

Report on the History and Historic Sites

of

Southeastern Utah and Parts of Northern Arizona

By

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PART I

HISTORICAL OUTLINE OF SOUTHEASTERN UTAH AND PARTS OF NORTHERN ARIZONA

Although the geographical boundaries set for this study are quite arbitrary, there is a considerable historical unity of the region created by the Colorado River and the canyon country on either side of it. Except for the small section southwest of the Paria River, which drains into Marble and Grand Canyons, the entire region is immediately tributary to the great gorges of the Colorado and the Green rivers above Lee's Ferry; the landscape is predominantly characterized by canyons, many of them cut deep into the general surface. The general appearance of the area seen from any direction is flat--it is a tableland, a plateau elaborately dissected by water. The plateau actually consists of numbers of tablelands--steps, as it were--existing at different levels. Platforms or terraces rest upon one another and are separated by precipitous cliffs in some places rising hundreds and even thousands of feet in height. The facade of cliffs, which may also appear in the form of majestic walls and murals, or skirts and buttresses, or as isolated mesas, is the most dramatic feature of the landscape.

The monotony of the horizontal line and the angular landscape is broken by three groups of laccoliths--the Henry Mountains on the western side and the LaSal and Abajo Mountains on the eastern slopes. These are mountains of traditional appearance, standing out prominently above the horizontal beds upon which they rest.

Generally speaking, the history of the region has been closely related to the peripheral areas some distance from the canyons. Human settlement has been concentrated at the base of the High Plateaus on the western side and about the base of the LaSal and Abajo Mountains on the eastern side. There were more ample lands in those localities and man was closer to life-giving water that comes from the high mountain slopes. Grazing, however, covered the entire area and prospectors went anywhere they thought they might strike it rich.

Spanish Explorers, Mexican Caravans, and American Mountain-Men

The first chapter in the history of the canyon country begins in the historic year 1776 and ends when the region was transferred to the control of the United States in 1848.

The first white men to penetrate the upper basin of the Colorado River were Spaniards based in New Mexico. From Santa Fe exploring parties ranged north and west and touched the numerous upper tributaries in what is now Colorado. They probably did not reach the canyon country before 1776 although the LaSal and Abajo Mountains on the eastern edge of the region were known to them before that time. The first comprehensive traverse of the upper basin was made in 1776 by two Franciscan friars, Francisco Atanasio Domínguez and Francisco Véllez de Escalante. The basic purpose of their expedition was to locate a feasible road from Santa Fe to Monterey in California and to find suitable sites for Spanish settlements and missions en route. Starting late (in July) from Santa Fe the Franciscans did not get through to California and were forced to return to the starting point which they reached on January 2, 1777.

Although they failed of their major objective the exploration carried out by Domínguez and Escalante was a magnificent achievement. In a great circle they traveled through parts of the four modern states of Colorado, Utah, Arizona and New Mexico; all of the way through Utah they were in territory new to white men. They made a number of important discoveries. They were the first to see the Green River and to explore the eastern side of the Great Basin. They traveled across the Arizona Strip and were the first to reach the Colorado River where nearly a century later Lee's Ferry was established. Unable to ford there, the Spanish explorers turned upstream and were the first Europeans to see Glen Canyon and to cross it; this at a place later called the Crossing of the Fathers. From there they traveled to the Hopi villages, which were known to them, and returned to Santa Fe.

The recorded history of the canyon country began with the Domínguez-Escalante expedition. Not only were these Spanish explorers discoverers of new lands but the records they left are the earliest we have of much of the upper basin of the Colorado River. The exploration is frequently called the Escalante Expedition (technically Domínguez was the superior, but the two men actually functioned as co-captains; Escalante, one feels, was the most zealous in pursuit of the objectives and he was a most competent explorer) because Escalante kept a daily record of the trip. Escalante's diary is a rich, human document and it is full of geographical, ethnological, and biological information of high value. The beautiful charts made by Bernardo de Miera y Pacheco (see a facsimile in Bolton, 1950), expedition topographer, literally put Utah and the upper Colorado River on the map.

Miera's maps are very accurate considering the complexity of the terrain and the small amount of information available to him,

but he did make a couple of important mistakes. One was that he drew Utah Lake and Salt Lake as one, calling it Lake Timpanogos, and he gave it a navigable outlet to the Pacific on the west. The second mistake is his treatment of the Green River. Miera lifted this stream out of the Colorado River basin and emptied it into Sevier Lake in the Great Basin. He called this creation the Rio San Buenaventura.

The geographical contributions of the Domínguez-Escalante expedition were first publicized by the eminent scientist Alexander von Humboldt (Crampton, 1958). Looking at the Domínguez-Escalante expedition in a broader light we see that these first explorers of the Colorado basin were dreaming the dream of Columbus: they were looking for a road to India. The quest for a water passage through the American continent was one of the major themes in American history to the time of Fremont.

Humboldt's findings were published in his great Political Essay on the Kingdom of New Spain (1811), the atlas of which contained maps embracing the Domínguez and Escalante data and suggesting that feasible connections might be made between the interlocking headwaters of the Rio Grande and the Rio Colorado. And there were the inviting Rio San Buenaventura and Rio Timpanogos, both of which offered a river route to the sea. All one had to do was to find them.

After the Spanish discovery in 1776 there was little activity in the canyon country for a number of years. Domínguez and Escalante had recommended that settlements and missions be established in the region they traversed but Spain's involvement indirectly first in the war of the American Revolution and second, directly in the revolution within its own American empire precluded further advance.

During the time when the region was under the control of Mexico, 1821-1848, there was some entry and exploitation of the region and trails were opened through it. Although not much is known of them, New Mexican traders crossed the canyon country and trafficked with the Indians, principally those living in the Sevier River Valley in the Great Basin. A number of them were slavers who for guns, horses, and woolens, traded for Paiute children who had been obtained by the Utes from the country south of their homelands.

Related to this business was the opening of a caravan trade between New Mexico and California which lasted from 1829 to 1848. It was during this time that the so-called Spanish Trail was developed. Following the Domínguez-Escalante route to the vicinity of Mesa Verde, the trail cut across lots to the Colorado at Moab and the Green at the Green River Crossing (see site 2 for details of route in subject area); it left the canyon country through passes in the Wasatch

Plateau and eventually reached Las Vegas and Los Angeles, a variant of the route made use of the Crossing of the Fathers, but it was probably not used very extensively as the trail crossing the canyon lands was rough and probably very difficult to mark. That there were other regular crossings of the Colorado River canyons within the subject area developed during the Spanish or Mexican periods is not supported by any substantial evidence.

From California the traders brought horses, always in demand in New Mexico by whites and Indians alike. En route they would trade worn-out stock for slaves, also in heavy demand as household servants. On the out going trip, woolens and manufactured trade goods constituted the pay loads on mule trains. With the opening of more direct routes from New Mexico, which coincided with the transfer to American control, the colorful caravan trade ceased. However, the slave trade into Utah continued at least until 1852. The Hafens (1954) have written an important book on the Spanish Trail.

