestead transcription, op. cit., p. 14.

11. Interview (not taped), Mike Belshaw with Ed Yates, 21-10-77.

Mouse had a score of two killed and two years a fugitive. Queho's score was twelve killed and more than thirty years running and hiding.¹³ Rather like Toab, Queho seems to have had an inherently mean disposition. Merle Frehner reported:

My father knew Quejo. But he was younger than my dad. And, he said he was a mean old kid. He could push himself around the mill down there in a wheelbarrow.¹⁴

The flavor of Queho's activities is well captured by the words of Homer Englestead:

Homer Englestead: In the early days, they [Nay Family, ed.] was the homesteaders on the water a lot. Well they were good to Quejo. When he had to hide out, they'd take care of him, hide him. And this was about the last time they ever seen Quejo, so when he left them later, Sam Gay and a few of 'em went out to hunt him and they came around the corner there and here he was with a shotgun. And he looked over to see one of these boys, these Nay boys that used to protect him, and he wheeled and went. And that was the last time we never seen Quejo. And they never hunted him again. But he was around near Pakoon there one or two springs, but when

13. Queho has been variously spelled Quello, Quillo, Quillo, Queyo, Quijo, and Queo. It is generally pronounced Kway-o, although Merle Frehner corrects this to Kwee-o. I am indebted to the Englestead brothers for bringing this gentleman to my attention. The story presented here is illustrative rather than complete.

14. Frehner transcription, op. cit., p. 6. The mill referred to was at Eldorado.

your sheep were out grazing, if he was in among them, you could tell he was there because your sheep would kind of circle around. And you never did hunt there for him. One night late at the Grand Wash, I had my sheep up Tasi water taking them down to the Grand Wash where the camp was, moonlight night. When I got there, a man was out, the other side, and I knew it was Quejo. And I was afraid he would shoot me, but I made up my mind that I was gonna just act like I didn't see him and I did. So I round the sheep up to camp. We have a sheep wagon then you have the bed made high, where you can put stuff underneath. So I cleaned everything out and made my bed underneath there so if he came in to kill me, I could shoot him first. Lord, I never slept any, but he didn't come in.

Mike Belshaw: What was his motive for killing? Was it robbery or hate?

Homer Englestead: Well, there's a history to all that. Back when they were kids there was your Indian's way of something if you had something wrong and you were told to go kill somebody you had to, and that's what started him to killing. Then he killed miners and different people in his day to survive, to live on. And take their clothes. Finally, when they found him, he had been petrified. He was in one of those caves down by the river. He survived there for 35 years without any help other than his own. There's a great history of Quejo. We was about the last ones that he was around out there.¹⁵

15. Englestead transcription, op. cit., p. 9. The Sam Gay referred to was a sheriff.

Merle Frehner adds more details. In response to the author's question about when Queho got cornered, Mr. Frehner responded:

He never did, the only time they cornered him was when they got his corpse and brought it out from a cave he was holing up down below the boulder, the dam, Boulder Dam. Hoover Dam, down the river and he's on the west side. He was up a rugged canyon down there. Probably three miles below the dam, two or three. And, uh, back in that canyon he was in a cave and he had tin cans and pots and odds and ends. He was a skeleton, was stretched out there and he could be identified by the equipment he had, particularly that old single barrel long tom shotgun. And the . . . the prospector's pick with a long handle and those were the two weapons that he did his dirty work with. Now, they got his skeleton up and put it in Eldorado village and it disappeared from there and I don't know where it would . . . but for quite a while it was an attraction. That old boy is . . . he was pretty treacherous, after he went bad I think he killed 12 or 13 people. One, I think, was a woman in a tent down there, below Eldorado there, a ways, or Nelson rather. And, uh, then he also shot the two drivers from the team that was hauling wood from Chatacut mine down to the mill on the banks of the river down at the mouth of the river. And, Jones, and I don't know who the relief driver was for my dad.¹⁶

The woman Mr. Frehner referred to was Maude Douglas. Other victims were mostly miners and the two drivers who worked

16. Frehner transcription, op. cit., p. 6.

for Mr. Frehner's father. Had the relief driver not replaced Mr. Frehner that day, Mr. Frehner would have been a victim of Queho. Queho would bash his victim's head with a miner's pick and this embellishment to simple shooting became the sign of his chosen trade. Mrs. Frehner noted in conversation that when she was a youngster at school in St. Thomas, local Indians would warn the people if Queho was about.

There are no Indians with the National Recreation Area today. Remnants abound, however. Petroglyphs, shards, yam pits, dwelling sites all testify to an earlier hegemony.

PART II

Description and Evaluation of Historic Resources

A. Water Sources and Ranches

1. Tasi (Arizona: T33N, R16W, S13)

Tasi Springs, and their associated ranch structures, are located near the head of Grand Wash Bay. The site is reached by a poorly maintained dirt road that passes down Grand Wash, and crosses an unnamed mesa into a narrow canyon, also unnamed. Where the combined Pigeon Wash and Tassi Wash enter this canyon from the east, a series of springs about forty feet above the gravel bed emerge to create a verdant oasis exploited by man and animal from prehistoric times.

Structures at the site range from a fairly substantial home built of rock, the storage sheds, old trailers, and a corral--all in a dilapidated condition, and none of which appear to be historic. On a bench above the springs, is a concrete pad reinforced with drill rod, which may be the only historic remnant.

Huge cottonwood trees provide shade and relief from the barren surroundings. The gurgling waters flow down a ditch to irrigate green pastures.

According to onetime owner/occupier Ed Yates, the springs were named after an Indian squaw by the name of Tasi who was in that location when Yates entered in the 'twenties.¹ This lady for a time had a blind husband and Yates avers that he caught her in the act of trying to bury same alive. After the gentleman's death, which is presumed to be natural, this lady inhabited the area nearby, living off the land and its creatures.² Yate's account

1. Interview, 21-10-77; not recorded. Prior to his possession/use of Tasi which apparently began in 1929, Yates owned Seven Springs which he continued to work concurrently with Tasi.

2. See quote from Englestead, Chapter Four, above.

cannot be completely discounted since the lady could have been alive, and even of some renown, when the first record of the location was made by Bentley and Cunningham in 1877.³ Whatever the Indian name for the spring might have been, Bentley and Cunningham euphonized it to Tasha. It sounded more like Tahshari to David Kimball in 1879,⁴ and settled down to Tassi after 1880 during which year Tuttle wrote of it.⁵ The contemporary spelling is usually Tasi.

Tasi may have entered the historic period in 1863 when Jacob Hamblin returned from the Moqui villages by way of Grand Wash. This is not likely, however, since the party was suffering from a lack of water which would not have been the case had they encountered Tasi.⁶ In 1876, Hamblin and Harrison Pearce further explored the road to what became Pearce Ferry and may have discovered the springs. It is likely that they did, and then passed the information on to Bentley and Cunningham who led a combined exploration-emigrant party in that year. At Tasi a "coop beef" was killed which suggests that the party belonged to the United Order. Two Indians were at the springs at that time.⁷

David Kimball, who passed through with a wagon train in 1879, kept a detailed log which indicated Tahshari Springs to be twelve miles from the Colorado crossing.⁸ Bishop Tuttle and John

3. Smith, *op. cit.*, p. 389.

4. *Ibid*, p. 392.

5. *Ibid*, p. 395.

6. *Ibid*, p. 380.

7. *Ibid*, p. 389.

8. *Ibid*, p. 392.

Tate led yet another group through in 1880. Five or six Indian families were living at Tasi, and a squaw traded some pine gum which they used to calk a boat at Pearce Ferry.⁹

White claims on the springs were not made until 1903, at which time O.B. and H.M. Nay located, claimed, and filed on the springs and twenty surrounding acres "for mining and milling, ranching and stock raising purposes."¹⁰ That they referenced its location to the Savanic Mine, eight miles distant, may indicate that their intention was to process ore. This never materialized, and may account for their apparent abandonment of the spring.

In 1912, Sam Gentry began running cattle in the area using the springs as a base.¹¹ Merle Frehner recalls a visit to Tasi in 1917 with his father to deliver freight to surveyors working there.¹² Homer Englestead was there one year later working sheep.¹³ Both recall a stone house on a bench above the wash and Englestead says that it was built by Ed Thomas. This may account for the above mentioned concrete pad. There is no other evidence. Its rocks may have been recycled to the other structures. Englestead also recalls that Queho, a particularly murderous Indian renegade, would sometimes stalk the area and cause great alarm.

9. Ibid, p. 395.

10. One file, Mojave County Courthouse, Kingman.

11. Unless otherwise indicated, this information and the rest that follows is based on an interview with Laura Gentry, 17-4-78. This was taped and transcribed.

12. Frehner transcription, op. cit., p. 22.

13. Englestead transcription, op. cit., p. 12.

In 1921, Henry Ferguson and Luther Swanner were working cattle at Tasi.¹⁴ They were employed by Preston Nutter at the time. Nutter apparently wintered horses in the area and some of his cattle drifted down from the plateau. Nutter's use of Grand Wash appears to be casual, and he did not lay formal claim to Tasi.

Laura Gentry recalls being with her brother on roundup at Tasi in May of that year and that twenty-one men and women were camped there. She has no recollection of a structure on the bench. Apparently, Frosty McDougal, who sold Seven Springs to Ed Yates, and a partner by the name of Smith, also used Tasi as their headquarters for trapping during several years in the early 1920s.

In 1922 or 1923, Sam Gentry sold his claim to Tasi to George D. Hartman, who had worked for him previously as a cowboy. About that time, Laura Gentry sold 350 head of cattle to Hartman who went broke about 1925. To pay off Laura Gentry, Hartman gave her a deed to the water rights which she recorded in Las Vegas.

From about that time until 1929, Sid (Fran?) and Tyne Hecklethorne moved into Tasi and ran a profitable still for a number of years until it was raided.¹⁵ The Hecklethornes were apparently quite colorful and mischievously venal. They would take some of their moonshine over to Bill Garrett at Gold Butte and get him so drunk and sick that he didn't know that he was trading some of his cattle. Laura Gentry thinks that she bought some of her own cattle

14. Cox, *op. cit.*, p. 84, and Englestead transcription, *op. cit.*, p. 16. Ferguson was Preston Nutter's foreman.

15. Englestead transcription, *op. cit.*, p. 14, and Price, *op. cit.*, pp. 94-95.

from Hecklethorne. He would bring beef to St. Thomas and peddle it. "I think I bought some of mine own beef from them. Well, I know I did. And they were awfully nice fellas."¹⁶

The next claimant to Tasi was Ed Yates who settled there in 1929. The transfer to him from Laura Gentry was, to say the least, informal.

He asked me if, uh, I had any objections to it and if I figured I had any rights, would I turn them over to him. I said, yeah, that's okay, I have no further use of it. Go ahead. I never did give Ed a deed. But that was our understanding between us. He never asked me for a deed of it.¹⁷

Yates' hold may have been quite loose during that time, for about 1934 or 1935 "a little couple came in there from Arizona," but, "they was about starved out."¹⁸ Yates then moved to confirm his water rights before the Arizona Water Commission. This was done in 1936. Having established his position, he ran off a "Mr. Hackleford" (Hecklethorne) who had two thousand sheep there, and replaced these with 100 cattle.¹⁹ In 1938 he built the stone structure that still stands. According to Yates, he was assisted by Hecklethorne. According to other sources, he was assisted by his son Lyn Yates.²⁰

16. Gentry transcription, p. 7.

17. Ibid, p. 6.

18. Englestead transcription, op. cit., p. 13.

19. Burke memorandum, op. cit.

20. Interview with Jim Whitmore, (not taped), 19-11-77.

After the Second World War, Yates sold Tasi to Eldon Yates, who did not keep up the payments. It was resold to Jim and Dennis Whitmore in 1972.

Tasi Springs has a long and colorful history, and the site should be considered a candidate for National Register status. Except possibly for the concrete porch pad, the structures appear to be post-historic. Archeological investigation may uncover historic and prehistoric artifacts.

The ownership of the site is uncertain, and nomination should not proceed without consultation with the present claimants.

2. Shiwits Plateau

a. Horse Valley Ranch (Arizona: T31N, R11W, S6)

In August of 1916, Jonathon D. (Slim) Waring left Wickenburg where he had been working in the Vulture Mine, swam his horse across the Colorado River at Gregg's Ferry, and headed for the Shiwits Plateau. There he located and filed for homestead entry on 628 acres of public domain in Horse Valley, just to the east of Mount Dellenbaugh. No previous habitation existed, but cattle of the Parashaunt Ranch and Preston Nutter had drifted through there in the latter part of the nineteenth century.

Waring constructed a cabin, now used as a storage shed, and shared the area with a partner, George Weston, who later left to file on Penn's Valley (outside NRA). With Bill Shanley, Waring branded mavericks below the Penn's Pocket cross fence. Preston Nutter believed these cattle to be his, and it is rumored that Nutter sought to heel Waring by having him inducted. In any event, Waring left the ranch in 1917 to serve in the armed forces.

After his return, he hired Lawrence Klein to help build the log cabin presently in use as a line camp. It has a kitchen, bedroom, and living room with a fireplace.

Horse Valley became Waring's headquarters from which he directed his activities until 1942 when he acquired the Wildcat Ranch (outside NRA).

Waring gained control of virtually the entire peninsula below Horse Valley by purchasing railroad sections and lands that had been homesteaded by others, and by filing on various waters.

His control was challenged by Nutter through Nutter's "hired gun," Ed Johnson, with whom Waring had a feud lasting a number of years. Waring's post office of residence was Wolf Hole until its closing. He then transferred it to Fredonia, Arizona, where he met his wife Mary who was teaching school there.

Stock Raising Homestead Entry patent 1019371 for Horse Valley was issued to Waring on 18 September, 1928.

The structures at the site consist of the cabin, the storage building, a log storage shed, and an outhouse. Corrals and tanks have been constructed. The buildings are rapidly deteriorating and restoration is not warranted.

The site itself is recommended for National Register status since it represents the location from which control of the peninsula was directed. Structures should be allowed to deteriorate naturally, and an interpretive plaque should state the site's name, ownership, and the lower peninsula sites which were acquired to accumulate the ranch holdings.

The site is now the property of the National Park Service, but the cabin remains in use as a line camp by the lessee.

b. Pine Valley Ranch (Arizona: T31N, R11W, S10)

The Pine Valley Ranch lies slightly less than three miles east-southeast of Horse Valley. Mack Miller describes it:

And one of the best cabins in the whole country is logs, shake roof It doesn't have a chimney in it. Doesn't have a fireplace "cause the two old men that were making it, building it, they got in a fight and they split²¹

On 30 November, 1926, George Howard Pemberton filed an entry on 320 acres of this, and patent number 1044610 was issued on 6 March, 1931. The record shows that the patent went to "Smith and Faulkner" who may have been representing Pemberton in Phoenix.

On 7 April, 1930, the record has an entry, "Service had on J.D. Waring." This suggests a dispute between Pemberton and Waring. Nevertheless, Waring later acquired the property by purchase.

Although the cabin is in better repair than Waring's Horse Valley Ranch, it does not appear to have unique historical significance. As long as grazing is permitted in the area, the structure should be maintained by the lessee and used as a line camp. A plaque outlining the Homestead Law and citing the cabin as a representative structure should be located there. Brief data on Pemberton and Waring should be supplied.

21. Transcription of Interview with Mack Miller, 26-12-77, p. 4.

The cabin is the property of the National Park Service and is used as a line camp by the lessee.

c. Shanley Cabin and Tanks (Arizona: T30N, R11W, S15)

This site consists of a pair of large tanks and a small cabin (15' by 19") constructed of large squared logs (8" by 8") which came from the mill at Green Springs. Milled lumber supports a steep, corrugated iron roof. A single room contains a heavy woodstove, shelving, and a couple of cots. A large concrete slab has been poured outside the single door.

Although it is called Shanley Cabin, there is no confirmation that it was built by Bill Shanley, one of Waring's partners. The land is registered with the Phoenix office of the Bureau of Land Management as a railroad patent dated 20 March, 1929. According to Mack Miller²² the logs came from the sawmill at Green Springs, which is a post-historic and largely post World War II operation.

No information gained warrants consideration of this structure for National Register status.

d. Dinner Pockets Cabin (Arizona: T30N, R11W, S21)

This structure was apparently built by Bill Shanley, who operated a still at the small water pocket below. According to Mack Miller, Shanley blasted a trail to the pocket for his cattle, but he would have to prod the cattle to it because it was so narrow. The water is not permanent, but collects from rain or snow. The cabin is now entirely collapsed, although it "was in good

22. Ibid, p. 2.

shape" less then twenty years ago. It was constructed of "cedar" (juniper) logs.²³

Shanley also had a "rock house" in a canyon below, where he would go when "he was on the dodge."²⁴

Shanley was apparently one of the Arizona Strip's more famous drinkers and many incidents are related by Cox. According to one source used by Cox, Shanley could have been a wealthy man if he had been honest and had not drunk so much.

At one time he financed a Whiskey Ring, with headquarters somewhere on the Parashaunt. Several others were with him in this, taking part both in the making and drinking of the stuff. In part, they liked to drink it so well that they seldom got any ahead to sell. They did start to St. George to try to peddle some a few times, but it would all be gone by the time they got to Wolf Hole. So they would just load up with barley and sugar and head back to their hideout to make some more. To keep on eating, they would go down on Kelley Point and kill a beef, not worrying whose beef it was.²⁵

The Dinner Pockets site is difficult to reach and the structure remnants have little intrinsic interest. The site was not homesteaded but was a railroad entry on 20 March, 1929. Nothing warrants nomination or preservation of the site.

