

UNIVERSITY OF UTAH  
Department of Anthropology



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*(Glen Canyon Series Number 22)*

## The San Juan Canyon Historical Sites

By C. GREGORY CRAMPTON

JESSE D. JENNINGS, *Editor*  
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**ANTHROPOLOGICAL PAPERS**

The University of Utah Anthropological Papers are a medium for reporting to interested scholars and to the people of Utah research in anthropology and allied sciences bearing upon the peoples and cultures of the Great Basin and the West. They include, first, specialized and technical record reports on Great Basin archeology, ethnology, linguistics, and physical anthropology, and second, more general articles on anthropological discoveries, problems and interpretations bearing upon the western regions, from the High Plains to the Pacific Coast, insofar as they are relevant to human and cultural relations in the Great Basin and surrounding areas.

For the duration of the archeological salvage project for the upper Colorado River Basin which the University has undertaken by contract agreement with the National Park Service, reports relating to that research program are being published as a series within a series, bearing numbers in the general sequence of the papers as well as their own identifying numbers.

The Glen Canyon subseries will represent a wider range of the sciences and humanities than the parent series itself. The project provides for studies of the natural history of the Glen Canyon area and its inhabitants so that the relations of the prehistoric cultures and their settings will be understood in depth. As contact with Western peoples and cultures has had a varying effect upon the native Americans and the land, some papers will be concerned with the Colorado in the more recent past. Most of the Glen Canyon publications, however, will be archeological reports.

THE SAN JUAN CANYON  
HISTORICAL SITES

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## PREFACE

This is the third volume devoted to a detailed study of the historical sites in the Lake Powell (Glen Canyon Reservoir) area and environs. The first two (Crampton, 1960, 1962) described representative sites from Lees Ferry to the mouth of Hansen Creek, 130 mi. upstream from Lees Ferry. This one reports historical sites in the canyon of the San Juan River from its mouth, 78 mi. upstream from Lees Ferry, to the head of the canyon at the mouth of Chinle Creek, a distance of 132 mi.

The methods employed have been those used in the preparation of the first two reports. The primary objective of the study has been to learn what historical areas and remains will be inundated by the waters of Lake Powell, and to make a record of them (see Crampton, 1960, v-vii). All known sites have been reported, but the list is doubtlessly incomplete. However, it is believed that the sampling has been broad enough to permit reconstruction of the history of the reservoir area without serious distortion.

With the exception of those above the mouth of Grand Gulch, the historical sites reported here are all within the reservoir area. The sites are described in the text as they appear in downstream order. Numbers were applied to historical sites consecutively as they were located in the field. A single series of numbers has been used for all of the historical sites described in the Lake Powell reservoir area and its immediate environs. Historical sites are indexed by number and name in the table of historical sites. A subsequent paper will describe sites along the Colorado River from the head of Cataract Canyon to California Bar, opposite the mouth of Hansen Creek, in Glen Canyon.

A detailed atlas for the San Juan Canyon (Sheets 1-8), based upon the river maps issued by the U.S. Geological Survey in 1921, showing the location of historical sites, appears at the end of this volume.

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## THE SAN JUAN RIVER

### The Early History

The principal tributaries of the San Juan River are the streams that drain the southern slopes of the San Juan Mountains in southwestern Colorado. These snow-fed streams flow south and southwest into a wide and open valley in northwestern New Mexico. From a westerly course the San Juan turns northwest at Shiprock, crosses into Colorado briefly near the Four Corners monument, and then enters Utah. At the mouth of Montezuma Creek the river again turns westward and continues in this general direction. At the mouth of Chinle Creek it enters a canyon of varying depth through which it flows 132 mi. before reaching the Colorado River 78 mi. above Lees Ferry.

The river and its tributaries drain some of the most historically interesting country in the Southwest. The profusion of Spanish names, including that of the river itself, in the upper basin attest discovery and exploration by Spain. In 1776, when the Domínguez-Escalante expedition, on its outward journey, passed through what is now southwestern Colorado, the tributaries of the San Juan were well known and were laid down according to established usage by Miera on his map of the country explored by the party (Bolton, 1950).

Before 1821, when the Spanish era ended, there were probably very few Spaniards who had followed Domínguez and Escalante into the canyon country of the Colorado River but after that date, when the region became part of Mexico, numbers of traders from New Mexico entered it. For the most part they appear to have been slavers who crossed the canyon country to trade with the Ute Indians living in the valley of the Sevier River in the Great Basin. The New Mexicans traded blankets and horses for Paiute children obtained by the Utes from the several Paiute bands living in south central Utah.

It is indeed quite likely that these traders from New Mexico developed the route between Santa Fe and the Great Basin that has since become known as the Spanish Trail, though it was used very little during the Spanish period. As it was finally worked out, the Spanish Trail paralleled present U.S. Highway 160, which, from Pagosa Springs, crosses southeastern Utah, ending at Monticello. Before reaching present Monticello, however, the trail turned north northwest to meet the Colorado River at Moab. Hafen and Hafen (1954) discuss the opening of this route and a number of alternate trails that were used first by traders engaged in the New Mexico-Colorado River-Great Basin traffic and later by caravans traveling between New Mexico and California, as well as by others, including the American mountain men who trapped the canyons of the Colorado in the 1830's.

Indeed it is highly probable that American trappers, sometime during the decade from 1830 to 1840, traveled through the canyon of the San Juan River, but no significant documentation has been found to prove the assertion. From the work of W. A. Ferris (Auerbach and Alter, 1940), who trapped the Rocky Mountains, 1830-1835, it is evident that the fur men knew much of the canyon country. The date 1837 in Glen Canyon opposite the mouth of Lake Canyon (Crampton, 1962, 44-5) may be an authentic record made during the trapper era.

It may be that the first white men to see the canyon of the San Juan River were Mexican prospectors from New Mexico. I have occasionally heard this mentioned but no satisfactory documentation has been found. Nakai, or Nokai, Creek, a southern tributary of the San Juan, heading on the lofty Piute, Zilnez, and Skeleton mesas, is said to be a Navajo word for black, or Mexican, and is believed to have derived from prospectors, or possibly slavers, in the Nokai Canyon area sometime before the arrival of the first Americans. Gregory (1917, 194) states that the name means Mexican and that it is applied by the Navajos to a number of places. The Navajo Hoskininni-begay told Charles Kelly (1953, 224) that during the years 1840-1860, the Indians were always fighting the "Noki" or Mexicans, who raided after women, horses and sheep, going as far west as Copper Canyon.

There is some reason to believe that Spaniards from New Mexico may have prospected the Monument Valley-Navajo Mountain area sometime before it was transferred to Mexico and later to the United States. Late in the 17th century there was an exchange of letters between the governor of New Mexico and the Viceroy of New Spain in Mexico concerning a reported Sierra Azul located in the province of the Hopis. This was in an area where Coronado, Espejo, and Oñate had sought fabled riches. The Sierra Azul was a source of quicksilver, the story went (see Espinosa, 1934), as valuable as the precious metals. Men searched for it but it eluded them. Father Escalante saw some of the ore before making his journey to Utah and doubtless Domínguez and Escalante kept the Blue Mountain in mind as they traveled along on that important exploration. It is interesting to note that when the Spanish explorers crossed the Colorado at the Crossing of the Fathers they were within sight of the blue dome of Navajo Mountain, which Miera promptly named El Cerro Azul. Miera's beautiful map (Bolton, 1950) clearly portrays Navajo Mountain. It may be that Miera was not attempting to identify the "Blue Hill" with the "Blue Sierra." Even if he was it has not been established that this fact had any bearing on subsequent exploration of the Navajo Mountain region and the country bordering on the San Juan River. But it is an interesting matter to consider.

Hostility between the Navajos and the New Mexicans prevented any very extended penetration by the whites of the country adjacent to the San Juan River below the Four Corners. Hostilities did not end when the region was transferred to the United States as part of the Mexican cession in 1848. The Navajos kept up a running battle with the United States until 1864 when they were removed for four years to a reservation at Bosque Redondo in New Mexico. In terms of Navajo occupancy of the canyon country of the San Juan River and of the Colorado below the mouth of the San Juan, this is an important time.

Since the beginning of the war with Mexico in 1846 the Navajos had been a source of trouble. The U. S. Army established a post at Fort Defiance in 1850 but continuing raids and violence led to almost open war in 1858. Extensive military expeditions were sent out against the Navajos in 1858, 1859 and 1860; these expeditions ranged north of Defiance toward the San Juan River and west toward Navajo Mountain and forced many Navajos to take refuge in the river canyons. It was the retreating Navajos who killed George Albert Smith, Jr., at Tonalea in 1859 (Little, 1881, ch. 10). And it was these Indians, who left the tribal homeland, centering at Canyon de Chelly, who escaped the Bosque Redondo captivity of 1864-1868.

Some of them went on across the Colorado by way of the historic Crossing of the Fathers to do battle with the Mormons who were beginning to settle the country at the base of the High Plateaus in southern Utah. The Navajo-Mormon conflict lasted from 1865 to 1870 (Crampton, 1960, 14-16). Other Navajos moved north to settle in the area between Monument Valley and Navajo Mountain where they became neighbors of Paiute clans, and this probably produced some dislocations. Displaced Navajos and, later, Southern Utes who were forced into the Four Corners area harbored resentment against the advancing whites which occasionally burst out in violence against them.

After 1848 the Mormons were the first whites to look over the Four Corners area with a view to possible settlement. In 1854 Brigham Young sent W. D. Huntington to explore the region and to open trade with the Navajo Indians. Huntington found the Indians unfriendly but willing to trade. En route he explored some of the prehistoric ruins now in Hovenweep National Monument not far from the San Juan River (Deseret News, December 28, 1854). No settlement was attempted in the Navajo country but the Mormons did establish the Elk Mountain Mission at the later site of Moab in 1855. After a few months the colony was abandoned as a result of an attack by Ute Indians (Deseret News, August 1, 22, October 10, 31, November 7, 1855).

The "Utah War," 1857-1858, between the Mormons and the United States (see Creer, 1929) brought on the first detailed survey of the San Juan River. Mormon guerillas effectively slowed the "invasion" by federal forces

under Albert Sidney Johnston. The logistical isolation of the troops in Utah, once they had established themselves at Camp Floyd, suggested to the War Department the necessity for finding new supply routes into Utah, and the Corps of Topographical Engineers was assigned the job. In 1859, J. H. Simpson, who had been on an important exploration in the Navajo country in 1849, opened a new wagon road across the Great Basin to California; Lt. J. C. Ives boated up the lower Colorado; and Captain J. N. Macomb explored the canyon country of southeastern Utah.

Macomb, from New Mexico, was ordered to determine the geographical position of the San Juan River as well as that of the confluence of the Green and Colorado rivers, and he was directed to locate a direct route between the Rio Grande and the Mormon settlements in southern Utah. Macomb and his party, which included Dr. John S. Newberry, who had served as a geologist with Ives, carried out their assignment during July, August and September, 1859. From Santa Fe they traveled the Spanish Trail to "Ojo Verde," a spring located between the Abajo and the La Sal mountains. From this as a base camp the explorers tried unsuccessfully to reach the confluence of the Green and Colorado. By way of Indian Creek they arrived at the Needles country, which probably they were the first to describe.

Finding that they could not reach the valley of the San Juan by following down the Colorado, the expedition from Ojo Verde traveled south through comparatively open country toward the river. Off to the west at one point near the later town of Blanding the explorers could see a great gap through which they assumed the San Juan flowed to reach the Colorado. They were in view of Monument Valley which Newberry, in his geological account (Macomb, 1876, chs. 5-6) of the expedition, described with clarity. Having seen the rough country to the west Macomb realized that the party would have difficulty in reaching the mouth of the river so he continued directly south and reached the San Juan in the vicinity of the later settlement of Bluff. From there the expedition turned upstream and returned to Santa Fe by way of Canyon Largo and Jemez.

The exploration undertaken by Macomb was important: He had determined that there was no suitable supply route directly across the canyon country of the Colorado and that communication between the Rio Grande and southern Utah would have to follow the existing Spanish Trail; the descriptions left by Newberry, and his geological report, are the first studies of some of the more spectacular landscape in southeastern Utah; the confluence of the Green and Grand was located, and the course of the San Juan River above the canyon was accurately laid down on the beautiful map of the expedition made by F. W. Egloffstein, accompanying Macomb's report (1876). Indeed, Newberry's geological investigations were the pioneer scientific studies to be made in the canyon country of the Colorado River in Utah.

By the time the Macomb-Newberry report was published in 1876, other scientists had reached the canyons of the Colorado--Powell had made his first voyage in 1869 and a second in 1871-1872, Wheeler had undertaken some surveys on the west side of Glen Canyon, and Hayden had reached the Four Corners country from Colorado. The United States Geological and Geographical Survey of the Territories under the direction of Ferdinand V. Hayden, with that of Powell, Wheeler and King, was one of the great public surveys that did so much to further the opening of the American West after the Civil War (Bartlett, 1962). Hayden's men in 1874 and 1875 explored and mapped, and studied the topography, geology and archeology of western Colorado and eastern Utah and portions of adjoining Arizona and New Mexico. In the area of the San Juan River the work of W. H. Jackson and W. H. Holmes is important for they gave us the first detailed descriptions of some of the first prehistoric ruins discovered in Mesa Verde, Hovenweep and elsewhere (Jackson, 1876, 1878; Holmes, 1878). The Hayden Survey also produced a topographic map of Colorado and portions of adjacent regions that accurately charts the course of the San Juan River to about the longitude of Bluff (Hayden, 1877).

The work of the public surveys on the Colorado Plateau was a highly significant achievement. By 1880, when most of the reports had been published, there was available a great fund of scientific knowledge about the region, and nearly all of the area had been mapped. A conspicuous blank spot, however, was the southeastern part of Utah--the country draining into the canyon of the San Juan River. This is nicely illustrated in the general map of Utah accompanying Powell's Lands of the Arid Region. . . published in 1878, and a second edition in 1879 (Stegner, 1962). The blank was filled in by the Mormons who sent a colonizing expedition to the San Juan River, 1879-1880, and by prospectors who arrived about the same time.

In order to establish a foothold in the country south and east of the Colorado River, the Church of Jesus Christ of Latter-day Saints organized a group of settlers to select a site and found a colony. In the spring of 1879 a large scouting party left Paragonah, near Cedar City, and, traveling by way of Lees Ferry and the Navajo country, located a suitable site for the settlement on the San Juan River at the mouth of Montezuma Creek. Some of the party remained there, and the others returned by way of the Spanish Trail, crossing the Colorado at Moab and the Green at Green River, to Paragonah. Rather than follow either of the routes opened by the scouts, the large colonizing expedition, consisting of over 250 persons, decided to travel from the recently established settlement at Escalante directly across the canyon country of the Colorado to the selected site on the San Juan.

The trek of this group, which crossed Glen Canyon at Hole-in-the-Rock and traveled through the "impassable" country beyond, is one of the remarkable pioneering achievements in the West (Miller, 1959). After crossing

the Colorado River on a ferryboat constructed on the spot, the party (which traveled in over 80 wagons) had to climb out of Glen Canyon on the east bank, cross over Grey Mesa, and traverse Clay Hills Pass and the dense pygmy forest at the head of Grand Gulch. One of the most difficult tasks was to build a road over Comb Ridge. When, in April 1880, the colonists reached a place on the San Juan River which they called Bluff, they stopped from exhaustion.

As an agricultural settlement Bluff did not prosper--the San Juan River carried away most of the terraced lands along its banks in the vicinity--but the settlers soon developed the livestock business. Within a year or two they were ranging cattle out onto the lofty slopes of Elk Ridge and the Abajo Mountains; summer ranges were soon developed in the Lake Pagahrit country west of the Clay Hills. This was the San Juan triangle between the San Juan River on the south and the Colorado on the north and west (Lyman, 1909). The San Juan River separated the range of the Mormon cattlemen from the range on the southern side that was given to the Navajo Indians in treaty cessions in 1878, 1880, 1884 and later (Dale, 1949, 123; Kluckhohn and Leighton, 1958, ch. 1).

### Gold on the San Juan

The arrival of the Mormon colonizing expedition at Bluff in April 1880 coincides with events that led to the beginning of mining in the canyon country of the Colorado River. As we have noted, the Sierra Azul, a legendary place of great wealth, was identified with the Navajo Mountain area. This may have attracted some prospectors but no record of discovery or mining has been found during the Spanish or Mexican eras. The great Pikes Peak gold rush of 1858-1859 stimulated the search for gold in the intermountain area. Within about a year after that rush Charles Baker prospected the San Juan Mountains of southwestern Colorado; after the Civil War he returned with two companions, and they worked down the San Juan River where they were attacked by Indians. The only survivor was James White who was picked up on a raft on the Colorado River below Grand Canyon in September 1867.

There is still considerable mystery about the affair; if it is true, White preceded Powell through the canyons by two years. Those who have studied the matter (see Lingenfelter, 1958, and Bulger, 1961, for example) are in no agreement about White's route. About the only sure thing was that, in a very weakened condition and suffering from exposure, he was taken from the raft near Callville (see Farquhar, 1950, 1953). The news of White's rescue publicized the fact that the Baker party had been prospecting, and this probably had something to do with inciting the gold rush to the San Juan Mountains that soon developed.



The rush was well under way when, in the summer of 1872, the news was published that diamond mines had been found somewhere in the West and some of the rumors placed the fields in northeastern Arizona, in the Navajo Mountain-Monument Valley region. Before the year ended Clarence King of the U. S. Geological Exploration of the Fortieth Parallel found the "mines" in northwestern Colorado and proved them to be a hoax. The attractive words "diamond fields," which stayed on some of the maps of northeastern Arizona for several years, may have been an incentive to prospecting.

To add to its luster the Monument Valley-Navajo Mountain region was also believed to be the locale of a hidden silver mine belonging to the Navajo Indians. Since returning from Bosque Redondo in 1868 the Navajos had developed the manufacture of silver objects--buckles, buttons, clasps, etc. Many became curious about the source of the metal and it was assumed that the Indians must have a secret mine somewhere. On the last day of December 1879, two men, James Merrick and Ernest Mitchell, forded the San Juan at the mouth of Comb Wash and set out to find the hidden mine of the Navajos. Before crossing the river they met the advance scouting party of the Hole-in-the-Rock expedition, who had found a route from the Colorado River to Montezuma Creek (Miller, 1959, ch. 7).

When Merrick and Mitchell did not return from their prospecting venture a searching party went out to look for them. Their mutilated bodies were found in Monument Valley near the towering buttes that now bear their names. Navajos encountered by the searching party pleaded innocent and so did some Paiutes who actually guided the whites to the location of the bodies. The newspaper report (Rocky Mountain News, March 16, 1880) of the incident stated that Merrick and Mitchell had already found some mines, located claims, and were on their way back to get tools and provisions when they were killed. Men now identified the presumed hidden silver mine of the Navajos with the presumed discovery by Merrick and Mitchell.

Prospectors from Colorado flocked into the Navajo country. Reports drifted back of discovery of old workings in one of the canyons leading into the Colorado (Rocky Mountain News, May 23, 1882), probably at the head of Copper Canyon. Although men combed the rugged canyon and mesa country between Monument Valley and Navajo Mountain, however, the silver mine of Mitchell and Merrick seemed to elude them. While prospecting in the Copper Canyon area, Cass Hite, whom the Rocky Mountain News (May 23, 1882) describes as a "mining prospector of sixteen years experience, of superior education. . .," became acquainted with the Navajo chief Hoskininni and asked him about the silver mine. The chief admitted the location of such a mine but would not tell the location of it. In response to Hite's persistence in questioning them about the mine, the Navajos called him "Hosteen Pish-la-ki," which means Mister Silver Hunter, or Mr. Silver

(Kelly, 1940, 1953). Finally, Hoskininni told Hite that if he wanted precious metal he should go to Glen Canyon where he would find gold in the banks of the Colorado. Hite took the advice and discovered gold near Dandy Crossing in 1883.

But the quest for the Merrick-Mitchell mine continued for at least 25 years--after a time it became known as the Pish-la-ki mine, from the name the Indians had given to Cass Hite. The Indians continued to keep a watchful eye on whites who seemed bent upon prospecting. As late as 1911 Chief Hoskininni halted a surveying party at "Moonlake" (Oljeto) Canyon to see if they were looking for the "money rock" of "Pash Leki" (Dyer, 1911).

Cass Hite's gold discovery in Glen Canyon in 1883 initiated a canyon country mining boom that gradually took on the proportions of a rush within a few years. To hardrock prospectors the sandstone country of the Colorado seemed a very unlikely place to find gold. However, the 1889-1891 railroad survey undertaken by Robert B. Stanton for the Denver, Colorado Canyon, and Pacific Railroad Company (Smith, 1960; Crampton, 1959, 19-21) did much to stimulate mining interest. In 1892, gold and other minerals were found in the La Sal, Abajo, Carriso and Henry mountains, on the periphery of the canyon country, and this brought interest in the mining potential of the canyons to a high peak.