The canyon country during the Mexican period was visited by American trappers who would go anywhere after beaver, still commonly seen in the area today. Americans in numbers went to New Mexico once Spanish colonial restrictions were lifted in 1821 and some of them traveled the caravan route to California. Others ranged out over the Rockies after furs and quite likely some of them followed the Colorado and the Green down into the deep Utah canyons. However, the records are scarce; one must rely on a few accounts such as that by Ferris (Auerbach and Alter, eds., 1940). The apparently authentic inscriptions of Julien made in 1836 on the cliffside in Stillwater and Cataract canyons (site 5) are records of this dramatic era.

The American mountain men made important geographical contributions. They literally mapped the west on a beaver skin and in so doing, they corrected the mistakes made by Domínguez, Escalante, and Miera. They connected the Green with the Colorado; they erased the San Buenaventura and other mythical rivers, they determined the scope of the canyon country, and they were undoubtedly the first to make detailed explanation of the actual canyons.

The routes opened during the period from 1776 to 1848 by Spanish explorers, New Mexican traders and American fur men, are principal roads in use today in the canyon country.

Topographical Engineers and the Scientists.

John C. Fremont of the U.S. Army Corps of Topographical Engineers must be given credit for demolishing finally the influential myth of the San Buenaventura River that had interested nearly all those who

sought a water road to India--Lewis and Clark, Pike, Pacific Coast voyagers, the Hudson's Bay Company, and the American mountain men. The fur men may have done this before him, but Fremont's great maps of the West, drawn by Charles Preuss and published in 1845 and 1848, outlined the Great Basin and disposed of the mythical rivers. Goetzmann's recent book (1959) on the Topographical Engineers is an excellent summary of their important works. See Crampton and Griffen (1956) for a history of the San Buenaventura River.

Fremont's destruction of the illusion of an easy river passage to the Pacific came just at the time that the railroad had become a reality. With the opening of the gold mines in California in 1848, the quest began for feasible transcontinental railroad routes. Congress, in 1853, authorized the War Department to find the best route and four parties of Topographical Engineers were put in the field. Fremont and his influential father-in-law, Senator Thomas H. Benton, got behind the central route; both were disappointed when Lt. John W. Gunnison was given command of that survey. Determined to popularize the route Benton encouraged E. T. Beale to travel it en route to a government post in California and private interests were enlisted to put Fremont over the same trail.

Beale, Gunnison, and Fremont, in that order, in 1853 traveled the open country from Colorado at the base of the Book Cliffs and crossed the Green at the Green River Crossing (site 4) before going on over the Spanish Trail through Castle Valley and across the Wasatch Plateau. All publicized their findings. Fremont wrote that "Europe still lies between Asia and America." If the railroad (the central route of course) were built then, "America will be between Asia and Europe--the golden vein which runs through the history of the world will follow the even trails to San Francisco." Fremont was cut from the same cloth as Columbus, Domínguez and Escalante, and Lewis and Clark.

Although it did not follow the Benton-Fremont Route, a trans-continental line, delayed by the Civil War, was completed at Promontory in 1869. One line was scarcely enough to serve the expanding West, however, and in 1883 the Denver & Rio Grande Western put a bridge across the Green River right at the crossing of the old Spanish Trail. At the same time through northern Arizona the Atlantic and Pacific (Santa Fe) was completed paralleling the 1853 survey of Lt. A. M. Whipple of the Topographical Engineers.

Gunnison's and Whipple's surveys had done much to make known the region through which they passed, and one of the largest unknown areas was the canyon country of the Colorado River.

If it had not been for the "Utah War", 1857-1858, that grew out of tensions between the Mormons and Federal officials, the Topographical Engineers might have ended their explorations in and near the canyon country with the railroad surveys. However, Johnston's Federal troops in Utah, located at Camp Floyd some 45 miles south of Salt Lake City, found themselves in 1858 logistically isolated. Therefore, the War Department authorized a number of surveys to seek new supply routes to Utah. Lt. J. C. Ives explored the lower Colorado in 1858; Lt. J. H. Simpson opened a new wagon road across the Great Basin in 1859; and Captain J. N. MacComb explored the canyon country.

From Santa Fe Captain Maccomb was directed to fix the position of the confluence of the Green and Colorado rivers, to determine the course of the San Juan River, and to find the best route between the Rio Grande and the settlements in southern Utah. Maccomb's route (laid down on maps accompanying this paper--site 7) took him close enough to those objectives to permit cartographer F. W. Egloffstein to map the entire region with considerable accuracy. The Maccomb exploration was an important achievement otherwise. There were, he found, no direct supply routes through to southern Utah suitable for military purposes. More important, the descriptions left by expedition geologist J. N. Newberry are of high value and his geological report (Maccomb, 1876) may be regarded as the first scientific study for a substantial portion of the subject area; Gunnison's railroad survey (Beckwith, 1855) had been peripheral. After the Maccomb survey men became concerned more with the canyon country itself than with finding a way through it. In a forthcoming book Crampton (1964c) discusses the achievements of the Topographical Engineers in the canyon country; see also Goetzmann's (1959) finebook.

The two voyages of discovery on the Colorado River directed by John Wesley Powell, who examined the long line of canyons from Green River, Wyoming, to the foot of the Grand Canyon, together with much of the adjacent country, 1869-1872, is much the best known chapter in the history of the Colorado River. Powell's trips on the river provided the first accurate and comprehensive description of the canyons, and through the labors of his survey (United States Geographical and Geological Survey of the Rocky Mountain Region), which carried on where the river trips left off, he extended this to include practically all the Colorado Plateau in Utah and northern Arizona.

Powell's book on the Colorado River of the West (1875) is less impressive than other related works which emanated from his survey. The reports by Powell on the Uinta Mountains (1876) and on the arid lands (1879), by G. K. Gilbert on the Henry Mountains (1877), by C. E. Dutton on the High Plateaus of Utah (1880) and on the Grand Canyon (1882) are classic studies.

While Powell and his men were studying the central part of the canyon country, Lt. George M. Wheeler, Army Corps of Engineers (the successor of the Topographical Engineers), in charge of the U.S. Geographical Surveys West of the One Hundredth Meridian, and Ferdinand V. Hayden, director of the U.S. Geological and Geographical Survey of the Territories, were examining peripheral areas. Wheeler only slightly touched the eastern side of the canyon country and his explanations are summarized in his final Report (1889). Hayden's men on the western side picked up where Macomb and Newberry left off and published a number of fine bulletins on the strip of country along the eastern boundary of Utah from the Colorado River south to the Four Corners area.

The scientific field work of Powell, Wheeler, and Hayden was a magnificent achievement. As a result of concerted study at about the same time, followed by publication comprehensive reports on geology, geography, archeology, and biology, by 1880 the world could see a region in intimate detail where twenty-one years before, when Macomb and Newberry entered, it was largely a blank.