23. Ibid, pp. 2, 3.

24. Ibid, p. 2.

25. Cox, op. cit., p. 215.

- e. Spencer Tank and Cabin Remnants (Arizona: T30N, R11W, S10)

Collapsed remnants of a homestead exist at this site. Photographs taken in 1961 by Mack Miller show a cabin of picket log construction, a few examples of which exist elsewhere in the Strip. The cabin was constructed by Jack Spencer who, according to "Slim" Waring, proved up on the section and later sold out to Waring.²⁶

A search of the files at the Phoenix office of the Bureau of Land Management failed to show any record. However, the section is indicated as patented on a 1955 BLM base map of the area. No information is available about Spencer other than Waring sent his son to college in Provo. The name Spencer is not listed in Cox, Footprints on the Arizona Strip. However, Jack Spencer is listed as a local resident familiar with Green Spring on Waring's Application to Appropriate Public Waters, dated 11 March, 1937, and on file in the Phoenix office of the Bureau of Land Management.

Little durable impact has been left at this site although archeological investigation might reveal artifacts for dating. The evidence does not support Register nomination.

- f. Nutter Cross Fence and Corral (Arizona: T31N, R11W, S22, 26)

Beginning at Penn's Pocket (Ambush Water Pocket) and heading for two miles in an east southeast direction, is a barbed wire fence constructed by Nutter during the 1890s. Associated with the fence in Section 22, and just to the south, are

26. Waring interview, 11-11-77.

the remnants of a large corral constructed of juniper trunks arranged as pickets and partly buried in the ground.

Although Nutter used the Strip primarily as a cow-calf operation, during the nineties he kept steers south of this fence where they could browse on cliff rose and scrub oak.²⁷ Nutter filed on water at Kelley Flat on 20-5-16 with the Mohave County Recorder. It was in this area that Waring and Shanley branded mavericks which practice may have earned Waring Nutter's wrath.

The site is not appropriate for Register nomination, but should not be destroyed or dismantled.

g. Penn's Pocket (Ambush Water Pocket) (Arizona:
T31N, R11W, S22)

This site lies on the western escarpment of the peninsula about five miles to the southeast of Mt. Dellenbaugh. It is a basin, somewhat over an acre in extent, which has been gouged out of the volcanic rimrock by intermittent waters flowing down a wash. The floor of the basin is a succession of pools, several of which are quite large and which could hold water for extended periods. The site is named "pocket" rather than spring to reflect the fact that it is a catch basin for intermittent floods rather than a permanent flow.

Some native shrubs--unidentified, but apparently berry bearing--grow on the banks; there is a patch of exotic sweet pea, and ponderosa, juniper, and pinyon are found above the rim.

27. Waring interview, 17-10-77.

The site is enclosed by a sheep fence, and remnants of a brush fence exist to the east. No other cultural materials are apparent but might be revealed by archeological survey.

The name Ambush Water Pockets was applied by Frederick Dellenbaugh²⁸ to reflect his belief that Dunn and the Howlands were killed there. The locally used appellation is Penn's Pockets, but no explanation of, or reason for, the preference has been given.

Arguments supporting and refuting Dellenbaugh's case have been given above (Chapter Two) and are summarized here.

Arguments supporting Ambush Water Pockets as the site of the Dunn-Howland killing.

1. The authority of A. H. Thompson, who visited the area in 1872.²⁹
2. The authority of Frederick S. Dellenbaugh who "visited about six years later."³⁰
3. The probability of water at the site following seasonal summer rains.
4. The possibility of Indians being in the area hunting game or gathering berries.

28. Dallenbaugh, op. cit., p. 230.

29. Thompson, op. cit, p. 105.

30. Dellenbaugh, op. cit., p. 229. Presumably he means six years later than the killing which would place him there in 1875.

Doubt is cast upon Dellenbaugh's assertion by the following:

1. Thompson's description of the site location is not in accord with areal geography. His distances and vectors do not lead one to the site from his point of beginning which is Mt. Dellenbaugh.
2. Dellenbaugh's site description uses the term "cliff" whereas the term "bank" would better fit Penn's Pocket.
3. Thompson's informant was a Pai-ute not a native to the area, and hostile towards the local Shivwits. His communication with them may have been limited.
4. Dellenbaugh is not clear as to his source of information. "The only story of their fate was obtained from these Utes (Shivwits, ed.). Jacob Hamblin of Kanab learned it from some other Utes and afterwards got the story from them"³¹ Since Hamblin did not visit the plateau, his ability to identify a specific site would have to be questioned.
5. The reasons for Indians to be at Penn's Pocket are questionable in the light of food availability. The site would not appear to yield much in the way of seeds or berries to be gathered in late summer, although this point needs more analysis. Members of the band may have been hunting deer, but this was not a group activity as was the hunt for rabbit. Rabbit drives would take place in more open country. Only a few men, on the order of

31. Ibid, p. 228.

two or three, would have been involved in a deer hunt and the likelihood of such a small number attacking men armed with rifles and shotguns would appear remote.

6. Other possible evidence, particularly the inscription attributed to Dunn and the testimony of the renegade Toab, would, if substantiated, place the site of the killing far to the north of Penn's Pockets.

Even during later years the history of this site is somewhat clouded. Waring³² said that Nutter had filed scrip on the site in the 1890s, but no record of this could be found although Nutter's filing elsewhere in the Strip are on record. It is likely that Nutter used the waters because of the proximity to the cross fence, but may have bluffed others into believing that he had title.

Despite the lack of record of water rights, Waring used the waters at that location.

Locally up there it is known as Penn's Pocket . . . but it is a perfect place for ambush and there's always water in there . . . and they built a trail in there and Slim spent a lot of time in there and they put in a series of pumps. They'd pump so high and then into a pond and then on up into a log trough³³

Water rights for the use of Penn's Pocket were filed by William Shanley, 23-9-1922, with the Mohave County Recorder. The only other record of title that could be located was that of an

32. Interview, 17-10-77.

33. Mack Miller transcription, op. cit., p. 5.

exchange negotiated by a C.W. Clarke in 1926 in which this location (T31N, R11W, S22, SW $\frac{1}{4}$ of NW $\frac{1}{4}$) was part of an exchange for land in the Sierra Forest Reserve in California. This title was, in all likelihood, acquired by Waring, who then fenced it and exploited the waters as Miller indicated.

The doubts concerning this site are substantial and no Register nomination is warranted pending further analysis.

h. Green Springs (Arizona: T31N, R11W, S9, SE $\frac{1}{4}$ of SW $\frac{1}{4}$)

Green Springs are located approximately four and one half miles east southeast of Mt. Dellenbaugh on the west side of the peninsula. They lie two hundred feet below the rim in a narrow canyon and can be reached by a narrow trail on the north face. A pipe runs from the springs to a tank on the rim.

At the head of the canyon is a dilapidated corral and a small frame structure, six by eight feet, which was once used as a salt house.³⁴ On the flat to the north, among a stand of large ponderosa, remnants of a sawmill can be found.

Green was apparently used as early as the 1880s by B.F. Saunders who ran cattle in the area.³⁵ According to Waring, and also Cox, Nutter used scrip to preempt the spring and pumped water to the plateau.³⁶ No record of this was located at either the Phoenix office of the Bureau of Land Management, or at the Mohave County Recorder's Office.

34. Ibid.

35. Waring interview, 17-10-77.

36. Waring interview, 11-11-77, and Cox, op. cit., p. 13.

The springs were within the jurisdiction of the Dixie National Forest from 1908 to 1916, at which time the area was opened to homestead entry.

In 1926, C.W. Clarke, in the transaction referred to above, acquired Green in exchange for holdings within the Sierra Forest Reserve of California. These lands were then apparently acquired by Waring, who, in April of 1937, applied to the State of Arizona for a Permit to Appropriate Public Waters. This was granted in July of that year. The permit requested 1,000 gpd. for domestic use and 12,700 gpd. for stock use. A pump with a capacity of 25 gpm. was intended.

While the information concerning Green is perhaps less equivocal than that for Penn's Pocket, it appears neither firm enough, nor monumental enough, to warrant Register nomination.

B. Historic Trails and Roads

1. Grand Gulch Mine to St. Thomas Freight Road

The Grand Gulch Mine (Arizona: T34N, R14W, S21, 22) lies outside of the Lake Mead National Recreation Area some twelve miles to the northeast of Grand Wash Bay. It was located in 1873 by a group from St. George, Utah, that included, among others, Richard Bentley, Samuel Adams, and Erastus Snow. During the early years of its development and operation, its orientation--particularly labor force and transportation--was to St. George. Nevertheless, it is likely that salt and food supplies came from the Virgin River basin. The major obstacle to the St. Thomas route was the climb up the major escarpment of the Grand Wash Cliffs. An incentive to resolve this problem came about the turn of the century when a railroad reached "to within 140 miles of the mine and an 18c copper market caused a revival of interest in the mine"¹

Hill, who visited the area in 1913, describes the route:

The Grand Gulch Mine is 54 miles by road east of St. Thomas. The road crosses Virgin River by a ford 2 miles east of St. Thomas, beyond which an ascent of 1,300 feet in 16 miles along the bottom of a narrow canyon carries it to the summit of Bitter Springs Pass over the Virgin Mountains. The road continues on the south bench of Black Canyon to a point about 2 miles from Grand Wash, which is crossed at either the Willow Spring or Pakoon Well crossing. For about 16 miles east of the crossing the road passes over the low bench of Grand Wash to the base of the Grand Wash cliffs, 1,250 feet high, which are ascended by a tortuous but well-constructed

1. Jennings, op. cit., p. 269.

grade, up a narrow canyon that opens to the north. The mine is about 2½ miles south of the place where the road reaches the top of the first line of cliffs, but to avoid a deep canyon a detour of 4 miles is made to reach the camp.²

Two branches of the road can be found within the boundaries of the Recreation Area. That showing earliest and heaviest use follows Mud Wash³ (Nevada: T17S, R69E, S 18, 17, 16, 15) from a point one and a quarter miles east of Fish Island to the boundary near Red Bluff. This section is about four miles in length, but evidence of use is likely to be obliterated by floodwaters.

According to Laura Gentry, a lightly used alternate came into use "about 1914" with the building of Highway 91.⁴

Hill's map appears to show this alternate although he does not mention it. His field work was done in 1913, which could give the alternate a somewhat earlier date. The alternate, including parts of Highway 91, is found on the peninsula between the Virgin and Muddy Rivers (Nevada: T17S, R68E, S12) and on the east shore, (Nevada: T17S, R69E, S 6, 7, 8, 9, 10, 15) and totals about four and one half miles. These portions of the road are clearly identifiable and a field reconnaissance showed

2. Hill, op. cit., p. 41.

3. This is called Bitter Wash in local accounts, eg. Howell, op. cit., p. 14. It is indicated as Mud Wash on the Overton Beach Quadrangle.

4. Laura Gentry interview, 17-4-78.

considerable scattering of historic artifacts. At least one historic campsite and a large pueblo are also intercepted.

From about 1900 until the end of the First World War, traffic along the road was constant, at first to Moapa, and later to St. Thomas after a spur line was built. The mine had several six horse outfits that kept moving all the time, and, after the fall harvest, valley farmers freighted the bulk of the stockpiled ore.⁵ Accounts of the trail, incidents associated with it, the techniques of freighting, logistics, and campsites are found in Jennings, Hill, Howell, and the transcriptions of Frehner and Gentry. From these, a profile of the entire length of the trail can be drawn with confidence.

Parts of the trail served other points of call. The existence of Highway 91, the Arrowhead Trail, has already been noted. According to Laura Gentry, Harvey Frehner used a span of ten horses to draw a diamond of railroad ties to cut this road, and a borrow pit for fill, as well as the path of the rig, are clearly visible on the peninsula in Section 12. It is likely that this same early highway extends to the western shore of the lake in Sections 10, 9, 17, 20, and 19 of Nevada: T17S, R68E.

Traffic to the Copper Mountain Mine (Arizona: T32N, R9W, S14) within the NRA, although very much less, used the Grand Gulch to St. Thomas road in its entirety, and also west of Grand Wash from which a spur ascended the Grand Wash Cliffs by way of Hidden Canyon. Furthermore, traffic to Gold Butte and the Scanlon Ferry from St. Thomas would use a portion of this road.

5. Jennings, *op. cit.*, p. 269.

The Grand Gulch Mine to St. Thomas Road is a strong candidate for National Register status. Since only six of its fifty-four miles (measured by the most commonly used route) lie within the National Recreation Area, and two of these are underwater, it is recommended that the National Park Service coordinate further research and the nomination process with the Arizona and Nevada state offices of the Bureau of Land Management through which the road passes so that it can be nominated in its entirety and considered as a unit. It is further recommended that an archeological survey of the road be conducted, particularly on those sections within the NRA and elsewhere that have not been improved. The road within the NRA should be temporarily barred from vehicular traffic pending the survey to protect the historic and prehistoric remnants.

2. Pearce Ferry Road

This famous, but lightly used, trail ran from St. George, Utah, to Pearce Ferry and then south across the river to merge with other trails to the Little Colorado River settlements and the Salt River Valley. The northern segment passed through the Arizona Strip after leaving St. George. The Mokiatic Dugway was cut up Quail Canyon leading to Wolf Hole. From there, it led to Grand Wash down Hidden Canyon. Pigeon Canyon was intercepted at first where it discharges into Grand Wash and later by way of a bench or mesa to an unnamed canyon which joined Pigeon Wash at Tasi. Pigeon would be followed upstream to Tasi Wash which would be traversed a short way. The likely route thence would be across a bench to Snap Canyon which would be followed almost to the river. There, another bench would be crossed to Pearce Wash which would be followed to the Ferry site. Once across, Grapevine Wash would lead to Hualapai Valley and to Truxton.⁶

6. Within the National Recreation Area the trail is found within the following sections, all Arizona: T33N, R16W, S3, 10, 11, 12, 13; T33N, R15W, S6, 7, 18, 17, 20, 21, 29, 33; T32½N, R15W, S33; T32N, R15W, S5, 7; T32N, R16W, S13, 18.

The first recorded use of a portion of the trail was by Jacob Hamblin in 1862 when he passed down Grand Wash on his way to the Hopi villages. He returned again in 1863, and, this time, crossed at the future site of Pearce Ferry. While he rowed upriver in a skiff, his land party trekked up Pigeon Wash and crossed over to Snap Canyon.⁷ Hamblin returned by essentially the same route.

In 1868, Erastus Snow led another group down Grand Wash. Members of Wheeler's 1871 expedition travelled down Grand Wash from St. George to the crossing and out to Truxton on the south.⁸ Hamblin, at the orders of Brigham Young, re-explored the route in 1876 and reported favorably upon it, somewhat to the distress of many who followed to find parts of the route exceedingly arduous.⁹ At that time, road building began under the direction of Harrison Pearce who had been called to run the ferry.

The first train of emigrants used the trail and ferry in 1877. Snap Canyon proved to be a hazard and burden, and their travail did not encourage others to follow.¹⁰ Two years were to pass before another significant use occurred. That was a party led by David Kimball who kept a careful log of water and supplies and distances.¹¹

In 1882, a group of emigrants who had been encouraged to use the route, reached the ferry only to find that the river was

7. Smith, *op. cit.*, pp. 379, 380.

8. *Ibid*, p. 383.

9. *Ibid*, p. 387.

10. *Ibid*, p. 389.

11. *Ibid*, p. 136.

in flood and Pearce would not take them across. The following year, Pearce requested that he be released from his call. This was done and the historically significant use of the trail came to an end.

The Pearce Ferry Trail clearly warrants inclusion in the National Register. A relatively minor problem exists as to its course from Tasi Wash to Snap Canyon, but it likely followed the alignment of the present road. However, no artifacts that might confirm this were seen during the hasty reconnaissance conducted by the author.

The trail wanders for about fifteen miles through the NRA and at least eighty miles through the Arizona Strip to Saint George. Portions of it within the NRA and the Strip require field investigation for definition.

It is, therefore, recommended that the National Park Service coordinate with the Arizona Strip District Office of the Bureau of Land Management to define the trail and to proceed with National Register nomination based upon these findings. Short of this, that portion of the trail lying to the east and southeast of Tasi should be field checked by archeologists. The remoteness of the trail and its light use do not justify closure to the public at this time.

3. Scanlon Ferry Road

The Scanlon and Gregg Ferries crossed the Colorado River at approximately the same location south of Gold Butte and are of essentially local significance. This was due largely to the difficulty of access from the north which required the traveler to pass through the precarious Scanlon Dugway. About five and one half miles of the road traverse NRA jurisdiction (Nevada: T21S, R70E, S5, 9, 10, 15, 23; T20S, R70E, S32), and there are some 29

miles to the north to the Grand Gulch road that are within the jurisdiction of the Nevada BLM.

The road was apparently built by Scanlon sometime after he established his ferry in 1881. According to Smith, traffic first reached the ferry by way of Grand Wash.¹² The Dugway may have been constructed before Preston Nutter crossed his steers at the ferry site in 1893. The route of the trail drive north of the ferry is not clear, but both local lore and logic suggest that he kept as close as he could to the Virgin River since water for 5,000 head would not be available elsewhere. Whether he could get his cattle out without using the dugway is difficult to determine. Although it cannot be substantiated, it is likely that the Dugway had been built by 1893 and that its existence helped Nutter determine the route to be followed.

Itinerent miners and mining interests were probably the most frequent users of the road. In 1909, Burt Mill tried to establish a placer operation and mill at the river, and, undoubtedly, used the road and dugway to get his equipment, including a giant fresno, to the site.

In 1916, "Slim" Waring crossed at Scanlon's on his way to locate his homestead on the Shivwits Plateau. Merle Frehner used the dugway in 1919 when he went to the ferry to help his father haul out a gasoline powered tractor and his brother Harvey used the road at an undetermined date to haul his freight wagons to the south.¹³

12. Smith, op. cit., p. 407.

13. Frehner transcription, op. cit., p. 12.

George Hartman, who acquired Tasi from San Gentry about 1923 also crossed cattle at the ferry, but, since he was probably taking them to Tasi, may not have used the road or dugway.