During the last months of 1892 the papers began to publish the news that rich diggings had been found in the canyon of the San Juan River. The area was remote. No one seemed to know very much about it. The lost mine of Pish-la-ki was recalled. Actually, in 1888, the St. Louis Mining District had been organized (San Juan County, Miscellaneous Record B, 109); the district had been formed to cover the angle between the San Juan River and the Colorado boundary in the extreme southeastern part of Utah. Apparently little mining had been done in the district, for no mention of it has been found in the contemporary newspapers. Several placer claims were recorded in 1887-1888 (San Juan County, Miscellaneous Record B, 71-94) before the district was organized. In November 1892 a portion of the Navajo Reservation in Utah west of the 110th meridian was restored to the public domain and thrown open to prospecting. By Christmas the papers were full of news of the San Juan excitement; the towns in Utah, in southwestern Colorado, and those along the line of the Santa Fe Railroad in New Mexico and Arizona caught the fever. For a brief spell the gold rush to the San Juan River caught the interest of the nation. At the height of the boom a map that Cass Hite drew of the region was published in the Salt Lake Tribune, January 12, 1893 (Fig. 1).

Summaries of some of the news as reported in the Salt Lake Tribune will give an idea of the feverish excitement that developed during December 1892 and January 1893.

December 22, 1892: Much excitement over the rush to the new gold fields on the San Juan River. The towns along the Atlantic and Pacific (Santa Fe) Railroad are depopulated, and Durango has gone wild. The Gable [Gabel] Mining Company--President Harrison, a stock holder--has staked out 147 claims. The placers were discovered less than a year ago by a Navajo trader named Williams. He interested eastern capital, and hydraulic machinery was secretly shipped in from Winslow under pretense that it was to be used for coal mining. A prospector named French followed and returned to Winslow with the news that 60 mi. of rich yellow placer grounds had been found where you could make up to \$5 to the pan. Since then every available means of transportation has headed for the diggings.

December 23, 1892: Mons Petersen of Moab says he is confident that the San Juan field is a genuine bonanza.

December 26, 1892: An anonymous old timer says the San Juan "fever will be burned out before thirty days," but he is called a "professional mourner" by those eager to be off to the mines.

December 28, 1892: Salina, Green River, Thompson Springs and Durango are competing for the outfitting business to the new mines.

December 29, 1892: Gun fighting and claim jumping at the San Juan placers.

December 30, 1892: Bloodshed on the San Juan has increased the fever; if they fight over the mines, they must be valuable.

December 31, 1892: Gold has been found in the canyons coming in from the south. Many men are making \$15 a day panning.

January 3, 1893: The rush to the new placers on the San Juan is increasing; at least 600 prospectors are on the trail between Mancos, Colorado, and Bluff.

January 4, 1893: Men are rushing in at the rate of 200 a day, mostly from the north. The Gable (Gabel) Company has 2000 men employed. People are living in tents or are sleeping under wagons. Log cabins are going up in many places, but there is no regular camp and it is a matter of speculation where the principal town will be.

January 5, 1893: The Rio Grande Southern Railroad plans an extension to the gold fields, to be completed this year. Seven thousand men are in the mines and 600 are arriving daily.

January 7, 1893: Prospectors are all over the hills on both sides of the San Juan and the rush continues.

January 9, 1893: The Green River and San Juan stage line via Dandy Crossing will make its first run Monday. Passengers will be put through from Green River to the San Juan in 4 1/2 days.

January 11, 1893: Of the gold fields one dissatisfied prospector says, ". . . the whole thing is a fake."

January 12, 1893: Cass Hite ends a long article on his own experiences in the canyons and on the mining possibilities along the San Juan with the statement "gold is where you find it."

January 17, 1893: The reported gold find on the San Juan does not pan out. Nothing more than fine flour gold has been found.

January 19, 1893: Poker Johnson intends to open a gambling house in Bluff City. Dr. John Shiner, who accompanies Johnson, is planning to open an office in Bluff City.

January 21, 1893: The seat of the gold excitement has been transferred from the San Juan to the Colorado River and the Henry Mountains.

January 23, 1893: Disillusionment among the San Juan miners.

January 24, 1893: No gold has been taken from the river and as far as any man panning out such runs as were mentioned in the papers, the lie was manufactured out of whole cloth.

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Thus, by the end of January 1893 the bubble had burst, but it was not without constructive results. The San Juan excitement advertised the entire country. Many of the miners who failed to strike anything went over to Glen Canyon where the prospects were better, or to the Henry Mountains, and the gold boom continued past the turn of the century.

Although the excitement died down soon after it began, mining did not cease on the San Juan. Several mining districts were organized, and gold mining continued into the first decade of the 20th century. The returns generally were probably not as high as those in Glen Canyon. The San Juan was prospected from the Four Corners to its mouth, but most active placering was confined to the canyon above the Big Bend; the most productive section, probably, was the 20-mi. stretch below Clay Hill Crossing.

Much of the history of San Juan Canyon is related to the Indian occupation, to the Mormon settlement at Bluff and other places in San Juan County, and to the gold boom. As an example, miners prospecting the canyons stumbled upon prehistoric ruins; this led first to systematic pothunting and later to scientific archeological study. John Wetherill is an illustration. From 1892 he began exploring for ancient ruins in the country west of Mesa Verde. In 1900, accompanied by his father-in-law, Jack Wade, who had helped recover the bodies of Merrick and Mitchell, he prospected the southern side of the San Juan Canyon for the Merrick-Mitchell mine. Wetherill became acquainted with the country and in 1906 established a trading post at Oljeto, where he benefited from the gold and oil booms on the San Juan River. From this place and from Kayenta, where he moved in 1910, Wetherill guided archeological and tourist parties into the San Juan region for many years (Gillmor and Wetherill, 1953; McNitt, 1957; Crampton, 1959, 25). Ezekiel ("Zeke") Johnson, a contemporary of Wetherill, and also a canyon country guide, entered the San Juan Canyon first in the gold rush of the 1890's (Johnson, 1929).

The San Juan oil boom in the upper part of the San Juan Canyon was a result of oil seep discoveries that date back to 1882. Practically all of the historical sites described below are related to one of these major areas of interest.

## THE SITES

### Historical site 198: Chinle Creek-Comb Wash Area

Chinle Creek, between the Chuska and Carrizo mountains on the east and Black Mesa and Monument Valley on the west, drains a wide and open valley through most of its distance. Below the mouth of Walker Creek it flows through a canyon 100 to 300 ft. deep and, after cutting through the spectacular upturned Comb Ridge, enters the San Juan River 132.6 mi. above the mouth of that stream. Chinle Creek empties into the San Juan less than 2 mi. below Comb Wash, which heads on the eastern slopes of the Grand Gulch Plateau and on the southern slopes of Elk Ridge and enters the river on the northern bank. The watercourses of these two drainages offer access routes to the San Juan from either side. Consequently, this was a crossing place that dates, probably, from prehistoric times.

In the spring of 1880 the Mormon colonizing expedition, which had already crossed the Colorado River at Hole-in-the-Rock and traversed the "impassable" country east of there, opened a route for wagons down Comb Wash to its mouth and thence over the steep "San Juan Hill" on Comb Ridge

(Miller, 1959, ch. 10). This made the crossing accessible to wagons, and it was used occasionally by wagon trains en route from Colorado and other points to the Navajo country west of Comb Ridge-Monument Valley, and the southern tributaries of the San Juan. When the San Juan could not be forded, wagons were dismantled, the parts rafted across, and the animals swum. The crossing appears to have been made below the mouth of Comb Wash and above the mouth of Chinle Creek.

When a bridge was built across the San Juan at Goodridge (Mexican Hat) about 1908 the crossing thereafter was probably used little by wagon traffic though it was frequently used as a ford by both Indian and white horsemen. The Mules Ear, a segment of Comb Ridge on the southern side of the river, is a prominent landmark indicating the location of this crossing (Fig. 2), which has sometimes been called Mules Ear Crossing.

In 1885 William Hyde and his son-in-law, Amasa M. Barton, opened a trading post on the north side of the river just above the mouth of Comb Wash on a low bluff overlooking the San Juan River. The location was then known as the Rincon. Trade with the Indians continued until June 1887, when hostile Navajos killed Barton. Remains of the abandoned establishment are still to be seen (Miller, 1958).

During the San Juan gold rush there was some mining activity in the vicinity. On February 9, 1893 the Ida Mining District was organized. Its boundaries were the entire watershed of the "Rincon Basin" (San Juan County, Miscellaneous Record B, 188), apparently another name for the basin drained by Comb Wash. The extent to which mining operations were actually carried on within this district has not been determined. They were probably limited and must have been confined largely to the lower course of Comb Wash. Placer mining notices for 1892 and 1893 mention Rincon Basin and Comb Wash (San Juan County, Mining Claims, A, 63-84, 299). Rincon Wash is mentioned in an 1888 placer notice (San Juan County, Miscellaneous Record B, 112-13).

The Ida Mining District was bounded on the east by the Bluff Mining District, which was organized on February 21, 1893. From Comb Ridge it extended eastward, following the channel of the San Juan River, to a point 2 mi. above the mouth of Montezuma Creek; its northern boundary was 15 mi. from the San Juan River (San Juan County, Miscellaneous Record B, 191-3). Apparently this must have superseded the earlier Gardner Mining District mentioned in location notices in December 1892-January 1893 (San Juan County, Mining Claims, A, 53-60).

Just below Chinle Creek begins the 132-mi. long canyon of the San Juan River. (Mileages given in this paper will refer to the distance above the mouth of the canyon from the point at which it joins the Colorado River. Mileages are taken from the "Plan. . . of the Colorado River, Lees Ferry,

Ariz., to Mouth of Green River, Utah; San Juan River, Mouth to Chinle Creek, Utah; and Certain Tributaries, " surveyed by the U. S. Geological Survey and the Southern California Edison Company in 1921; sheets N-P.) Between the mouth of the canyon and the mouth of Lime Creek, a northern tributary, the San Juan River has cut a narrow meandering canyon, which reaches a maximum depth of about 900 ft., through the domelike Lime Ridge. Within this canyon there was probably a considerable amount of prospecting during the San Juan gold rush, but the extent of actual mining has not been determined. Placer mining location notices of 1893 and 1894 in Rincon Canyon, 8 1/2 mi. below Comb Wash and 17 mi. below Bluff, suggest that this portion of the San Juan Canyon, rather than Comb Wash, was known as Rincon Canyon (San Juan County, Mining Claims, A, 299; B, 64). Cass Hite (1893) referred to the canyon between the mouth of Chinle Creek and Gypsum Canyon as Fifteen Mile Canyon.

#### Historical site 199: Lime Creek

At mile 120.3 Lime Creek, also called Limestone Creek, enters the San Juan through a canyon. It is the principal stream draining the Lime Creek Basin, the site of the San Juan oil excitement, 1907-1910. It is a scenic region of sparse vegetation and many isolated buttes and monuments to which the name Garden of the Gods, or Valley of the Gods, has been applied. Lime Creek is mentioned in a placer claim notice in 1905 (San Juan County, Miscellaneous Record B, 392).

#### Historical site 200: Mexican Hat (formation)

Below the mouth of Lime Creek for a distance of 4 mi. (mile 113.5-117.5) the walls of San Juan Canyon on the right bank are low enough to permit comparatively easy access. Overlooking the river on the right side is the spectacular balanced rock called Mexican Hat, also known as Mexican Hat Butte, and Balanced Rock. The name Mexican Hat appears in placer mining locations as early as 1895 (San Juan County, Mining Claims, B, 106). Resembling a wide-brimmed Mexican sombrero (Fig. 3) it is a landmark that may be seen for several miles from the north and from the south. It marks an interesting historic area brought into existence by placer gold mining and oil drilling.

#### Historical site 201: Mexican Hat-Goodridge area

Utah State Highway 47 between Monticello and the Utah-Arizona line passes through Mexican Hat, a small town and post office located on the right bank of the San Juan River. It is not known when the first white men

visited this place but it appears that some of those who were looking for the Merrick-Mitchell mine arrived in the vicinity in 1882. At that time oil seeps along the river were discovered. Among those said to have visited the area in that year and whose names are identified with the discovery of the oil seeps are: Cass Hite, Ernest B. Hyde, A. R. Van Ansdale, and E. L. Goodridge. The last is said to have made the first location of an oil claim in that year (Goodman, 1910; Baker, 1936, 88).

Record of the Goodridge location has not been found, but it is of record that on January 1, 1886 Amasa M. Barton (see Historical site 198), Joseph F. Barton, W. E. Hyde and others formed the San Juan Coal Oil Company and located 160 acres of "coal oil springs," to be known as the "Illuminator," opposite the mouth of Gypsum Creek (San Juan County, Miscellaneous Record B, 10). Gypsum Creek enters the San Juan on the left opposite the present town of Mexican Hat. In 1889, the Kendalls and others filed a petroleum placer in the "Canyon Mining District" near a place known as the "Roosters Comb" (San Juan County, Miscellaneous Record B, 143-4). An examination of the San Juan County, Mining Claims, B, on file in the Recorder's Office in Monticello, reveals that there was a flurry of activity from Mexican Hat down to the Goosenecks of the San Juan from March to September 1895, when many oil and gold placer claims were filed (pp. 101-31).

It appears that the Monumental Mining District was organized some time in 1894, since locations in this district were filed in that year (San Juan County, Mining Claims, A, 361-4). In the Recorder's Office for San Juan County in Monticello there are separate record books for the Monumental Mining District: Book of Locations (1896); Mining Record (1894-1895; 1909), Record Book of the Monumental Mining District Association (1908-1909). The last volume contains a record of the formation of the association, minutes of meetings, rules and regulations of the association adopted November 30, 1909, a list of members and the boundary of the district.

According to the bylaws (U. S. Bureau of Land Management, Survey Office, By-laws of Mining District) adopted November 16, 1895, the Monumental Mining District consisted of all of the region 10 mi. on either side of the San Juan extending from the mouth of Comb Wash to the Colorado River. These boundaries were extended in 1908 to include a strip 18 mi. wide north of the river and to include all of the region south of the San Juan to the Utah-Arizona boundary. This reflected the oil boom that began in 1908.

During the 1890's there was some placer gold mining along the river but the main interest seems to have been in the petroleum potential. For example, Melvin Dempsey, who came in with the gold boom in 1893, dug a crude shaft 8 ft. deep on the bank of the San Juan at Mexican Hat where he obtained a flow of oil (Goodman, 1910). However, no drilling was done until



the fall of 1907. On March 4, 1908, E. L. Goodridge brought in the first well, Crossing No. 1, a gusher that threw oil 70 ft. in the air. The Goodridge gusher caused much excitement in the immediate area, and it stimulated prospecting for oil elsewhere in southeastern Utah. Numbers of additional wells were drilled in the vicinity in 1908 and 1909. Many of them, according to Woodruff (1912, 98-9), were put down as assessment work; he relates that A. L. Raplee, whose name was long identified with the area, reported in February 1911 that there were 27 drilling rigs in the field and more equipment en route. Drilling probably reached a peak in 1911. At least three producing wells were found but the amounts were small and it was all consumed locally. After 1911 there was a quiet period until 1920 when oil prospecting again began throughout the entire canyon country. This continued through the 1920's; more wells were drilled in the Mexican Hat area and in the Lime Creek Basin. During the early period the wells drilled were shallow, seldom exceeding 600 ft. In the 1920's the wells were driven deeper, although in comparison with modern drilling they were comparatively shallow and provided only a superficial exploration of the geological horizons and structures that are being penetrated today. Small showings of gas and oil were obtained but apparently petroleum in large commercial quantities was not found, although a refinery was built in 1923 at Mexican Hat. The remains of it are still to be seen (Fig. 4). Since World War II the Aneth field, along the San Juan River upstream from Bluff, has become a producer of national importance.

The San Juan oil boom, 1908-1911, and in the 1920's, attracted national attention and there is a considerable body of literature on the subject, most of it geological: Gregory (1911, 1917, 1938), Woodruff (1912), Miser (1924, 1925), and Baker (1936), are the essential geological references; Goodman, writing in the Salt Lake Mining Review (1910), has an excellent short piece, with photographs, on the early history of oil prospecting in the Mexican Hat-Goodridge area. The files of the Salt Lake Mining Review, during the early period of activity, 1908-1911, contain many articles on the San Juan field.

During the early oil boom in Mexican Hat two settlements had sprung up by 1910: Goodridge, which became a post office, was located precisely where Mexican Hat is today (the Crossing No. 1 well was at Goodridge); Mexican Hat was located about 1/2 mi. west of the Mexican Hat formation and about 2 mi. north of Goodridge. A few foundations immediately west of Utah Highway 47 mark the location of the old Mexican Hat site, the name of which has replaced that of Goodridge.

A steel bridge built across the San Juan River at Goodridge about 1908 greatly facilitated travel between points north and south of the river. It was washed out in the heavy runoff of 1911 but was subsequently replaced. By the time of the oil boom in the 1920's there had developed a considerable tourist business in the canyon country (Crampton, 1959, 74-89). In the

1930's Mexican Hat became the base of operations for Norman Nevills, who began to conduct river running trips through the San Juan Canyon, a successful business that he carried on until his death in 1949. The "Nevills Expeditions," 1936-1949, did much to advertise the recreational possibilities of the entire canyon country. Norman Nevills came into the Mexican Hat area with his father, who was interested in the oil possibilities of the region.

Below the highway bridge at Mexican Hat the San Juan River plunges into a deep canyon where it remains closely confined between cliffs for over 50 mi. Cass Hite in 1893 referred to this part as Forty-five Mile Canyon. It has also been known as Fossil Canyon (Mendenhall, 1929).

#### Historical site 202: Mendenhall Loop

This is an entrenched meander of the San Juan River extending from mile 109.1 to mile 111.2. In the neck of the Loop there is a low flat saddle about 60 ft. above the river on which is located the Mendenhall Cabin (Fig. 5). This is a one-room structure, 12 by 18 ft., built of stone with a dirt roof. When the site was visited in May 1962, the roof was beginning to cave in. About 50 ft. northeast of this cabin were the remains of two dug-outs, probably used as bases for tents, and 100 ft. northeast of the cabin were the remains of another structure, including a fireplace and a 1-ft. high wall, probably also a tent house. In the main cabin a newspaper fragment bearing the date November 23, 1914, was found; papers dated in 1939 were also seen. Cartridge shells, dry cell batteries, and odds and ends of broken furniture were scattered about. The initials J A, M N, and R S, were carved over the single door of the cabin.

The cabin was probably built by and named after Walter E. Mendenhall, who came from Colorado in 1893 to join in the San Juan gold rush. He first placered in the canyon above Mexican Hat and then went below Mexican Hat in the vicinity of Mendenhall Loop. From mining records on file in the San Juan County Recorder's Office at Monticello, it appears that W. E. Mendenhall, F. W. Mendenhall, F. R. Mendenhall, and Joe Mulnix located the "Round Knob" placer near the first "Saddle Horn" about 2 mi. below the mouth of Gypsum Creek (San Juan County, Mining Claims, A, 315). In January 1894 W. E. Mendenhall and others located another claim below this point at the second "Saddle Horn" (probably The Tabernacle). In a mining notice made in 1900 (San Juan County, C, 314-15), the loop area is called "Upper Gooseneck Bend" and the cove is called the "Gold Knob."

Supplies were brought in by boat, but mainly by a horse trail, called the Mendenhall Trail, that was built on the right bank ledges. The head of the trail is on the canyon rim about 2 mi. below the bridge at Mexican Hat. Remains of the route may be seen along the river for 1/2 mi. on the right bank

(mile 111.2-mile 111.7). The date that the cabin was built has not been ascertained. Mendenhall actively prospected the length of the San Juan Canyon as well as Glen Canyon. He recounted these experiences in his testimony in the River Bed Case (1929).

Across the river from the Mendenhall Cabin, at mile 111.05, the remains of a rock wall cabin, about 20 ft. above the river, were noted. The structure was built against a ledge of rock, which served as one of the walls. The inside dimensions were 10 by 12 ft. Poles, which probably supported a dirt roof, had fallen in. The remains of two trunks, bits of furniture, an old transmission, and litter, were seen about the site, which had probably been occupied last during the depression years of the 1930's.

At mile 111, on the left bank below this cabin, two sluice boxes and odds and ends of dimension lumber were seen as we passed in the boat. Below this about 50 yds. a broken windlass was seen. There was a revival of gold mining in the canyon country during the depression years, and this location may have been worked at that time. The route of access into the site was not determined but it was probably by boat across the river from the base of the Mendenhall Trail.

#### Historical site 203: Goosenecks of the San Juan River

Justly celebrated as among the finest examples of entrenched meandering in the United States the Goosenecks of the San Juan consist of a narrow winding canyon over 1000 ft. deep (Fig. 6). The river flows 5 mi. (mile 98.6-mile 103.7) to cover a straight-line distance of a little over 1 mi. An overlook on the rim (opposite the longest gooseneck, between mile 99.85 and mile 100) now being developed by Utah as a state park, is easily reached by road from Mexican Hat and Utah State Highway 261. Although this is the most noted meander, the entire canyon of the San Juan from its head at mile 132.5 to the mouth of Johns Canyon, at mile 82.4, a distance of 50 mi., follows a serpentine course with many spectacular bends. Good examples are the Mendenhall Loop (above) and The Tabernacle (mile 107-mile 108.3).

There was a considerable amount of oil prospecting in the area around the turn of the century. Miser (1924, map) notes an oil seep on the right bank at about mile 99.

#### Historical site 204: Honaker Trail

On the right bank of the San Juan River, mile 96.7-mile 97, there is a large gravel deposit known as Honaker Bar. This and other deposits in the vicinity in the San Juan Canyon were the subject of gold placer locations made

during the San Juan gold rush in 1892 and later. Among the locations in this section of the canyon were A. C. Honaker, Jim Honaker, Robert Honaker, H. C. Honaker, and H. A. Honaker (San Juan County, Mining Claims, A, 53-60) who, with others, staked a number of claims in December 1892 and January 1893. In some claims filed in 1894 (San Juan County, Mining Claims, A, 371; B, 37) there is reference to "Honaker's Trading Post"; in the latter source (p. 43) there is reference to the "Honaker Trail." This trail is also mentioned in a petroleum placer claim March 2, 1901 (San Juan County, Mining Claims, C, 403).