The western surveys of Powell, Wheeler, and Hayden (including Clarence King's Survey of the Fortieth Parallel) were consolidated in 1879 to form the U.S. Geological Survey. King was appointed the first director but he was succeeded in 1881 by Powell, who was also director of the Bureau of American Ethnology in the Smithsonian Institution. Powell held the Geological Survey post until 1894 and the Bureau of Ethnology directorship until his death. It was Powell's contribution in both these positions that he surrounded himself with competent men who published an ever-lengthening series of scientific monographs in the areas of ethnology, anthropology, irrigation, reclamation, and conservation. From beginnings made in 1869 on the Colorado River, Powell went on to interest the government in the scientific study of the entire nation.

Bartlett's work on the western surveys of Powell, Wheeler, Hayden and King, places them in perspective. Powell's large contribution is the theme in Stegner's fine book (1954).

Mormon Frontier

In 1855 the Church of Jesus Christ of Latter-day Saints sent a colonizing mission to settle at the Colorado River crossing of the Spanish Trail. This was the Elk Mountain Mission, the members of which established a colony at the place later known as Moab. Probably the first Anglo settlement in the subject area, it was abandoned in September 1855 when Utes killed three of the colonists. The

subsequent approach by the Mormons was based at the successful settlements along the Virgin River in extreme southwestern Utah.

The continuous history of the canyon country began on November 6, 1858, when Jacob Hamblin--eighty-two years almost to the day after Dominguez and Escalante--forded the Colorado River at the Crossing of the Fathers. Hamblin and his companions at the time were planning to visit the Hopi villages to initiate missionary work among these Indians. A pioneer in the settlement of Utah's "Dixie" (the Virgin River settlements) Hamblin was a central figure in the southern part of the canyon country for thirty years as missionary, Indian agent, explorer, peacemaker, and colonizer. After 1858 he made a number of missionary journeys to the Hopis and to the Navajos in the interests of peace, fording the river at the Crossing of the Fathers, or crossing at Lee's Ferry downstream.

In 1859 on his third trip across the Colorado, Hamblin ran into some hostile Navajos near Moenkopi and George Albert Smith, Jr., of his party was killed. This was the first clash between two expanding frontiers, that of the Mormons west of the Colorado and of the Navajo Indians east of it. In moving south into the Virgin River area and the Arizona Strip the Mormons had displaced the Indians. Conflict resulted. The Walker War, 1853-54, was followed in 1865 by a general outbreak of Utes in central Utah and Southern Paiutes in southern Utah and northern Arizona. This was the Black Hawk War.

The approach of the Navajos to the Glen Canyon area may be explained as a result of frequent conflicts in which they found themselves with the United States after 1846. These ceased in 1864 as a result of the Carson campaigns and many of the tribe were packed off to Bosque Redondo. But many Navajos eluded Carson by moving north to the San Juan River and west to the Colorado. Those who went west joined with the Paiutes to prey on the Mormon frontier during the Black Hawk War, and later. Not the least of those troubles was the killing by the Shivwits Paiutes of O. H. Howland, Seneca Howland, and William Dunn, the three men who had left Powell at Separation Rapids in Grand Canyon in August, 1869.

The war was otherwise serious. It caused a retraction of the Mormon frontier. The Utah territorial militia (Nauvoo Legion) during its campaigns caught few Indians but it explored the region at the base of the High Plateaus from Kanab north to Castle Valley. At length the war ended and in November, 1870, Jacob Hamblin, assisted by John Wesley Powell, persuaded the Navajos assembled at Fort Defiance to make a general peace. Trade followed after war; the Navajos crossed the canyon country by the historic routes -- Crossing of the Fathers, Lee's Ferry, and later Hole-in-the-Rock -- to trade with the nearest Mormon settlements.

Once the Indian troubles were over the Mormons began moving eastward from the older communities in the Great Basin and along the Virgin River and settling on lands discovered during the course of the military campaigns against the Indians. From about 1869 to about 1882 a string of little Mormon settlements was planted along the eastern base of the High Plateaus from Kanab to Hanksville. Mormon colonization was a cooperative, planned movement, directed in large part by the church and typified by the Mormon village.

Settlers were "called" to go to new areas, and when they arrived a village was laid out on a square, with wide streets, a central public area and large lots of equal size. The lots were large enough to support livestock, garden, and fruit trees; the owner lived on his lot in town and journeyed daily to his fields at the edge of the village. The Mormon village was well suited to the needs of pioneer living; it facilitated defense and cooperative action and it afforded an intimate social and cultural life centering about the church. This formally organized farm village became an important frontier institution. Perhaps the most typical frontier villages are those on the western side of the Colorado. Nelson in his significant study (1952) of the institution selected Escalante (site 30) as an example.

While the Mormons were settling the limited farming lands on the western side of the canyon country they also began pushing south into the drainage of the Little Colorado in Arizona. The connecting link between the Mormon settlements in Utah and those in Arizona was Lee's Ferry. Settled by John D. Lee in 1871, a ferry service was opened two years later which was maintained until the highway bridge across Marble Canyon six miles downstream was opened in 1929.

Mormon colonization during Brigham Young's time has been treated by Hunter (1940); Jenson's (1940); encyclopedic history is good for the details of individual settlements.

The eastern half of the region extending from the Book Cliffs on the north to the San Juan River on the south was first settled by people moving from two directions. During the years 1877-1880 pioneer settlers from the older settlements in Utah arrived to establish themselves about the base of the La Sal Mountains; during these same years people from Colorado, Kansas, and Texas settled the area about the eastern base of the Abajo (Blue) Mountains. From the start both groups engaged in the cattle business as these were the years when high profits--described at the time as the "beef bonanza"--were to be made. Those who settled at the base of the La Sals were thinking more of establishing permanent homes; those who settled about the Abajos--O'Donel, Hudson, the Carlises, and the Widow Lacey--were more interested in the quick profits. The attractions of the country on both sides of the Utah-Colorado line had been advertised through the publications of the Hayden Survey.

In 1879 the heroic Hole-in-the-Rock trek began. In order to have a stronger hold in southeastern Utah and to have a base closer to the Navajo, Ute, and Paiute Indians, the Mormon Church organized a formal mission to colonize the San Juan country. A scouting party in 1879 crossed the Colorado at Lee's Ferry and traveled north through the Navajo country to the San Juan River. They found a suitable place to settle at the mouth of Montezuma Creek and then returned by an easy route which took them north to Moab and the Spanish Trail which they followed back to Paragonah, near Cedar City, the place of beginning. A large colonizing expedition of about 250 persons--men, women, and children--was recruited in south-central Utah. But rather than journey to the San Juan by either the easy Spanish Trail or the somewhat more difficult route through the Navajo country, the leaders of the expedition decided to cut directly across lots. The trek which took the pioneer band across Glen Canyon at the Hole-in-the-Rock and through the "impassable" region beyond is one of the remarkable pioneering achievements of the West.