Although there is some vagueness about the use of the road and dugway, and the time of their establishment, local historical significance is clear and nomination to the National Register should be implemented. This should be done jointly with the Nevada Bureau of Land Management since most of the road lies within its jurisdiction. Archeological survey and analysis are recommended. That portion of the road to the south of the ferry does not warrant research or nomination since it followed Hualapai Wash and the probability of finding evidence or artifacts is remote.

4. Bonelli Roads

To the north of Rioville, the roads to Bonelli Ferry lie under the waters of Lake Mead. To the south, it appears that the road branched into two major forks. The main one of these leading to Kingman and Eldorado, followed Detrital Wash or its vicinity. The east fork apparently served the mines at Salt Spring and may have extended to Truxton or joined the Pearce Ferry Trail.

The existence of these possibilities came to the attention of the investigator too late to allow any follow through. However, physical evidence of the east fork appears quite clear, and has been closed to vehicular traffic.

It is recommended that the east fork be closed to all traffic, including hikers, until an archeological survey can be conducted. High priority should be given to research on both forks of the Bonelli Road since they are the only major trails showing remnants on the south shore and which are, therefore, easily accessible to the public.

5. Eldorado Canyon Trail

The Eldorado Canyon Trail has two segments. The more important, in terms of history and volume of traffic, was on the west side of the river where the mines, a mill, and the town of Nelson generated a great deal of activity. A modern road and floods have obliterated all traces of the trail except what may be a short portion between Nelson and the Techatticup Mine, which lies outside the NRA.

To the east, the trail was little used principally because Eldorado Canyon traffic was carried up and downriver by small steamers. The exact location of the portion of the east is not clear and two alternative side canyons exist.

Although undocumented Spanish or Mexican mine working may have occurred at an earlier date, the first recorded penetration of the canyon was by Frances X. Aubry in 1853. He was followed by Amasa Lyman in 1858. The boom that resulted from the opening of the mines in the 1860s generated mail through service between St. George and Los Angeles during the years 1867 through 1869 and 1879 through 1907.¹⁴ Mail carriers during these periods included Albert Frehner, Edward Bunker, James Abbott, and Walter Iverson.¹⁵

During the boom years, freighters, including Albert Frehner, carried salt and other supplies from the Bonelli Ferry and Kingman to Eldorado. Such traffic as there was virtually ceased after 1900 with the deflating of Eldorado's major booms.

14. Smith, op. cit., p. 446.

15. Howell, op. cit., p. 7.

Further research is required on the eastern segment of the road to determine its location. Since the significance is local, the traffic was light, few notable historic actors were involved, and physical remnants are likely to be few or non-existent, this should not be given high priority.

The western portion does not warrant consideration for nomination because of the destruction of what remnants may have existed within NRA boundaries.

6. Searchlight-Cottonwood Canyon-Union Pass

Relatively late in the historic period, a road was established between the booming mines of Searchlight, Nevada, and Chloride and Kingman in Arizona. This road followed long, easy grades between the series of river ferries that crossed the Colorado and the centers of mining and commerce.

Although the general location on the river has some historical associations--perhaps, Ewing Young in 1829 and Aubry in 1853, and, certainly, as the meeting place of Ives and Hamblin in 1858--these have a validity distinct from that of the road. The only event of any interest that can be associated with the road is its use by Governor Campbell of Arizona in 1920, when he circumnavigated the Grand Canyon.¹⁶ Local traffic to and from the mines at Searchlight, and, possibly, such isolated and ephemeral ventures as the Rockefeller and Dupont Mines, which required dealings with the Arizona settlements, would use the ferries and the road.

16. James H. McClintock, Mormon Settlements in Arizona, Phoenix, 1921, pp. 69. 97.

We have to take the position, therefore, that the road in question would not survive any test of significance as a historic trail, and it is not, therefore, recommended for National Register nomination.

7. Quartette Mining Company Railroad

Although a railroad was built to service the construction of Boulder/Hoover Dam in the early 1930s, the only railroad to enter the NRA during the historic period operated from the Quartette Mining Company's holdings in Searchlight to a twenty stamp mill erected on the Colorado.¹⁷ (Nevada: R63E, T29S, S12; R64E, T29S, S6, 5, 4, 3, 2; R64E, T28S, S35, 36; R65E, T28S, S31, 29, 28, 24, 23, 22) The narrow gauge railroad was constructed in 1901. The distance from the mine to the mill being variously reported in the Mining and Scientific Press as 12, 13, 14, 16, 17, and 18 miles. At the time of its construction, a large flow of water was encountered in one of the mine shafts and plans were made for a 20-stamp mill in Searchlight to use this water.¹⁸ The railroad was completed in 1902, and by July, the train was making two trips a day to the mill.¹⁹

The locomotive was fired by oil and an 11,000 gallon oil tank was built to supply it. The loaded train ran to the mill by gravity and returned the empty ore cars and a flat car loaded with water barrels. Early in 1904, the railroad was shut down, but returned to service later that year.²⁰ By early 1906, the mill at

17. Mining and Scientific Press, LXXXI, #23, 8 December 1900, p. 576.

18. M&SP, LXXX: 24, 15 June 1901, p. 276.

19. M&SP, LXXXV: 5, 2 August 1905, p. 66.

20. M&SP, Vol. LXXXVII: 8, 20 February, 1904, p. 129; and Vol. LXXXIX: 15, 8 October, 1904, p. 24.

the river was being dismantled for rebuilding in Searchlight. Water sufficient for milling requirements had been developed at the mine, and the Colorado Mill and the railroad that serviced it were no longer required. The new mill had been finished by early summer 1907, and, presumably, railroad service ended at that time.²¹

The Quartette Railroad was an innovative solution to an engineering and mining problem, and, even though it was relatively short-lived, it warrants nomination to the National Register. Since parts of the road bed are easily accessible to the public, a plaque designating its location and outlining its history should be located so as to be visible from a roadside parking area.

C. Mines, Prospects, and Mining Districts

It is clear from the maps that the mineral occurrences in Mohave County, Arizona, and Clark County, Nevada, follow the mountain ranges which run north and south, with generally a slight tipping northwest and southeast. Along these north-south trends there occur at irregular intervals areas of concentration. These in turn gave rise to concentrations of prospects and mines, and these were referred to as mining districts.

Mining districts have never had any legal status. They were designated prior to 1872 as rough geographical areas to be governed by the laws which the claimants proclaimed by mutual acceptance to be rules concerning the size of claims, the manner in which they were to be staked and so on in that district. Such laws were of the essence of the American system in that they were voluntary surrenderings of personal freedom by the governed in the

21. M&SP, XCIV: 17, 27 April, 1907, p. 519.

common good. They were government by consent of the governed and it was upon their common content that the mining law of the United States, promulgated in 1872, was based.

Aside from that, mining districts constituted only a convenient means of indicating the general geographical situation of a given property. Often different names were applied to the same district; the names of the dominant landmarks by which their borders were identified changed over the years; and still today there is a great deal of confusion in identifying mining districts.

Mining camps were generally accepted to be the settlements that grew up in the midst of a concentration of mining activity in an area. Thus Nelson, Nevada, became a camp in the Eldorado Canyon District in which there were a great many claims and a number of active mines. Sometimes the camps were known by the same name as the district, sometimes, as in the case cited, by a different name, further adding to the confusion.

For the purposes of this report districts will be called by their generally accepted names, and camps will include clusters of mines within a district. If there was a named settlement serving such clusters, the camp will be called by that name, otherwise by the name of the dominant mine in the group.

The principal mining districts with which this report is concerned are, in Nevada: Searchlight, Newberry, Gold Butte (Bonelli Peak), Eldorado Canyon (Colorado, Nelson), Las Vegas-Virgin River.

In Arizona they are: Bentley (Grand Gulch, Grand Wash Cliffs), Lost Basin, Gold Basin (Lost Basin and Gold Basin frequently are referred to as one and the same, also has been called Salt Springs), Minnesota, Virginia (Weaver, Mockingbird),

White Hills (Indian Secret), Music Mountain, Willow Beach, Eldorado Pass, Gold Bug, Pilgrim, Katherine (San Francisco), San Francisco (Oatman, Gold Road, Boundary Cone), Union Pass (San Francisco), and Prospect Canyon (in Coconino County). All of these are indicated on Map and Index of Arizona Mining Districts, ABM, 1961.

1. Searchlight District (Nevada):

This district is located some 56 miles south of Las Vegas on U.S. Highway 95 in the low hills and pediment slope bordering the western flank of the Opal Mountains. It was discovered in 1897 and had, as of 1965, a recorded production of about \$7,000,000. (Longwell, et al, 1965; pp. 112, 113.)

Principal producers in the area were the Quartette, the Blossom, and the Duplex, all far outside the boundaries of LMNRA. There were a great many small operations, however, which combined to lend the camp an aura of romance and to gain for it widespread notice. The claims and prospects extended for miles in every direction, some of them east of Searchlight approaching the river.

There are no records, however, of any significant mining operation in the Searchlight District within the boundaries of what is now the Lake Mead National Recreation Area.

2. Newberry District (Nevada):

This district is located in the Newberry Mountains in southeast Clark County. It was discovered in the early 1860s by soldiers from Fort Mohave, Arizona. Vanderburg states that in 1937 (I.C. 6964; p. 77) the remains of three steam plants on the ground indicated very early exploitation.

The Homestake Group:

In 1937 the Homestake Group (T 315, R 66E, SW $\frac{1}{4}$, Sec. 35) (gold-silver claims) was owned by J.J. McDonald of Searchlight,

who told Vanderburg that the property in its early years was equipped with a 20-stamp amalgamation mill and that production from the beginning through 1937 had, according to McDonald's estimate, totaled about \$150,000. From 1910 to 1937 McDonald worked the mine intermittently employing one to three men, hand sorting ore (averaging \$40 per ton), and shipping it to a small mill at Cottonwood Camp on the river 18 miles north. The mill site has been inundated by the waters backed up by Davis Dam.

Since the late 1930s and the gold mine closing order of World War II the Homestake Mine has been, to all intents and purposes, idle. It has very little significance historically except for its early discovery. It lies within the Lake Mead National Recreation Area.

The Wiley Inspiration Mine:

(T31S, R66E, NE $\frac{1}{4}$ Sec. 34) It is very near the Homestake and lies within the Lake Mead National Recreation Area. It is shown as No. 238 on Plate 2, Longwell, et al, 1965; but on page 200 the Bulletin states there has been no recorded production despite the fact that it has been explored by 530 feet of underground workings. No other references have been found in the literature.

It is judged to have no significance for the purposes of this study.

The Jackdaw Group:

(T30S, R65E, Sec. 21) It is in the Newberry Mountains and just on the boundary of the Lake Mead National Recreation Area. Vanderburg (p. 76-77) says that in 1937 this group of three unpatented silver claims was owned by the same J.J. McDonald who owned the Homestake. It had been worked "intermittently on a small scale" for many years, with total production estimated at about \$15,000.

It is judged to have no significance for the purpose of this study.

The Black Mountain Mining Company:

(T27S, R64E, SE $\frac{1}{4}$ Sec. 25) It consists of 14 unpatented gold claims owned by Ad Rickard of Searchlight in 1937. Vanderburg states that as of 1937 "no production has ever been made." This property lies just on the boundary of the Lake Mead National Recreation Area.

It is judged to have no significance for the purposes of this report.

Camp Dupont Group:

(T27S, R65E, Sec. 29) This group of 23 patented claims is said to have (according to Longwell, et al, 1965, p. 142, 200) pockets of highgrade copper-gold-silver ore. Included in the group are the Sazarac, Bornite, and unpatented Big Shot claims. There was considerable development work done; but the only recorded production was in 1936 when 35 tons of ore from the Big Shot were shipped. There seems to have been little if any activity on the property in recent years.

For the purposes of this report this property is judged to have no significance. (See Also Vanderburg, p 78.)

Goldenrod Group:

(T30S, R65E, Sec. 28) It has a recorded production of about \$3,500. It is also known as Lloyd Searchlight property. Original discovery was by John Thurman in 1906. In early years there was a small amalgamation mill on the property. In 1936, 50 tons of ore said to have \$70 per ton value were shipped. (Longwell, et al, 1965, p. 200.) (Also, Vanderburg, 1937, p. 76.) This property lies close to the Lake Mead National Recreation Area boundary.

For the purposes of this study this property is judged to have no significance.

Empire:

(T30S, R65E, Sec. ?) It was a small mine shown on U.S.G.S. Quad Map, Spirit Mtn. Nevada-Arizona. It is nowhere else identified. It has no significance.

White Rock:

(T30S, R65E, Sec. ?) It is a small mine shown on U.S.G.S. Quad Map, Spirit Mtn. Nevada-Arizona. It is nowhere else identified. It has no significance.

Also in the Newberry District are the Cottonwood (T31S, R65E, Sec. 18); Juniper (T31S, R65E, Sec. 30); St. Louis Group (T27S, R64E, SE $\frac{1}{4}$ Sec. 32); Roman (T30, R65E, Sec. ?); Yellowstone (T31S, R65E Sec. ?); Potential (T20S, R65E, Sec. ?); Goldenrod (T30S, R65E, Sec. 28). Longwell, et al, 1965 gives these coordinates. Spirit Mtn. Nevada-Arizona Quad Map shows a Goldenrod in Sec. 8 or 9. We have not been able to reconcile the discrepancy. All of these lie outside the Lake Mead National Recreation Area boundaries, and none of these properties has any real significance per se.

3. Eldorado Canyon District (Nevada):

There were literally hundreds of claims in this district, staked from the late 1850s on. It was primarily a gold district, with silver an important by-product.

There were 12 properties that produced more than \$100,000. They were: Mockingbird, Wall Street, Techatticup, Jubilee, Eldorado Rover Mining Co., Eldorado Crown Mining Co., Eldorado Rand Group, Eldorado Empire Mining Co., Golden Empire, Rich Hill, Combination, Silver Legion, and Belmont (which produced primarily silver).

There was also one mercury prospect mapped by the Nevada Bureau of Mines, the Patsy; one copper prospect, the Buster; one bentonite and clay deposit (unnamed); and hundreds of gold prospects. (See reproduction of Sketch Map of Eldorado Canyon Mining District Showing Approximate Location of Principal Claims, Fig. 1, attached.)

All of these lie outside the boundaries of the Lake Mead National Recreational Area. Individually they and the hundreds of small other workings did not amount to enough to have any very significant historical impact. However, cumulatively they made the Eldorado Canyon District one of the more colorful and interesting mining areas of the late 1800s and early 1900s, up to the 1930s.

Lying within the boundaries of the Lake Mead National Recreation Area are the Capitol Mine (T26S, R65E, Sec. 20) and the Montana Claim (T26S, R65E, Sec. 20). The Capitol is reported (Longwell, et al, 1965, p. 181) to have had a total production of about \$100,000. (See Vanderburg, 1937, p. 33-34.) It was discovered in 1894 by John Appel. Other small discoveries had been made earlier. Couch and Carpenter, however, do not include it or any other mines within the Lake Mead National Recreation Area in their list of properties in the Eldorado Canyon District reporting total production of \$5,000 or more from 1859 through 1940.

Other properties near the Capitol group are the Briggs Capitol group of 17 patented claims owned by Yoeman Briggs, Nelson, Nevada; the Wallace group of 10 patented claims owned by William C. Wallace, Oakland, Calif.; and the Nevada Eagle group of six patented claims owned by the J.T. Weyerhauser interests, Tacoma, Wash. in 1937. (See Vanderburg, 1937, p. 33-34.)

Ransome (1907, p. 64-65) says, "Mining in Eldorado Canyon is said to date from about the year 1857, and the Techatticup . . . one of the principal mines, is reported to have been in intermittent operation since 1863 It is a little surprising that a district once alive with activity should have attracted so little outside notice. This, however, is partly accounted for by the overshadowing predominance of the Comstock, Eureka, Ely and other districts noted in the early history of mining in Nevada and by the isolation of Eldorado Canyon. The rich ore shipped from the canyon in early days was taken down the Colorado by boat to Needles, Yuma, and the Gulf of California."

Vanderburg (1937, p. 26-27) notes that in 1864 the Techatticup opened a 15-stamp chlorination mill at the mouth of Eldorado Canyon on the Colorado River: "The salt required for the treatment of ore was mined from the Virgin River salt beds near St. Thomas, Nevada, and transported by boat down the Virgin and Colorado Rivers."

Vanderburg states the bulk of the production from this district was made from 1864 to 1900, "and for this period no accurate data are available. Yoeman Briggs, of Nelson, Nevada, has compiled production statistics on all the individual properties in this area for the Nelson-Searchlight Power District and, according to Briggs' figures the total production has been about \$10,000,000. Briggs obtained his data from many sources, and due allowance must be made for old production figures, which have a way of uncreasing with time."

Longwell, et al, 1965, p. 117, Table 7, shows total production of the district from 1907 to 1961 to be \$4,626,033. Assuming the production from 1864 to 1900 did constitute the bulk, this would tend to validate Briggs' figures.

The Eldorado Canyon Mining District is indeed historically significant because of its early discovery date, the large number of prospectors, miners, and promoters it attracted, and its fairly sizeable production. It was typical of the pioneer southwestern mining areas of the late 19th and early 20th centuries, with some extra interest added by the barren ruggedness of its climate and terrain.

For the purposes of this study, however, it presents problems. The part of it which lies within the boundaries of the Lake Mead National Recreation Area was the least productive. Within the boundaries there remain only small and rudimentary ruins of buildings and no workings large enough or of sufficient significance to merit preservation. The large producers all lie outside the boundaries, and the Techatticup and most of the others are privately owned today.