The trail built by the Honakers is the second point below Mexican Hat at which it was reasonably easy to descend into the San Juan Canyon. From the canyon rim, by road about 8 mi. west of Mexican Hat, a zigzag trail suitable for stock, but very narrow in places, was built down to the river 1200 ft. below. Miser (1924, 28) states that the only horse ever to attempt the descent fell off from a steep part known as "The Horn." The head of the trail at the rim is marked by a pole held by rocks. Going down past the second bend there are two names: J. P. L., and Karl Koch.

The Honaker Trail reaches the San Juan River at the foot of Honaker Bar (mile 96.7). Much work went into its construction, especially near the base where sections were built up with loose rock and other places were picked out of the sandstone (Fig. 7). In 1959 a ladder about 25 ft. long was noted standing against the ledges at the head of the bar at mile 96.9, but it had disappeared by 1962. The ladder probably was a short cut to the stock trail that zigzags up the cliff over Honaker Bar.

If not used much by stock the Honaker Trail provided access by foot to a section of the San Juan Canyon that was prospected extensively for gold and, at the turn of the century, for petroleum. There was, apparently, far more prospecting than actual mining; a detailed examination of the canyon between Mendenhall Loop and for some distance below Honaker reveals very little physical evidence of mining. On the extensive gravel deposit on Honaker Bar only one shallow prospect hole was seen. At mile 96.75 against the base of the ledges there are the remains of a camp consisting of two tent house bases. Litter and pipes, probably used as stringers to support the tent, were noted.

#### Historical site 205

At mile 88.5 on the left bank (under an overhanging ledge) there are the remains of a campsite, probably left by prospectors. Low foundation walls and a piece of sheet metal were seen in a brief visit.

### Historical site 220

At mile 82.7 a short side canyon opens out on the San Juan River on the left side. William Y. Adams, director of the Glen Canyon Project, Museum of Northern Arizona in 1959, reported that immediately downstream from the mouth of this canyon an archeological site was found. On an upright slab the name "Wetherill" was found, together with a very crude caricature drawing of a man or possibly a bear. Investigation by Adams revealed that there is a Navajo trail descending to the San Juan down this canyon, presumably from the top of Douglas Mesa. A Navajo stick ladder was found in place in the canyon at the foot of the trail.

### Historical site 206: Johns Canyon

Johns Canyon enters the San Juan River from the right at mile 82.5. It heads on Cedar Mesa north of the river and soon drops into a steep-walled canyon. During the oil boom around the turn of the century a road was built from Mexican Hat around the base of Cedar Mesa to Johns Canyon where, according to Goodman (1910), E. L. Goodridge, with financial backing of A. C. Ellis, of Salt Lake City, drilled his first well in 1901. Goodman states that Goodridge was attracted to the location when he floated down the San Juan River on a prospecting trip about 1883; at that time he discovered some oil seeps near the mouth of Johns Canyon. Although at least one early oil well was drilled in Johns Canyon (some distance back from the river: see Miser, 1924, 1925), there are no known oil seeps near the mouth of the canyon. Goodman was probably confusing Johns Canyon with Slickhorn Gulch, which comes in on the right 8 mi. downstream.

### Historical site 207: Government Rapid

This is a short sharp rapid at mile 77.6 caused by big sandstone blocks near the right bank. Hugh D. Miser, author of important technical papers on the San Juan Canyon (1924, 1925) and Staff Geologist, U. S. Geological Survey at Washington, D. C., told me on November 5, 1963, that the name came from the rumor that a government boat was wrecked there. Miser was probably referring to the U. S. Geological Survey party of 1921, of which he was a member, that mapped in the canyon in cooperation with the Southern California Edison Company of Los Angeles. No boats were lost there, he said.

## Historical site 208: Slickhorn Gulch

Also called Slickhorn Canyon, this watercourse empties into the San Juan River from the right side at mile 74.7. The stream heads on the Grand Gulch Plateau and flows through a deep canyon through most of its course. Numbers of oil seeps are found along the right bank of the San Juan River for over a mile above the mouth of Slickhorn; the flow is large enough that the smell of petroleum can be detected from boats floating the river. Miser (1924, 21) describes the seeps here as the largest in the San Juan Canyon. It was probably these seeps that caught the attention of E. L. Goodridge when he traveled the river about 1883, and it was undoubtedly Slickhorn Gulch, rather than Johns Canyon (see HS 206 above), that was the site of his oil drilling operations in 1901.

The road built to Johns Canyon was extended around to Slickhorn and brought down over the very steep slopes at the mouth of the gulch. Machinery was hauled in over this road, and two wells were drilled at the mouth of the gulch about 10 ft. above the high water mark of the San Juan River; one is located downstream from the mouth about 100 yds.; the other is located a few feet above at the base of a ledge. Casings are in place in both locations. At the latter location there are odds and ends of machinery about, and on the ledge overlooking the well the name "Ellis" (Fig. 8) has been inscribed. Goodman (1910) states that Goodridge had the backing of A. C. Ellis, and the name here would indicate this as the possible location of the first Goodridge enterprise. Goodman says that oil was found at 210 ft. but not in paying quantities and the project was abandoned.

On the road about 75 ft. above the river level there are the remains of a wagon still loaded with a bull-wheel (Fig. 8) of the type used in oil drilling rigs around the turn of the century. In the bottom of the gulch below the wagon there is a heavy steam boiler that (so the story goes as told by rivermen [Miser, 1924, 28]) fell off the wagon when a wheel broke or when a portion of the road gave way. This would indeed have been a heartbreaker and may have helped to cause the abandonment of the operation noted above (if the incident occurred during the Goodridge enterprise).

During the uranium rush of the 1950's the mouth of Slickhorn Gulch was the scene of considerable activity. At a level about 100 ft. above the river and on the upstream side of the gulch two wells (probably drilled to test strata for uranium) were drilled. The name "Don Danvers" appears on the two casings. The names "Keely 52" and "Danvers" are also inscribed on the ledge near the Ellis name described above. There were odds and ends of machinery about the site, and a shack was perched on the edge of the rim overlooking the San Juan River. The old road had been improved to bring modern drilling machinery into the site. A local informant reported to me in 1962 that since uranium prospecting has ceased, the road between Johns Canyon and Slickhorn Gulch has washed out.

Thirty-nine river miles below Mexican Hat the sandy beach along the San Juan River below the mouth of Slickhorn Gulch was a favorite camping place for river runners. On the protected ledges on the lower side of the mouth of the gulch there are several registers, constituting an important history of the trips made by Norman Nevills, 1934-1946 (Fig. 9). The names were recorded and are given below. Not all names could be deciphered and there may be some mistakes in spelling.

Trip #1 March 1934 to Copper Canyon San Juan Expedition 3rd June 1941

Doris Nevills  
Norm Nevills  
Nana Frost  
Jack Frost

Norman Nevills  
Gene Brickerstaff  
Charles Hottes  
Ross Montgomery  
Elvina Montgomery  
Ernest Geo ---

Boat: San Juan Canyon

40 mile Run 1 day from Mexican Hat

River Expedition June 1940

Norman Nevills  
John Galley  
Margaret Galley  
Joseph Borden  
Marion Borden

Boats used: Rainbow Trail  
San Juan

July 2 1941 Slickhorn Gulch Mile 73  
San Juan River

Trip 7 May 1 1941

Anna Mae Laflin  
Lloyd A. Laflin  
Norman Nevills  
Frank H. Carson  
Pres Walker  
Alicel Bates  
Fred Havenstein  
Ross Sellars  
Paul Anthony  
Mary Suter  
Frank Suter  
Orvalin Cassity

Herbert E. Bolton  
F. C. Hottes  
Jesse L. Nusbaum  
Del Reed  
Norman D. Nevills

Trip No. 12 Sept 1<sup>st</sup> 1941

Norman Nevills  
France Q. Wilson  
Ellen B. Wilson

Abiline Kansas  
Gage 5 Feet 9 1/2 Hour Run  
[Boat:] Rainbow Trail

[Boats:] Mystery Canyon  
Music Temple  
Hidden Passage

Trip #5 Sept 18 1941

Norman Nevills  
Frank E. O'Brien  
Lucius L. Moore  
Preston Walker  
Don Harper  
Harry Aleson

Boats: Rainbow Trail  
San Juan

Dec. 11, 1941 Noon of 3rd. Day

Preston Walker  
Norman D. Nevills

May 10 1942 6 1/2 hours

June Chamberlain  
B. D. Hodson  
Neil C. Wilson  
Francis Farquhar  
Preston Walker  
Norman Nevills

Boats: Rainbow Trail  
Hidden Passage

May 20th 1942

Gaynel MacMeekin  
Cyril MacMeekin  
Virginia Kass  
Norman Nevills

Boat: Hidden Passage

June 1, 1942 5 1/2 hours New Record

Norman Nevills  
Preston Walker  
Janice Fulmer  
Moulton Fulmer

[Boat:] Hidden Passage

Trip 19 June 10 1942

5 hour from Mexican Hat

May 26, 1944 Life Magazine

Dimitri Kessel  
Norman Nevills

[Boat:] Hidden Passage

June 1944 River Expedition

Norman Nevills  
Wayne McConkie  
Otis Marston  
Maradel Marston  
Loel Marston  
Luke Elkington  
Fred Herz  
Walker Herz  
Ted Phillips  
Joan Nevills

3 boats



Nevills Movietone Expedition  
June 4 1945

-----

Edmund Reed

-----

Jack Hune

----- Fulmer

Ray -----

Norman Nevills

Wayne McConkie

[ Boats:] Music Temple  
Hidden Passage

June 17, 1945

Norman Nevills  
Alfred & Pat Bailey  
Fred Bandenburg  
Frank -----  
Francis -----  
Weldon Heald  
Randall Henderson  
Father Liebler  
Don -----  
McConkie

1st. Trip '46

Kent Frost  
Pres Walker

1946 April 20

Valerie Segelhurst  
August Segelhurst  
Bob Cree  
Orval W. Cassity  
Wm. H. Cree

-----

-----

May 1946 1730

Norman Nevills  
Ray Howell  
Bob Ramstad  
Kent Frost  
Nan Manson  
Frank Manson

[ Boats:] Music Temple  
Hidden Passage

11 June 1946

Keith Spalding  
Rosalind Johnson 51  
Lois M. Fraser  
Robert G. Cleland  
C. Thomas Dudley  
John P. Buwalda  
Orval W. Cassity  
Pres Walker  
Norman Nevills

Trip 20 June 20 1946

Lucy Dee -----  
Arvin -----  
-----  
-----  
Norman Nevills  
Preston Walker

June 19, 1949 H. B. Expedition

Jack Brennan  
Willis Jonson  
Phyllis Marlow  
Howard "  
Howard " jr.

[ Boats: ] Hidden Passage  
Rainbow Trail

May 16 - 53

Dudy Thomas  
Dick Sprang  
Jack Turner  
Bill Kimball  
Harry Aleson

June 13<sup>th</sup> 1949 Geo Expedition

Charlie Rowan  
Bill "  
Arch "  
Charlie Allen  
John House  
" " Jr  
John Frost  
F. E. "  
Brig Brigance  
Britton Call

Additional names in register area

Robert Nichols Dec 7, 1937  
C. M. Conway  
Chas. F. Moore

Jan. 12, 1927 U. S. G L O

Historical site 209: Grand Gulch

Heading on the southern slopes of Elk Ridge, Grand Gulch is a narrow, tortuous canyon, that cuts through the Grand Gulch Plateau and enters the San Juan River at mile 71. The gulch is noted for its archeological wealth (see Pepper, 1902) and is inaccessible, even in its upper tributaries, except at a few places. There is usually a small flow of good water in the bed of Grand Gulch near its mouth. The water falls about 40 ft. where the stream drops into the San Juan River. Miser (1924, 72-3) reported that a stream flowing a few second feet was falling when he visited the place on August 8, 1921. During my visits on May 8, 1959 and June 24, 1962, the waterfall was dry.

At maximum level the San Juan arm of Lake Powell will head approximately at the mouth of Grand Gulch. The river level 1/2 mi. below the mouth is 3700 ft.

#### Historical site 210: Buckhorn Canyon

A stream named on neither the river map (1921) nor on the Clay Hills Quadrangle (U. S. G. S., 1954), entering the San Juan River on the left at mile 65.9, in Sec 29 T41S R15E SLBM, is named Buckhorn Canyon on the map in Miser's work (1924).

#### Historical site 211: Oljeto Wash

Oljeto Wash (also known as Oljato, Moonlight, and Moonwater Creek, or Wash), heads in Monument Valley and on the high Tyende and Hoskininni plateaus and flows south to enter the San Juan River at 65.4 on the left side. Throughout the lower 15 mi. of its course the wash is in the bottom of a canyon; it is approximately 600 ft. deep at its mouth, where a waterfall bars access to the canyon from the river. Cass Hite (1893) said that his party named the stream Moonlight Canyon in the fall of 1881, when they reached it by moonlight and found water.

#### Historical site 212

At mile 64.5 on the left side of the San Juan and at mile 64.4+ on the right the cliffs of the river canyon are notched back some distance and steep slopes covered with large talus blocks exist on either side. An examination was made of the right hand notch because of a report that there was a crossing--the Gabel Crossing--of the San Juan River in the vicinity. It was determined that a crossing could be made here on foot but it seems very unlikely that animals could be taken over the steep right hand slope. There was no sign of a trail. From the boat the left side notch seemed to be less steep. There would be no problem in fording the river at this point in low water. There is a gravel bar on the right side where the main channel was on June 24, 1962. Although the rim of the San Juan Canyon is low--about 500 ft.--at this place, and a crossing on foot seems feasible, there would seem to be little need or use for it since the easily accessible Clay Hill Crossing is only 7 mi. downstream.

#### Historical site 213: Clay Hill Crossing

For the person traveling on foot or horseback, or by wagon, the San Juan River was easily reached from the north and the south at Clay Hill Crossing, mile 57.7. Today the crossing area may be reached by dirt roads from Utah State Route 95 on the north and from Oljeto Trading Post on the south.

During low water the San Juan River may be forded in a number of places. The stream itself poses no serious barrier: the barrier is the steep-walled canyon through which the San Juan flows. Thus wherever the bank of the stream can be reached, it may be possible to ford, or to ford and swim a short distance. At the Clay Hill Crossing on the north bank, for a distance of over 1 mi., and on the south and east bank, for a distance of over 5 mi., the San Juan flows between open banks.

Clay Hill Crossing is located at mile 57.7: there was no precise location; the river could be forded at points a quarter of a mile on either side of this mile. Anyone attempting to cross would have to pick the best course over a constantly changing bottom. The deepest water was usually reported to be on the right side, but a gravelly bottom at the right bank made for easy approach or entrance. On the left side the crossing began at or near the head of a huge sand bar that is found at low water on the inside of the bend between mile 55.6 and mile 57.6. The most serious problem in fording was the soft sandy bottom of the river. The character of the bottom of the river constantly changes. In places the sand is firm, in others very soft. Someone in deep water to begin with can be let down by the soft sand far enough that he finds it necessary to swim. Quicksand, of the grip-and-hold variety, is found in quiet places along the banks and at the mouths of tributary streams.

The name comes from the Clay Hills, an eastward-facing escarpment, which from the San Juan River extends northward to White Canyon and is reached by roads only at two places: the head of Red Canyon, near which is located a "Red House," an old cattle camp (the escarpment of the Clay Hills is called Red House Cliffs); Clay Hills Pass, through which the Mormon colonizing expedition en route to Bluff built a road in 1880.

The crossing was probably used in prehistoric times, and it was used by the Indians in more recent times long before the advent of the white man. The "Navajo Ford" on the San Juan marked on the Egloffstein map of 1860 (Macomb, 1876) is in the approximate location of the crossing. Navajo Indians, during the course of their wars with the United States, 1846-1864, would have found this a good escape route to reach the country north of the river; also, it would have been a natural route for the Indians to take to reach the Colorado River via either Red Canyon or White Canyon and the Henry Mountains, which they are reported to have hunted from an early day.

The first extensive use of the Clay Hill Crossing by white men undoubtedly came with the San Juan gold rush, 1892-1893, and the 10 years to follow. On the north side, situated on a low bluff overlooking Clay Hill Crossing, there is a large monument of stones about 6 ft. high (Fig. 10). This is believed to be the location monument mentioned in a series of nearly 200 placer mining claims located in Island Mining District and the Gabel Mining District, October-December, 1892. On file in the Recorder's Office,

San Juan County is a volume entitled: Record of Locations, I, Gabel Mining District, which contains placer claim notices dated from October 14 to September 16, 1893. Those marked "Bonito" and "Lizzie," and some miscellaneous claims, are located with reference to "a monument of stone marked 37° 16' N. Lat. and 33° 56' W. Lon. from Washington." The same monument is also mentioned in assessment work notices on the same group of claims in 1896 (San Juan County, Mining Claims, B, 219-20). The actual location of this monument at approximately 37° 17' north latitude and 110° 24' west of Greenwich (33° 24' west of Washington) does not coincide with the description given in the location notices, which may have been in error in the first place. The existing monument, in a prominent place on an important crossing of the San Juan River is in the right place to suit the needs of a basic reference or witness point. When the monument was examined in 1962 there were no marks on it to indicate that it may have been the original stone marker.

The Gabel (not Gable) Mining District was organized on November 28, 1892; the district boundaries extended from the Utah-Arizona boundary to a point 50 mi. north of the San Juan River between 110° and 112° west longitude. On file in the Recorder's Office, San Juan County (Miscellaneous Record B, 176-88), the boundaries are a part of the lengthy rules and regulations drawn up by K. C. Henley, Lewis Minser, J. B. Williams, E. A. Sawyer, Karl A. Snyder, J. P. Williams, Irvin M. House, Franklin M. H. French, H. E. Nelson, D. F. Flickinger and P. I. Pins. It appears from the record (San Juan County, Miscellaneous Record B, 172-3) that the Island Mining District, covering much the same district as the Gabel Mining District, had been organized on November 19, 1892. The Gabel District was larger and literally surrounded the Island Mining District. The Rath map (1919) of San Juan County shows the location of the Island and Monumental mining districts but not the Gabel Mining District. In the Recorder's Office, San Juan County, at Monticello, there are two volumes of Miscellaneous Records of the Gabel Mining District, 1893-1894, containing statements made by the claims holders in Gabel Mining District that they intended to hold and work their claims. This was in response to a federal law of 1893 suspending for a time the required assessment work on mining claims, but the new law required that a statement of intent be filed. The first locations in the Island Mining District-- of which there were over 90--dating from November 1892, were filed in the Recorder's Office, San Juan County, on January 28, 1893 (Mining Claims, A, 88-193).

The organization of these mining districts covering the lower portion of the San Juan Canyon late in 1892 and the organization of the Gabel Mining Company (see Gold on the San Juan above) probably had much to do with the gold rush that developed before the year ended and continued into 1893. Inasmuch as most of the placer mining in the vicinity occurred on the south side of the river, the Clay Hill Crossing would have been used by those

coming into the districts from the north, notably from Dandy Crossing on the Colorado River. It is believed that this is the "Gabel Crossing" mentioned frequently in the literature of the gold rush rather than the more difficult crossing (HS 212) 7 mi. upstream (see Clason map of Utah, 1916). T. R. Gabel was one of the locators in the Gabel Mining District.

Once the gold rush was over tourist guides John Wetherill, operating from his trading post at Oljeto, and Zeke Johnson, operating from Natural Bridges National Monument and Blanding, both used the crossing frequently. Zeke Johnson (1929) said that he crossed there 20 times. During the uranium rush of the 1950's there was much prospecting in the vicinity, and a narrow dirt road was built from the crossing along the north side of the San Juan to reach prospects at the base of Mikes Mesa and vicinity, including the mouth of Mikes Canyon (see U. S. G. S. Clay Hills Quadrangle, 1954), called Clay Gulch on the River Map (1921).

The watercourse that enters the San Juan on the right side at mile 58.3 is at times called Clay Gulch in local usage. It heads in the Clay Hills 5 to 7 mi. north of its mouth, which is about .6 mi. above Clay Hill Crossing.

See Historical site 214: Rockhouse Gulch area; Historical site 219: Williams Bar.

#### Historical site 214: Rockhouse Gulch area

"So named from a stone hogan 1 1/4 mi. southeast of its mouth" (Miser, 1924, 73), Rockhouse Gulch enters the San Juan on the left at mile 53.7. Rockhouse Gulch crosses a gravel terrace, which is perhaps 1/2 mi. wide, extending from Clay Hill Crossing on the north to Piute Farms on the south, a distance of about 3 1/2 mi. This is a far more extensive gravel deposit than any found upstream as far as Chinle Wash. The gravel slopes form a steep bank of the San Juan from mile 54.3 to mile 55.5. At various points near the river within this distance there are prospect pits; at mile 55.4 there is a placer mining site at the edge of the river where the gravel has been notched 3 or 4 ft. deep. This area was blanketed by the claims in the Gabel Mining District and it was probably thoroughly prospected during the San Juan gold rush. However, no extensive diggings were seen.