With some eighty wagons and over 1,000 head of cattle, the Mormon colonists left the village of Escalante late in 1879, planning to reach their destination in six weeks. It took them six months instead. They traveled 200 miles where wheeled vehicles had not been before, and they built a road most of the way (still to be seen in many places today), much of it in solid rock. The expedition crossed Glen Canyon just below the mouth of the Escalante River where a natural fault in the canyon's rim was enlarged to accommodate wagons which were then driven (not taken apart) down to the river more than a thousand feet almost directly below. After crossing the Colorado on a ferryboat made for the purpose, it was necessary to get out of the canyon on the other side, to cross Grey (Wilson) Mesa, to get over the Clay Hills, to head Grand Gulch, and to surmount Comb Ridge. When in April, 1880, the colonists reached a place on the San Juan River which they called Bluff, some distance downstream from Montezuma Creek, they stopped from sheer exhaustion.

As a farming community Bluff did not prosper; the waters of the San Juan fluctuated severely and washed away the terraces along its banks which were the farming areas. As elsewhere in the canyon country the Mormons turned to stockraising, and within a few years after the founding of Bluff numbers of them began moving up country to establish themselves about the base of the Abajo Mountains. They founded the new towns of Verdure and Monticello in 1884 and 1888, and in 1905 Blanding (which became the largest of the three) was settled when irrigation water was brought from the Blue Mountains. The pioneer Mormon stockmen bought out the eastern interests and built up large herds which they ranged on the Abajos in the summer, using the canyon country--the "rock jungle," Al Scorup called it--out toward the

Colorado as winter range. Their contemporaries at La Sal and Moab ranged the La Sal Mountains and the adjacent canyon country.

By the mid-1880's the area had been occupied by farmers and stockmen, mostly Mormons from the older settlements in central Utah. Connecting roads and trails, and the Denver and Rio Grande Western Railroad along the northern fringe put them in touch with the older settlements in Utah and elsewhere and with the rest of the nation. Development up to this time was in the nature of farming or stock raising, and this was very largely peripheral in terms of the subject area. The canyon lands, except for the explorations of the Powell Survey, had scarcely been touched. Interest in the canyons came upon the discovery of gold.

The history of the Hole-in-the-Rock trek has been told by Miller (1959); the opening of an alternate route across Glen Canyon has not received much attention except by Crampton (1962)--see sites 36-39 in Part II of this paper. Pioneer settlement in the country east of the Colorado in Utah is detailed by Tanner (1937), Perkins, Neilson, and Butt (1957). The history of the cattle industry in the same area has long been neglected but it is now getting some attention; see particularly three articles by Don D. Walker. Athearn (1962) has a scholarly history of the Denver and Rio Grande Western.

Mining Frontier

The mining history of Glen Canyon opened in March, 1880, when Navajo Indians killed two prospectors, James Merrick and Ernest Mitchell, in Monument Valley. The two were in search of a hidden mine believed to be the source of the silver used by the Indians in their jewelry. When a searching party found some samples of silver ore with the bodies, it was thought the prospectors had located the mine. Although no one after them found out where the samples of silver ore came from, the Merrick-Mitchell mine was a lodestone for prospectors who searched for it in the Monument Valley-Navajo Mountain region for at least twenty-five years. Among them was Cass Hite, a miner with experience in Montana and Colorado. Hite was befriended by the Navajo Chief Hoskininni, who told him gold could be found in Glen Canyon. Following the chief's directions, he went to the place later called Hite in September, 1883, and soon discovered placer gold on both sides of the river.

A gold rush to Glen Canyon occurred when Cass Hite's discoveries became known. Several hundred miners appeared to prospect in what was quite likely the most difficult gold region any of them had ever encountered. But they found gold, first in the upper part of the canyon,

where the White Canyon Mining District was organized in 1885, and then they worked their way downstream to find gold all the way from the mouth of the Dirty Devil to Lee's Ferry. Extremely fine gold it was; most of it was found in lateral gravel terraces above the high water level. With the exception of the San Juan River, practically no gold was found in the tributary canyons.

Late in 1892 and in 1893 there was a very considerable gold rush to the canyon of the San Juan River below Bluff. Not much gold was found, apparently, but it seems to have had the effect of stimulating prospecting in the adjacent laccolithic mountains--the Abajo and La Sal mountains (to say nothing of Navajo Mountain and the Carrizo Mountains in the Navajo country) and the Henry Mountains. Puzzled about the origin of the gold in the canyons, men sought the source in the mountains. Almost simultaneously in 1892 discoveries were made in all of these areas, and in some others as well (notably the Big Indian area), mining districts were organized, and operations began. In none of them, however, were any significant and lasting commercial deposits of gold found, and within a few years these prospects faded out.

The placer mining history of Glen and San Juan canyons is found in the historic site reports by Crampton (1959-1964b). Gold mining areas in the canyons account for many of the sites. Gold mining in areas adjacent to the canyons is covered in the geological monographs of Herbert E. Gregory, Charles B. Hunt, and by Butler and others (1920).

The gold rush had some bearing on the ambitious enterprise of the Denver, Colorado Canyon, and Pacific Railway, a corporation organized in Denver by Frank M. Brown. The firm planned to build a railroad from Grand Junction to seaboard through the canyons of the Colorado River. Brown engaged Robert Brewster Stanton, a prominent mining engineer, to superintend the project, and with a large party they began the railroad survey in May, 1889, at Green River, Utah. Three boats were lost in Cataract Canyon, and after passing through Glen Canyon the expedition met disaster when Brown and two others were drowned in the rapids of Marble Canyon. Before the year was out Stanton returned and carried the survey successfully through Marble and Grand canyons and to the Gulf of California by April, 1890. The railroad was not built. Stanton argued the feasibility of it from an engineering viewpoint, but capital was more timid than the doughty engineer. Robert B. Stanton, however, had seen enough of Glen Canyon to convince him that a fortune was to be made there in gold mining; within a few years he was back to test his conviction.

The largest enterprise in the entire Glen Canyon gold field was that of the Hoskaninni Company, founded in 1897, in which the

imaginative engineer, Robert B. Stanton, had an interest and was in charge of field operations. His plan was to install a dredge designed to handle large quantities of sand and gravel. If the first were successful other dredges would be built to be operated by electric power generated by dams built in the canyons; the impounded water would be used for mining operations as well. Stanton was the first to propose a multipurpose hydroelectric project in Glen Canyon. Crews were put to work: One staked out the unclaimed portion of the full 170-mile length of the canyon in such a way that all the mining claims adjoined; another tested for values on the river bars, terraces, and beds; still another started work on the huge dredge.

The assembling and building of the Hoskaninni 46-bucket, 180-ton dredge was a colossal job. All the machinery was hauled by sixteen- and twenty-horse teams from the railhead at Green River by way of Hanksville and over a specially built road through the Henry Mountains to the river's edge just above Bullfrog Creek. The first trial run was made in March, 1901. The dredge operated a few months before it shut down, never to operate again. Not enough metal had been saved to pay costs. The huge machine is now under the waters of Lake Powell.