Thus any effort toward an interpretive project would face tremendous, probably insuperable, difficulties. It is recommended, therefore, that the pits and shafts and tunnels which exist within the Recreation Area, be sealed. Nothing of great historical significance will be lost.

4. Las Vegas-Virgin River Districts (Nevada):

These districts are large and not well defined. They extend from the Eldorado Canyon District northward past the Boulder City area, west a few miles beyond Boulder City, and eastward to the Virgin River.

The Three Kids Deposit (T21S, R65E, Sec. 35-36) has been at times since its discovery in 1917 an important producer of manganese. Its discovery was made as a result of intense interest in manganese stimulated by the demands of World War I. It was

made by Edwards, Marrs, and Jefferson, of Las Vegas, and was soon sold to Gillice, Connor, and McCoy, who operated as the Manganese Association. It was sold within a year to Thomas Thorkildsen of Los Angeles, who retained the Manganese Association name. (Pardee and Jones, 1920, p. 222.)

Adjoining the Three Kids on the west and northwest are the Lowney Association Claims, while the Las Vegas Group of seven claims extends westward about a mile from the northern boundaries of the Three Kids and Lowney group. There are also other manganese claims in the immediate area, including those located by S.E. Yount and associates in 1917 about a mile east of the Three Kids.

The Three Kids during World War I produced moderate tonnages, then was worked intermittently until World War II. Between 1942 and 1944 about 65,000 tons of low grade manganese ore were mined from the "A" and "B" pits. Production again dropped off until 1952, when Manganese, Inc. built a flotation plant and, under contract with the General Services Administration, went into heavy production at prices substantially above world prices.

The Three Kids is credited with some 2,225,000 tons of crude ore production, most of which was mined between 1952 and 1961. In the latter year the Government purchase order expired, and the mill was dismantled. There has been no activity since (Longwell, et al, 1965, pp. 136-138, 199.)

This property is a good example of America's ability to supply her own metallic mineral needs in time of emergency through a cooperative effort of the United States Government and free enterprise.

However, most of the Three Kids most active history dates from only about 27 years ago. For the purposes of this report, therefore, this property is judged to have no historical significance.

(Vanderburg, 1937, pp. 54-56. Hunt, McKelvey, Wiese, 1942. Hewett et al, 1936, p. 86. Couch and Carpenter, 1943, pp. 27, 30. Hale, 1918, pp. 775-777.)

All of the above lie within the boundaries of the Lake Mead National Recreation Area.

Fannie Ryan (manganese) (T21S, R63E, Sec. NE $\frac{1}{4}$ 36) is within the boundaries of Lake Mead National Recreation Area. No production is recorded. This property is judged, for the purposes of this report, to have no significance. (McKelvey et al, 1949, p. 97. King & Trengrove, 1950. Longwell, et al 1965, p. 199, Plate 2 No. 72.)

Red Chief Claim (manganese) (T21S, R64E, Sec. NE $\frac{1}{4}$ 30) is within the boundaries of Lake Mead National Recreation Area. There has been no recorded production. This property is judged for the purposes of this report to have no significance. (McKelvey et al, 1949, p. 98. Longwell, et al 1965, p. 199, Plate 2 No. 71.)

Virgin River Deposit (manganese) (T20S, R67E, Sec.?) is within the boundaries of Lake Mead National Recreation Area. There has been no recorded production. This property is judged for the purposes of this report to have no significance. (McKelvey et al, 1949, p. 100. King, Soule & Trengrove, 1949. Longwell, et al, 1965, pp. 138-139, 199, Plate 2 No. 58. Batte & Agey, 1948, pp. 2-8.)

Bauer-Dollery Deposit (manganese) (T20S, R67E, Sec. ?) is within the boundaries of Lake Mead National Recreation Area. There has been no recorded production. This property is judged for the purposes of this report to have no significance. (McKelvey et al, 1949, 101. Longwell, et al, 1965, p. 199, Plate 2 No. 59.)

Boulder City Deposit (manganese) (T34S, R64E, Sec. 23-24) lies about a mile or less to the west of the Lake Mead National Recreation Area boundary. There has been no recorded production. This property is judged for the purposes of this report to have no significance. (McKelvey et al, 1949, p. 98. Longwell, et al, 1965, p. 199, Plate 2 No. 75. Batey & Agey, 1948, pp. 9-12. U.S.G.S. Quad Boulder City, Nevada.)

Salt Mines and Deposits of the Virgin River: Seven sites of salt deposits are named and numbered in Longwell, et al, 1965, Plate 2. They are: 16, Salvation Salt Mine; 17, Big Cliff Mine; 18, Stewart Property; 54, Calico Salt Mine; 55, Salt Mine; 56, Black Salt Mine; and 56, Bonelli Salt Mine. All but the Salvation and the Big Cliff (T17S, R68E, Secs. 27 and 34) have been completely inundated by the waters of Lake Mead. Small portions of these two--or at least extensions of their deposits--may still exist above the water line.

Vanderburg (1937, pp. 67-68), Hewett, et al (1936, p. 97) and others suggest that these deposits almost certainly were mined by prehistoric peoples. There is said to be strong evidence that the product of these mines (identified by trace-element techniques) was an important commodity in the extensive prehistoric trade networks extending throughout the southwest.

In historic times, salt from these mines was used in the chlorination mill built at the junction of Eldorado Canyon and the

Colorado River in 1864 for the treatment of gold ore. It probably was used in other similar mills throughout the area. In addition, salt mined here during the middle and late 1800s was widely used by the early Mormons and other settlers for domestic and livestock purposes.

While it is lamentable that the principal deposits and workings have been obliterated by the waters of Lake Mead, it is suggested strongly that an intensive anthropological study be undertaken to determine the extent of the area in which Virgin River salt was traded and thus its importance to prehistoric peoples. Archaeologists also should check carefully whatever parts of the Salvation and Big Cliff deposits remain above water to determine whether they can properly be identified as parts of the prehistoric salt mines.

Depending on the findings of these studies, these two sites should be seriously considered for inclusion in the National Register of Historic Sites, for preservation, and for the erection of a meaningful interpretive project.

Borate, Gypsum, Silica-Sand (SiO₂) and Glauberite Deposits: In the Callville Wash area the following borate properties are located: Anniversary Mine (borax) (T20S, R65E, Sec. NE $\frac{1}{4}$ 15), about a mile north of and outside the boundary of Lake Mead National Recreation Area. Production 1922-28 was 200,000 tons. (Vanderburg, 1937, pp. 58-60. Hewett et al, 1936, p. 113. Longwell, et al, 1965, pp. 150, 151, 203, Plate 2 No. 60. University of Nevada Bull. Vol. XXVI, No. 6, 1932, p. 95. Gale, 1921, pp. 524-530. Couch & Carpenter, 1943, p. 31. Noble, 1922, pp. 34-39.)

This deposit was discovered in 1923 by F.M. Lovell and George D. Hartman and for a brief time played an important part in one of the mining power plays of that time. F.M. "Borax" Smith had for many earlier years been the dominant figure in the world's borax industry. He had, however, lost control of the larger producing properties and was anxious to augment his holdings with new producing mines.

As soon as the Lovell-Hartman discovery became known, a number of potential buyers rushed to them; but "Borax" Smith signed a deal in the field (the contract written on a sheet from a notebook), gave them a deposit of \$50,000 against the purchase price of \$250,000, and walked off the winner.

This, of course, sparked a stampede to the region, everyone looking for borates. A number of claims were staked; but apparently only the Anniversary yielded appreciable production. In 1928 it was shut down because the new deposits of kernite (another and better source of borax) near Kramer, California were displacing colemanite.

While there is a moderately interesting story connected with it, this property lies outside the boundary of the Lake Mead National Recreation Area. Its significance for the purposes of this study is judged insufficient to warrant any effort to acquire it and preserve it.

Also in the vicinity, but outside the Lake Mead National Recreation Area, is the American Borax Company Mine (T18S, R66E, Sec. 26), no recorded production but extensively prospected. (Vanderburg, 1937, p. 58. Longwell, et al, 1965, pp. 150-151, 203, Plate 2 No. 52, 53.) It is of no significance for this report.

Extensive deposits of silica sand exist in Clark County. Those within or near the boundaries of Lake Mead National Recreation Area are: Simplot Silica Pit (T17S, R67E, Sec. 11) on the boundary. (Murphy, 1954, Longwell, et al, 1965, pp. 162-163, 209; Plate 2 No. 14.) Nevada Silica Sand Company Pit (T17S, R67E, Sec. 12) within the boundary. (Same references as Simplot, except Plate 2, No. 15.) Silica Sand Prospect (T17S, R67E, Sec. 6), within the boundary. No recorded production. (Same references as Simplot except not recorded in Murphy, and Plate 2, No. 13.) Snoreen Company (T16S, R67E, Sec. 36.), within the boundary: "Approximately 54,000 tons dune sand mined annually." (Longwell, et al, 1965, p. 209; Plate 2 No. 12. Murphy 1954.)

Gypsum deposits are of fairly frequent occurrence in the district. Only two, however, are close to the boundaries of Lake Mead National Recreation Area. They are: White Eagle Mine (T21S, R63E, Sec. 8 17). Annual production estimated 100,000 tons prior to 1960. Judged of no significance for purposes of this report. (Longwell, et al, 1965, p. 205; Plate 2, No. 69, 70); and an adjoining mine (same coordinates and references).

Glauberite is represented in this report only by the Stewart Property (T18S, R68E, Sec. 10) which lies within the Lake Mead National Recreation Area boundary. It has been inundated by Lake Mead. (Vanderburg, 1937, p. 68. Longwell et al, 1965, pp. 152, 204. Plate 2, No. 18.)

5. Gold Butte District (Nevada)

The Gold Butte mining district is in the South Virgin Mountains in the northeastern part of Clark County. On the south and west it is bounded by Lake Mead, on the east by the Nevada-Arizona state boundary, and on the north by a line running east and west through St. Thomas Gap.

The district experienced its first mining in 1873 when Daniel Bonelli discovered mica deposits near the east side of Gold Butte. Shipments of sheet mica were small, however, totaling only some six or seven tons by 1908. (Vanderburg, 1937, p. 36.)

About 1905 gold was discovered in veins a little south of Gold Butte by Frank Burgess and associates, and in 1907 by Messrs. Bonelli, Burgess, Syphus, and Gentry. (Hill, 1916, p. 48.) This led to an influx of prospectors and miners in 1908, and the camp of Gold Butte was founded. Small shipments of copper and zinc ore were recorded from the area during the period 1912 to 1918. Following 1918, especially during the years 1934-1941, gold production was dominant, with the Lakeshore Mine by far the heaviest producer. Its total production up to 1965 (Longwell, et al, 1965, pp. 127, 129-132. Plate 2 No. 44) is estimated between \$40,000 and \$100,000.

In addition to the vein gold production from the Lakeshore, there have been a number of small and generally not very productive placer operations in the district. They have worked intermittently over the years, particularly during the Great Depression; but their economic and historical contributions have been from negligible to nil.

Among the lode gold mines in the district within or just at the boundaries of the Lake Mead National Recreation Area are:

Windmill (Finance): (T29S, R70E, Sec. SW $\frac{1}{4}$ 29). No recorded production. (Hill, 1916, p. 53. Longwell, et al, 1965, p. 185; Plate 2 No. 41. U.S.G.S. Quad Map Iceberg Canyon, Nevada). For the purposes of this report this property is judged to have no significance.

Lakeshore Mine: (T21S, R70E, Sec. NE $\frac{1}{4}$ 5). From 1934 to 1940 production estimated at \$90,000 to \$100,000 (Longwell, et al, 1965, p. 184. The discrepancy between this and the figure quoted in the fourth paragraph above occurs in Bulletin 62. An examination of the sources would seem to indicate \$40,000-\$100,000 is the more reliable figure.)

While this was the dominant mine in an area which had many mines, it is judged for the purposes of this report to have no significance.

(See also Lovering, 1954, p. 80. Vanderburg, 1937, pp. 34-35. U.S.G.S. Quad Map Iceberg Canyon, Nevada-Arizona.)

Union Mine: (T21S, R70E, Sec. SW $\frac{1}{4}$ 8). No recorded production. For the purposes of this report this property is judged to have no significance. (Longwell, et al, 1965, p. 185; Plate 2 No. 45. U.S.G.S. Quad Map Iceberg Canyon, Nevada-Arizona.)

Jumbo Mine (Prospect): (T21S, R70E, Sec. SW $\frac{1}{4}$ 15.) No recorded production. For the purposes of this report this property is judged to have no significance. (Longwell, et al, 1965, p. 184; Plate 2, No. 46. U.S.G.S. Quad Map Iceberg Canyon Nevada-Arizona.)

Eureka Mine: (T21S, R70E, Sec. SW $\frac{1}{4}$ 14 & SE $\frac{1}{4}$ 15) Some ore reportedly shipped. For the purposes of this report this property is judged to have no significance. (Longwell, et al, 1965, p. 183; Plate 2 No. 47. U.S.G.S. Quad Map Iceberg Canyon Nevada-Arizona.)

Joker Mine: (T21S, R70E, Sec. SW $\frac{1}{4}$ 22). Some ore probably milled on property. For the purposes of this report this property is judged to have no significance. (Longwell, et al, 1965, p. 184; Plate 2 No. 48. U.S.G.S. Quad Map Iceberg Canyon Nevada-Arizona.)

Marron Prospect: (T20S, R71E, Sec. 18). A tungsten prospect. Tungsten has not been an important resource of Clark County, and there is no record that this property has ever produced. Therefore, for the purposes of this report it is judged to have no significance. (Longwell, et al, 1965, pp. 131, 184; Plate 2 No. 40.)

Whitmore Property (Greenhorn Mine): (T 20 S, R 70 E, Sec. SW $\frac{1}{4}$ 32) No recorded production. For the purposes of this report this property is judged to have no significance. (Longwell, et al, 1965, pp. 183, 195; Plate 2 No. 43.)

Among the other properties in this same complex but lying outside the boundaries of Lake Mead National Recreation Area are; Winona Group (T 20 S, R 70 E, Sec. 10). No recorded production. Nevada Mica Mine: (T 20 S, R 70 E, Sec. SW $\frac{1}{4}$ 18). No recorded production. Getchell (?) Prospect: (T 20 S, R 70 E, Sec. SW $\frac{1}{4}$ 20.) No recorded production. Also the Azure Ridge Mine (Bonelli) fairly near the western boundary of farther north Lake Mead National Recreation Area (T 18 S, R 71 E, Sec. 32-33). Two carloads zinc ore and one carload sorted copper ore reported shipped, during the period 1912 to 1918. Very small operation. For the purposes of this report this property is judged to have no significance. (Longwell, et al, 1965, pp. 126, 129-131, 183; Plate 2 No. 26. Vanderburg, 1937, p. 26.) For the purposes of this report none of these properties is judged to have any significance.

6. Bentley District (Arizona)

Bentley (Grand Gulch, Grand Wash Cliffs) is bounded by the Colorado River on the south, the Utah-Arizona border on the north, the Arizona-Nevada border on the west, and a north-south line drawn through the westernmost boundary of Grand Canyon National Park on the east. Its principal mines, the Grand Gulch (T 34 N, R 14 W, Sec. 21-22), the Savanic (T 33 N, R 14 W, Sec. 9), the Cunningham (T 33 N, R 14 W, Sec. 16), and the Bronze L (three miles SSW of the Grand Gulch), all are outside the boundaries of Lake Mead National Recreation Aea.

To the east and within Lake Mead National Recreation Area are: Copper Mountain (also called Copper King) (T 32 N, R 10 W, Sec. 14-15): in 1914 owned by John A. Swapp and worked by Bishop Whitehead, yielding 23-26% copper ore, shipping one carload every two months. Apparently a sporadic producer. No other production records available. Examined for uranium during 1950s, but no record it ever was uranium producer. (Hill, 1914, p. 56. ABM 180, 1967, pp. 287-288. King & Henderson, 1953.)

Parashant Canyon Mine (T 32 N, R 10 W, Sec. 23), Lone Mountain Mine (T 32 N, R 10 W, Sec. 36), Snyder Mine (T 29 N, R 10 W, Sec. 28), and Old Bonnie Tunnel (T 29 N, R 10 W, Sec. 26) were obscure and insignificant properties. (Hill, 1914, pp. 42, 43, 56 et seq.)

For the pruposes of this report none of the above properties is judged to have any significance. (See USGS Quad Maps Grand Gulch Bench, Ariz. and Whitmore Point Ariz. Mohave County Map Sheets 5, 6 and 7. DMR Data Files.)

7. Lost Basin District (Arizona)

This district is sometimes said to include the Gold Basin District, which lies several miles to the west. They are treated separately in this report.

Lost Basin District lies partly within Lake Mead National Recreation Area. It includes the following mines: King Tut Placers (T 29 N, R 17 W, Sec. 9). It is close to but not in Lake Mead National Recreation Area. It is shown on U.S.G.S. Quad Map Garnet Mtn. Arizona and Mohave County Map, Sheet 8. It was discovered in February 1931 by W.E. Dunlop. Gold production prior to 1933 was only about \$700. From 1934 through 1942 production amounted to about \$23,500 in the King Tut Placer Area. (A.B.M. Bull 168, 1961, pp. 37-38. A.B.M. Bull. 135, 1933, pp. 83-85. AB, Bull. 160, 1952, pp. 37-38. DRM Data Files.) For the purposes of this report this operation is judged to have no real significance.