Billie Williams Yost, of Flagstaff, Arizona, is the granddaughter of J. P. Williams, one of the organizers of the Gabel Mining District. She has published a book (1958) in which some of her grandfather's exploits as Indian trader and prospector are described. She mentions that Charley Cahn of Winslow, a backer of Williams in the San Juan enterprise, was elected president of "the company." The book also states (pp. 136-7) that a barge with a steam boiler on it was put into the operation in the placer mining activity

"in the early 1890's." A photograph (Pl. VI) shows the barge. From the background cliffs visible in the photo it can be determined with some certainty that the barge with the boiler being used to operate a pump was located on the left bank of the San Juan at about mile 56.5. The river was at low stage and the gravel bank, characteristic of the bank of the river in this section, is clearly evident. Pictured in the photograph are J. P. Williams, King Henley, another of the organizers of the Gabel Mining District, and Charley Baston. See Historical site 219: Williams Bar.

The name Recompense, applied to a placer mining locality, has been used by Wetherill (1929), and it appears here and there in San Juan mining literature, to describe a camp in the vicinity of Clay Hill Crossing. It probably was somewhere along the left bank between the crossing and Piute Farms. Otto J. Zahn (1929) identifies Recompense Camp with the Hoskaninni Camp, or the Cottonwoods, i. e., Piute Farms.

The name Nugget Creek, or Gulch, sometimes seen in the gold rush literature, apparently refers to a watercourse in this general vicinity. The Clason map (1916) definitely puts Nugget Creek in this locality. The other possibility in the vicinity would be Piute Farms Wash, but since this stream runs through a sandy wash, and would be thus a less likely place to find gold in quantity, to say nothing of nuggets, it should probably be ruled out. The testimony given by Walter Mendenhall (1929) would seem to favor the latter location for Nugget Creek. Coarse Gold Gulch is mentioned in a mining notice in the Gabel Mining District (Record of Locations, I, 223).

#### Historical site 215: Piute Farms

Piute Farms is the name given to an open area, much of which at times has been farmed by the Indians, extending along the left bank from mile 53.2 to the mouth of Piute Farms Wash at 54.3. Near the river the area is very sandy and, above the usual high water mark, is generally overgrown with willow brush, Russian olive, and cottonwoods. Back of this strip of brush and trees is a flat area ranging up to 1/2 mi. in width. The lower half of the area is backed up by the steep base of Monitor Mesa, but the upper, or eastern, half is at the mouth of the open valley formed by Piute Farms Wash, which heads on the Organ Rock anticline only a few miles to the south and east.

The Paiute Indians living along the lower course of the San Juan River have not been studied intensively. One of the earliest references in which their homeland is actually pinpointed is the Miera map drawn to illustrate the Domínguez-Escalante exploration of 1776 (Bolton, 1950). On this map the "Payuchis" are shown living along the southern bank of the San Juan

River (Rio Navajoó) between Navajo Mountain (El Cerro Azul) and the Chuska Mountains (Sierra de Chegui). Tyler (1951) has studied the Ute Indians and related tribes during and before the time of Domínguez and Escalante.

During the Navajo wars with the United States numbers of Navajos moved north to the San Juan River where they became neighbors of the Paiutes, and it is said that there was considerable intermixture between them. The Paiutes have tended to decrease in numbers as the Navajos have increased (see Kluckhohn and Leighton, 1958, 75; Van Valkenburgh, 1941, 115). The Navajo Chief Hoskininni, who befriended Cass Hite, about 1881-1883, was one who left the tribal homeland and moved to the San Juan, probably settling in the Piute Farms area. The Clason map of 1916 shows "Huskinni Camp" at the mouth of Nugget Creek. In 1929, Otto J. Zahn stated that a place called "Cottonwoods" on the map is also known as the "Hoskaninni Reservation," "Hoskaninni Indian Camp," and Recompense Camp. John Wetherill in 1906 saw the "Piute Corn Fields" at this locality; he mentioned in testimony given in 1929 that the farms were washed out in the unusually high water of 1911. Van Valkenburgh, in a work published in 1941, said the farms were then abandoned. The farms are about 20 mi. north of Oljeto, where Wetherill established a trading post in 1906. The present Oljeto Trading Post is about 1 mi. south of the site where Wetherill built the original establishment. Oljeto was on the main road from the south coming into the placer mining section of the San Juan Canyon between Clay Hill Crossing and Spencer Camp, and he enjoyed a few years of trade with river-bound customers at the tail end of the San Juan boom.

When the area was visited on June 25, 1962, no Indians were seen, but pickup trucks had been on the ground perhaps the day before, and a herd of sheep, horses, and a herdsman were seen from the river near Clay Hill Crossing 3 mi. away. It was estimated that about 100 to 150 acres of irrigated ground had been put under cultivation at one time but there were no annual crops being grown during the current season. A dozen peach trees and three or four apple trees, both estimated to be over 10 years old, were noted (Fig. 11). The western third of the farming area was somewhat sandier than the remainder.

Six hogans, scattered about along the south edge of the farming area, were counted; most of them were padlocked. One sweathouse and at least eight ramadas, some of them very large, were counted. Scattered about were litter and trash, and odds and ends, together with some farming and other equipment including a plow, a weed cutter, a scraper and a broken wagon (Fig. 12). There was a barbed wire corral, and most of this farming area was, or had been, fenced.

At one of the hogans a rather new Carter water pump was noted, together with some lengths of plastic pipe. Although there is probably subsoil



moisture sufficient to maintain deep-rooted plants, it appears that lighter crops, including alfalfa, had been put below the ditch. A trunk ditch extends from near the mouth of Piute Farms Wash west to a point almost 1 1/2 mi. below. The location seemed to indicate that the ditch might operate on a gravity basis during the high water in the San Juan in May and June; as the river receded pumping would be necessary to fill it with water. It is doubtful that Piute Farms Wash would ever carry any regular flow of water; its watershed is very small and the watercourse is undoubtedly dry most of the year. From the main ditch, which was designed to carry a goodly head of water (it was 3 ft. or more wide in places) there were lateral ditches to carry water to irrigated fields.

Van Valkenburgh (1941, 115) states that around 1914 there was extensive drilling for oil in the area. In the entire canyon area the San Juan River attains its greatest width in the Piute Farms area. At mile 54 the river spreads out over a bed well over 1/2 mi. in width. At low water sand bars appear, channels are shallow and it is often difficult to find enough water to float a boat of even shallow draft (see Crampton, 1959, Fig. 24).

#### Historical site 216: Whirlwind Mine

Located on a northern toe of Monitor Butte in the southern half of Sec 2 T41S R13E SLBLM, the Whirlwind Mine is a uranium operation. The mine entrance is located precisely on the sharp edge of the mesa 400 ft. above Piute Farms and overlooks the San Juan River, from whence it may be seen. According to Calvin Black of Blanding, Utah, the mine began operation in 1950 and was worked periodically until 1960. Containing vanadium, uranium and copper, the mine was actually discovered in the 1940's. The first ore was shipped in November 1950; thereafter about 30,000 tons were shipped before operations ceased. From the road between Oljeto and Piute Farms, a spur road was built to the top of Monitor Mesa, and thence to the precariously located mine.

#### Historical site 217

Along the left, and south, banks of the San Juan from the lower end of Piute Farms, mile 53.3, to a short gulch at mile 51.5, there is a well built wagon road. The route starts out from the level sandy area at Piute Farms and works its way through the heavy talus blocks fallen from the steep and extreme northern toe of Monitor Mesa. The route, easily discernible from the river, has been used by Navajo herdsman if not by wagons for some time. For about 1/2 mi. above mile 51.5 the road was located 35 to 60 ft. above the river and was carefully built. Several sections were observed from the river, and shorings, built up with blocks of sandstone, were still

in place. The road, which switchbacks into the gulch at 51.5 and there ends, was probably built as a part of the assessment work required to hold a mining claim or claims. For example, King C. Henley for the Arizona and Utah Mining and Development Company, a corporation formed in New Mexico, filed an assessment notice December 28, 1896 (San Juan County, Mining Claims, B, 219-20), that work had been performed in building a dam, roads and other improvements. The company was then owner of the group of 120 "Bonito" placer claims located in the Gabel Mining District, and these were believed to blanket this section of the San Juan. A road between Piute Farms and the active placer mining areas on the left bank 5 mi. below would have been a desirable facility. It apparently was never completed. Miser (1924, 29) notes a narrow foot trail between Piute Farms and the mouth of Copper Canyon, a distance of about 5 mi., but remarks that it was impassable to pack animals in 1921.

#### Historical site 218: Clay Gulch

Clay Gulch, named Mikes Canyon on U.S.G.S. Clay Hills Quadrangle (1954) drains much of the Clay Hills and enters the San Juan on the right at mile 50.4. There has been some uranium prospecting on the ledges above the mouth. In 1959, William Y. Adams of the Glen Canyon Project, Museum of Northern Arizona, reported that he had seen a recently constructed Navajo hogan and sweathouse located on the upstream side of the mouth of the gulch. Miser (1924, 25) noted "fragments of pottery of several designs. . . on the surface near the mouth of Clay Gulch." A watercourse emptying into the San Juan on the left .6 mi. above Clay Hill Crossing has also been called Clay Gulch (see Historical sites 213, 219).

#### Historical site 219: Williams Bar

Between mile 47.5 and mile 49.5 on the left bank there is one of the most extensive gravel terraces in the San Juan Canyon. The canyon itself is wide, and the terraces extend back from the river's edge perhaps a quarter of a mile in the vicinity of mile 48.5. At the water's edge in the vicinity of mile 48.5, the San Juan has cut into the gravel terrace to form a steep bank 15 to 18 ft. high.

Such an extensive deposit of gravel, where one might naturally expect to find placer gold, was one of the major mining locations during the San Juan gold rush that began in 1892. It has not been determined who made the first placer locations in this vicinity; it was blanketed by claims filed in the Gabel Mining District and possibly also by those in the Island Mining District. However, because exact geographical locations are seldom given in the mining claim notices, it is difficult in most cases to locate any given claim precisely.

The site seems to be identified prominently with the name of J. P. Williams, one of the organizers of the Gabel Mining District (see Historical site 213: Clay Hill Crossing; Historical site 214: Rockhouse Gulch area). Williams in 1884 and 1885 had prospected the Navajo Mountain area looking for the Merrick-Mitchell mine, during which time his party is reported to have seen Rainbow Bridge. In 1890 he was on the San Juan River (Yost, 1958, chs. 14-15).

In 1892, J. P. Williams was carrying on trade with the Navajo Indians, presumably at a location on the San Juan River. On file in the Recorder's Office, San Juan County, Utah, is the original day book kept by J. P. Williams, reflecting entries of transactions with Indians and whites from April 22, 1892 to November 28, 1893. The same volume also contains (and this is why it was forwarded to the recorder's office) the records of the Williams Mining District, December 23, 1895 to July 1, 1896. The name Williams, a Navajo trader, is identified with the beginnings of the San Juan gold rush (see introduction and summary of this work and the Salt Lake Tribune, December 22, 1892).

According to these records the district was organized at Williamsburg on the San Juan River on December 23, 1895. Metes and bounds were set out: Commencing at the mouth of Moonlight (Oljeto) Canyon and running south to the Utah-Arizona line, thence to the 11th meridian, thence to a point 5 mi. north of the San Juan River, thence easterly to a point on Clay Wash 5 mi. north of the place of beginning, thence south to the place of beginning. Thus, this new mining district overlapped the bounds of two previous ones in the same general area--Island and Gabel mining districts, but mining along the San Juan had probably declined so much after the boom of 1892 and 1893 that they had ceased to exist as functioning organizations.

In addition to the boundaries the regulations specified that one-half of the assessment work was to be done within six months after location; in figuring the value of assessment work, the removal of 1 cu. yd. of sand or gravel was to cost \$1, and the operation of machinery and other improvements was to cost \$4 per day; all claims were to be recorded within 60 days of location; all official acts of the recorder, who was to keep all records subject to public inspection, were to be legally binding for 60 days; in cases of dispute, each party was to choose a referee and the recorder was to act as referee for the district, his decision to be final and binding; the recorder's term was to be two years, and when the recorder was absent for over 10 days any five miners might issue a call to amend the bylaws and to select a new recorder. R. W. Bastian was elected the first recorder. Those who attended the organizational meeting and signed the regulations were: Hamilton W. Gray; W. N. Staley, Jos. Ashlock, Robert W. Bastian, Ben Williams, Dionisio Florez, Francisco Serrano (by mark), Franklin French, J. N. \_\_\_\_\_?; W. N. Clarke, Henry W. Staley, S. Smith, S. Bird, F. Slattery, J. P. Williams, J. G. Mills, John K. \_\_\_\_\_?, John Corbett, Thos. Clark, C. O. Grimes, James Bolton.

The first claim recorded in the Williams Mining District was the "Plum Bob," located on January 1, 1896 and filed the next day. The location was given as 100 yds. northwest of the steam engine, now "Williamsburg," (Williams Mining District, 89); in another place (p. 107) mention is made of the "Williams Pumping Station." Zeke Johnson in testimony given in the Supreme Court case, U.S. vs. Utah (1929) stated that he knew one "Cap Williams" who owned a boat with an engine and boiler on it weighing 8000 to 10,000 pounds, this at Williams Bar, 1 mi. above the mouth of Copper Canyon. This is probably the barge and pumping outfit pictured as Pl. VI in the Yost book (1958) (see Historical site 214), which could easily have been floated down to Williams Bar from the Piute Farms area since the river is placid between those points.

At mile 47.75, 1 mi. above the mouth of Copper Canyon, in a watercourse about 300 yds. from the San Juan, are the remains of a stone cabin believed to have been the location of Williamsburg (Fig. 13) (see also Crampton, 1959, Fig. 26). The structure was built against the low wall of the gulch. About 7 1/2 ft. high, this served as one side and also as the support for roof timbers that sloped down to the opposite wall, which was about 6 ft. high. Inside dimensions of the cabin were 12 by 18 ft.; a fireplace was located on the northwest wall; the single doorway faces southeast and upstream. Every piece of dimension lumber that might have been used as roof support, door, etc., has been removed, probably by Navajo Indians. A ledge, 2 to 3 ft. high across the bottom of the watercourse, has been walled up to make part of a corral--probably built by Navajos as an enclosure for sheep. The walls of the gulch could have formed the remainder of the corral walls since the gulch narrows below the cabin and was probably once closed with a rock wall.

An investigation was made along the banks of the San Juan in the vicinity of the rock cabin for some remains reminiscent of the "Williams Pumping Station" but nothing was found.

At mile 48.1, about 50 ft. from the banks of the San Juan, there are remains of a one-room rock wall cabin 18 by 20 ft. The remaining walls, which are now less than 3 ft. high, may originally have been a base for a tent rather than walls of a conventional house with a permanent roof. Less than 1/2 mi. upstream from the rock house described above, this structure may be regarded as a "suburb" of Williamsburg. No other remains of buildings were found in the vicinity. According to Albert H. Jones (1960), Charles H. Spencer, sometime before 1908, erected a small stone cabin known as "Red Rock Cabin" (the foundation blocks are of orange-red sandstone hauled in from a distance), probably identical with these remains. Spencer carried on mining operations in the vicinity; near the cabin a boiler and pump were installed as a test plant (see Historical site 232: Spencer Camp). The Clason map of 1916 places "Red Rock Camp" in this locality.

Although numbers of prospect pits were seen in the extensive gravels of Williams Bar, here, as elsewhere in the San Juan Canyon, there was little indication of heavy mining operations. Placering would probably have been carried on close to the banks of the river, and successive floods could easily have obliterated all trace of these operations. At mile 49.2, at the river bank, there was an open cut in the terrace, perhaps 10 or 12 ft. deep, where many cubic yards of gravel had been removed. This may have been one of the main placer locations. At a point about 200 yds. from the river, opposite mile 49.1, there was an extensive prospect about 40 ft. long in a gravel terrace. At this place, what was probably a track-bed had been built for some distance from the prospect toward the river.

By 1898, the Williams Mining District apparently was no longer a functioning organization, for mining claims filed in that year refer to locations in "what was formerly the Williams Mining District" (San Juan County, Mining Claims, B, 356; C, 135).

#### Historical site 221: Castle Creek Crossing

W. L. Rusho, Bureau of Reclamation, Salt Lake City, has in his possession a photograph taken in 1907 showing a pack string crossing the San Juan at Castle Creek Crossing. The background features of the photograph make it possible to locate this crossing at approximately mile 47.7. This is less than 1 mi. above Castle Creek (Historical site 222), which enters the Colorado at mile 46.99. At the crossing place the river is easily approached from either bank.

#### Historical site 222: Castle Creek

Castle Creek heads on the western slopes of the Clay Hills in and about Clay Hills Pass and was named by members of the Mormon Hole-in-the-Rock expedition (1879-1880), who followed its upper course to reach the Pass, and discovered en route Castle Ruin, a prehistoric structure near Green Water Spring (Miller, 1959, ch. 7). Miser (1924, 33) calls this Spring Gulch. He walked up the gulch 4 1/2 mi. and states that a cattle trail, obliterated in some places by washouts, ascended the watercourse to the grassy valleys of the high country.

Castle Creek enters the San Juan at mile 46.99 through a notch cut 30 ft. deep through the rock. The mouth was choked with willows. Entrance to the creek bed is made from the sides some distance back from the river. The trail from Castle Creek Crossing of the San Juan (Historical site 221), less than 1 mi. upstream, probably crosses the low ledges bordering the

river some distance back from the bank. Otto J. Zahn (1929) stated that a trail extends downstream from Castle Gulch on the right bank as far as Nakai Canyon (Historical site 227).

Near the mouth of Castle Creek the Museum of Northern Arizona found extensive evidence of prehistoric agriculture (Adams and Adams, 1959, 16). Terraced farm plots adjacent to streambeds suggest that these areas were subject to irrigation.

#### Historical site 223: Copper Canyon

Copper Canyon heads in several narrow canyons on the western and northern slopes of Hoskininni Mesa. Beyond these canyons the creek flows through open country for a distance before passing through a notch separating Nakai and Monitor mesas. The creek enters the San Juan River on the left through a low canyon (walls are less than 100 ft. high) at mile 46.7 (Fig. 14).

The name undoubtedly derives from the discovery of copper deposits along the upper courses of Copper Canyon, at the base of Hoskinnini Mesa west of Oljeto. It is quite probably these deposits that gave rise to the legend of the lost Merrick-Mitchell mine that drew prospectors, including Cass Hite, into the vicinity about 1881 (see introductory part of this work). A series of claims, called the Pasch-lachee (Pish-la-ki, another name for the Merrick-Mitchell mine) was located near the head of Copper Canyon and in the Oljeto district in 1898 (San Juan County, Mining Claims, B, 367-9). Copper, together with uranium, is found in fossil channel structures in the sedimentary rock. There are 42 known channel outcrops of this type in the upper part of Copper Canyon (Reinhardt, 1952).

An investigation for a distance of 1/2 mi. above the mouth of Copper Canyon was made but there was no sign of mining activity. The bed of the wash at that time was dry. However, within this distance, lenses of copper-stained sediment, containing petrified wood and yellowish matter, were noted here and there in the walls on both sides of the canyon.

Apparently there was some mining in this vicinity--perhaps it was limited to the gravel terraces on top or adjacent to the level Shinarump bench that forms the walls of Copper Canyon at its mouth. In March 1898, W. N. Staley (who had been one of the organizers of the Williams Mining District) posted a notice on Williams Bar nearly opposite Pirites Canyon (this may be the very short steep canyon on the right bank at mile 49.8) which indicated that he expected to dam the river and convey water downstream about 3 mi. to the mouth of Copper Canyon for mining and farming purposes (San Juan County, Mining Claims, B, 358). The same source (pp. 355-7) reflects that Staley and others located three placer claims in the vicinity of

the mouth of Copper Canyon. Gregory (1917, 140) states that the Red Rock Mining and Exploring Company was doing assessment work at the mouth of Copper Canyon in 1910.

#### Historical site 224

Copper Canyon provides one of the main entryways into the San Juan Canyon from the south. Some time during the San Juan gold rush a road in, or paralleling, the watercourse was opened between Oljeto and the San Juan River, a distance of about 20 mi. About 4 mi. above the mouth of Copper Canyon the road leaves the wash and tops out on the east rim of Copper Canyon, which it follows nearly to the mouth, where it turns upstream to reach Williams Bar (Historical site 219). A considerable amount of construction was required where the road passed over the steep slopes just above the rim of Copper Canyon, and the remains of this construction are still to be seen. The road, which at one time would have provided the only access to Williams Bar for wheeled vehicles, is now used only as a stock trail (Adams, 1958).

#### Historical site 225: Road from Copper Canyon to Zahns Camp

One branch of the road down Copper Canyon from Oljeto goes to Williams Bar (see Historical site 224). Another followed the west rim of Copper Canyon and the open benches around the base of No Mans Mesa to Nakai Creek, which was reached about 1 mi. above the mouth. It continued on west to Zahns Camp (Historical site 228) on the San Juan River at mile 42. Adams (1958) reports that the road was very well built, without steep grades, and that many traces of it, including sections of built-up stone walls, may still be seen. Recently, it has been passable to pickup trucks and four-wheel-drive vehicles as far as Nakai Creek wash. See Historical site 226 below for original route.