The failure of the Hoskaninni Company climaxed the Glen Canyon gold rush. The excessively fine gold in the canyon had simply eluded recovery by every process except in a few places such as Hite, Castle Butte Bar, Ticaboo Bar, Good Hope, California Bar, Moqui Bar, Gretchen Bar, and Klondike Bar. The only places approaching towns in the canyon were Hite and Lee's Ferry, where there were post offices. The little farming communities of Bluff, Kanab, Escalante, and Hanksville were the nearest supply points to the canyon diggings.

When Emery and Ellsworth Kolb passed through Glen Canyon in 1911 they saw only a few people where there had been hundreds a decade earlier. The only mining activity noted by the Kolbs was at Lee's Ferry where the American Placer Corporation had set up elaborate equipment to placer the extensive clay, sand, and gravel beds there and at the mouth of the Paria River nearby. But this, too, was a failure. Not the least interesting phase of the firm's operation was the construction of a large steamboat, the Charles H. Spencer, with which it was expected to haul barges of coal, brought down from the country above, from the mouth of Warm Creek, twenty-seven miles upstream. The largest craft ever operated in Glen Canyon, it was ninety-two feet long, twenty-five feet wide, and propelled by a steam-driven twelve-foot rear paddle wheel. There was scarcely enough power to push the boat upstream empty. It made five trips before it was tied up never to move again. The remains at Lee's Ferry may still be seen at low water.

The gold fever in Glen Canyon and San Juan Canyon, 1883-1911, is a unique chapter in the mining history of the United States, made so by the canyon locale: the greater part of the mining region is enclosed by high cliffs making it difficult of access and hard to traverse once reached, and the gold itself, extremely fine as it is, together with the peculiar conditions of canyon mining, resisted most attempts to recover it with profit. With the exception of Lee's Ferry, the entire mining field in Glen Canyon is now being inundated as the waters of Lake Powell back up behind Glen Canyon Dam.

Following the gold excitement in the canyon country there were some notable mining developments. If few people struck it rich in gold the region at least came to the attention of men who liked to prospect, and other minerals were sometimes found. Copper deposits in sedimentary rock were occasionally located, and though none of these amounted to much commercially the mineral was frequently to be found in association with uranium. Some of the more important areas developed during the uranium boom of the 1950's were begun as copper prospects (Big Indian, Happy Jack, and some areas in the Navajo country).

Quite probably the search for gold in the La Sal Mountains led to the discovery in 1898 of the new mineral called carnotite. The subsequent mining of vanadium and uranium was largely confined to the La Sal Mountains area and the San Rafael area (Temple Mountain - site 57) until the recent uranium boom when the entire Colorado Plateau was intensively prospected.

The canyon country of southeastern Utah has been explored for oil and gas since 1891, when the first oil well in Utah was drilled at Elgin (site 68) on the banks of the Green River, but no commercial fields were developed until after World War II when the Aneth field was brought in. One of the early fields of considerable interest was located at Mexican Hat (site 108) where a gusher was found in 1908. The strike at Mexican Hat, which was not followed by the discovery of commercially productive fields, stimulated oil prospecting all over southeastern Utah. Immediately after World War I there was widespread drilling in places like the Circle Cliffs (site 37), San Rafael Swell, Robber's Roost, Elk Ridge, Dark Canyon, Lockhart Basin (site 75) and the Shafer Basin (site 75).

Copper, uranium, and oil mining history is briefly touched upon by Crampton (1959, 60-73). Nearly all of the cited monographs prepared by the U. S. Geological Survey touch upon oil prospecting and drilling.

Reclamation and Recreation

After World War I, reclamation developments in the upper basin of the Colorado led to the formation of the Colorado River Compact in 1922, which opened the way for federal development of the river. The Colorado River Storage Act of 1956 is the basic authorization for the comprehensive utilization of the waters of the Colorado River allotted by the compact to the states of the upper basin.

By 1922, the scenic and recreational aspects of the Glen Canyon region had been recognized. It is difficult to say when this began. The earliest visitors to the region said little about it. Government reporters, except those of the Powell Survey, seldom departed from scientific objectivity in their descriptions, and those who were trying to wring a living from a land of bare rocks and little water could find small comfort in the esthetics of their environment. Yet it was the pioneer farmers, cattlemen, and particularly the miners, who first became thoroughly familiar with the region. For example, the sandstone arches, bridges, and windows, so common to a region where meandering streams are deeply entrenched in straight-walled canyons, were nearly all first seen by them before they were "discovered" by later comers. But the first finders seldom wrote of what they saw. To illustrate, the natural bridges in White Canyon were known to miners and stockmen, but they did not attract wide attention until Horace J. Long came out from the East to settle the affairs of the bankrupt Hoskaninni Company. He visited the bridges in 1903 and articles about them by W. W. Dyar of his party appeared in Century Magazine and elsewhere the next year. This attracted more visitors and more articles were published, and in April, 1908, Natural Bridges National Monument, the first national park or monument in Utah, was proclaimed by President Theodore Roosevelt.

In 1909, Dean Byron Cummings, archeologist of the University of Utah, and W. B. Douglass, of the General Land Office, discovered the greatest arch of them all, Rainbow Bridge, on the western slopes of Navajo Mountain. Made a national monument in 1910, it too had probably been seen before by miners working along the Colorado River only five easy miles below the bridge. Tourists appeared shortly after the formation of the two national monuments to visit the bridges and to see the ancient ruins in Mesa Verde National Park (created in 1906) and in the Navajo National Monument (created in 1909) and other places.

Somewhat slower was the growth of river running on the Colorado in Glen Canyon and the recreational growth of the western slope. Although Zion National Park dates from 1909 (as Mukuntuweap Natl. Monu. to 1919), Bryce Canyon National Park was not created until 1928, and

Capitol Reef National Monument not until 1937. By then the canyon country of the Colorado in Utah was literally ringed around by parks and monuments. In addition to those mentioned there were: Grand Canyon National Park, and Pipe Spring, Wupatki, Sunset Crater, Petrified Forest, Canyon de Chelly, and Arches National Monuments. Now in 1964 the Congress has created the Canyonlands National Park, embracing the country about the confluence of the Green and Colorado rivers. Undoubtedly recreation will play a large role in the subject area in the future. Visitors will find a region of matchless beauty and one rich in historical values.

For this section I have relied largely on my own works (1959, 1960a, and 1964c); the National Park Service (1950) has prepared an excellent monograph on the recreational resources of the Colorado River basin.