Golden Basin Placers (T 28 & 29 N, R 17 & 18 W). Only part of it is in Lake Mead National Recreation Area. Discovered in May 1932 by W.E. Dunlop. About 100 men came to this field during the summer of '32 but left during the rainy season. About 40 returned the following summer. ABM Bulletin 168, 1961, pp. 35-37 says, "Experienced, industrious workers each made \$1 or more per day, but most of the operators averaged less than that amount."

It says also, "During the summer of 1933 a large-scale dry-treatment plant was installed by S.C. Searles in Sec. 29, T 29 N, R 18 WThe U.S. Minerals Yearbooks credit the Gold Basin placers during 1934-49 with a gold production valued at \$14,500."

For the purposes of this report this placer field is judged to have very little significance except as an example of the extremes to which men were forced to grub a living during the Great Depression. (ABM Bull. 168, 1961, pp. 35-37. Butler, 1933, pp. 82-83.)

Robeson & Joy Lease (T 30 N, R Mead National Recreation Area. A concentrator was being installed. No For the purposes of this report this significance. (Butler, 1933, p. 85.

Golden Mile Mine (T 29 N, R Mead National Recreation Area) S Sheet 8. No further information this report this property is judged

Lone Jack Mine (T 29 N, R 17 W, Sec. 15) (Outside of but near Lake Mead National Recreation Area) Shown on Mohave County Map, Sheet 8. No other references or information. For the purposes of this report this property is judged to have no significance.

Climax Mine (T 30 N, R 17 W, Sec. 33) (Outside of but near Lake Mead National Recreation Area) Shown on U.S.G.S. Quad Map, Garnet Mountain Arizona, and Mohave County Map, Sheet 8. No other references or information available. For the purposes of this report this property is judged to have no significance.

Golden Gate Mine (T 30 N, R 17 W, Sec. 32) (Within the Lake Mead National Recreation Area) Shown on U.S.G.S. Quad Map, Garnet Mountain Arizona, and Mohave County Map, Sheet 8. No further references or information available. For the purposes of this report this property is judged to have no significance.

Blue Bird Mine (T 29 N, R 17 W, Sec. 19) (Outside of but near Lake Mead National Recreation Area) Shown on Mohave County Map, Sheet 8. No other references or information available. For the purposes of this report this property is judged to have no significance.

Oro Rico Mine (T 30 N, R 17 W, Sec. 3) (Within the Lake Mead National Recreation Area) DMR Data Files. No further information or references available. For the purposes of this report this property is judged to have no significance.

Lost Basin Mine (T 29 N, R 17 W, Sec. 16 (?). DRM Data Files.) No further information or references available. For the purposes of this report this property is judged to have no significance.

M & P Mica (T 29 N, R 19 W, Sec. 20. Also recorded as T 28 N, R 17 W, Sec. 36. Both in DMR Data Files.) Had only a two-year and meagre productive life from 1943 to 1945. For the purposes of this report this property is judged to have no significance. (Olson & Hinrichs, 1960, pp. 193-194.)

8. Gold Basin District (Arizona)

The Gold Basin District is also sometimes referred to as the Salt Springs District and frequently is included in the Lost Basin District. It is situated in the eastern part of the White Hills. Most of its mines lie far outside the Lake Mead National Recreation Area. However, the following are within or close to the Lake Mead National Recreation Area:

Salt Springs Mines (T 30 N, R 19 W, Sec. (?). Shown on U.S.G.S. Quad Map Senator Mtn., Arizona and Mohave County Map, Sheet 8.) In 1909 it was owned by Salt Springs Mining Co. Small

producer of gold. Very little notice has been given. For the purposes of this report this property is judged to have no significance. (DMR Data Files. ABM Bull. 137 revised 1967, p. 78. Schrader, 1909, p. 127.)

Eureka Mine (T 30 N, R 18 W, Sec. 34). Negligible production. For the purposes of this report this property is judged to have no significance. (DMR Data Files. Schrader, 1909, p. 127.)

Lutley Group (T 30 N, R 18 W, Sec. 34). Negligible production of gold. For the purposes of this report this property is judged to have no significance. (DMR Data Files. Schrader, 1909, p. 127.)

Smuggler-Union Group (T 30 N, R 18 W, Sec. 30). Very small gold producer. For the purposes of this report this property is judged to have no significance. (DMR Data Files. Schrader, 1909, p. 127.)

Old Pope Mine (T 31 N, R 22 W, Sec. 16). Shown on U.S.G.S. Quad Map Hoover Dam, Nevada-Arizona and on Mohave County Map, Sheet 9. No other references or information available. However, Roman Malach, who has written a number of booklets on the history of Mohave County, in March, 1978, told Glenn A. Miller and this writer a story about a trip he had made to the vicinity of the Old Pope and the Cohenour. There he met a man who told him about a prehistoric turquoise mine he had discovered in a nearby side canyon. Malach said he and his friends had found the ancient mine but had not been back since.

For the purpose of this report, the Old Pope is judged to have no significance.

Cohenour Mine (T 31 N, R 21 W, Sec. 15). Shown on Mohave County Map, Sheet 9 and on U.S.G.S. Quad Map, Hoover Dam Nevada-Arizona. No further information or references available. (DMR Data File.)

Rainy Day Claims (T 30 N, R 22 W, Sec. (?)). One of the hundreds (perhaps thousands) of uranium prospects in Arizona staked during the uranium rush of the late 1940s and the 1950s. Like the vast majority, it did not become a mine, and its late date disqualifies it as of interest for the purposes of this report. (RME 4026, 1953, p. 112.)

Also in this area, but all outside of the Lake Mead National Recreation Area, are the Excelsior, Eldorado, O.K. Mine, Never-Get-Left, Golden Rule, Cyclopic, and the Mascot.

This district is said to have been discovered in the early 1870s and is believed to have had production of gold prior to 1904 of \$50,000 to \$100,000. It yielded a fairly regular small production from 1904 to 1920, was essentially inactive from 1920 to 1932, and in the 1930s was subject to desultory efforts of revival. Hewett et al (1936, p. 15) credit it with a total production 1904-1932 of \$133,014.

Tungstake (T 29 N, R 18 W, Sec. 10). This was staked in 1954 as a sheelite (tungsten) prospect. Its late location disqualifies it for consideration in this report. (DMR Data Files. Dale, 1961, pp. 100-101.)

Temple Bar Placers (T 32 N, R 20 W, Sec. 16-18). First mined in September, 1895, by a Captain Delmar and a French company. Mined by an unusual method in that two large barges with a large wheel between them raised water 250 feet, then forced

it through nozzles, from which water was played on auriferous gravels. It was believed that in this way 3,000 cubic yards of gravel per day could be processed. It was not very successful. The main portion of the bar lay on the Nevada side of the river.

For the purposes of this report this site is judged to have no real significance. (Report of the Arizona Governor to the Secretary of the Interior, 1899, p. 64. DMR Data Files.)

9. Willow Beach District (Arizona)

Placering occurred all along the Colorado River wherever there were accumulations of sand and gravel. All of the principal sites of such activity at river level above Davis Dam have been inundated in lake waters; but there still remain a number of dry placer sites (such as those mentioned in the Lost Basin District) at which ancient beds of gravel laid down by streams of ages long past remain.

One such ancient gravel bed was left near the Colorado River at Willow Beach. It rose some 150 feet above river level and was only about 250 square feet in extent. There are no reliable records of when it was first worked by modern miners; but it was prior to 1920. Perhaps it was before the turn of the century.

Willow Beach was a natural place for intensive placering activity. An abrupt turn in the river slowed the flow and thus caused the dropping of the sand, gravel, and gold the river had gathered in its upper reaches. The early miners, from the 1850s on, certainly paid it a lot of attention.

As for the ancient bar above the river, ABM Bulletin 168, 1961, (pages 34 and 35) says, "It is made up of an unassorted aggregate of boulders, gravel, and sand. The boulders, which

range up to more than six feet in diameter, are but slightly rounded and could not have been transported far. Likewise, the coarseness of the gold indicates a local derivation. This placer material was probably eroded from gold-bearing rocks in the vicinity and washed, by way of tributary gulches, to the river where it accumulated in the outer portion of the nearest curve. Subsequent downcutting of the river has left this bar elevated in its present position."

It notes that in the early 1920s "Mr. Harris" (Sandy Harris for whom the placer was named) worked this placer by tunneling on bedrock. In 1920 an unsuccessful attempt was made to sluice the gravels with water pumped from the river, and a lessee took out about ten ounces of gold in 1931. (ABM Bull. 168, 1961, pp. 34-35. DMR Data files.)

Two B's Mine (T 29 N, R 22 W, Sec. 11) is shown on the Mohave County Map, Sheet 9. It is situated about one mile east of the 69 KV power line. No other information or references have been found. For the purposes of this report this property is judged to have no significance.

It is suggested that the Sandy Harris Placer might well be preserved, with an appropriate interpretive display, as representative of terrace placers. Some similar operations took place at Temple Bar (q.v.) and other places in the region. Since Willow Beach is already owned by the Federal Government and is a developed recreation site, the program suggested would seem easy to accomplish for the purpose of informing the public.

There is not enough historic significance, however, to warrant inclusion of the Sandy Harris Placer in the National Register of Historic Places.

10. Eldorado Pass District (Arizona)

The Eldorado Pass District of Arizona lies on the east side of the Colorado River opposite the Eldorado Canyon District of Nevada.

Included under the Eldorado Pass District for the purposes of this report will be the Gold Bug and Virginia (Weaver, Mockingbird) districts, both of which form a continuum to the south, down to a point opposite the Searchlight District of Nevada.

These districts embrace the Black Mountains and their western slopes down to the Colorado River. In this area are many mines, most of them outside of the Lake Mead National Recreation Area.

Starting at the north end of the district, there is an unnamed mine shown on both the Bureau of Reclamation Map and the Mohave County Map, Sheet 10 in T 28 N, R 22 W, Sec. 13. Research has failed to find any further information or reference to this mine, and for the purposes of this report it is judged to have no significance.

Top of the World Mine (T 28 N, R 22 W, Sec. 11 (?)). In 1935 Arthur Black and three associates were working the mine. Prior to that the mine had been idle for about 20 years. Some of the ore from this mine was milled at the Tom Reed Mine. For the purposes of this report this site is judged to have no real significance. (Gardner, 1936, p. 57, DMR Data Files) It is within the Lake Mead National Recreation Area.

Gold Bug (T 27 N, R 21 W, Sec. 4) Schrader, 1909, p. 217 quotes Mr. H.J. Marmein of the Gold Bug Mining Co. on the following historical comments, "The first discovery of gold on these

claims was made in 1882 by two Mormon miners and the exceedingly rich ore taken out at the very beginning of work attracted much attention. In 1893 the property was sold for a large sum and was then worked in a desultory way for two years; during this time about 50 tons of selected ore was shipped, which netted \$43,000." At about this time, ca. 1894, the owners built a 20-ton Huntington mill on the banks of the Colorado River and processed about 800 tons of ore with disappointing results.

For the purposes of this report this mine is judged to have very little significance. (U.S.G.S. Quad Map Mt. Perkins, Arizona-Nevada. Mohave County Map, Sheet 10. Schrader, 1908, pp. 7273. Schrader, 1909, pp. 217-218. Wilson et al, 1934, p. 78. Gardner, 1936, pp. 6, 56, 57. DMR Data Files.) It lies within the Lake Mead National Recreation Area.

Mohave Gold (T 27 N, R 22 W, Sec. 10 or 14). Not shown on either U.S.G.S. Quad Map or Mohave County Map. Short period of deveopment 1934. Abandoned 1935. For the purposes of this report this mine is judged to have no significance. (Gardner, 1936, p. 57.) It lies within Lake Mead National Recreation Area.

Golden Age Mine (T 27 N, R 21 W, Sec. 7 or 8). Developed originally during late 1920s. J.H. Omie was the owner in 1935. Desultory operation. For the purposes of this report this mine is judged to have no significance. It lies just at the boundary of Lake Mead National Recreation Area. (Wilson et al, 1934, p. 79. Gardner, 1936. p. 57.)

Pope Mine (T 27 N, R 21 W, Sec. 5 or 8). Shown on Mohave County Map, Sheet 10. U.S.G.S. Quad Map, Mt. Perkins, Arizona-Nevada. There is almost no information available on this mine. For the purposes of this report it it judged to have no significance. (Smith, 1977.)

Other mines in this complex, none of which is within the Lake Mead National Recreation Area, but all of which lie within four miles or so of it, include Mockingbird (T 26 N, R 21 W, Sec. 22); Gold Bug (T 27 N, R 21 W, Sec. 33); Mohave (T 27 N, R 21 W, Sec. 33); Dandy (T 26 N, R 21 W, Sec. 27); Golden West (T 27 N, R 21 W, Sec. 15); Great West (T 26 N, R 21 W, Sec. 27); Weaver (Hall) (T 26 N, R 21 W, Sec. 27); Kemple (T 26 N, R 21 W, Sec. 34); Pocahontas (T 26 N, R 21 W, Sec. 27); Van Deemen (T 27 N, R 21 W, Sec. ?); Liberty (T 27 N, R 21 W, Sec. ?); Porter (T 26 N, R 21 W, Sec. 3); Pilgrim (coordinates unknown).

None of these has any significance for the purposes of this report.

In the southern portion of this district are several mines which lie outside the Lake Mead National Recreation Area about four or five miles from the boundary. None of them has any significance for the purposes of this report. They are: Golden Door (T 25 N, R 21 W, Sec. 20); Klondike (T 25 N, R 21 W, Sec. 28); Dixie Gold (T 25 N, R 21 W, Sec. 33); Dixie Queen (T 25 N, R 21 W, Sec. 33).

11. Katherine District (Union Pass, San Francisco) (Arizona)

The Katherine District extends from the Sacramento Valley and Union Pass on the east to the Colorado River on the west, and north and south some six to ten miles. Its western end included the Pyramid Mine, probably the earliest gold discovery in the district, which was found in the late 1860s. (Hewett et al, 1936, p. 18.)

In 1865 the Sheep Trail and Boulevard mines were discovered by Jack Mellen, a Colorado River steamboat captain. (Schrader, 1909, p. 204.) They were credited prior to 1906 with

approximately 15,000 tons of ore which was hauled to a mill on the Colorado River.

In 1900 S.C. Baggs discovered the Katherine lode about a mile NE of the Pyramid. It was operated, beginning in 1901, by the New Comstock Mining Company until 1904 and produced about 2,000 tons of ore which was treated at the Sheep Trail mill at the town of Pyramid, on the river. The Arizona Pyramid Gold Mining Company acquired the Katherine Mine and the Sheep Trail Mill in 1904 and began extensive development work at the Katherine.

In 1900 another mill was built at Pyramid by the owners of the Homestake Group. The Homestake and Sheep Trail mills served a number of mines in the Katherine (Union Pass) district for the next several years.

A large number of mines had been staked in the district over the years. Most of them were small and they lie well outside the boundaries of what is now the Lake Mead National Recreation Area. However, it was their common production which gave the Katherine district its place in history and a fair share of fame.

A rich strike at the Tom Reed in the Oatman District in 1902 prompted a small stampede into the region, and activity remained high in the Katherine District into the 1920s. On January 1, 1925, ground was broken for the Katherine Mill, and it opened June 29 of the same year. It was a 150-ton cyanide plant, according to Wilson et al (1934, p. 103). However, Dimmick and Ireland (1927, p. 718) and Gardner (1936, p. 41) say it was a 260-tons-per-day plant, and the evidence tends to validate the latter.

This mill ran successfully until 1930, when it and the mine both were shut down, like most mining operations at the beginning of the Great Depression.

However, the price of gold was allowed to rise in 1933, again in 1934, and once more in 1935 to \$35 an ounce. The relative value of gold also had risen in proportion to other commodities, so gold mining was stimulated.

The Tom Reed and the Katherine mills were put back into commission in 1934 (Gardner, 1936, p. 59), and before long more custom ore was being offered than could be accepted. Old mines reopened, and important new discoveries were made at the Tyro, Ruth-Rattan, Portland, Minnie and others. A new mill, the Pilgrim, was built in 1934.

The end came in 1942, however, when L-280, the Federal Gold Mine Closing Order, was issued at the beginning of World War II in an effort to conserve manpower and strategic materials for more important war-related activities.

Despite currently uncontrolled prices of \$175 and more an ounce, gold mining in the United States has remained sporadic and desultory. During the 1950s experienced mining men confidently predicted that if gold ever got to \$105 an ounce, the Mohave and Clark county mines would flourish as never before. Inflation and the inexorable rise in costs, labor and materials, has killed such hopes for now.

The only mines in the Katherine District which lie within the Lake Mead National Recreation Area are the Pyramid (now inundated by lake waters; the Katherine (T 21 N, R 25 W, Sec. 5); Federal (T 22 N, R 21 W, Sec. 30); Treasure Vault (T 21 N, R 21

W, Sec. 4); Katherine Extension (T 21 N, R 21 W, Sec. 5); Illinois Katherine (T 21 N, R 21 W, Sec. 3).

Outside of the Lake Mead National Recreation Area but very close are the: Gold Chain (T 22 N, R 21 W, Sec. 26 & 27); Big Four (T 21 N, R 21 W, Sec. 11); Katherine Revenue (T 21 N, R 21 W, Sec. 1); Katherine Victor (T 21 N, R 21 W, Sec. 1); Katherine Midway (T 22 N, R 21 W, Sec. 33), Golden Cycle Mine (T 21 N, R 22 W, Sec. (?)).

Farther from the boundaries but important to the Katherine's history were: Sheep Trail (T 21 N, R 20 W, Sec. 7); Boulevard (T 21 N, R 20 W, Sec. 7); Tyro (T 21 N, R 20 W, Sec. 6); Arabian Mine (T 21 N, R 20 W, Sec. 20); Roadside Mine (T 21 N, R 20 W, Sec. (?)); Frisco Mine (T 21 N, R 20 W, Sec. 16); Black Dyke Group (T 21 N, R 21 W, Sec. (?)).