#### Historical site 226

A branch of the road from Copper Canyon to Zahns Camp reaches the rim of the San Juan Canyon at mile 44.8 and descends downstream about .2 mi. to a saddle between a gravel-capped terrace and a steep Shinarump slope. The upper part of the road just below the rim is supported by a built-up wall. Below the saddle the road apparently continued to the edge of the San Juan, reaching it at mile 44.4. It is badly washed out and scarcely discernible. Otto J. Zahn told Adams (1959) that this was the original road to Zahns Camp, 2 mi. below the mouth of Nakai Canyon. From the base of the grade, the road continued along the left bank of the San Juan, fording the mouth of Nakai, and climbing out of the canyon by way of one of the small side canyons below

Nakai. This road was washed out by an early flood, and the Zahns built the alternate route that crosses Nakai Canyon about 1 mi. above its mouth (Historical site 225 above). From the point at which it leaves the rim at mile 44.8 no part of this route is passable to vehicles. No traces of a road beyond mile 44.4 were seen.

On the level bench at the top of this road, opposite mile 45.1, Adams (1958) reports a rectangular leveled area of earth surrounded by stone coping; this may have been a tent foundation. The site, he believes, is associated with the road, which passes right by it.

At mile 44.4 a recent bulldozed road reaches the river's edge. Apparently this was a water road to supply a uranium or oil prospect located about 100 ft. above the river. The prospect would have been reached from the road between Copper Canyon and Zahns Camp.

#### Historical site 227: Nakai Canyon

Nakai Canyon heads on the high plateaus astride the Utah-Arizona line and the stream flows due north to enter the San Juan River at mile 44. The long straight cliff of Piute Mesa contains it on the west; Nakai Mesa and No Mans Mesa confine it on the east. At the mouth the canyon walls appeared to be about 100 ft. high. The name is said to derive from the Navajo word for Mexican (see introduction to this work), although no concrete evidence has been found to indicate that Spanish or Mexicans visited the area. In a letter to the Salt Lake Tribune, January 12, 1893, this canyon is listed as being the next major one to enter the river downstream from Copper Canyon; Hite refers to it as Footes Canyon.

When the mouth of the canyon was visited on June 25, 1962, two Navajo girls were tending a small flock of sheep. At that time the creek bed was dry. An examination of the township plats that blanket the area between the San Juan River and the Utah-Arizona line east of 110° 45' west longitude reveals that there are a number of trails penetrating Nakai Canyon. These were undoubtedly developed by Navajo herdsman. An exception is the cross-canyon trail opened by John Wetherill. From Oljeto this route ran west crossing Nakai Mesa, Nakai Canyon, Piute Mesa, and Piute Canyon, to the northern slopes of Navajo Mountain. The Wetherill Trail crosses Nakai Canyon about 10 airline mi. south of the San Juan. The road between Copper Canyon and Zahns Camp crosses the bed of Nakai Canyon about 1 mi. above the mouth.

There was probably prospecting in the lower portion of Nakai Canyon during the San Juan gold rush. W. N. Staley, one of the organizers of the Williams Mining District, on August 20, 1899, as an agent for a number of others, located the "Knocki Cooni" Placer 1/2 mi. above "Knocki Cooni"



Canyon (San Juan County, Mining Claims, C, 267). This was probably in the vicinity of the road and prospect pit described in Historical site 226 above.

#### Historical site 228: Zahns Camp

Between mile 41.6 and mile 42.1 on the left side of the San Juan there is an extensive open area perhaps 1/4 mi. sq. capped with gravel in which there has been a considerable amount of placer mining activity; there is in fact more evidence of actual mining at this place than at any other location along the river. The site now bears the name Zahns Camp. The Zahn brothers of Los Angeles worked and developed the placer diggings here within the first decade of the 20th century.

The gold placer mining area is located on a bluff overlooking the San Juan River at mile 41.95 (Fig. 15). There is another smaller placer area, also at the river bank, downstream at mile 41.7. The upper locality consists of a broad and flat gravel-capped terrace that has been deeply trenched during placer operations. Back from the river's edge about 100 ft. and behind the trenches, is an area where much gravel has been moved and piled up. This was probably the area where the actual placering took place. Lengths of pipe, odd fittings, valves and pieces of machinery are to be seen at the site, and at the edge of the bluff is a large steam boiler. Two large intake pipes are exposed in the bank about 15 ft. below. Upstream a short distance, across a shallow gully, an area has been washed clean by hydraulicking. A small hydraulic nozzle was found and salvaged (see Fig. 15 for an overview of Zahns Camp; also Crampton, 1959, Figs. 30-33 for details of remains at this site).

The Zahns Camp area may have been one of the locations actively mined during the San Juan gold rush. Zeke Johnson (1929) identifies the place with Gable [Gabel] Camp, mentioned occasionally in the gold rush literature. T. R. Gabel was one of those who organized the Gabel Mining District in 1892. It is also identified with Atwood and Tallman's placer camp (Mendenhall, 1929). An entry in the Williams Mining District records (San Juan County, p. 123) reflects that G. P. Atwood, Frank Tallman, and Andrew J. Henniger on January 2, 1896 filed a notice of water right to take water from the San Juan River to use on claims on the right bank of the San Juan opposite "Camp Gabel," located on the south side of the river. Records on file in the Recorder's Office of San Juan County (Mining Record, D, 49-52) indicate that Tallman, Henniger, Atwood, Hoff and Ezekiel Johnson sold the "Tallman Claim," and other properties in this probable vicinity, to H. N. Zahn. In the same vicinity in April 1902, F. H. Lasher, acting for H. N. Zahn, and J. P. Baldwin, located a number of claims including the "Zahn," "Kathryn," "Baldwin," "Gregory," in the vicinity of the Atwood placers; these were in the immediate vicinity of Zahns Camp.

The mining operations of the Zahn family in the canyon of the San Juan River are well documented. Brothers Hector N. Zahn and Otto J. Zahn, in 1929, testified fully in the "River Bed Case" about their activities at Zahns Camp from 1902 until after World War I. In 1959 Otto J. Zahn, 87, was living in Los Angeles and in August of that year, with Mrs. Zahn, he accompanied Dr. and Mrs. William Y. Adams, Museum of Northern Arizona, to Zahns Camp in a four-wheel-drive pickup truck. The party drove to Nakai Creek and walked the 2 1/2 mi. to the camp. The log Adams (1959) kept of the trip contains much important information about the route into the canyon from Oljeto and the mining operations at Zahns Camp. At separate times in June 1961, W. L. Rusho, Bureau of Reclamation, Salt Lake City, and I interviewed Otto J. Zahn at his home in Los Angeles and he provided us both with much information.

At one time or another the five Zahn brothers--Oscar, Otto, Paul, Hector and Oswald--were interested, together with their mother, in the property at Zahns Camp, or at least visited it. Hector, who organized the Zahn and Baldwin Mining Company in 1902, later the Zahn Mining Company, and Otto were actively interested in the property, which Otto patented in 1931.

When the Zahns bought the property in 1902 the large boiler and other machinery were already installed, having been hauled in over the well constructed road between Oljeto and Zahns Camp (see Historical sites 225, 226); the Zahns, however, did haul some machinery, including sluice boxes, from Flagstaff, 200 mi. away, but they actually did very little mining; some equipment and supplies were rafted down from the Piute Farms area, according to Otto (1929). Some pipe was hauled to the north end of Piute Mesa, dumped over the cliffs and retrieved from below (Adams, 1959; see also Historical site 232: Spencer Camp). Otto told Adams (1959) that the huge steam boiler (Fig. 16) had been hauled in from Bluff by oxteam about 1895, reportedly by General Palmer of Colorado Springs.

When the Zahns bought this placer ground in 1902 there was a light house and a tool shed adjoining in the gulch, just below the upper placer, at mile 41.9. In the very high water runoff in 1911 the house and some equipment were buried in sand when the river rose and covered it. No trace of the building remains.

Water for mining, as elsewhere along the San Juan, was a problem. To obtain fuel to fire the boiler to produce steam for power, the Zahns stretched a cable across the river to catch draftwood but it soon broke. During low water in the summer of 1904 Otto stated (1929) that the Zahns built a dam across the channel of the San Juan and directed the entire flow of the river through a ditch 150 ft. long to the pump intake; they were able to pump the entire river up to their placer mines for a period of about 10 days. They could not operate, however, for any length of time because the sand in the river water cut the packing in the pumps.

Some of the Zahn brothers liked to leave their names inscribed on the rocks. In 1915 all five of the brothers drove a Franklin automobile from Los Angeles to the camp and in the gulch about .1 mi. from the San Juan they recorded the event with this inscription on a fallen block of sandstone: "Camp Angeleno. This Camp Was Reached By The 5 Zahn Bros. of Los Angeles, Cal. Sept 15, '15. In a Franklin Automobile, the First Car Here." On another rock 10 ft. from this one is: "O. C. Zahn Was Here 1916, 1910[?], 1915." Farther down the wash are the initials "L H." Below this a few feet and done in bold letters is "5 Zahn Boys of Los Angeles 1915." Below this on a smooth rock face is an inscribed panel (see Crampton, 1959, Fig. 33): "Hector N. Zahn, Los Angeles, California, U. S. A., 1902, 1903, 1915." And outside of the panel: "Also 1942." On the ledge under this are the initials "J V." Otto J. Zahn pointed out to Adams (1959) a number of inscriptions along the road to Zahns Camp at different places all the way from Marsh Pass, most of them left by Paul Zahn (see Historical site 229).

On the 1915 automobile trip the brothers wrecked the transmission of the Franklin on "Nakai Grade," a steep stretch on the east side of Nakai Canyon, and had to be pulled back part of the way to Oljeto by John Wetherill and two teams of horses. Curtis Zahn, a son of one of the brothers, wrote up the 1915 adventure with the Franklin "Camel" in 1946.

#### Historical site 229

Across the San Juan River from Zahns Camp, amid some huge fallen blocks at the base of a 60-ft. high ledge at mile 42.1, there is some scattered rubbish suggestive of a campsite. Nearby on a flat sandstone block has been chipped: L. PAUL ZAHN. The last name is in letters 14 in. high. The site can be reached by fording the river from Zahns Camp or probably by a trail reported to extend along the right bank between Castle Gulch and the mouth of Nakai Canyon (Otto Zahn, 1929).

#### Historical site 230

At mile 40.7 in a shallow alcove on the left side of the San Juan a rickety ladder was observed standing against a ledge. The ladder, seen in passing from the boat, was possibly 15 ft. high and was used to reach the very steep ledges above it. In his map of the San Juan Canyon Miser (1924) shows a trail running along the river below Zahns Camp and, at about mile 40.7, he indicates "ladders on the trail"; the route on his map then connects with the Spencer road (Historical site 231) between Nakai Canyon and Spencer Camp (Historical site 232). This, then, would have been a short cut foot trail between Zahns Camp and Spencer Camp, both prominent mining localities during the first decade of the 20th century and probably also during the preceding

five or six years. From the number of mining claims in the general area filed in the Recorder's Office of San Juan County in Monticello it is apparent that there was much gold prospecting during these years.

Historical site 231: Spencer Road

Near the point where the road from Copper Canyon to Zahns Camp crosses Nakai Canyon a wagon road branches off to Spencer Camp (Historical site 232) about 8 mi. away on the left bank of the San Juan River at mile 38.4. Taking a southwesterly course the route switchbacks up over a steep hogback 1000 ft. high and then, changing to a northwesterly course, follows the gently dipping reverse slope along the foot of Piute Mesa to Spencer Camp. It is a primitive road at best and never intended for use by motor driven vehicles. It continues in use by the Navajos as a stock trail. The route was built in 1909 by Charles H. Spencer who undertook mining operations at his camp on the San Juan River. For further details see Historical site 232: Spencer Camp.

Within 1/2 mi. of Spencer Camp there are a few petroglyphs and several names scratched and chipped on prominent rocks:

P. A. Mar 22 09 [ ? ]

Oct 3 09

Bill Charlie NOV 11 00 [ ? ]

H

S P

Historical site 232: Spencer Camp

Charles H. Spencer, who was living in Los Angeles in 1961, was a canyon country entrepreneur who undertook dramatically conceived mining operations on the San Juan River and at Lees Ferry on the Colorado (see Crampton, 1959, 1960, 94-7). A brother, A. H. Spencer, was interested in the oil boom at Mexican Hat. According to Albert H. Jones (1960), who was associated with Spencer Camp as assistant engineer, Spencer had become interested in gold mining along the San Juan about the turn of the century. For a time he operated at Williamsburg (Historical site 219) where he built

"Red Rock Cabin. " Near the cabin he operated a boiler and a pump, which he used as a testing plant. At this location he discovered that the Wingate sandstone carried low values of gold and silver. He interested some investors, mainly in Chicago, and prepared to erect a pilot plant to mill the Wingate at Spencer Camp, where there are immense deposits at the river's edge.

Jones (1960) relates that a pick and shovel force of Navajos and Paiutes was used to construct the road from Nakai Canyon (Historical site 231). Some of the grades on the 2 1/2-mi.-long road up over the 1000-ft.-high hogback ran up to 25%. The route was first roughed out to permit passage of light loads and then improved to admit wagons heavily loaded with machinery and other supplies hauled in by oxen teams from Mancos, Colorado (Fig. 17).

The place chosen for the mill was at mile 38.4 where the shattered Wingate "ore" was easily accessible. Spencer referred to the site as "Camp Ibox." The actual camp was upstream a short distance from the mill. Three rock-walled buildings were put up--two bunk houses and a cook house--and roofed over with tents. Spencer hired about a dozen men in the operation. The rock walls of these buildings are still standing (see Crampton, 1959, Figs. 28, 29). The mill consisted of a "Samson Crusher" built by the Macfarlane Manufacturing Company of Denver. A rotary screen and a shaking screen were installed to receive the crushed material; that passing through the screen was washed over amalgamating tables. The mill was powered by a large (flywheels = 66 in. in dia.) single-cylindered Otto gasoline engine, which still remains at the site. Fig. 18 shows this machinery in its present position. The Samson crusher is shown above the Otto engine. Fig. 19 shows part of the camp and the mill in March, 1910. In an interview, Charles H. Spencer told me that the engine had been purchased in Omaha and that it required five teams of oxen to haul it in to Camp Ibox.

Steam was also used apparently to pump water for the mill. Wood to fire the boiler was obtained from the San Juan as driftwood and from the top of Piute Mesa. Crews sent to the top of the mesa to cut pinyon and juniper dropped the logs off the edge of the cliff. The top of Piute Mesa today may be reached with a pickup truck by a road that branches off the route between Inscription House Trading Post and Navajo Mountain Trading Post. An examination was made of the probable area where the Spencer woodcutting operations might have occurred. Along the edge of the cliff in Sec 32 T41S R12E SLBLM numbers of large stumps were seen. The cliff of the mesa in the township is about 600 ft. high and nearly vertical. Logs dumped over the edge could be picked up by following a trail that leaves the Spencer road at the crest of the hogback. Spencer told me that J. P. Williams, whose name is prominently identified with gold mining operations in San Juan Canyon, built a trail from Piute Mesa to the Copper Canyon country. This might refer to a trail, shown on the plat of Township 42S R12E, that reaches the top of the mesa in Section

32. The Wetherill trail to Piute Mesa is about 7 mi. south of this point. Piute Mesa, between Nakai Canyon on the east and Piute Creek on the west, is straight walled and difficult of access from either side. It is possible to reach the top from the canyons on either side at very few places.

On a knoll (elevation 5888 ft.) on the edge of the rim of Piute Mesa in Sec 32 T41S R12E, near where Spencer cut trees for his steam boiler, the name "ZAHN" and a date that is very faint, but is probably "1902," has been chipped on a rock. This probably is near the place where the Zahns dropped pipe over the cliff to be picked up below and then hauled to Zahns Camp (Historical site 228).

According to A. H. Jones (1960) Spencer put his crushing and milling plant into operation twice, once in June 1909, and again in the winter of 1909-1910, but the enterprise was a failure. It is evident from the amount of sandstone excavated near the crusher that a generous sampling was taken but the assays showed that the experiment was of no commercial value. While engaging in this operation at Camp Ibex, W. H. Bradley, a Chicago engineer representing the interests backing Spencer, discovered that the Chinle formation underlying the Wingate carried better values in gold than the Wingate. Spencer abandoned Camp Ibex in the spring of 1910 and transferred operations to Lees Ferry where the Chinle shales are found close to the banks of the Colorado (see Crampton, 1959, 1960; Jones, 1960).

The crusher, the Otto engine, a few pieces of machinery covered by the San Juan at high water, and the rock walls of the three buildings are all that remain to mark the site of this interesting experiment in mining.

#### Historical site 233

In an open area near the bank of the San Juan at the mouth of a short watercourse at mile 38.1 on the right bank and at the water's edge, a Navajo sheep corral was noted May 11, 1959. From that point on down to about mile 36.4 evidences of sheep trails were seen from the boat.

In the Chinle beds back of the corral at mile 38.1 there was some evidence of recent prospecting, undoubtedly done during the uranium boom of the 1950's.

#### Historical site 234: Navajo Canyon

At mile 34.8 on the right side a canyon with walls about 100 ft. high opens out on the San Juan through a narrow slot. On the plat of Township 41S R11E (Section 3) this watercourse is called Navajo Canyon. At the

entrance to the canyon, on the downstream side, some foothold steps were observed from the boat in passing. J. Frank Wright of Blanding, Utah, who has examined the short terrace, at the mouth of this canyon, reported that there was evidence of horses having been in the area.

Navajo Canyon heads on the northern slopes of Nakai Dome. It is possible that the canyon might offer a route to the uplands but this has not been determined.

#### Historical site 235: Nevills Spring

On the right bank at mile 36.7 a stream of good water slides down over a precipitous rock surface in a shallow alcove. The spring has been named after river man Norman D. Nevills who, before his death in 1949, took many tourist parties through San Juan Canyon (see Historical site 208: Slickhorn Gulch).

#### Historical site 236: Alcove Canyon

Alcove Canyon enters the San Juan Canyon on the right side at mile 32.95. An unnamed canyon parallel to it enters the river upstream 1/2 mi. at mile 33.5. Both canyons box up less than 2 mi. from the river; both are accessible from a trail that reaches the river at mile 33.2. Directly from the beach at mile 33.2 the trail works its way up through a steep talus slope of sandstone blocks. At one point, about 30 or 40 ft. above the river, log shoring carries the trail across a slick rock area. The trail tops out on a bold promontory overlooking the San Juan and the mouth of Alcove Canyon (Fig. 20). At this contour one may follow the open ledges into Alcove Canyon for over a mile until it boxes up. It is possible to cross Alcove Canyon Creek about 1/2 mi. above its mouth and work around on ledges to the downstream entrance to the canyon, thence on the same ledges downstream in the San Juan Canyon to a great alcove opening out at mile 32.6.

In 1959, William Y. Adams reported that he had located traces of a trail ascending the talus slope at about mile 32.6 to reach the wide ledges at the mouth of this alcove. This was directly opposite a trail leading to a bar on the inside of the Big Bend (Historical site 237).

From the point where the trail tops out at the upstream side of the entrance of Alcove Canyon one may follow the ledges at this contour upstream about .4 mi. in San Juan Canyon to the mouth of an unnamed canyon opening at mile 33.5. Some trail work, including blasting, has been done along the ledges between the two canyons. This canyon is accessible on both sides

for nearly 2 mi. At its head there is a dry waterfall. At the upstream side of the mouth of the canyon the wall falls away sheer to the San Juan River.

The area represented by these two short canyons constitutes an enclosed grazing area that has been used in times past by the Navajo Indians. When the area was visited in May 1959, there was no evidence of recent grazing though sheep trails were clearly discernible. There was a notable stand of grass and there is water in both canyons. Apparently the only entrances are by the trails coming up from the San Juan at mile 33.2 and at 32.6. At low water the San Juan may be forded from the bar at the inside of the Big Bend (Historical site 237). At mile 33.45 on the right side, and just below the mouth of the unnamed canyon, there is an important archeological site (Museum of Northern Arizona No. 2681) located at the river bank and against a sheer cliff covered with petroglyphs.

#### Historical site 237: Big Bend of the San Juan River

From a point just below Zahns Camp (Historical site 228) to a point above the mouth of Neskahi Wash (Historical site 238) the San Juan makes a great bend 16 river mi. long. At the narrowest place the neck of the loop is less than 1 mi. wide, yet the distance by river is 9 mi. (mile 28 to mile 37). Among the first whites to see the bend were the Mormon colonizers en route to Bluff in 1880. After crossing the Colorado at Hole-in-the-Rock they ascended Grey Mesa and from the rim of the mesa 1300 ft. above the river they had a superb view of the canyon.

The name Big Bend is found in a gold placer location notice in the Island Mining District dated November 30, 1892 (San Juan County, Mining Claims, A, 123). The loop has commonly been called the "Great Bend" (Example: U.S.G.S. Lake Canyon Quadrangle, 1953).

The peninsula enclosed by the Big Bend is the northern projection of the elongated Piute Mesa. The top of the mesa is accessible to wheeled vehicles from points in Arizona to the south and has long been used by Navajos as a grazing ground. Numbers of Indians were seen when the mesa was traversed in July 1962. By routes from the mesa top, or possibly from the left bank of the river, Navajos have reached the narrow bar on the inside of the Big Bend between mile 32.3 and mile 33.2. At mile 32.7 on the left side is a stock trail of laid-up slabs of sandstone about 6 ft. high permitting access to the bar from the ledges above. William Y. Adams in 1959 climbed out on this trail a distance where he found a recently occupied Navajo camp and numerous stock trails. A well defined stock trail led southward and probably topped out on Piute Mesa.