BIBLIOGRAPHY

- Athearn, Robert G.
1962 Rebel of the Rockies, A History of the Denver and Rio Grande Western Railroad (New Haven and London, Yale University Press).
- Auerbach, Herbert S.
1943 Father Escalante's Journal with Related Documents and Maps, Utah, Historical Quarterly, XI (Salt Lake City).
- Auerbach, Herbert S. and J. Cecil Alter, Eds.
1940 Life in the Rocky Mountains, 1830-1835 by Warren Angus Ferris (Salt Lake City, Rocky Mountain Book Shop).
- Bailey, Paul
1948 Jacob Hamblin, Buckskin Apostle (Los Angeles, Westernlore Press).
- Baker, Arthur A.
1946 Geology of the Green River Desert - Cataract Canyon Region: Emery, Wayne, and Garfield Counties, Utah. U. S. Geological Survey Bulletin 951 (Washington Government Printing Office).
- Baker, Pearl
1963 "The Hard, Good Life at Robbers Roost," Desert Magazine, 26 (May), 27-31.
- Barnes, Will C.
1935 Arizona Place Names, University of Arizona Bulletin VI, General Bulletin No. 2 (Tucson, University of Arizona); New Edition, Revised and Enlarged by Byrd H. Granger, 1960. The first edition has been cited in this paper.
- Bartlett, Richard A.
1962 Great Surveys of the American West. (Norman, University of Oklahoma Press).

- Beckwith, E. G.
1855 "Report of Explorations for a Route for the Pacific Railroad, by Capt. J. W. Gunnison, Topographical Engineers, near the 38th and 39th Parallels of North Latitude, from the Mouth of the Kansas River, Mo. to the Sevier Lake, in the Great Basin," in Reports of Explorations and Surveys to Ascertain the Most Practicable and Economical Route for Railroad from the Mississippi to the Pacific Ocean. . . II (Washington, Beverly Tucker, Printer) 9-114.
- Bolton, Herbert E.
1950 Pageant in the Wilderness, the Story of the Escalante Expedition to the Interior Basin, 1776, Including the Diary and Itinerary of Father Escalante Translated and Annotated (Salt Lake City, Utah State Historical Society).
- Boutwell, J. M.
1905 ". . . Vanadium and Uranium in Southeastern Utah," U. S. Geological Survey, Contributions to Economic Geology 1904 (Washington, Government Printing Office), 200-210.
- Brooks, Juanita
1957 "Lee's Ferry at Lonely Dell," Utah Historical Quarterly, XXV (October), 283-295.
1962 John Doyle Lee, Zealot-Pioneer Builder-Scapegoat (Glendale, California, Arthur H. Clark).
- Butler, B. S., G.F. Loughlin, V. C. Helkes, and others
1920 The Ore Deposits of Utah. U. S. Geological Survey Professional Paper 111 (Washington, Government Printing Office).
- Campbell, Marius R.
1922 Guidebook of the Western United States: Part E, The Denver & Rio Grande Western Route, U. S. Geological Survey Bulletin 707 (Washington, Government Printing Office).
- Carroll, Elsie Chamberlain, comp.
- 1960 History of Kane County. . . (Salt Lake City, Utah Printing Co.).

- Cleland, Robert Glass, and Juanita Brooks, eds.
 1955 A Mormon Chronicle: The Diaries of John D. Lee, 1848-1876 (San Marino, California, Huntington Library) 2 vols.
- Corbett, Pearson H.
 1952 Jacob Hamblin the Peacemaker (Salt Lake City, Deseret Book Co.).
- Crampton, C. Gregory
 1958 "Humboldt's Utah, 1811," Utah Historical Quarterly, XXVI (July), 268-281.
- 1959 Outline History of the Glen Canyon Region, 1776-1922. University of Utah Anthropological Papers No. 42, Glen Canyon Series No. 9 (Sept.).
- 1960 Historical Sites in Glen Canyon: Mouth of San Juan River to Lee's Ferry. University of Utah Anthropological Papers No. 46, Glen Canyon Series No. 12 (June).
- 1960a "Historic Glen Canyon," Utah Historical Quarterly, XXVIII (July), 274-289.
- 1962 Historical Sites in Glen Canyon: Mouth of Hansen Creek to Mouth of San Juan River. University of Utah Anthropological Papers No. 61, Glen Canyon Series No. 17 (December).
- 1964a ed., "Military Reconnaissance in Southern Utah, 1866," Utah Historical Quarterly, 32 (Spring), 145-161.
- 1964b The San Juan Canyon Historical Sites. University of Utah Anthropological Papers No. 70, Glen Canyon Series No. 22 (Salt Lake City).
- 1964c Standing Up Country: The Canyon Lands of Utah and Arizona (New York and Salt Lake City, Alfred A. Knopf and the University of Utah Press in Association with the Amon Carter Museum of Western Art).
- Crampton, C. Gregory, and David E. Miller, eds.
 1961 "Journal of Two Campaigns by Utah Territorial Militia Against the Navajo Indians, 1869," Utah Historical Quarterly, XXIX (April), 148-176.

- Crampton, C. Gregory, and Dwight L. Smith, eds.
1961 The Hoskaninni Papers: Mining in Glen Canyon, 1897-1902, by Robert B. Stanton. University of Utah Anthropological Papers No. 54, Glen Canyon Series No. 15 (November).
- Crampton, C. Gregory, and Gloria Griffen (Cline)
1956 "The San Buenaventura, Mythical River of the West," Pacific Historical Review, XXV (May), 163-171.
- Creer, Leland H.
1958a Mormon Towns in the Region of the Colorado, University of Utah Anthropological Papers Number 32, Glen Canyon Series No. 3 (May).
1958b The Activities of Jacob Hamblin in the Region of the Colorado. University of Utah Anthropological Papers Number 33, Glen Canyon Series Number 4 (May).
- Dane, C. H.
1935 Geology of the Salt Lake Valley Anticline and Adjacent Areas, Grand County, Utah. U. S. Geological Survey Bulletin 863 (Washington, Government Printing Office).
- Dellenbaugh, Frederick S.
1926 A Canyon Voyage: The Narrative of the Second Powell Expedition Down the Green-Colorado River from Wyoming, and the Explorations on Land, in the Years 1871 and 1872 (Second Edition, New Haven, Yale University Press; First Edition, New York and London, G. P. Putnam's Sons, 1908).
- Dutton, Clarence E.
1880 Report on the Geology of the High Plateaus of Utah, with Atlas. U. S. Geographical and Geological Survey of the Rocky Mountain Region (Washington, Government Printing Office).
1882 Tertiary History of the Grand Cañon District, with Atlas. U. S. Geological Survey. Monographs, II (Washington, Government Printing Office).

- Easton, Robert, and Mackenzie Brown
1961 Lord of Beasts: The Saga of Buffalo Jones. Foreword by Jack Schaefer (Tucson, University of Arizona Press).
- Ekker, Barbara Baldwin
1964 "Freighting on the Colorado River: Reminiscences of Virgil Fay Baldwin," Utah Historical Quarterly, 32 (Spring), 122-129.
- Fowler, Don D.
1961 "Lake Canyon Survey," Appendix II in Floyd W. Sharrock, et. al. University of Utah Anthropological Papers No. 52, Glen Canyon Series No. 14. (Salt Lake City).