There were other properties close to the Katherine and perhaps within the boundaries of Lake Mead National Recreation Area for which no coordinates have been found and only sketchy information. It is felt that most of them were primarily promotion schemes which had no significance historically. They include: Katherine Mohawk (six claims adjoining Katherine Extension on the SE; some development in 1921. DMR Data Files.) Katherine Rand (six claims SE of Katherine. Began development in 1923. DMR Data Files.); Katherine Russell Mining Company (two claims surveyed for patent, Sept. 1923. DMR Data Files.)

References for the Katherine District and the mines in it include: Schrader, 1909, pp. 203-214. Schrader, 1907, pp. 74-75. Wilson et al, 1934, pp. 101-108. Hewett et al, 1936, p. 18. Koschmann and Bergendahl, 1968, pp. 40-41. Lausen, 1931, pp. 115-126. Gardner, 1936, pp. 40-50. Dimmick and Ireland, 1927,

pp. 716-721. Banks, 1935, p. 147. Malach, 1977, pp. 8, 19, 23, 24, 28, 31, 40, 44, 48, 49, 52, 59. Mines Handbook, 1931, pp. 349, 350, 319, 419, 441; and editions 1916 through 1931. Dunning, 1959, pp. 366, 347, 360, 367, 374 and 384. DMR Data Files.

12. Conclusions:

The vast majority of the mines within the Lake Mead National Recreation Area were individually so small as to be insignificant. Only the total, combined activities of a group of mines in close proximity to each other added up to make any impact economically, socially or historically. There were many such groups in Clark County, Nevada, and Mohave County, Arizona.

Only one such concentration existed within the boundaries of what is now the Lake Mead National Recreation Area, around the Katherine Mine.

Two other areas deserve special attention. As stated in the foregoing text, the salt mines in the Overton area of the Virgin River should be the subject of an intensive anthropological study. The Sandy Harris Placer at Willow Beach should be considered for preservation and installation of an interpretive, informational display for the benefit of the public.

It is recommended that as many as possible of the old shafts, tunnels and pits be closed or sealed in some manner for the protection of the public in its use of Lake Mead National Recreation Area. Nothing of historic value will be destroyed.

It should be pointed out that in this report no consideration has been given the potential economic value of the properties involved. Mining is totally subject to time-place economics. Today's waste and worthless rock can become valuable

ore with the right combination of price, mining techniques, and extraction methods. It is entirely possible that such a combination could occur and reimburse many of the old properties with new value.

The Katherine mine and millsite plus as many contiguous mining sites as possible within the boundaries of Lake Mead National Recreation Area will be recommended for inclusion in the National Register of Historic Places. An on-site detailed study will need to be made to determine which, if any, of the Federal, the Golden Cycle, Treasure Vault, Katherine Extension and Illinois Katherine could be worked effectively into the interpretive program. Extensive factual information has been gathered about the Katherine District for the preparation of this report. However, intensive, local research should be undertaken to uncover the human interest aspects of the subject which will add a great deal to the story and help bring it alive.

D. Additional Sites

The Dunn Inscription

Located some two hundred feet from the peak of Mt. Dellenbaugh on the Shivwits Plateau, is a dark basaltic rock on which is inscribed the name of William Dunn, 1869, and the word, WATER, with what appears to be an arrow pointing toward Lake Flat. Dunn was a member of J.W. Powell's expedition of 1869, and together with A.C. Howland and his brother Seneca, he left the expedition, hiked out Separation Canyon to the Shivwits Plateau, only to be killed by members of the Shivwits band of Pai-Utes.

Since the reputed site of the killing is either five miles to the southeast of the inscription at Penn's Pockets, or to the north about seven miles at Log Spring, verification or denial of the authenticity of the inscription becomes a matter of great importance.

Credibility would, thus, be given to one or other of the reputed sites, and, because of the significance of the killing in the history of western exploration, the inscription has the potential to become the most important historic site within the Recreation Area.

Accordingly, the following steps should be taken. The very highest priority should be given to an immediate examination of the inscription by a qualified archeologist. This person would take precise measurements of the incisions and attempt to reach a judgement as to what instrument might have been used. Forensic techniques should be called in to capture metallic slivers, if any. The inscription should be compared with other dated inscriptions in the area to see if some test of comparative fading or weathering could be applied.

If there is any possibility that the inscription is authentic, it should be removed immediately for safekeeping and eventual Visitor Center display. The present location is readily subject to vandalism and a plaque should be put in its place, if appropriate.

Supportive research on other aspects of the case should also be undertaken. According to Mack Miller of Temple Bar, who served as a fire lookout on Mt. Dallenbaugh since the early sixties, he is the first person to have seen and reported the inscription. Nevertheless, it is plausible that others may have seen the inscription earlier and may never have thought to report on it to an authority. For this reason, all persons familiar with the area prior to 1960 should be contacted.

Simultaneous research to evaluate the two (or more) possible killing sites should include a compilation and evaluation of the story of Toab, who has been implicated in the killing, and an analysis of Pai-ute hunting and gathering patterns compared with possible

vegetative overlays. Reports of the killing allegedly in the Deseret News during September 1869, need to be verified.¹ These must be tied into other inputs, such as the watch that turned up in a frontier town, communication between the Shivwits Plateau and these frontier towns, and which office of the Deseret Telegraph was the reporting point for the news.

Sawmills

There are two small sawmill sites on the Shivwits Plateau within the National Recreation Area. Little information could be gathered about either, but no indication of historical potential was uncovered.²

The Dame Sawmill, operated by Bud Dame, lies next to the road between Lake Flat and Horse Valley (Arizona: T32N, R11W, S31; T32N, R12W, S32) and, according to Reed Mathis³, is post-World War II. The site includes mill foundations, a roofless log cabin, and remnants of a slash pile.⁴

The Parashaunt Sawmill is at Green Springs (Arizona: R11W, T31N, S9) and is also post-World War II according to Mathis.⁵ It

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1. Smith, op. cit., p. 170.
 2. The historically significant sawmill near Oak Grove that was used to supply lumber to the Grand Gulch Mine is outside NRA boundaries.
 3. Interview, not taped, 15-1277.
 4. This was burning at the time of my visit on 16-12-77. The fire could be traced to a sawdust pile which may have ignited spontaneously or been touched off sometime previously by human intervention.
 5. Vehicle remnants dating from early 1930s suggest the possibility of earlier use.

too, was operated by Bud Dame for a while and later by persons from Short Creek.⁶ While most of the persons employed there were absent on a trip to Grand Wash Bay, the mill caught on fire and was destroyed. The only physical remains at the site today are the vehicle remnants, some bed springs and two overturned outhouses.

E. Recommendations for Continuing Research

Given the size and complexity of the Lake Mead National Recreation Area, and the short time that could be devoted to the investigation, it is inevitable that some questions would remain open at the time of the project's completion. Those not dealing with mining will be addressed briefly and ranked in order of priority.

I. Dunn Inscription

Undoubtedly, the most important event of national significance that may have occurred within the boundaries of the NRA, was the killing of William Dunn and the Howland brothers, who left the John Wesley Powell expedition in August, 1869. The site of the killing may have been at Ambush Water Pockets (within the NRA) or at a site outside the NRA, possibly Log Spring. Testimony throwing weight in one direction or another will depend upon the authenticity of an inscription attributed to Dunn that is located on a rock near the summit of Mt. Dellenbaugh. Persons who have, or who may have, seen the inscription should be located and interviewed to establish the earliest sighting. The inscription should be examined on its own merits, and, comparatively with other inscriptions on the mountain.

6. This was verified in an interview with Deputy Sheriff Sam Barlow of Short Creek on 27-1-78.

Arrangements should be made at the earliest possible convenience to have the inscription analysed and, if there is any possibility that the inscription is authentic, the rock should be removed to a place of safe keeping.

(2) Research Related to the Dunn Inscription

An analysis bearing directly upon the inscription may prove difficult and supporting research relating to the possible killing sites will be necessary.

Based on the flow of water, and the hunting and gathering practices of the Paiutes, the author has some doubts that the Shivwits band would be on the peninsula at that time. Certainly, the possibility cannot be discounted, but hunting and gathering patterns need to be examined in the light of possible and probable animal locations and plant product maturations in late August and early September.

Local folklore has quite a bit to say regarding the killing and should not be discounted prematurely. Although Toab, who was alleged to be a participant in the killing, was something less than a reputable character, at the very least an effort should be made to determine his probable age in 1867. The consistency of his stories should also be examined.

Other information, including the Deseret News stories, the log of the Deseret Telegraph, and the circumstances of the turning up of a watch carried by one of the trio, requires checking.

Although controversy surrounding the events will never be placed completely to rest, it may be possible to develop a scenerio based on probability, rather than possibility, as is now the case.

(3) Bonelli Ferry Roads

Third priority should be given to elaborating the history, and determining the routes, of the freight roads that connected Bonelli Ferry with the south. This is given a relatively high priority, since, of all the historic trails observable within the NRA, these are the most visible and accessible. Once the necessary archeological surveys have been done and the roads verified, they can become excellent hiking trails. Orthophotoquads, as well as ground checking, can help in locating the routes that were used. Documentary sources, such as the Kingman Daily Miner, will have to be checked.

(4) Grand Gulch Mine to St. Thomas Freight Road

Fourth priority is given to the Grand Gulch Mine to St. Thomas Freight Road largely because of the relative ease with which it can be traced and the consequent rapidity with which it can be nominated for National Register status. In addition, this road was of great local importance since the revenue derived from freighting on it contributed to the well-being of valley farmers, and families associated with the business remain prominent to this day.

Remnants of interest to historical archeology are scattered along the road, especially within the N.R.A., and survey work should be done on all sections where recent realignment has not obliterated traces. Documentary evidence relating to this road is relatively satisfactory and adequate for present purposes.

A cooperative effort with the Arizona and Nevada offices of the Bureau of Land Management would be highly desirable in this project so that the road can be nominated in its entirety.

(5) Pearce Ferry Road

The northern reaches of the Pearce Ferry Road stretching from the Colorado River to St. George, Utah, are an excellent

candidate for National Register nomination. Although the road was in use for only a short period, it gains significance from some of the important persons who travelled upon it--Jacob Hamblin and Harrison Pearce, himself, in particular. Within the N.R.A., only that section of the route between Tasi Wash and Snap Canyon needs verification. Between the N.R.A. boundary and St. George, several sections of the road may be difficult to locate and field checking, as well as orthophotoquads, will be necessary.

South of the river, the road apparently used Grapevine Wash, although there are also road remnants in the canyon immediately to the west that may have historic validity. Below the present N.R.A. boundary, the road may have merged with others and have lost its distinct identity.

It is recommended that, in cooperation with the Arizona Strip Office of the Bureau of Land Management, the northern section be searched and identified and prepared for National Register nomination in its entirety. A preliminary exploration of the southern extension is recommended to ascertain if further enquiry is warranted.

Relatively good documentation exists on this road, although a search of local newspapers may prove fruitful.

(6) Scanlon Dugway and Road

Relative to the roads discussed above, the Scanlon Ferry Road is less significant and considerably less documentation concerning it has been located. On the other hand, its route is well identified both inside and outside the N.R.A. Nevertheless, search for artifacts should be conducted, particularly on the dugway and to the south of it. As with the other roads, it would be desirable to have the Scanlon Ferry Road nominated in its entirety. The

execution of this would require coordination with the Nevada office of the Bureau of Land Management.

(7) Eldorado Canyon--East Side

Freight and mail service to Eldorado Canyon from Rioville, the Moapa Valley, and Kingman, reached the river by an as yet undetermined route. Although the use of this route appears to have been relatively light, the investigation required to identify it would probably not be especially difficult, since one could probably rely on informants who are still alive. Documentary evidence of a sufficiently precise nature to be helpful is probably nonexistent. A field survey will be required.

(8) Union Pass

Union Pass provided access to Cottonwood Canyon and was used by automobiles during the late historic period when ferries were operating across the Colorado. It seems to have little intrinsic significance and is, therefore, assigned a low priority.

(9) Kelley Peninsula--Shivwits Plateau

The several potentially important sites on the Shivwits Plateau are the Dunn Inscription, Ambush Water Pockets, and the Horse Valley Ranch. Further research into the Dunn Inscription and Ambush Water Pockets is given priorities one and two respectively. It is doubtful that additional investigation will turn up anything of great significance on the Plateau, although, undoubtedly, local informants have information of value and interest on certain of the few sites. Little additional documentary information is likely to exist. This work should be assigned a time and opportunity permitting basis.

APPENDIX A

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APPENDIX B

Separation Canyon, 2 through 5 May 1978

Informal narrative of an expedition to retrace the steps of Dunn and Howland brothers who left the Powell expedition on 28 August 1869 and were never again seen by white men.

Mike Belshaw

Prescott

Last Two Weeks of April, 1978

Preparations for the trek intermixed with other activities. "Jet" (Gene Sternberg, Jr.), a Colorado River boatman, agrees to go along as sherpa so that I can concentrate on other things. "Jet" is in charge of practical matters like planning food, first aid, and so on, and his foresight and precautions proved very valuable later on. Who would be assigned to accompany us from the Lake Mead National Recreation Area was uncertain until just before the trip began. But Bill Burke proved to be a good choice. His brother, Bob, came too, and a remarkably smooth working team resulted despite the fact that we were strangers when the trip began.

"Jet" and I take a reconnaissance for a week. We meet with "Buster" Esplin who shows us Log Spring, a possible site of the Dunn-Howland killing, and with "Pat" Bundy who went out Separation Canyon in 1931. I also talk by phone with "Pat's" brother, Chet, who was on the same expedition. Neither provide us with essential details although "Pat" did talk about pools of water up to one's necks. "Pat" is a shorty, but, even so, we didn't find any pools worth drowning in.

Back in Prescott, I immediately leave for Fort Huachuca to deliver an address to the Arizona Historical Society, while "Jet" buys food,

arranges packs, etc. I had bought some equipment that proved untripworthy--a pair of Vasque boots allegedly pre-broken in, but with upturned soles that threw me off balance; a North Face sleeping bag claimed to be good to 20 degrees in which I shivered at 40; and a camera pack on which all else was strung making for much clanging, banging, and unnecessary weight on bursitis ridden shoulders.

Monday, 1 May

Final preparations and departure for Temple Bar. A vicious storm has blown in slopping rain, sleet, and snow all over the high country. We have to go, nevertheless, because four days is all that the calendar allows us. I am in Prescott most of the day replacing a truck tire that blew on the Mt. Trumbull dugway. Back to the ranch at 4:00, throw gear in the truck, tell the dog she has to stay behind this time, and off we go. "Jet" leading in the VW.

Chino Valley cutoff is slick and the truck tries to swap ends. This persuades me not to take the back road to Temple Bar. Route 66 west of Ash Fork is predictable--traffic is heavy, the surface is rough and simultaneously slick from the snow, and visibility is nugatory as the truckers proclaim on their CBs when they heave slush at your windshild as they roar by. Thunder rolls and lightning flashes, and a cold front sweeps the storm out of its way about the time Peach Springs heaves into sight. Range after range of mountains is backlighted by a falling sun. The weather will favor the expedition.

We roll into Temple Bar at 10:00 p.m. and camp. The bar at Temple Bar has closed, anyway.

Tuesday, 2 May

We arrive at the dock before 8:00 and push off promptly at 9:45 a.m. Six of us are on board the NPS whaler piloted by Dennis Turay. With him is a shavetail ranger by the name of Jim. Bill Burke, NPS Wildlife Management Officer, and Bob Burke, Bill's brother, with the California State Park Commission, join "Jet" and me on the expedition.

With Dennis in command of the boat, I enjoy three hours and sixty miles of relaxation and freedom from responsibility; quite unaccustomed, I realize. It had rained again during the night and a cumulus cloud was lowering over Gold Butte. It splashed a few drops as the whaler sped through Virgin Canyon and then all was clear--dead calm on much of the lake and a following breeze up-canyon that fought the current into a chop against which the hull pounded fiercely. Wondered how tight the seams were.

Clear water in the lake gave way to brown near Pearce Ferry. The Little Colorado was leaving its mark on the mother stream.

The portal of the canyon was reached where the Grand Wash Cliffs cut across, and openness and light surrendered to the sombre hues of barren granite. Sandy beaches, secured by the roots of salt cedars, formed dykes where side canyons entered, and the lagoons behind them were clear and blue. Neither birds nor animals were visible.

The whaler sped on for an hour until the outboard spluttered into silence. While the gas tank was being refilled, the boat drifted downstream and waters surged about us. The river and the lake were arguing their claim to the little boat. And we knew that Separation Rapid was near. This was to be my closest encounter with a Colorado River rapid and my interest began to heighten.

Dennis, who had been absent from this stretch of river for two years, said that we would soon be there--around the next bend, for sure. Certainly no foaming, gnashing, crashing, angry rapid was in sight. Yet, things looked oddly familiar. A curl of water on our right, Dennis heads for it; and, as we pass a canyon on the left, I look back and spy a bronze plaque well above the bank. We are at Separation. The water was high and the rapid was a fizzle. I had recollected the straight configuration of the channel from a photograph.

We munch lunch, photograph everybody at the plaque and say adios to Dennis and Jim. We help them shove off and hold a short briefing session at which I explain the mission. Our ultimate purpose is to determine where Dunn and the Howland brothers were killed. We are to find the inscription attributed to Dunn and examine a site where Dellenbaugh asserts the killing took place. It is important to gain an idea how long it would take to trek to various sites and, in so doing, to see what decisions and obstacles would have to be faced. Where canyons intersected, which ones would be chosen? Where would water be found? Anything to eat? The three were confident that, with their guns, they could find food, but the Bundys who came out in 1931 found only a couple of eggs and shot a jackrabbit.