### Historical site 238: Neskahi Wash

Neskahi Wash drains much of the top of Piute Mesa (see U.S. G.S. No Mans Mesa Quadrangle, 1953). It drops precipitously from the mesa about 5 mi. from the San Juan and flows through barren open country to enter the river on the left side at mile 24.5. The plat of Township 41S R11E SLBLM shows a hogan and a corral at the mouth of the wash in Section 26. Unquestionably the open area in the San Juan Canyon, which extends along the left side between mile 26.5 and the mouth of Piute Creek at mile 21, has long been a favorite grazing ground for Navajo Indians. From the boat stock trails may be seen along the left bank throughout this distance. Opposite the mouth of Neskahi Wash at approximately mile 25, an old Navajo told William Y. Adams, is a trail ascending the wall of the canyon in this vicinity which is so steep that even the Navajos are frightened of it. The route would lead to the uplands on Wilson Mesa.

### Historical site 239: Piute Creek

Occasionally in the literature of the San Juan gold rush the name East Canyon appears. Cass Hite, in a letter to the Salt Lake Tribune, January 12, 1893, identifies this as being the next major canyon below Footes Canyon (Nakai Canyon: Historical site 227) and describes it as draining "everything to the east of Navajo Mountain." This is a good description of the stream now called Piute Creek. It heads on high plateaus south in Arizona and interlocks with the heads of Navajo Creek. Flowing in a deep and narrow canyon in its upper course, Piute Creek literally drains the country to the east of Navajo Mountain. West Canyon Creek drains the country west of Navajo Mountain (see Crampton, 1960, 32, 66).

East Canyon is mentioned in a placer location notice in the Williams Mining District filed by J. B. Tanner on March 7, 1896 (San Juan County, Williams Mining District, 127-8); this was the "Last Chance" claim located about a mile below "East Cannon." However, in the same record (131-4) it is also noted that J. B. Tanner, W. R. Robbins, and Henry Despain located on June 8-10, 1896, four lode claims about 5 mi. from the San Juan River in Piute Canyon.

Whatever may have been the first name applied to this creek and canyon by the white men, it marked the practical lower limit of prospecting during the gold rush. Below Piute Creek there are practically no lateral gravel deposits to be seen until Glen Canyon is reached 20 mi. below. Upstream from the mouth of the creek for about 4 mi. there are numbers of gravel-capped knolls and hills extending back some distance from the San Juan. No evidence of actual mining was seen though these deposits were surely prospected during the gold rush.

#### Historical site 193: Cape Horn Bar

Cape Horn Bar is a narrow, gravel-capped terrace on the southeastern side of Cape Horn extending from mile 155.1 to mile 154.3. No indication of mining activity was seen on the bar.

#### Historical site 114: Monte Cristo Island

Also known as Island No. 1, this is a gravel island nearly 1/2 mi. long (mile 152-152.45). At the highest levels the island may be entirely covered with water but most of the time it is exposed. At low stages there may remain only a shallow channel between the island and the right bank; the main channel of the Colorado flows close to the left bank under the very shadow of the spectacular landmark known as Castle Butte. In the Records of the White Canyon Mining District it appears that the "Monte Cristo Placer Mine" was discovered by Cass Hite and others on April 2, 1887 (Garfield County, I, 23). The site was relocated thereafter a number of times; Stanton (Crampton and Smith, 1961, 25) mentions it in 1897.

Since the gold mining period all evidence of placering or other activity has been obliterated by successive flooding. A piece of heavy sheet metal was seen near the river's edge on the east side of the island at about mile 152.3.

#### Historical site 67: Monte Cristo Bar

Monte Cristo Bar consists of an extensive area of gravel-capped terraces and hills extending from about 152.5 to mile 151 on the right side of the river. An examination of the central portion of the bar revealed what appeared to be recent uranium prospecting at mile 151.6; this was about 1/4 mi. from the river and 35 to 40 ft. above it. Short sections of road were seen nearby. Hunt (1953, 221) reports small gold prospect pits in the area at 100 and 200 ft. levels above the Colorado.

#### Historical site 194: Red Canyon

#### Historical site 66: Castle Butte Bar

#### Historical site 65: Loper Cabin

Red Canyon, also called Redd Canyon, is a long tributary of the Colorado heading in the Red House Cliffs and draining the back of a westward dipping plateau that separates it from White Canyon. It enters the Colorado at mile 149.8. Throughout Red Canyon the vivid bare rock, red predominating, is

### Historical site 242: Desha Creek

Desha Creek heads on the northeastern slope of Navajo Mountain (Navajo Begay) and through a narrow canyon enters the San Juan on the left at mile 14.9. According to information developed by the Glen Canyon Project, Museum of Northern Arizona, the canyon is passable through practically its entire length and has been used by the Navajos as an access route between the highlands about the base of Navajo Mountain and the San Juan River. From the mouth of Desha Creek Navajo stock trails extend downstream to the mouth of Cha Canyon (Historical site 245) and beyond.

About 300 yds. downstream from the mouth of Desha Creek, William Y. Adams located a Navajo foot-trail ascending the south slope of San Juan Canyon. He found a small log ladder at the bottom, and above it a few prehistoric footholds. Above that the trail passes through a long talus slope to the rim of the canyon.

Syncline Rapid is the name given to a fast stretch of water at the mouth of Desha Creek. The San Juan is forced to the right side by boulders from the creek. The name probably comes from the "Rapid Syncline" which crosses the San Juan Canyon at this point as shown on the map in Miser's work (1924).

### Historical site 243: Wilson Creek

Wilson Creek heads on Wilson Mesa, a few miles north of the San Juan, and drops into a canyon opening out on the San Juan River on the right at mile 14. A perennial stream of water runs in the creek which, near the mouth, is choked with cottonwood trees and brush. Just above the mouth of the canyon a stock trail starts at the river's edge and ascends the irregular walls of Wilson Canyon in switchbacks and steep pitches to top out on a ledge about 400 ft. above the San Juan, commanding a fine downstream view of it (Fig. 22). The trail had obviously seen much use in the past but when it was visited in June 1962 it had not been traveled recently. It is said that the trail comes back into the watercourse of Wilson Creek and follows it to its head. For more details on this route see Historical site 244: Trail Canyon.

### Historical site 244: Trail Canyon

Trail Canyon heads on the northern slope of Navajo Mountain and opens out on the San Juan at mile 13.6. The name derives from a switchback stock trail that from the San Juan Canyon rim just below Trail Canyon descends over 1000 ft. to a small flat at the mouth of Trail Canyon. Mrs. Ralph Cameron and other informants at the Navajo Mountain Trading Post, at the eastern base of Navajo Mountain, stated that this is a well known trail and that it had been

improved during the 1930's as a government-sponsored relief project. The Navajos use it commonly to reach points along the San Juan between Desha (Historical site 242) and Cha (Historical site 245) creeks. It is possible to ford the San Juan over a hard bottom at approximately mile 14 and connect with the trail up Wilson Canyon (Historical site 243). By means of this cross canyon route Navajos used to reach the Hole-in-the-Rock trail on Wilson Mesa whence they traveled to the Colorado. They would cross the Colorado in a small boat to trade at the Cowles and Hall trading post or go on through the Hole-in-the-Rock to Escalante to trade (see Crampton, 1962, 1-15).

Miser (1924, 30) mentions this trail, and it is believed to be identical with the Cottonwood Crossing used by tourist parties guided by Zeke Johnson, who said in 1929 that he crossed there about 10 times. John Wetherill also used the route. On a prominent isolated talus block on the flat opposite mile 13.7, his name "J. Wetherill" has been incised. Other recent doodlings on the blocks, including a life-size horse and other pictures, probably done by Navajos, were also noted. A panel of petroglyphs depicting mountain sheep was found in this same area (Fig. 23).

As Lake Powell reservoir is formed these trails may be used by boating parties to reach the upland country on either side of San Juan Canyon. It is possible in a pickup truck or four-wheel-drive vehicle to drive to the head of the trail at Trail Canyon about 11 mi. north of Navajo Mountain Trading Post.

#### Historical site 245: Cha Canyon

Cha Canyon, also called Beaver Canyon (Cha is the Navajo word for Beaver), heads high on the northern slope of Navajo Mountain and enters the San Juan at the head of Thirteen-foot Rapids at mile 11.6. Cha Creek splits the near-precipitous walls of the San Juan Canyon, which stand 1000 ft. above the river (Fig. 24). The canyon of the river, however, is nearly 2 mi. wide in the vicinity, and there is an open area of low flat-topped terraces; downstream at the mouth of the creek there are a few acres of nearly flat land.

A trail along the left bank of the San Juan from Trail Canyon (Historical site 244) reaches Cha Creek and continues on some distance below. Miser (1924, 30) located a badly washed out trail leading up Cha Canyon. He found an abandoned Indian farm near the mouth of the creek and another just north of the forks of the canyon, about 2 mi. from the San Juan. When this site was visited in June 1962, three abandoned hogans (Fig. 25), a sweathouse and a corral were found on the flat below the mouth of the creek. The hogans appeared to have been used recently.

Important archeological investigations reported by Lindsay (1961) have been undertaken at this site by the Museum of Northern Arizona at Flagstaff. It appears from these studies that, about 1900, Paiute and Navajo Indians moved into the area where they carried on some farming. This was in an area where prehistoric Anasazis, over 800 years previous, had also farmed. The prehistoric people dug ditches, turned water out into terraces, irrigated crops, and built stone windbreaks. The prehistoric farmers worked the area for about a century but they had to give up when increasingly arid conditions dried up water supplies and cut arroyos in Cha, or Beaver, Creek, a condition doubtlessly mirrored elsewhere in the canyon country. Prehistoric windbreaks, terraces, and ditches, together with the remains of buildings, are to be seen at the site (Lindsay, 1961, illustration).

Thirteen-foot Rapids at the mouth of Cha Canyon is a sharp drop over a boulder-strewn bed. If the water is high enough it offers a thrilling ride; at lower levels, it is usually necessary to line boats down along the left side.

#### Historical site 246: Redbud Canyon

Redbud is a short canyon entering the San Juan River on the left at mile 8.2. It has a good flow of sweet water at its mouth and has long been a favorite water stop for river runners who gave it this name.

#### Historical site 247: Nasja Creek

Nasja Creek, named after a Paiute chief, heads high on the northern slope of Navajo Mountain and enters the San Juan on the left at mile 5.8. This is probably the Junction Canyon found on the map in Gregory's work (1917) and the name is still heard occasionally around Navajo Mountain.

J. Frank Wright, of Blanding, Utah, told me that a trail, beginning some distance below the mouth of Nasja Creek, was built up through the talus at the base of the cliffs on the left side. This tops out on a bench overlooking the mouth of Nasja Creek; it is then reportedly possible to follow the creek up to the place where it intersects with the main horse trail between Navajo Mountain Trading Post and Rainbow Bridge National Monument. This latter trail was the approximate route followed by the Cummings-Douglass party who discovered Rainbow Bridge in 1909. They were guided to the spot by Nasja-begay (son of Nasja) (see Crampton, 1959; 1960, 98-102).

Historical site 248: North Junction Point

In 1929 Charles L. Bernheimer carried out an extensive exploration of the country north of the San Juan River. During the days of June 6-9 the party explored the area south of the Hole-in-the-Rock trail along the rim of Glen Canyon to a point overlooking the mouth of the San Juan River. Bernheimer named the overlook "North Junction Point" (Morris, 1929).

The San Juan River enters the Colorado River in Glen Canyon 78 mi. above Lees Ferry.

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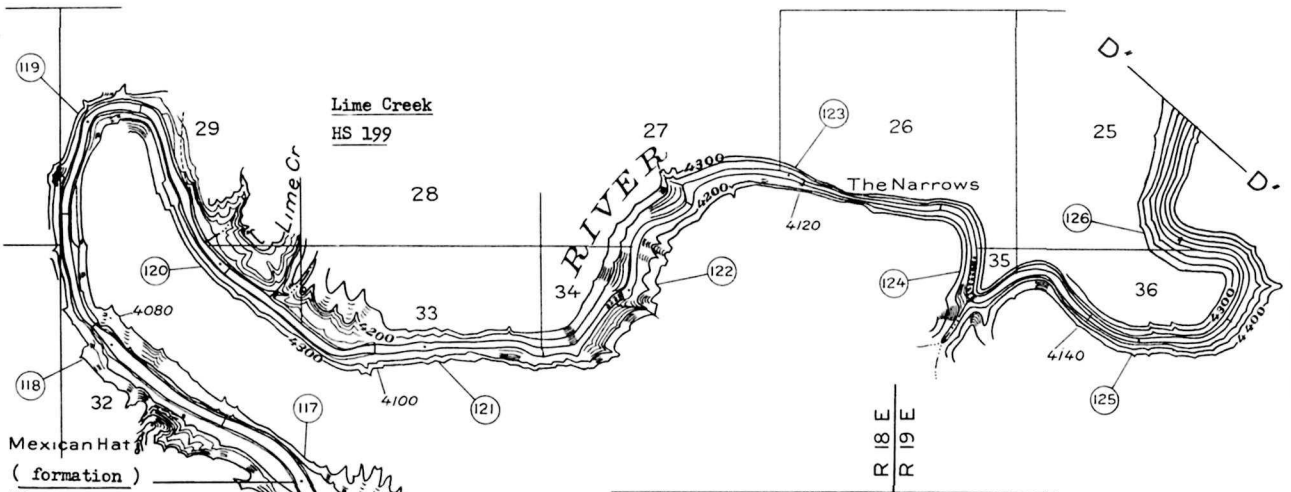
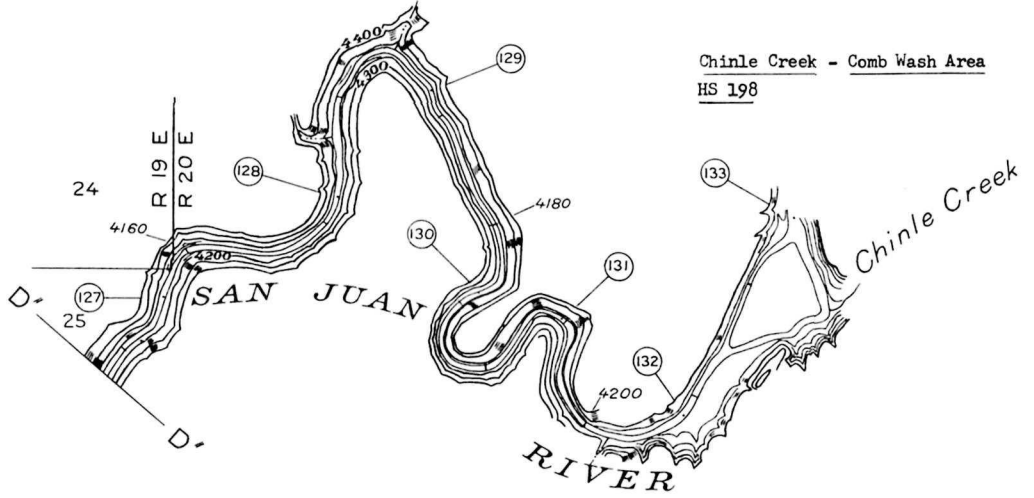
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THE SAN JUAN RIVER IN THE LAKE POWELL RESERVOIR  
AREA AND ENVIRONS

Sheets 1 to 8

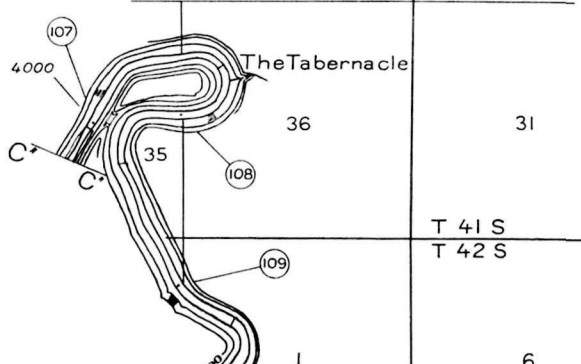
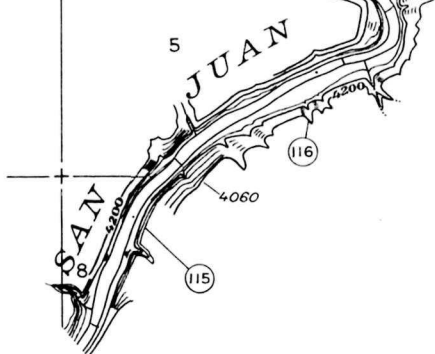
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Base is "Plan . . . of the Colorado River, Lees Ferry, Ariz. to Mouth of Green River, Utah; San Juan River, Mouth to Chinle Creek, Utah; and Certain Tributaries," surveyed by the U.S. Geological Survey in cooperation with the Southern California Edison Company in 1921, published by the U.S. Geological Survey in 1921.

Chinle Creek - Comb Wash Area  
HS 198



Mexican Hat  
( formation )  
HS 200

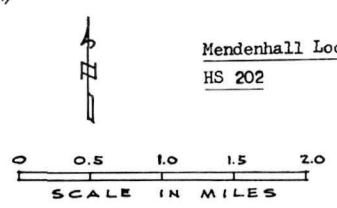


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Mexican Hat - Goodridge Area  
HS 201

Mendenhall Loop  
HS 202



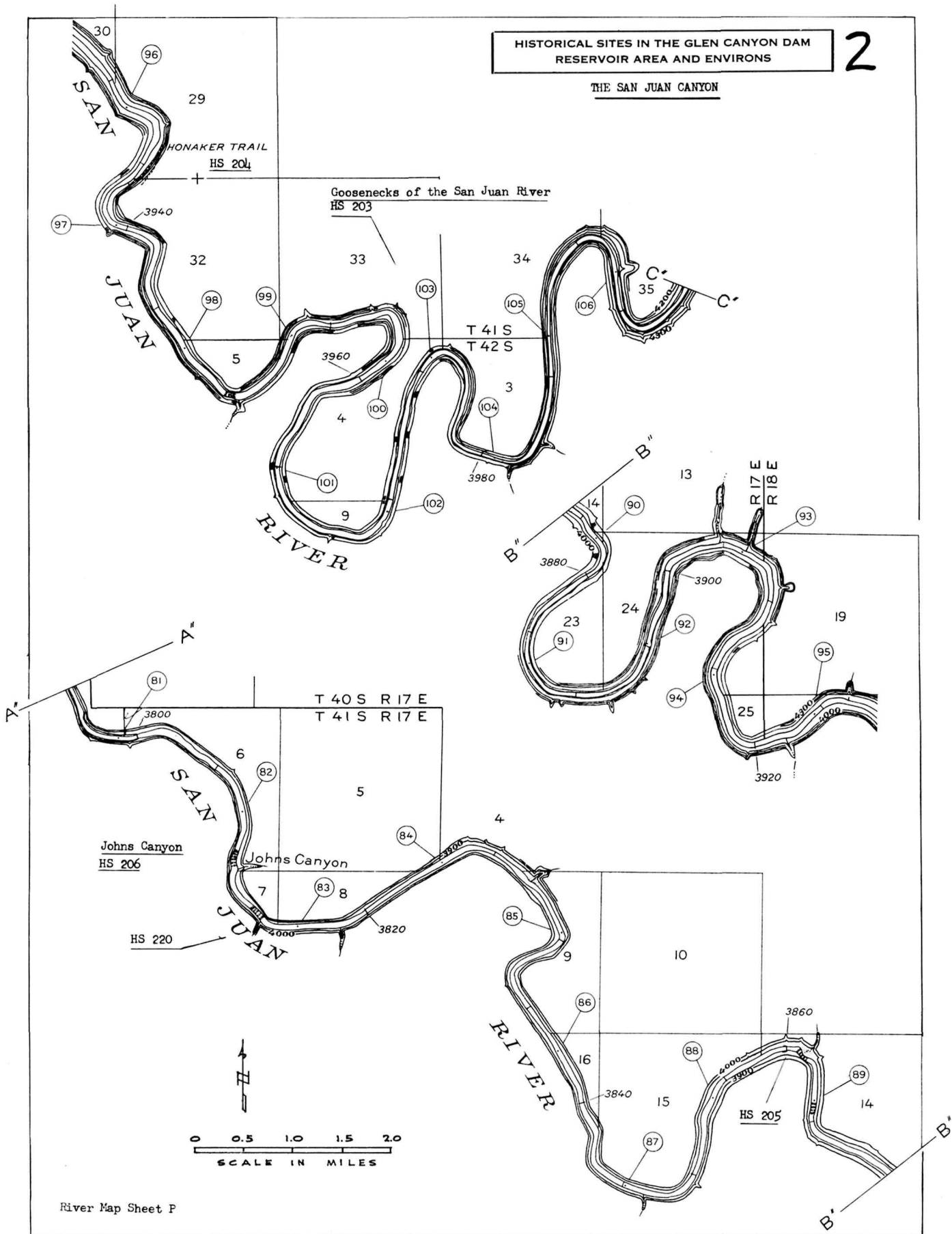
HISTORICAL SITES IN THE GLEN CANYON DAM RESERVOIR AREA AND ENVIRONS