1963 1961 Excavations Harris Wash, Utah. University of Utah Anthropological Papers No. 64, Glen Canyon Series No. 19 (June).
- Fremont, John Charles
1854 "Letter," Washington, D. D., National Intelligencer, June 15, 1854.
- Gannett, Henry
1877 "Topographical Report on the Grand River District," Ninth Annual Report of the United States Geological and Geographical Survey of the Territories...1875 (Washington, Government Printing Office), 337-350.
- Gilbert, G. K.
1877 Report on the Geology of the Henry Mountains. U.S. Geographical Survey of the Rocky Mountain Region (Washington, Government Printing Office).
- Gilluly, James
1929 Geology and Oil and Gas Prospects of Part of the San Rafael Swell, Utah. U. S. Geological Survey Bulletin 806-C (Washington, Government Printing Office).
- Goetzmann, William H.
1959 Army Exploration in the American West, 1803-1863 (New Haven, Yale University Press).

- Gregory, Herbert E.
 1938 The San Juan Country: A Geographic and Geologic Reconnaissance of Southeastern Utah with Contributions by Malcolm R. Thorpe. U. S. Geological Survey Profession Paper 188 (Washington, Government Printing Office).
- 1951 The Geology and Geography of the Paunsaugunt Region Utah: A Survey of Parts of Garfield and Kane Counties. U.S. Geological Survey Professional Paper 276 (Wash., Govt. Printing Office).
- Gregory, Herbert E., and J. C. Anderson
 1939 "Geographic and Geologic Sketch of the Capitol Reef Region, Utah," Bulletin of the Geological Society of America, 50 (December), 1827-1850.
- Gregory, Herbert E., and Raymond C. Moore
 1931 The Kaiparowits Region: A Geographic and Geologic Reconnaissance of Parts of Utah and Arizona. U. S. Geological Survey Profession Paper 164 (Washington, Government Printing Office).
- Hafen, LeRoy R. and Ann W. Hafen
 1954 Old Spanish Trail Santa Fe to Los Angeles with Extracts from Contemporary Records and Including Diaries of Antonio Armijo and Orville Pratt (Glendale, Arthur H. Clark).
- 1957 Central Route to the Pacific, by Gwinn Harris Heap: With Related Material on Railroad Explorations and Indian Affairs, by Edward F. Beale, Thomas H. Benton, Kit Carson, and Col. E. A. Hitchcock, And In Other Documents, 1853-54 with an Introduction and Notes. (Glendale, California, Arthur H. Clark).
- Hansen, George H., and Mendell M. Bell, comps.
 1949 . . . The Oil and Gas Possibilities of Utah (Salt Lake City, Utah Geological and Mineralogical Survey).
- Hillebrand, W.F., and F. Leslie Ransome
 1900 "On Carnotite and Associated Vanadiferous Minerals in Western Colorado," American Journal of Science, Fourth Series, X (August), 120-144.

- Holmes, William H.
1878 "Report on the Geology of the Sierra Abajo and West San Miguel Mountains," Tenth Annual Report of the United States Geological and Geographical Survey of the Territories. . . 1876 (Washington, Government Printing Office), 187-195.
- Humboldt, Alexander von
1811 Political Essay on the Kingdom of New Spain . . . (London) 4 vols.
- Hunt, Charles B.
1958 Structural and Igneous Geology of the La Sal Mountains, Utah. U. S. Geological Survey Professional Paper 294-1 (Washington, Government Printing Office).
- Hunt, Charles B., assisted by Paul Averitt and Ralph L. Miller
1953 Geology and Geography of the Henry Mountains Region Utah: A Survey and Restudy of One of the Classic Areas in Geology. U. S. Geological Survey Professional Paper 228 (Washington, Government Printing Office).
- Hunter, Milton R.
1940 Brigham Young the Colonizer (Salt Lake City, Deseret News Press).
- Jackson, W. H.
1876 "Report on Ancient Ruins in Southwestern Colorado," Annual Report of the United States Geological and Geographical Survey of the Territories. . . 1874 (Washington, Government Printing Office), 367-381.
- 1878 "Report on the Ancient Ruins Examined in 1875 and 1877," Tenth Annual Report of the United States Geological and Geographical Survey of the Territories. . . 1876 (Washington, Government Printing Office), 409-450.
- Jenson, Andrew
1941 Encyclopedic History of the Church of Jesus Christ of Latter-Day Saints (Salt Lake City, Deseret News Publishing Company).

- Johnson, H. S., Jr.
1957 Uranium Resources of the San Rafael District Emery County, Utah - A Regional Synthesis. U. S. Geological Survey Bulletin No. 1046-D (Washington, Government Printing Office).
- Kelly, Charles
1933a "The Mysterious 'D. Julien'", Utah Historical Quarterly, VI (July), 83-88.
1933b "Antoine Roubidoux," Utah Historical Quarterly, VI (October), 114-116.
1950 "Forgotten Trail of the Old West," Desert Magazine XIII (October), 19-22.
1959 The Outlaw Trail: A History of Butch Cassidy and His Wild Bunch (Second edition, New York, Devin-Adair).
- Korn, Bertram Wallace, ed.
1954 . . . Incidents of Travel and Adventure in the Far West by Solomon Nunes Carvalho. Edited with an Introduction (Philadelphia, Jewish Publication Society).
- Lambert, Neal
1964 "Al Scorup, Cattleman of the Canyons," Utah Historical Quarterly, 32 (Summer), 301-320.
- La Sal National Forest
1940 Historical Information (Typescript, Office of Manti - La Sal National Forest, Moab, Utah).
- Liebler, H. Baxter
1962 "The Social and Cultural Patterns of the Navajo Indians," Utah Historical Quarterly, XXX (Fall), 299-325.
- Lister, Robert H., J. Richard Ambler, and Florence C. Lister
1959 The Coombs Site. University of Utah Anthropological Papers No. 41, Glen Canyon Series No. 8.
1960 Part I (July, 1959); Part II (October, 1960).
- Look, Al
1956 U Boom: Uranium on the Colorado Plateau (Denver, Bell Press).

- Lyman, Albert R.
 1909 "The Land of Pagahrit," Improvement Era, XII
 (October), 934-138.
- 1962 Indians and Outlaws: Settling of the San Juan
Frontier (Salt Lake City, Bookcraft).
- McKnight, E. T.
 1940 Geology of Area between Green and Colorado Rivers,
Grand and San Juan Counties, Utah. U. S. Geological
Survey Bulletin 908 (Washington, Government Printing
 Office).
- Macomb, J. N.
 1876 Report of the Exploring Expedition from Santa Fe,
New Mexico, to the Junction of the Grand and Green
Rivers of the Great Colorado of the West, in 1859,
Under the Command of Capt. J. N. Macomb; with a
Geological Report by Prof. J. S. Newberry
 (Washington, Government Printing Office).
- Miller, David E.
 1958 "Discovery of Glen Canyon," Utah Historical
Quarterly, XXVI (July), 220-237.
- 1959 Hole-in-the-Rock: An Epic in the Colonization of
the Great American West (Salt Lake City, University
 of Utah Press).
- Morrill, A. Reed
 1941 "The Site of Fort Robidoux," Utah Historical
Quarterly, IX (January-April), 1-11.
- Nelson, Lowry
 1952 The Mormon Village: A Pattern and Technique of
Land Settlement (Salt Lake City, University of
 Utah Press).
- Peale, A. C.
 1877 "Geological Report on the Grand River District."
Ninth Annual Report of the United States Geological
and Geographical Survey of the Territories. . .
1875 (Washington, Government Printing Office), 33-101.
- Perkins, Cornelia Adams, Marian Gardner Nielson, and Lenora Butt
 1957 Saga of San Juan (Salt Lake City, San Juan County
 Daughters of Utah Pioneers).