The three who left did so under conditions of great adversity. They were weary of the river, undernourished, and were entering the unknown which stalked them for days--and won. They were undoubtedly in tougher shape than we, but that was their only advantage. We did not carry guns, but had good maps, plenty of food, a cache of water less than twenty miles away, a NPS radio, and a plane flying cover for us. We left the river at 2:00 p.m. At 2:15, the Cessna roars overhead. Very reassuring.

The walk begins. The flat bottom of the canyon is constricted between high granite walls of pink and black. The only hardship comes from the gravel. It is an uneven surface that gives way unpredictably and throws one off balance, an event which is aggravated by the awkward packs.

Very soon we encounter a clear, fluent stream which we follow for several miles. Would it have been there in August 1869? I surmise yes, since those were wetter times and it could well have been charged by thunderstorms. What to eat? There is lots of vegetation, but only an occasional mesquite bush would proffer something edible--if one recognized it. Other vegetation is prolific, but not helpful to the hungry. There are some doves, but where would they be in the August heat? Coyote tracks are by the river, and later on, and into the next day, the fox leaves his sign. If they can survive here, could man, too, on his brief passage?

We see a single set of footprints going up and down canyon for several miles. They are big and the man was a heavy one. It makes us wonder how many have traversed the canyon since 1869. We know of four who have gone up and a slightly larger number who have gone down--not necessarily easier. There are some stone monuments for a way. Who placed them?

We stop every hour to blow. By 3:40 we have done almost three miles and have gained five hundred feet in elevation. Here is the West Fork. Would the three have been tempted by it? It looks narrow and blocked off. The main canyon is level and wide. No problem here. We slog on straight ahead. There is only one obstacle--a waterfall up which we line the packs and then negotiate ourselves by back bracing the wide chimney.

The canyon is hot, but not unbearably so. Yesterday's cold front was a blessing. Even so, we sweat profusely. The unevenness of the gravel bed slows progress and my pack is a pain--in the shoulders. I tell "Jet" leave off drinking milk, it's bad for you; gives bursitis.

Shortly before reaching the East Fork, the canyon narrows. There are a few pools below inactive waterfalls. We negotiate around them on sandstone ledges.

The intersection of the East and Middle Forks is abrupt. The Middle Fork continues ahead. It is strewn with large boulders. The East Fork cuts back at an acute angle, the base is gravel and it would appear to carry more water. We know it is the way out, but we know that the Bundys tried the middle fork and assume that Dunn and the Howlands would have made that choice also. They would expend four or five hours before the mistake was apparent to them and they returned to this intersection.

We had arrived at the intersection at 6:30. After a brief rest, we searched the East Fork for a campsite and, just before dark, found some high rise studio apartments on rock ledges. We made a dry camp, gave thanks to Mountain House, and praised "Jet's" forethought in form of vin rosé. Bill's harmonica echoed the canyon walls, and in the few minutes before sleep, we counted debris in the night sky--five satellites and two shooting stars. Mankind is ahead on the debris count. An owl hooted his comment.

Where would the three have been on their first night? Given their earlier start in the day and a detour up the Middle Fork, they could well have been in the same location. Their stomachs would have been empty and their minds in turmoil over their decision to leave Powell and fear about the unknown ahead.

Wednesday, 3 May

5:30 a.m. Birds are yelling and insects are buzzing. It only takes one hour and fifty five minutes to be off and stumbling.

It is cool this morning. As long as there is shade, that is. We hug the south wall of the canyon for air conditioned comfort, but we sweat profusely whenever we pass through sunny locations. There seem to be no edible plants although there is one that smells like sassafrass. One could, I suppose, make a tea from it. Later in the morning we see some mesquite.

Midmorning we come to a narrow canyon. The floor is sandy and the walls glazed smooth. High water mark is well above our heads. No place to get caught in a flash flood, but today it is safe. There is a whir of wings as a large owl comes whooping down the canyon with a tiny hawk in pursuit.

By late morning we have reached the 4,000 foot level and ocotillo and agave have given way to scrawny juniper, scrub oak, and cliff rose.

At 12:30 p.m. we reach a serious obstacle. There is a waterfall dropping from an overhang twenty-five feet above grade. Great place for a shower, but not right now. No way up. What to do? "Jet" shucks his pack to recon and finds a way around. We conclude to line the packs and Bill throws a coil of rope to "Jet," but the backs prove too heavy. We expend two hours here trying to establish our location and checking ways out. The water is clear and clean, and we top off our canteens. We have lunch and Bill rebraids his line into a tight coil for throwing. Very handy trick.

At 2:30 we scramble a short side canyon to gain a bench. The others are ahead. I make a wrong turn and, in trying to gain the

ridge leading to the top, get caught on a loose, crumbling slope. When I reach a small escarpment, I am almost hyperventilating. I dump the pack, rest, and try to suppress a rising acrophobia. Hand the pack to "Jet" when he returns and, without it, can make the few last feet.

We turn back down into Separation above the waterfall and see that we are in a box canyon with a series of falls totalling several hundred feet blocking the exit. Is there a way out? Bill and Bob are half a mile ahead checking the trail. From our position, we don't see how it is done, but soon they are on the skyline. We follow. There is a talus slope to the left and some pinons grow below boulders at the top. The talus is easy. The boulders are touch and go. Their surface exfoliates to the touch and away you go. Check each handhold very carefully. Damn it's a long way down!

Below the rimrock a narrow shelf leads under the waterfall to the other side of the canyon. "Jet" finds some debris--an old tin can. Could have been washed down from the Shivwits Plateau way above. We have a bit of a scramble on the other side, follow up a broken slope, and then we see the way out. The only way out. It is a narrow chimney just wide enough for our bodies and some ten feet high. Now we are on the esplanade. It is green and rich. The grass is good, there are groves of trees, and flowers in abundance. This is part of the Sanup Plateau, and for us, a Shangri La.

We can see the wash extending upwards to our destination at Kelly Tank. A stiff climb ahead. But to the north there is a canyon that is closer and looks easy. That is the direction that the three wanted to go, and so we slog up towards it.

Almost at six we come upon acres of yellow and orange poppies and flop down to rest. It is delightful. Separation spreads before us and the Grand Canyon can be seen in the distance. We are in a huge green basin flanked by red cliffs and topped by a forest. We do not think to camp here, but press on instead.

The last push is a tough climb made harder by fatigue. The slope is steep and crumbling. At one point, I slip and grab a paw full of cactus. I am slow and the others top out on a ledge that looks good for camping. Not so. The mosquitoes had been waiting there since 1869 and were understandably starved. We followed the little canyon for a way, the mosquitoes were diminished in number and a smudge fire discouraged the rest. We slept well despite the rocks and stones beneath us.

Thursday, 4 May

It is almost nine o'clock before we leave the campsite to follow this little canyon out. It is easy except for a couple of waterfalls. Soon we reach the road. It hasn't seen much vehicular traffic, but some cattle use it as a trail. Signs of wildlife are few in the piñon-juniper belt. One jackrabbit and one ground squirrel are all that we see this day. One old set of deer tracks had crossed the road. In the occasional sagebrush breaks to the north, coyote tracks were common. The chances of finding game are slim, as they were for the Bundys. In 1869, deer may have been more abundant since they did not suffer competition from cattle, but tanks had not been developed and seeps and springs would be the few sources of water for deer.

What route would the three have taken once they topped out? Blue Mountain, a rather low knowll, can be seen from various points on the rim. It would be logical to head for that to get their bearings. From there, Mount Dellenbaugh could be seen and the bypass

around Green Springs could be worked out. Their water situation is likely to have been desperate. It would not have been found on top except after a thunderstorm. They would have to follow a watercourse to the rim and hope then to find a seep below. What effect the search for water would have on their route is difficult to speculate.

We were more fortunate since ten gallons had been left for us at Shanley Tank. We were flat out of it by late morning when the patrol plane found us after a long search. The pilot told us that we were a mile from the cabin, but that proved to be a long hour and a half for us. The cabin, the water, the shade, the bunks--all were as appreciated as a corner of paradise. It was difficult to rouse ourselves after two hours and get on the way again; but we did, and Ambush Water Pockets was reached at six. At least the going had been easy. Sandy and level for the most part.

Dellenbaugh, in describing Ambush Water Pockets, talked of a "basaltic cliff perhaps thirty or forty feet high." This we failed to identify. Instead, we found basaltic banks leading to pools of still water, some of them large and deep. A flow of perhaps two gallons a minute trickled down, and this after the heavy rains of 1978. It did not appear to be a perennial flow, and we wondered if much water would be there under normal circumstances. Was there anything else to suggest an Indian encampment? A few bushes clung to the banks and some appeared to be a kind of wild gooseberry. It was jarring to see a large patch of exotic sweetpeas. The surrounding forest was a mix of ponderosa, pinon, and juniper. No pueblo remnants did we see during our short visit, although we had passed a large site near Blue Mountain. Conditions may have been different in August 1869; but from the perspective of 1978, one would give small probability to their presence there.

To find a campsite free of stones, we travelled on another quarter of a mile. Distant clouds threatened a storm and we secured the campsite as best we could against the weather.

Friday, 5 May

Transportation out of the Fire Camp had been requested for 11:00 a.m., and we shoved out of the campsite at 7:20. The night had been comfortable, but a cold front billowed in just as we left. The chill factor was below freezing and later, at the camp, we found that the thermometer registered 37 degrees at noon.

On the way, Green Springs was checked to see if it would fit Dellenbaugh's description. There the spring lies below basaltic cliffs and an old trail leads to it. But these cliffs are well over one hundred feet in height. Although no native food sources were found near Green, the site in the pines is a pleasant one for a camp. Again, a low probability of an Indian encampment would have to be assigned.

On we trudged, increasingly impatient to reach the Fire Camp. At 11:15, we arrived after leaving the road to cut across some meadows. No transportation was in sight and a patch cord to tie Bill's radio into the antenna couldn't be found, so we were unable to communicate with headquarters. It was a struggle to tear ourselves away from the camp, but one important task had to be accomplished yet. We had to find the inscription attributed to Dunn.

It was an easy two mile hike to the top of Dellenbaugh and we were strongly motivated by our goal. The wind continued and flakes of snow stung us as we got higher. On the jeep road I could see the tire marks from my truck five months previously. Shivwits is a lonesome place.

The previous search had been fruitless. Bill, however, had seen it two years ago, and there it was, near the summit.

DUNN

1869

WATER



with an arrow pointing north. Following its direction, Lake Flat, full of water, could be seen three miles away. Also clearly visible was the course of Parashaunt Wash which would lead through a gap to Log Spring, a fluent spring of some hundred gallons a minute and the place to which local folklore assigns the notoriety of the killing. Things seem to fit. We all joined in a handshake and headed down the mountain at a fast march. One of our number wondered out loud about changing a name from Mt. Dellenbaugh to Mt. Dunn.

APPENDIX C

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ILLUSTRATIONS

All Photographs by Mike Belshaw



Plate 1. Old Pope Mine. This collapsed, inclined shaft is in hazardous condition typical of many LMNRA mines.



Plate 2. Eureka Mine. This slope is professionally engineered. Side walls soft and crumbling. Open box of dynamite in tunnel.

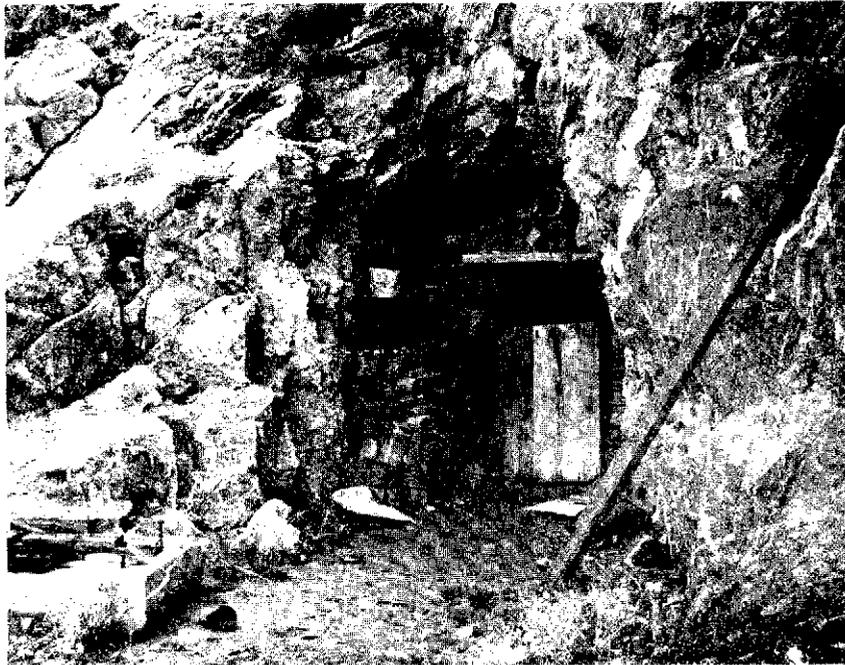


Plate 3. Empire Mine. Miners often adapted tunnels for use as living quarters.



Plate 4. Unidentified Mine. Short tunnel excavated with two rooms. Flue extends above. Evidence of coal oil fire.

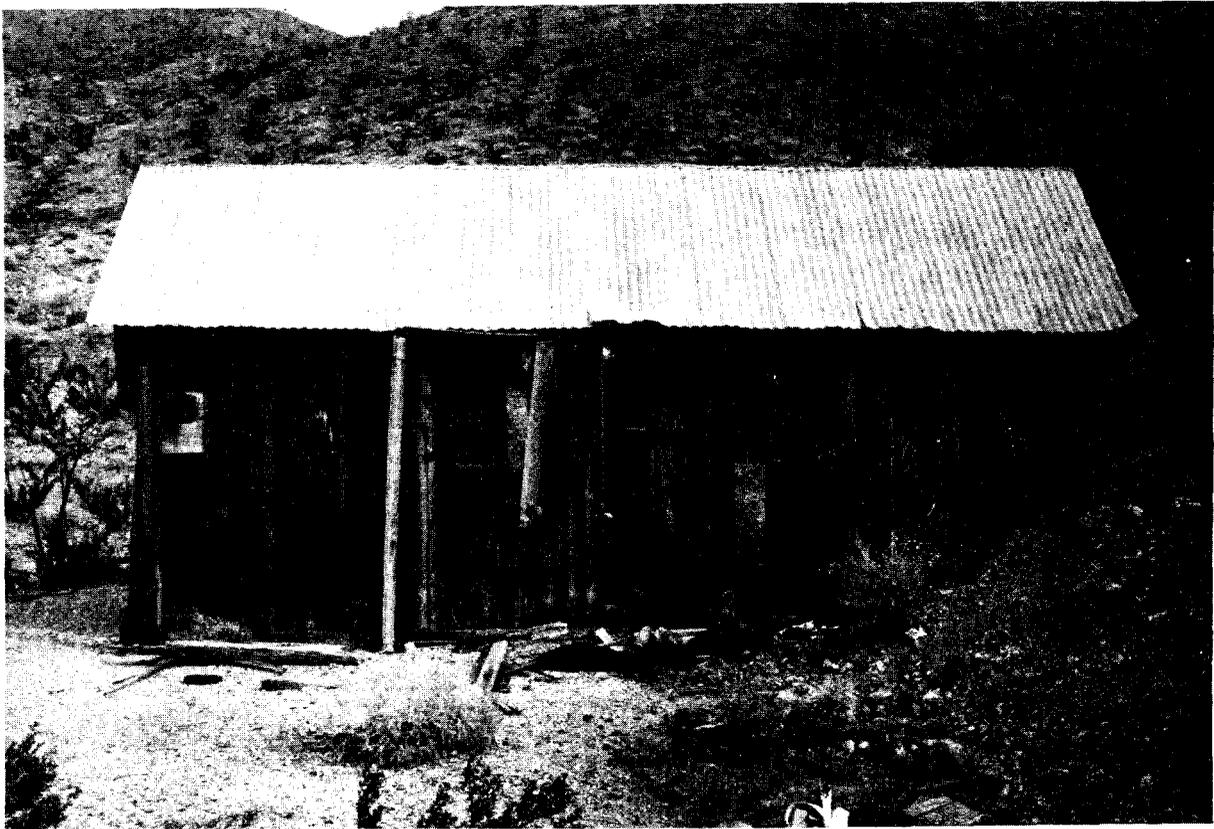


Plate 5. Unidentified Mine. Two room shack with vented loft. Gutters indicate attempt to capture rainwater.



Plate 6. Copper Mountain Mine. Shack nestled into bedrock. Typical board and batten construction and corrugated iron roof.





Plate 7. Fresno at Burt Mill Millsite. Apparently used to haul placer gravel. Ranger Dennis Turay standing by.



Plate 8. Burt Mill Millsite. Foundation of Stamp Mill.



Plate 9 Empire Mine. Cyanide Tanks.



Plate 10. Katherine Mill Site. Foundations for tanks and vats.