THE SAN JUAN CANYON

HISTORICAL SITES IN THE GLEN CANYON DAM  
RESERVOIR AREA AND ENVIRONS

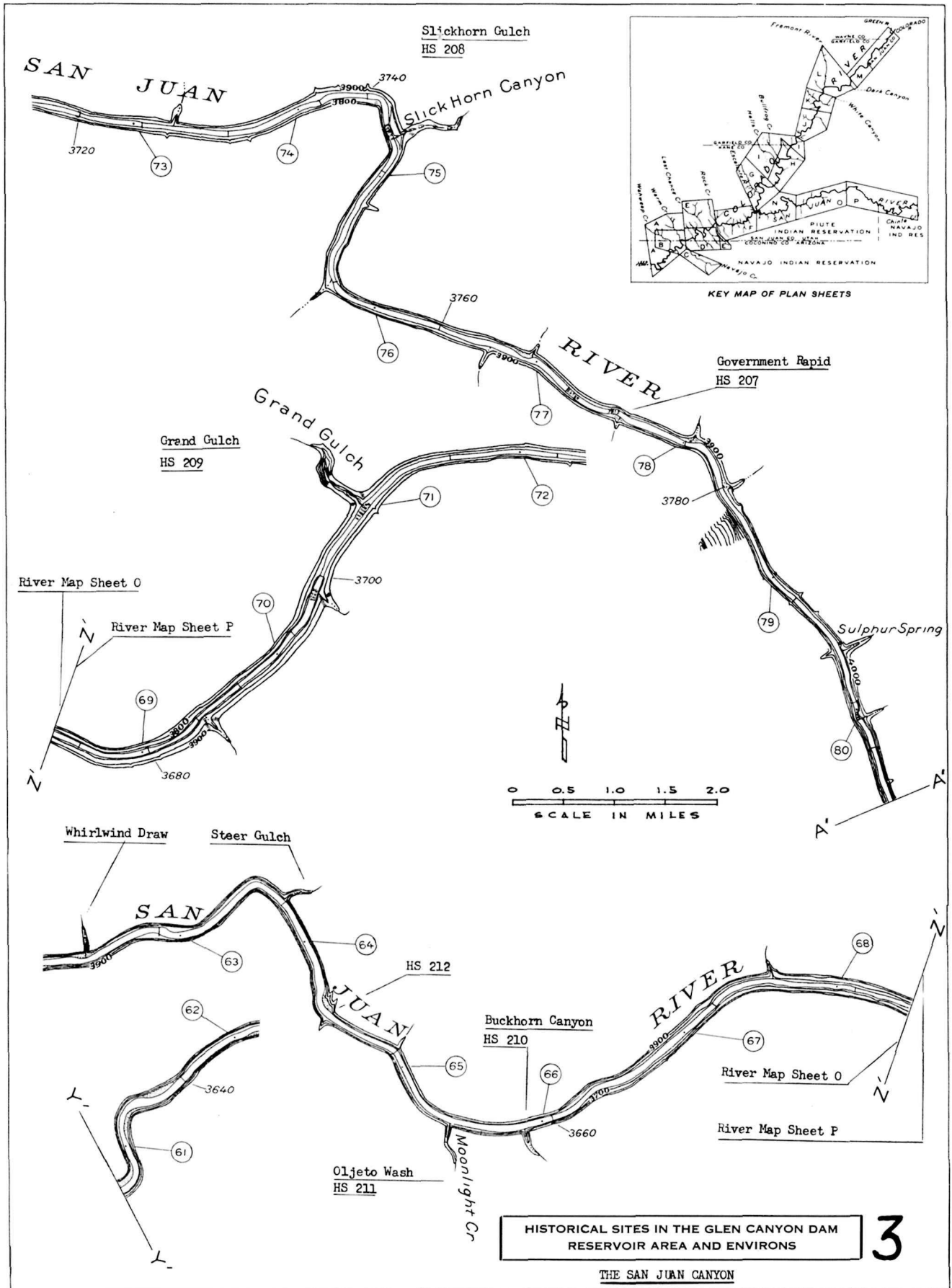
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THE SAN JUAN CANYON



River Map Sheet P





HISTORICAL SITES IN THE GLEN CANYON DAM  
RESERVOIR AREA AND ENVIRONS

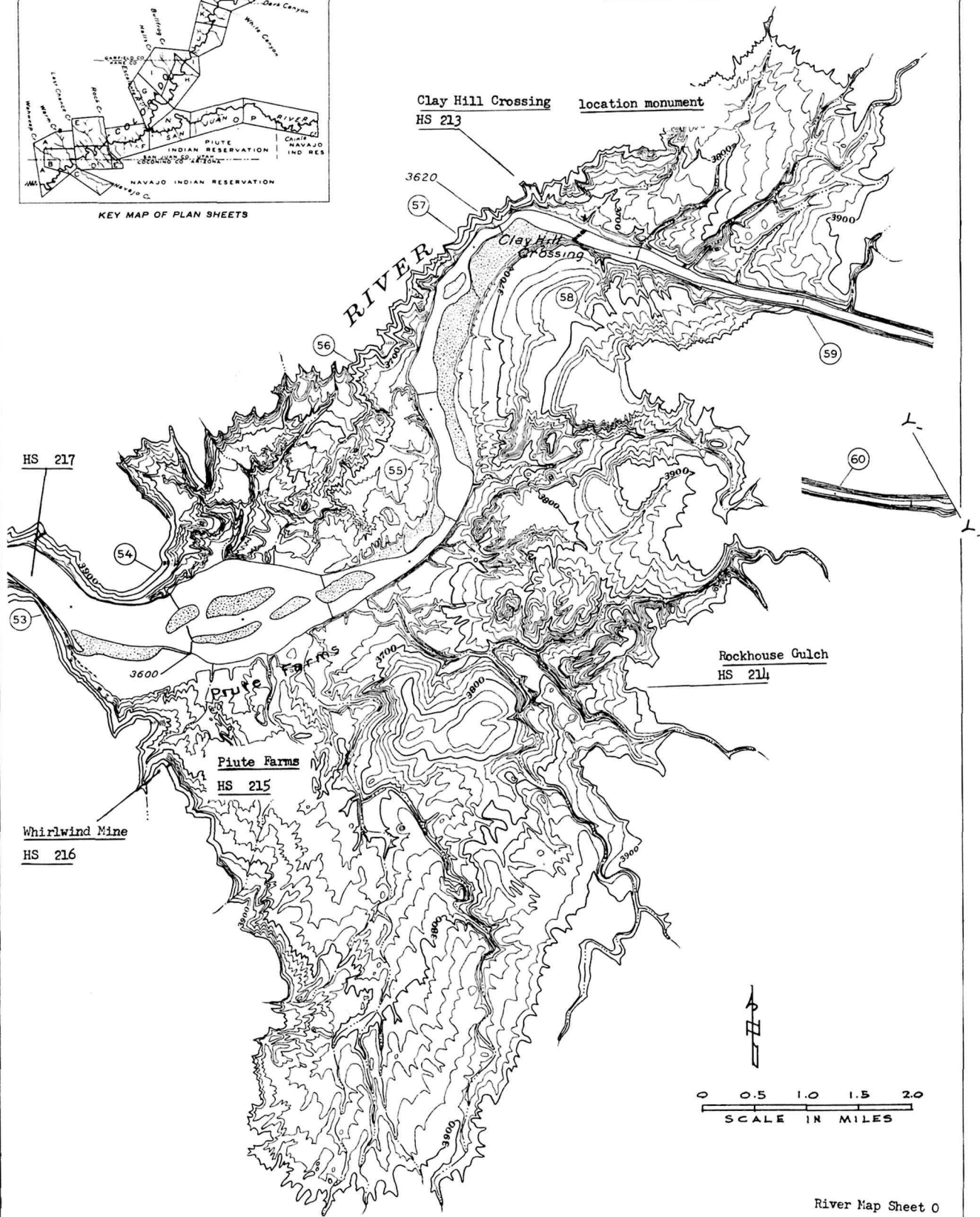
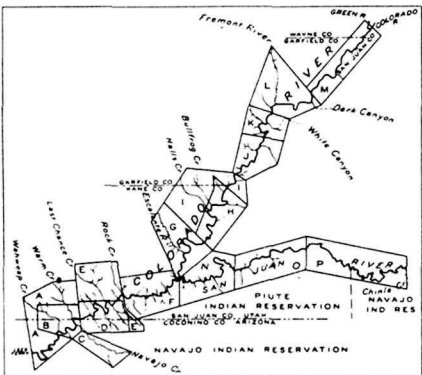
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THE SAN JUAN CANYON

HISTORICAL SITES IN THE GLEN CANYON DAM  
RESERVOIR AREA AND ENVIRONS

4

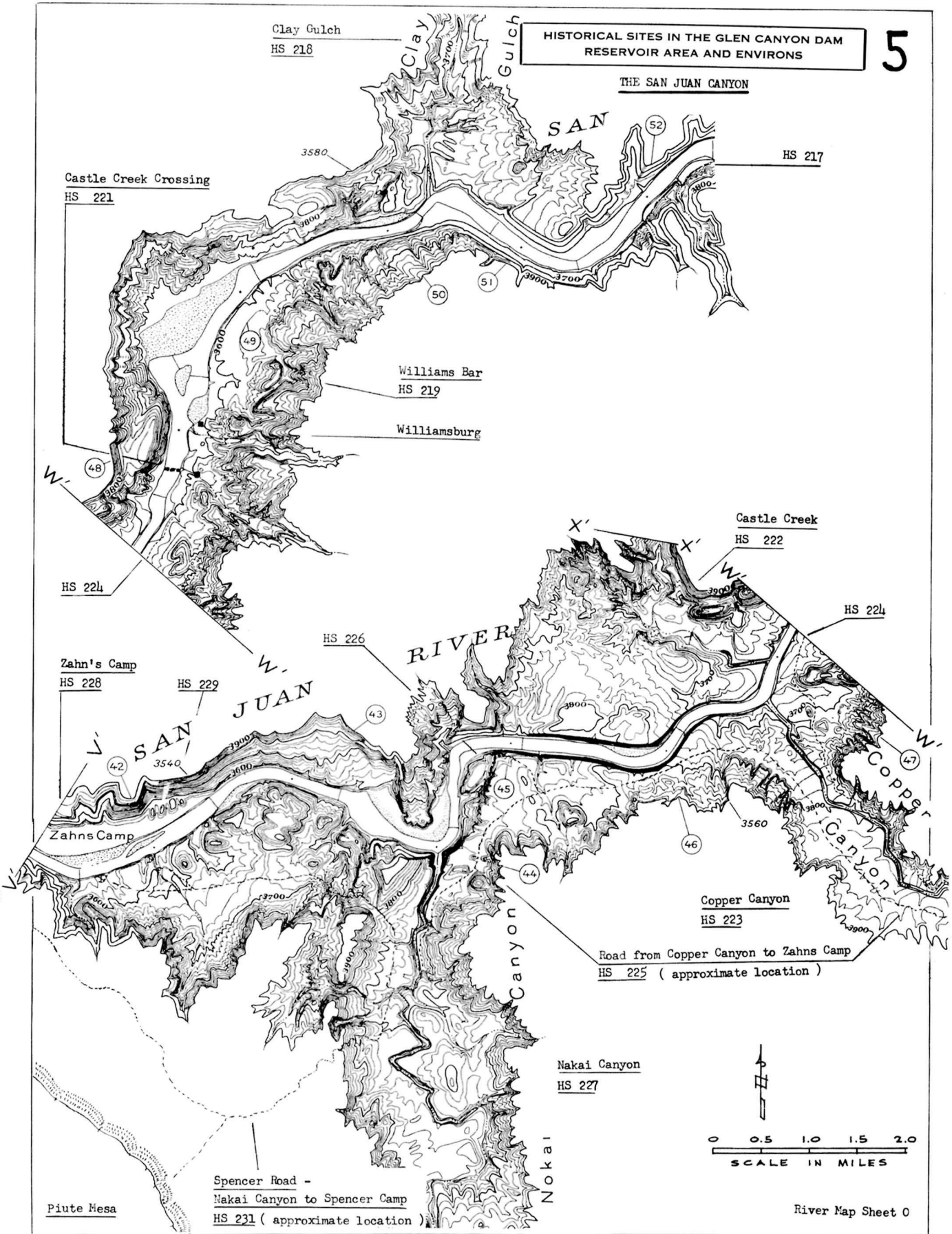
THE SAN JUAN CANYON



HISTORICAL SITES IN THE GLEN CANYON DAM  
RESERVOIR AREA AND ENVIRONS

5

THE SAN JUAN CANYON



Clay Gulch  
HS 218

HS 217

Castle Creek Crossing  
HS 221

Williams Bar  
HS 219

Williamsburg

Castle Creek  
HS 222

HS 224

HS 224

Zahn's Camp  
HS 228

HS 229

HS 226

RIVER

SAN JUAN

Zahns Camp

Copper Canyon  
HS 223

Road from Copper Canyon to Zahns Camp  
HS 225 ( approximate location )

Nakai Canyon  
HS 227

Spencer Road -  
Nakai Canyon to Spencer Camp  
HS 231 ( approximate location )

Piute Mesa

Nokai

River Map Sheet 0

Pioneer Road Between Hole-in-the-Rock  
and Bluff on Grey Mesa

Alcove Canyon  
HS 236

Spencer Camp  
HS 232

HS 233

Spencer Road  
Nakai Canyon to Spencer Camp  
HS 231 ( approximate location )

Nevills' Spring  
HS 235

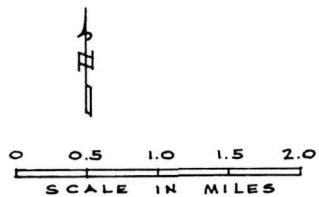
Ladder on Trail  
HS 230

Nava jo Canyon  
HS 234

Big Bend of the San Juan River  
HS 237

River Map Sheet N

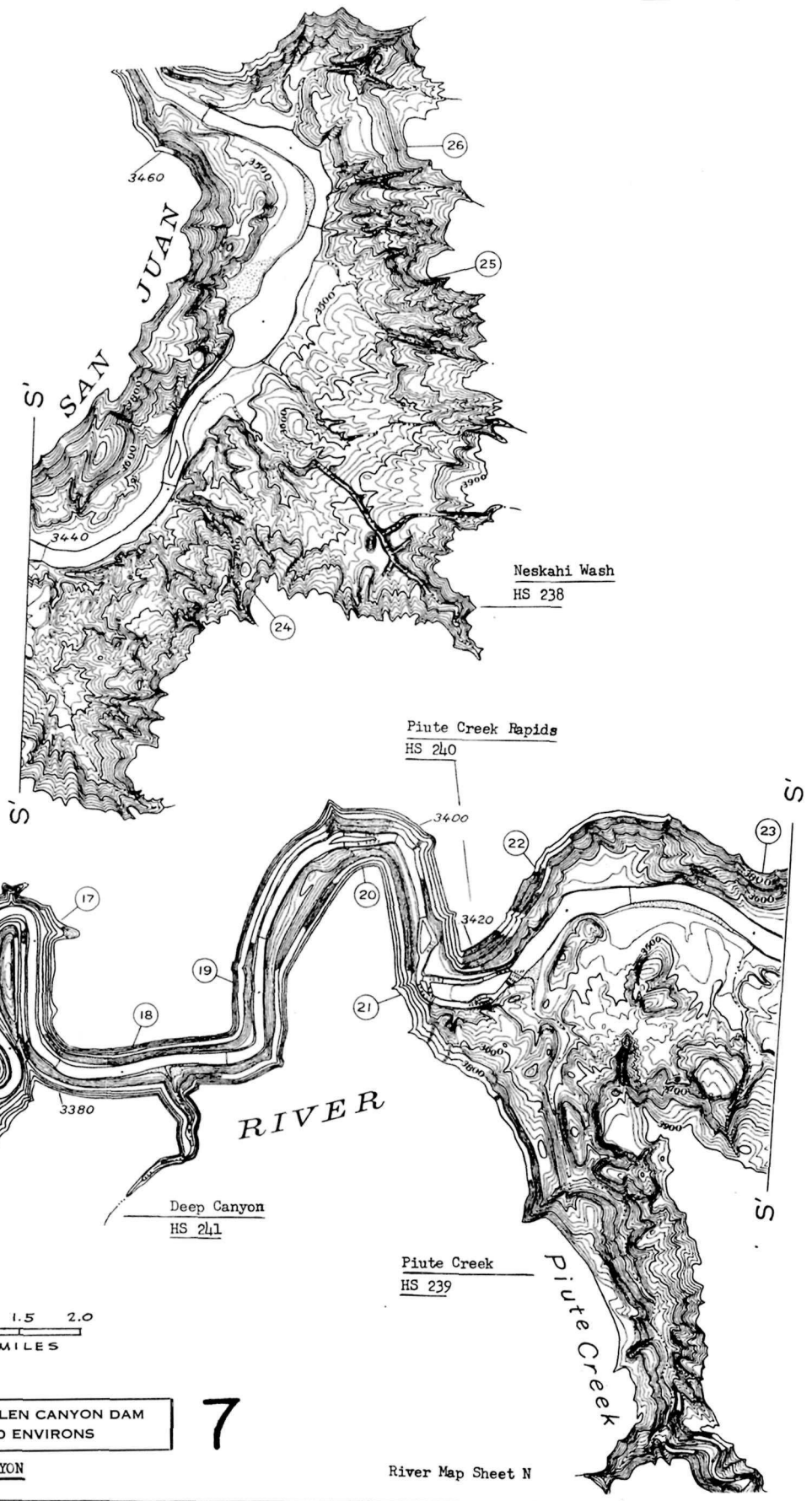
River Map Sheet O



HISTORICAL SITES IN THE GLEN CANYON DAM  
RESERVOIR AREA AND ENVIRONS

6

THE SAN JUAN CANYON



HISTORICAL SITES IN THE GLEN CANYON DAM RESERVOIR AREA AND ENVIRONS

7

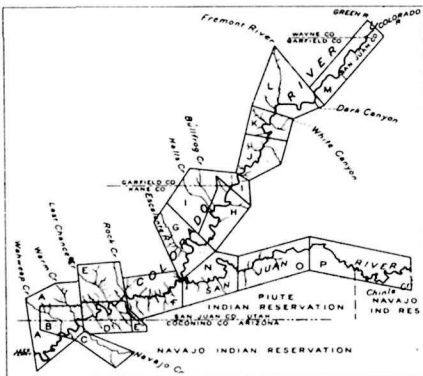
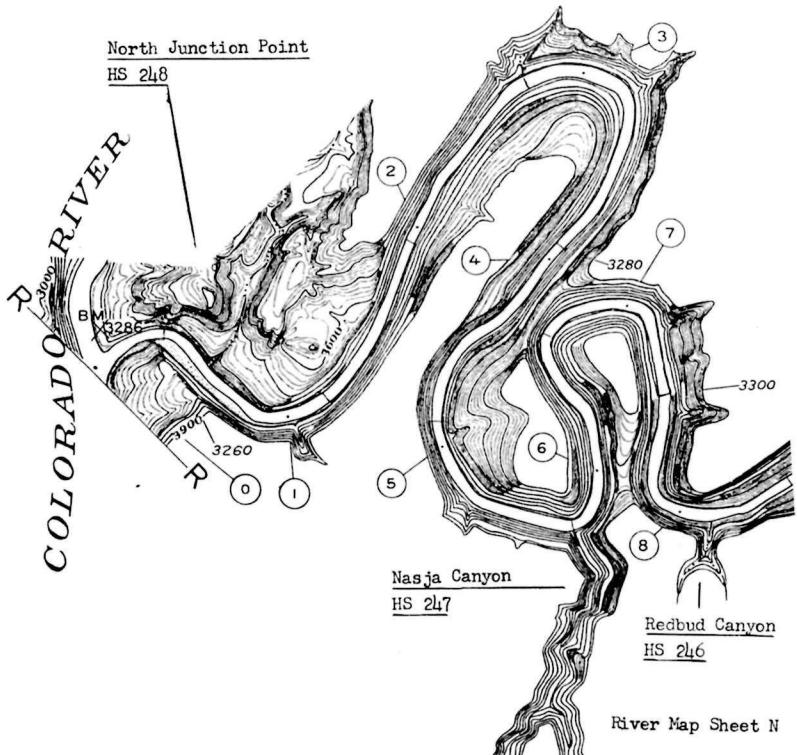
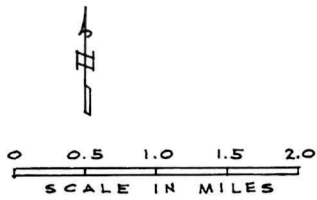
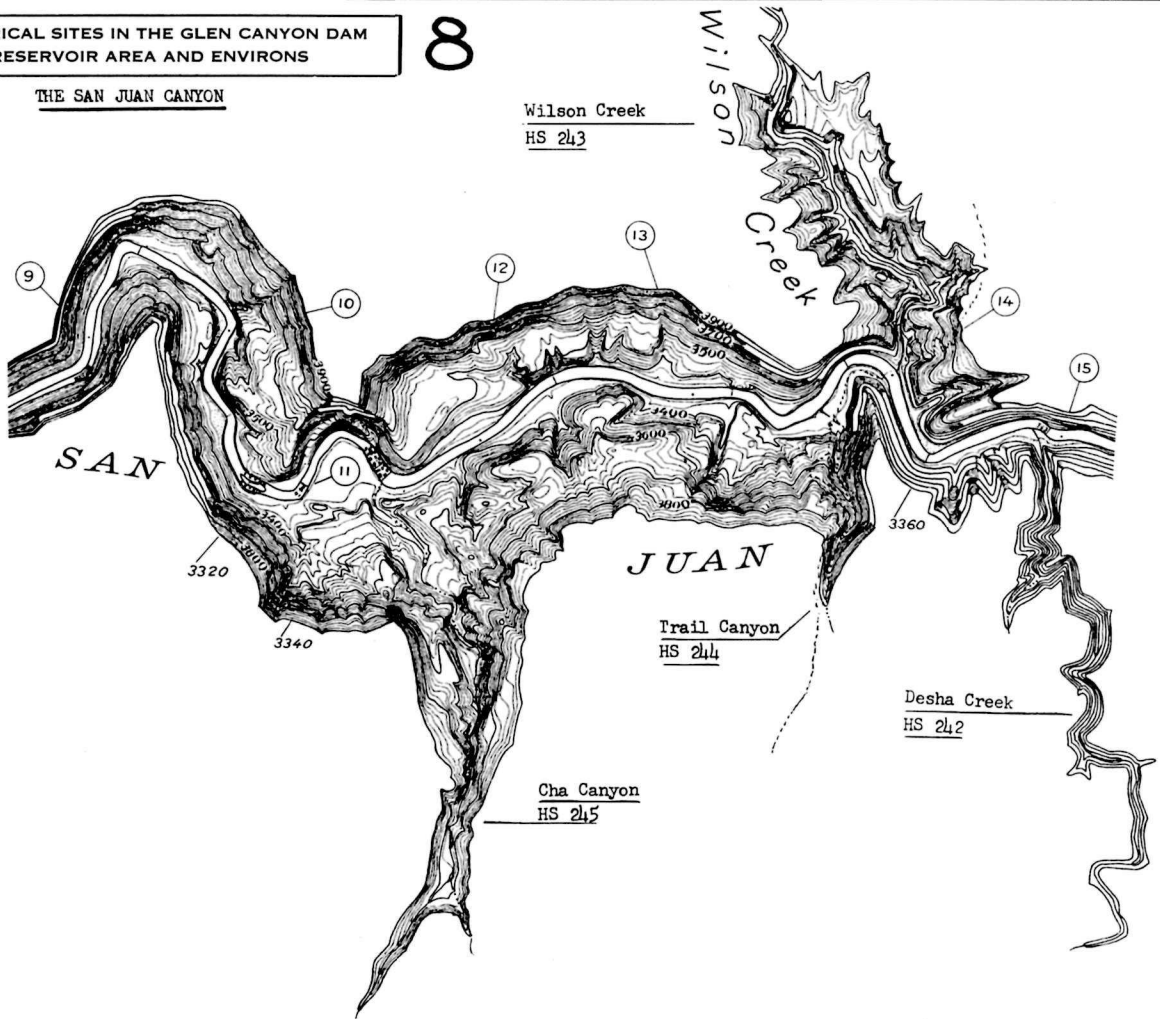
THE SAN JUAN CANYON

River Map Sheet N

HISTORICAL SITES IN THE GLEN CANYON DAM  
RESERVOIR AREA AND ENVIRONS

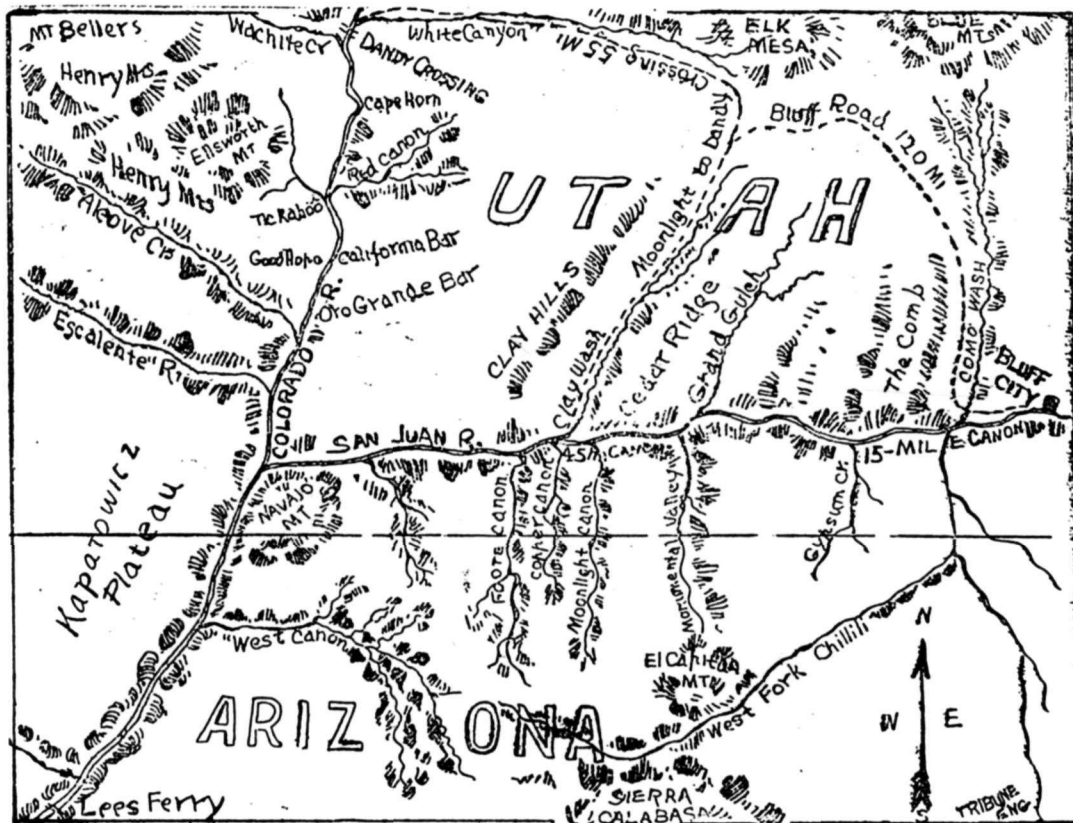
8

THE SAN JUAN CANYON



KEY MAP OF PLAN SHEETS

River Map Sheet N



CASS HITE'S MAP OF THE SAN JUAN COUNTRY.

FIG. 1

Salt Lake Tribune January 12, 1893



Fig. 2. The Mules Ear marks the crossing of the San Juan River between the mouth of Chinle Creek and Comb Wash. The mouth of the San Juan Canyon is center (right). Photograph taken from the crest of "San Juan Hill," a "road" over Comb Ridge built by Mormon Colonizing Expedition in 1880. Historical site 198.

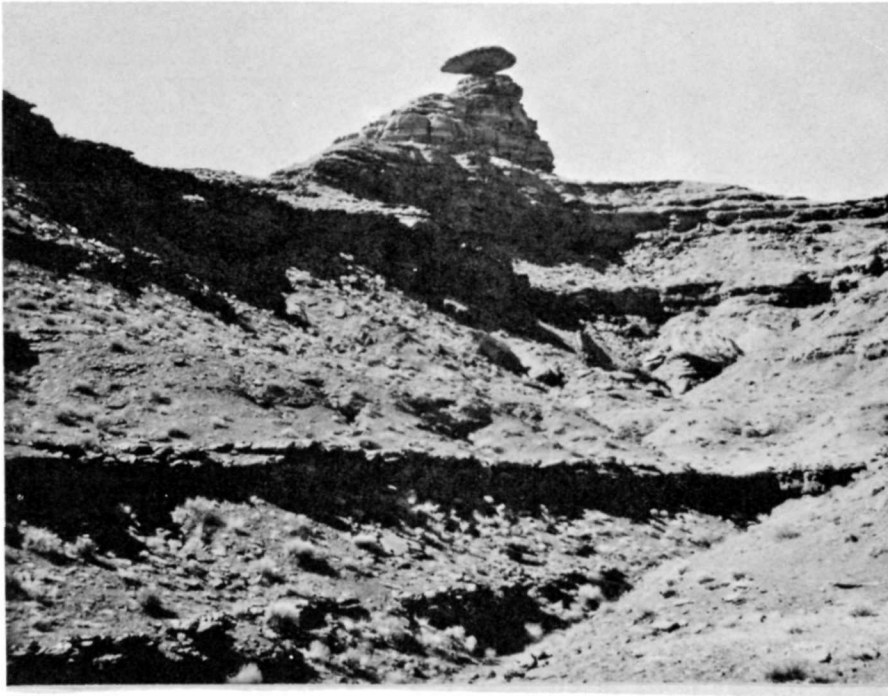


Fig. 3. Mexican Hat formation (from the south). Historical site 200.

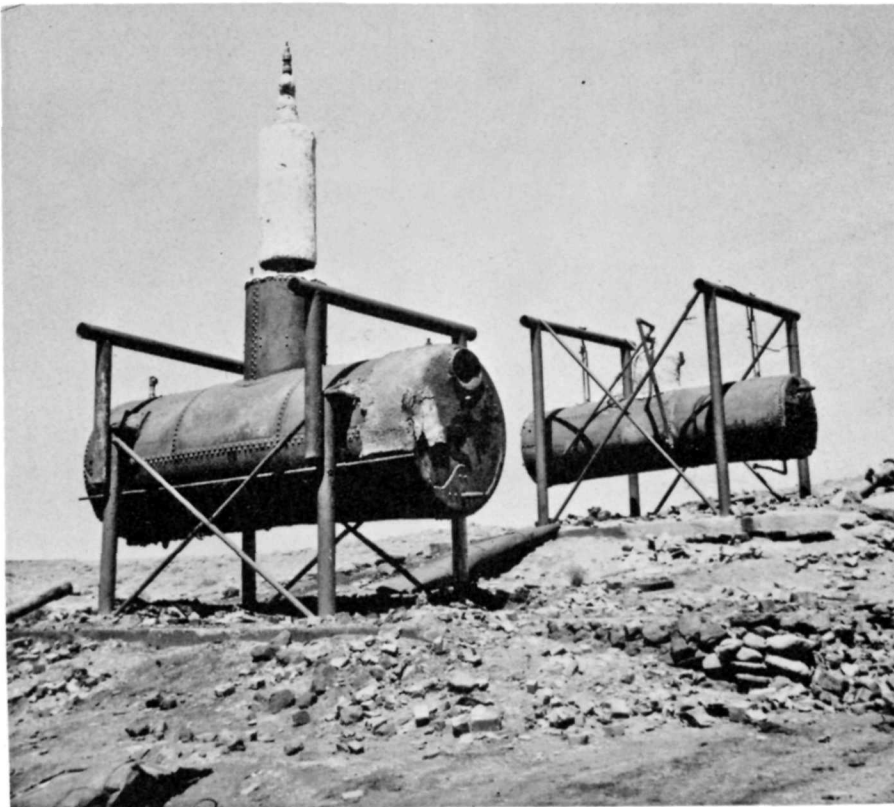


Fig. 4. Remains of oil refinery at Mexican Hat. Historical site 201.





Fig. 5. Mendenhall cabin. Historical site 202.



Fig. 6. Inside the Goosenecks of the San Juan River.

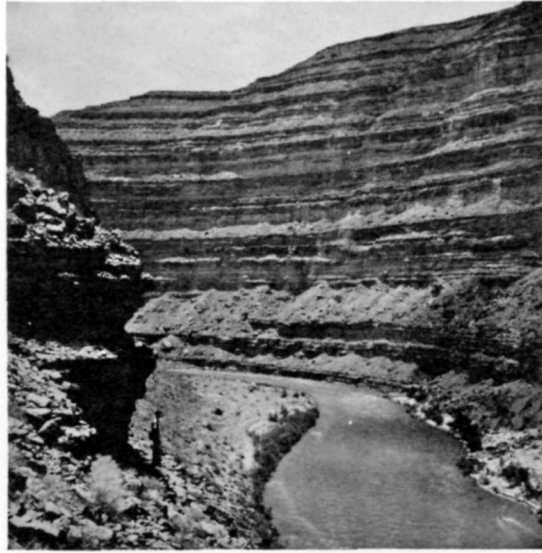


Fig. 7. Honaker Trail. Historical site 204.

a, view near head of trail looking upstream;

b, view near San Juan River looking upstream;

c, base of the trail on Honaker Bar.

-72-



Fig. 8. Slickhorn Gulch. Historical site 208. a, Ellis signature and machinery; b, wagon abandoned on road.



Fig. 9. Slickhorn Gulch. Register of boat trips made by Norman Nevills. Historical site 208.



Fig. 10. Clay Hill Crossing and monument on the right bank. Historical site 213.

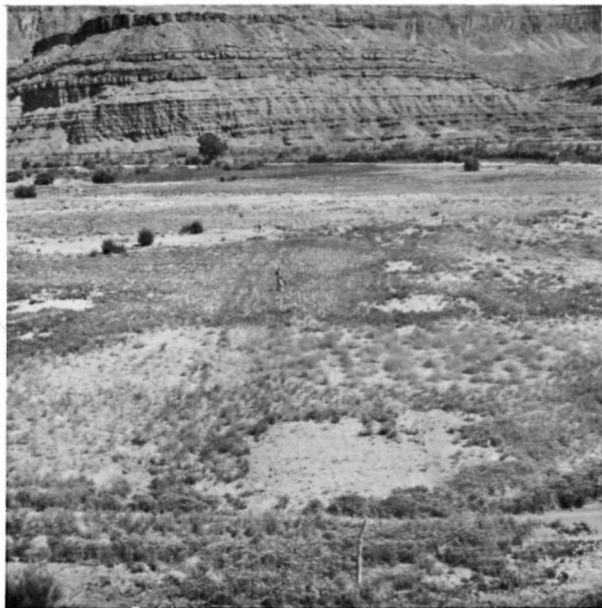
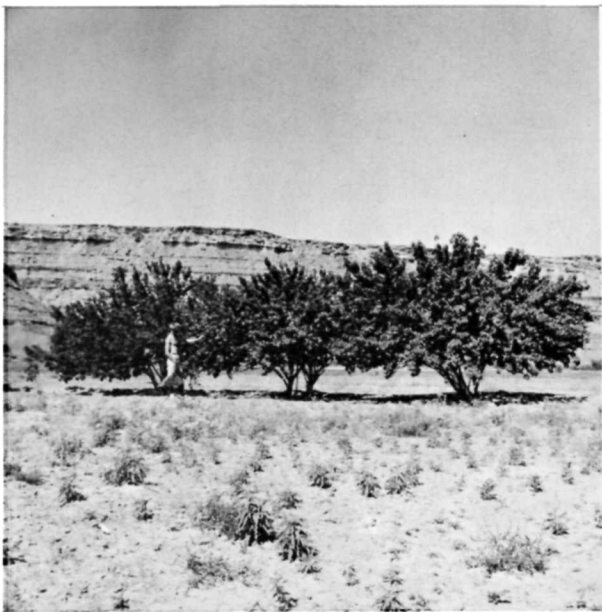


Fig. 11. Piute Farms. Historical site 215. a, peach trees; b, rows visible in farming area.

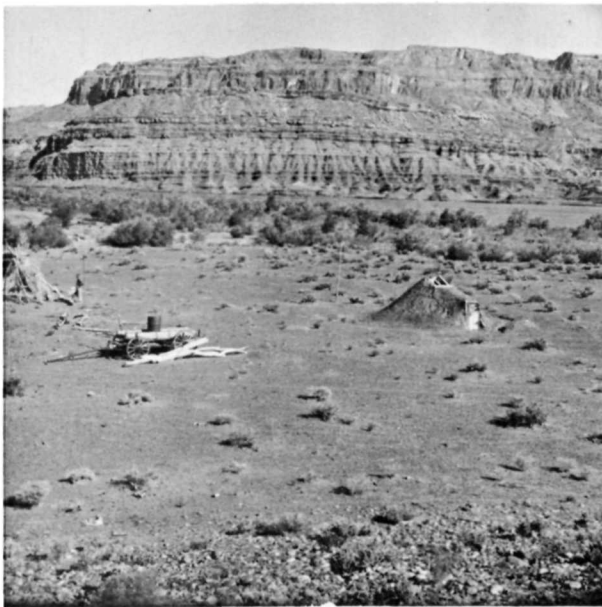


Fig. 12. Piute Farms. Historical site 215. a, wagon and hogan; b, fence and scraper.



Fig. 13. Williamsburg and Williams Bar.  
Historical site 219.



Fig. 14. Copper Canyon near its mouth.  
Historical site 223.



Fig. 15. Zahns Camp. Note trenched placer mining area and boiler and intake pipes at edge of bank (lower center). Historical site 228.

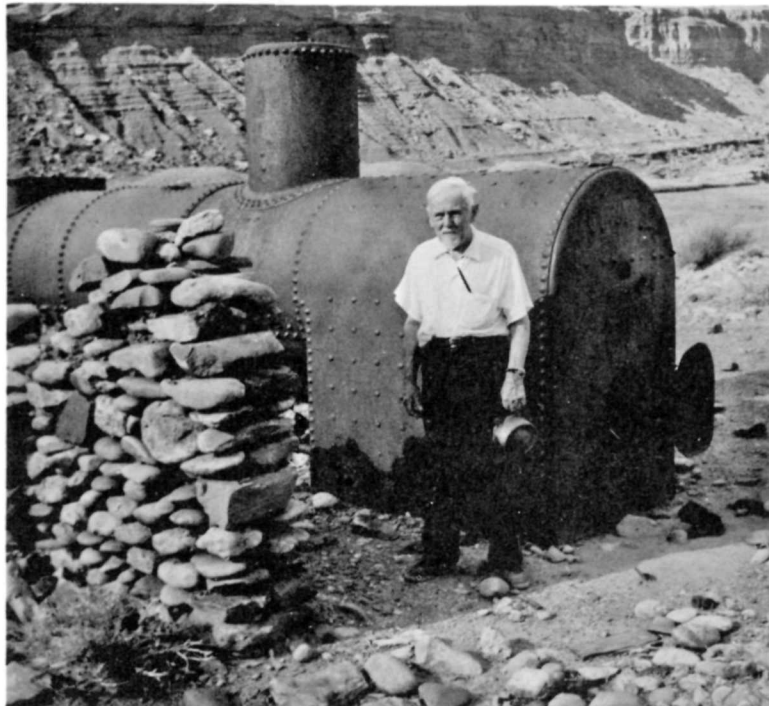


Fig. 16. Otto J. Zahn and the steam boiler at Zahns Camp, August, 1959. Historical site 228.



Fig. 17. Oxen teams and freight arriving at Spencer Camp, March, 1909. Historical site 232.



Fig. 18. Spencer Camp. Abandoned Samson Crusher (above) and Otto Gasoline Engine. Historical site 232.



Fig. 19. Spencer Camp, February, 1910. Historical site 232.



Fig. 20. Alcove Canyon.  
Historical site 236. a, stock trail  
from river bank to mouth of canyon;  
b, mouth of Alcove Canyon.





Fig. 21. Mouth of Piute Creek.  
Historical site 239.

Fig. 22. San Juan Canyon looking downstream from trail at the rim of Wilson Canyon. Historical site 243.

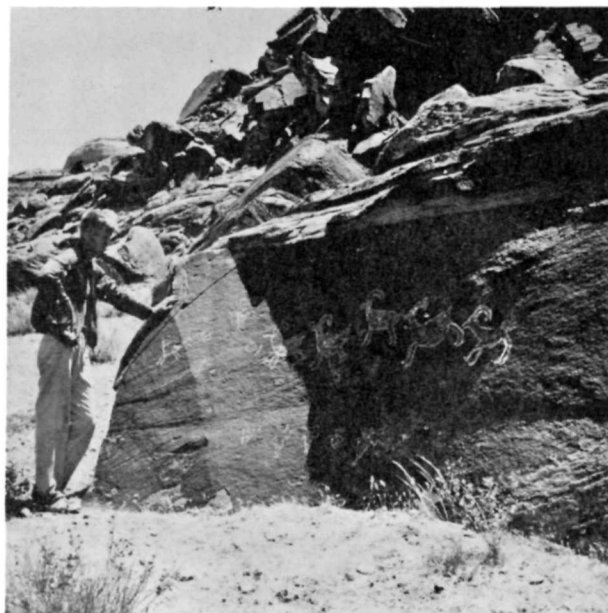
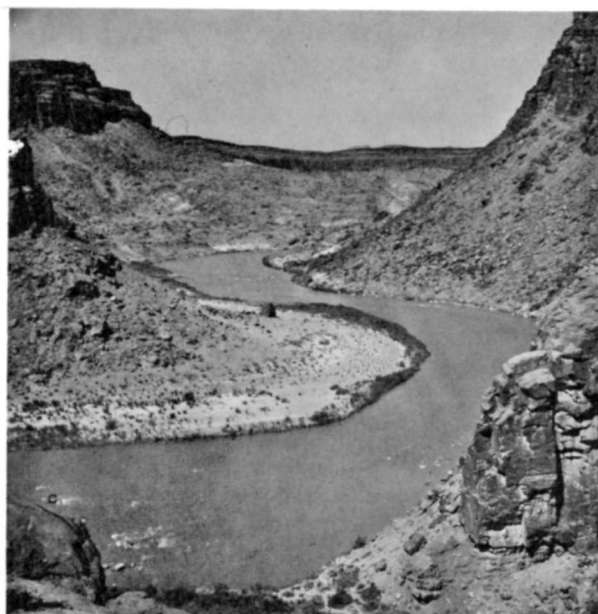


Fig. 23. Prehistoric petroglyphs at the base of trail at Trail Canyon. Historical site 244.



Fig. 24. Navajo Mountain, Cha Canyon,  
and the San Juan River.



Fig. 25. Hogan at the mouth of Cha Canyon. Historical site 245.

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