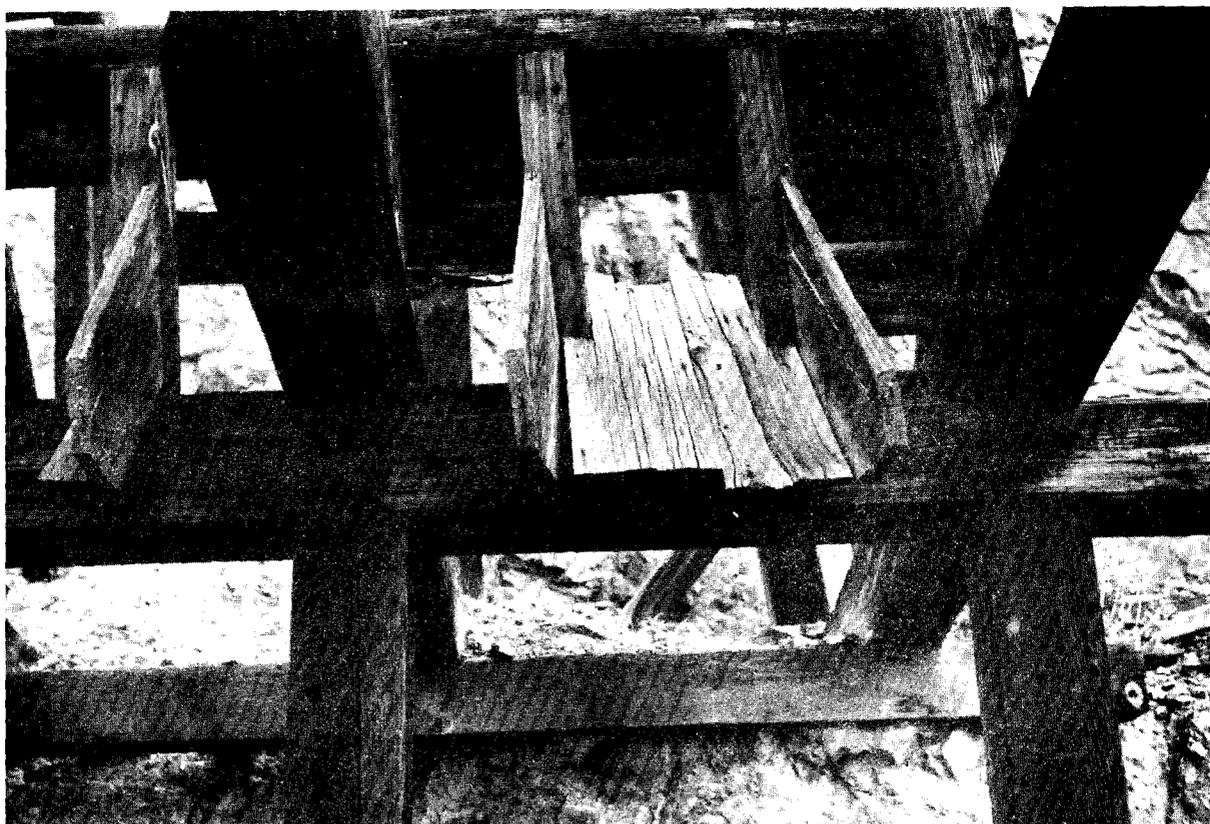


Plate 11. Homestake Mine. Tipple chute.



Plate 12. Homestake Mine. Boiler foundation.



Plate 13. Grand Gulch Mine to St. Thomas Road. This portion is on Highway 91 and without traffic since 1938.



Plate 14. Grand Gulch Mine to St. Thomas Road. Borrow pit. Lake Mead and Virgin Mts. in background. Ranger John Bezy on right.



Plate 15. Pearce Ferry Road along Tasi Wash.

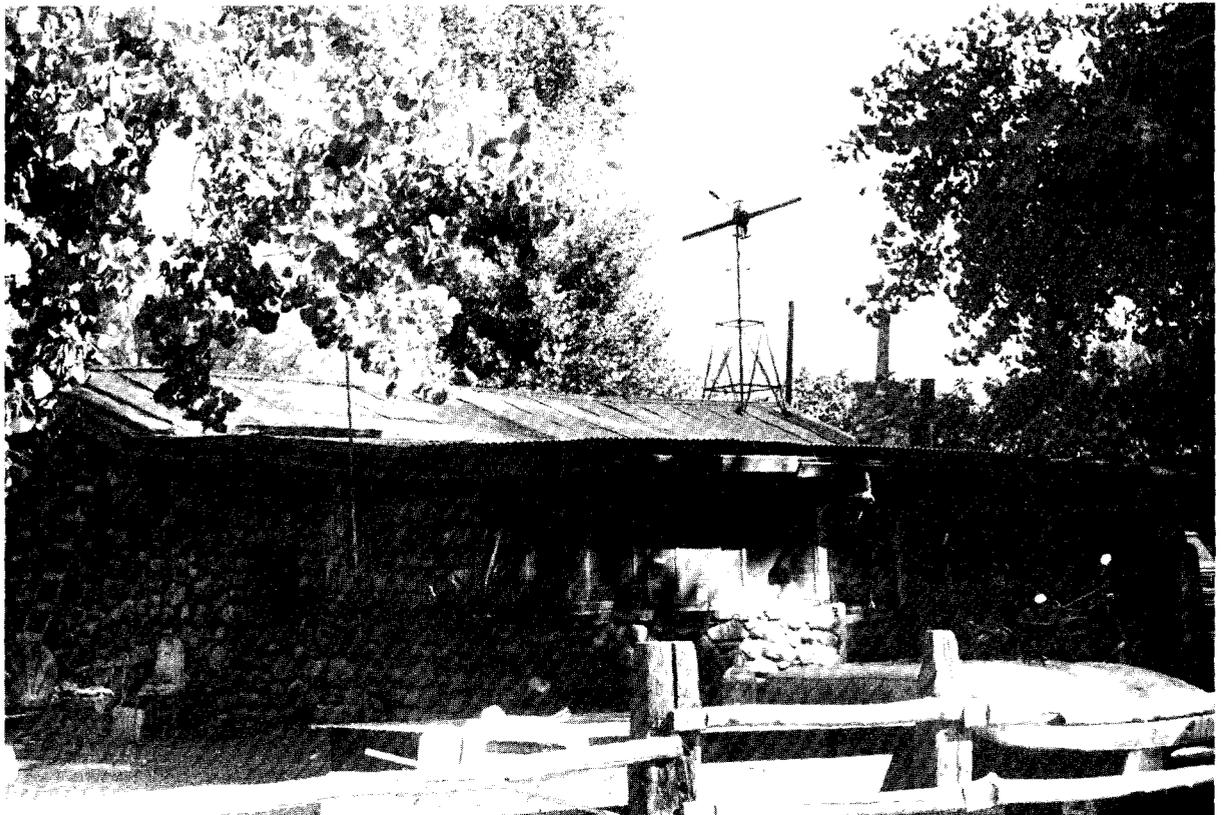


Plate 16. Tasi. Main house built by Ed Yates in 1938.



Plate 17. Horse Valley Ranch. This three room log cabin was built by "Slim" Waring after World War I.



Plate 18. Parashaunt Ranch at Oak Grove (outside NRA). This the oldest structure (1880) on the Shivwits Plateau.

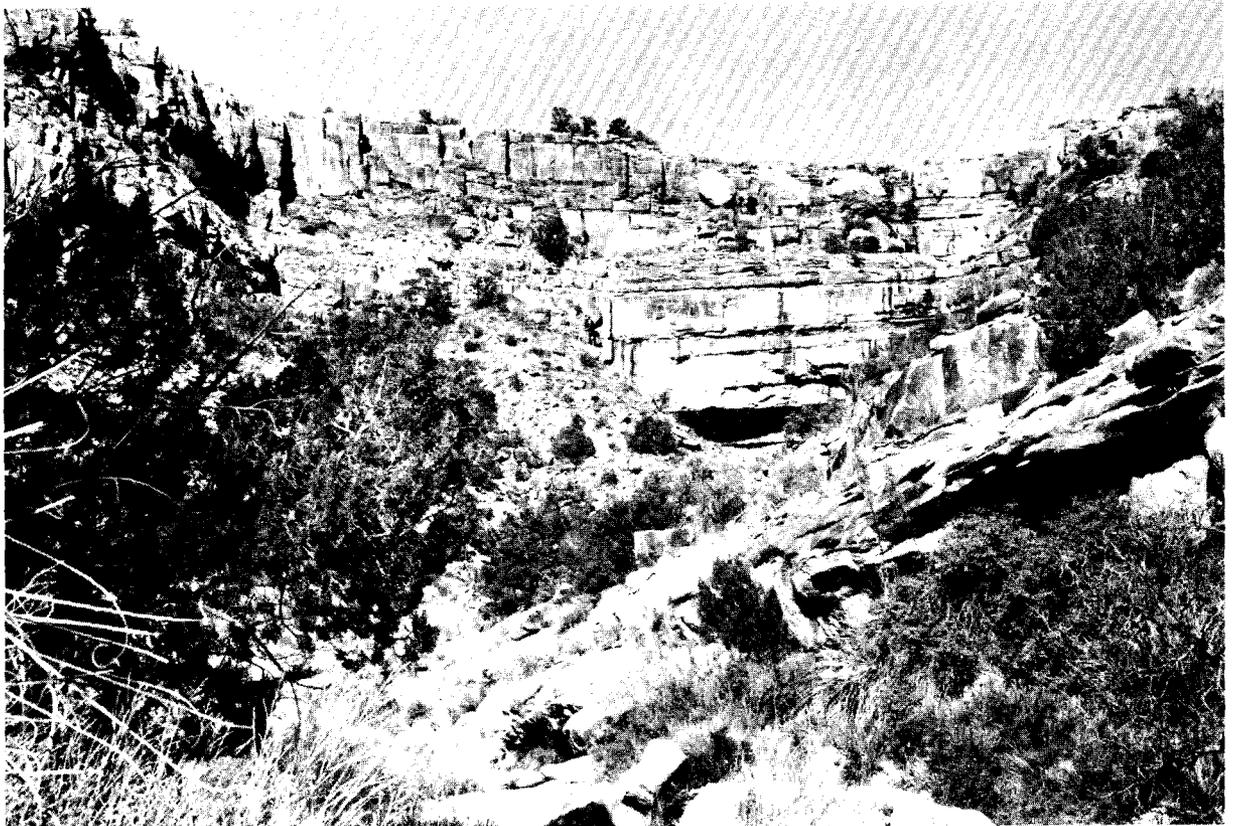


Plate 19. Separation Canyon. Box canyon below the esplanade. Exit is up talus slope on left and across to right along shelf below rimrock.



Plate 20. Separation Canyon. Intrepid author prepares to climb chimney to Sanup Plateau.



Plate 21. Ambush Water Pockets. Site of Dunn-Howland killing according to Dellenbaugh. Bill Burke, NPS Wildlife Management Specialist.



Plate 22. Log Spring. (Outside NRA) Site of Dunn-Howland killing according to local sources. Author Belshaw, "Buster" Esplin, "Jet" Stenborg

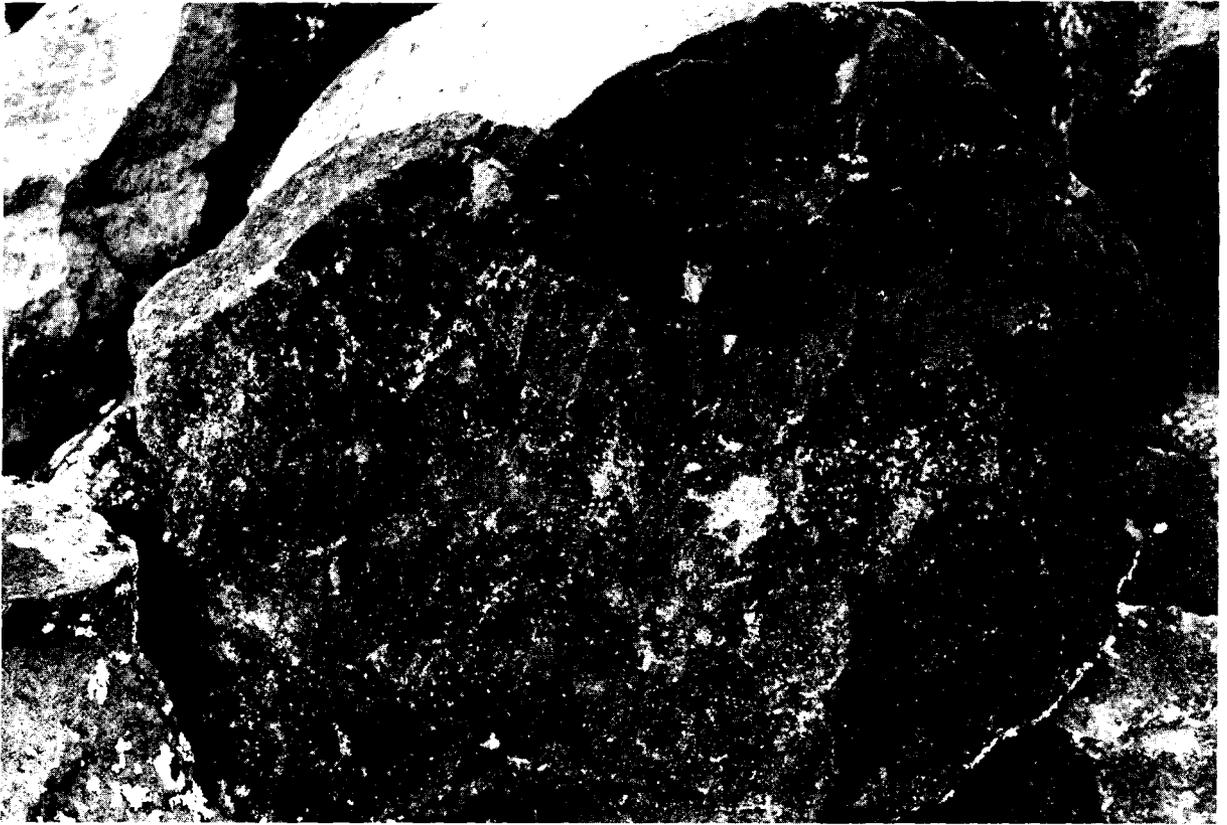
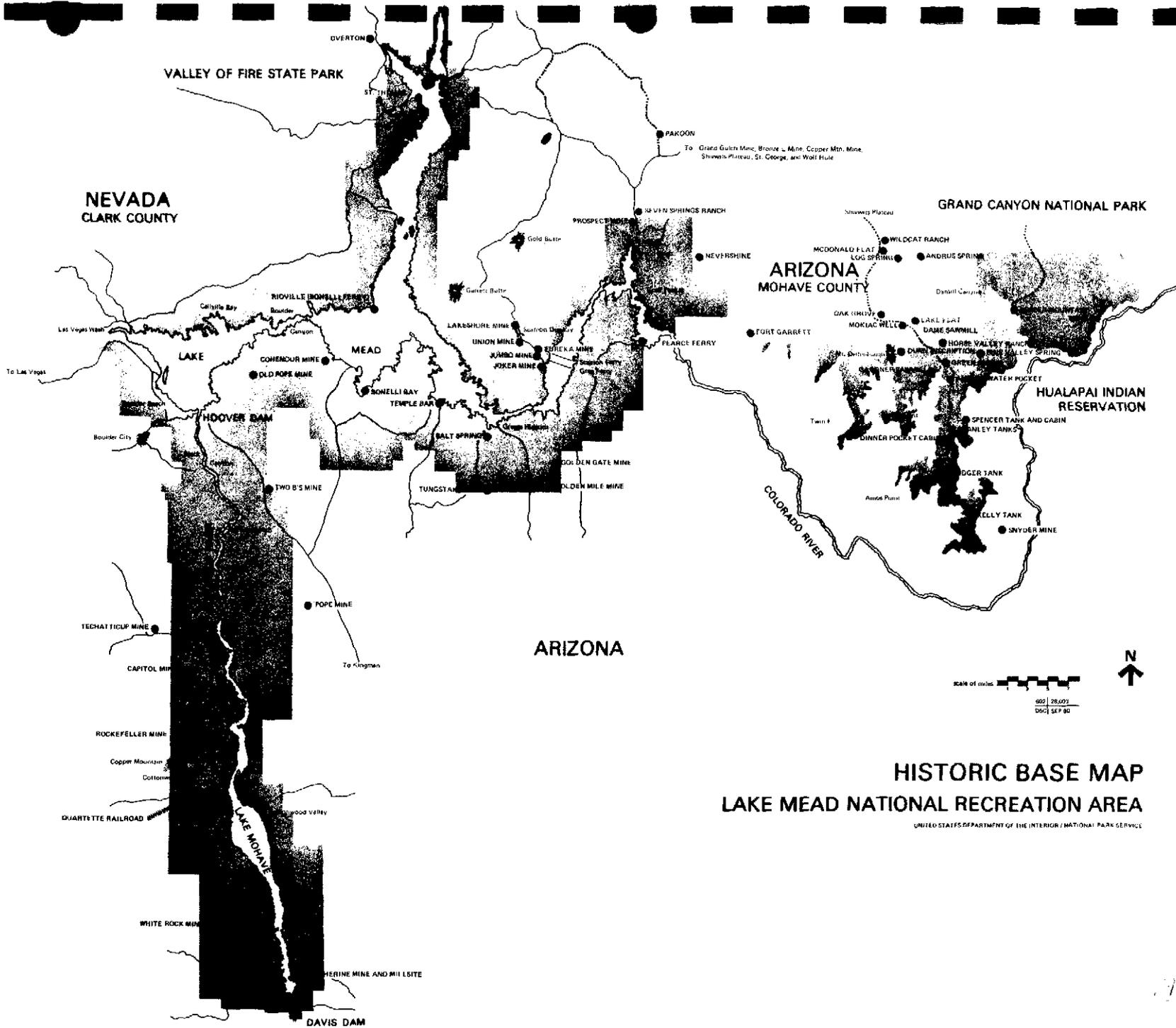


Plate 23. Dunn Inscription. Name and year on upper right. WATER in center. Arrow below "A."



Plate 24. Dunn Inscription with Lake Flat in background. Arrow points to lake which has been usually dry in recent years.



**HISTORIC BASE MAP
LAKE MEAD NATIONAL RECREATION AREA**

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

1960

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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