- Powell, J. W.
 1875 Exploration of the Colorado River of the West and Its Tributaries. Explored in 1869, 1870, 1871, and 1872,
- 1875 Under the Direction of the Secretary of the Smithsonian Institution (Washington, Government Printing Office).
- 1876 Report on the Geology of the Eastern Portion of the Uinta Mountains and a Region of Country Adjacent Thereto. U. S. Geographical and Geological Survey of the Territories (Washington, Government Printing Office).
- 1879 Report on the Arid Lands of the United States, with a More Detailed Account of the Lands of Utah (Second edition, Washington, Government Printing Office).
- Scorup, Stena
 1944 J. A. Scorup: A Utah Cattleman (Privately printed).
- Silliman, Bert J.
 ca. 1951-
 1957 Papers (MS, Utah State Historical Society, Salt Lake City).
- Stegner, Wallace
 1942 Mormon Country (New York, Duel, Sloan & Pearce).
- 1954 Beyond the Hundredth Meridain: John Wesley Powell and the Second Opening of the West. . . With an Introduction by Bernard De Voto (Cambridge, Mass., Houghton Mifflin).
- Tanner, Faun McConkie
 1937 A History of Moab, Utah (Moab, Times-Independent).
- U. S. Department of Interior, National Park Service
 1950 A Survey of the Recreational Resources of the Colorado River Basin. . . 1946 (Washington, Government Printing Office).
- U. S. War Department, Corps of Topographical Engineers
 1855-
 1861 Reports of Explorations and Surveys to Ascertain the Most Practicable and Economical Route for a Railroad from the Mississippi River to the Pacific Ocean, Made under Direction of the

1855- Secretary of War, in 1853-56 According to Acts
1861 of Congress of March 3, 1853, May 31, 1854, and
contd. August 5, 1854 (Washington, Beverly Tucker and
George W. Bowman, 12 vols.).

U. S. Work Projects Administration

1941 Utah: A Guide to the State (New York, Hastings
House).

Walker, Don D.

1963 "Longhorns Come to Utah," Utah Historical Quarterly,
XXX (Spring), 135-147.

1964a "The Carlisles: Cattle Barons of the Upper Basin,"
Utah Historical Quarterly, 32 (Summer), 268-284.

1964b "The Cattle Industry of Utah, 1850-1900," Utah
Historical Quarterly, 32 (Summer), 182-197.

Wheeler, George M.

1889 Report upon United States Geographical Surveys
West of the One Hundredth Meridian. . . I.
Geographical Report. . . (Washington, Government
Printing Office).

PART II

HISTORIC SITES OF SOUTHEASTERN UTAH AND PARTS OF NORTHERN ARIZONA

1. Dominguez - Escalante Trail (Grand Canyon, Cedar City, Escalante, Marble Canyon)

The earliest known penetration by white men into the subject area was that by the historically important exploring expedition undertaken in 1776 by the two Franciscan friars Francisco Atanasio Domínguez and Francisco Vélaz Escalante. Having failed to find a satisfactory route through to California the explorers from near the present site of Cedar City continued south; some distance south of St. George they climbed the Hurricane Cliffs and headed west across the Arizona Strip. They reached Kanab Creek south of Fredonia; they did not see Pipe Spring. The Spaniards crossed over the extreme northern end of the Kaibab Plateau and then turned south and from House Rock Valley skirted the southern escarpment of the Paria Plateau to Lee's Ferry. Unable to cross the Colorado at that point, with some difficulty they made their way upstream and found a ford since known as the Crossing of the Fathers. They struck southeast and, by way of the Hopi villages, they reached Santa Fe on January 2, 1777.

The only known physical remains left by the expedition in record of their passing are the steps cut in the steep sandstone slope of Padre Creek, the short tributary by which the Spaniards reached the Colorado River at the Crossing of the Fathers, and these are now under the waters of Lake Powell. See the technical site study made by Crampton (1960, 1-10; see also Miller, 1958, for a map of the expedition route from Lee's Ferry to the crossing of Navajo Canyon at Kaibito Creek.) The diary kept by Escalante and the maps made by Miera are important historical, ethnographical, and geographical documents providing much primary source material for the entire subject area covered in this report, although the expedition only crossed the southern part of it as approximately indicated on the maps attached herewith. The two best editions are by Bolton (1950), whose work contains a facsimile of the Miera map, and Auerbach (1943), whose work contains several Miera maps and other maps based on Miera's work.

2. Spanish Trail (Cortez, Moab, Salina, Price)

The Hafens (1954), who have assembled most of the pertinent data regarding it, refer to this as the Old Spanish Trail, which is something of a misnomer. The trail was not opened until early in the

nineteenth century, and it did not receive any traffic that can be satisfactorily documented until after the entire region became part of the territory of Mexico in 1821. From Santa Fe the route passed through Abiquiu to Pagosa Springs; thence it headed west crossing numerous northern tributaries of the San Juan; at a point north of Mesa Verde it struck northwest paralleling U. S. Highway 160; at about Dove Creek, Colorado, it continued northwest entering Utah just under 38° N. Latitude.

To my knowledge no one has worked out the detailed route of the Spanish Trail between the Utah border and Moab in Spanish Valley. The Hafens (1954) have a very general description, and the map accompanying their work is of small scale. Kelly (1950) has a detailed map of the route west of the Green River. The 1855 map by F. W. Egloffstein, accompanying Beckwith's report of the Gunnison expedition, shows two nearly parallel trails between Santa Fe and Utah, the one to the west is marked "Lower trail travelled during the rainy seasons." However, Egloffstein's map, made as a result of Macomb's exploration in 1859, which accompanies Macomb's report published in 1876, shows only one "Spanish Trail." The Egloffstein map is the first to show the trail in Utah east of the Colorado with any accuracy but it is difficult to adjust his data to the modern map.

The trail probably reached Summit Point and then dropped down into Lisbon Valley, thence to a route paralleling U. S. Highway 160 by way of La Sal Junction. From there the Spanish Trail closely paralleled Highway 160 to a point 10 to 12 miles north of Moab, where it veered off to the west taking what amounted to the approximate shortest route to the crossing of Green River (see site 4).

East of the crossing the route, which there leaves the subject area, cut across the northern slope of the San Rafael Swell to Castle Valley and left the basin of the Colorado by way of Wasatch Pass (site 3) and Salina Canyon.

There were some cut-offs and variations of the main Spanish trail: the Crossing of the Fathers was sometimes used in the caravan trade between New Mexico and California in the 1830's and 1840's; a trail from central Colorado connected with it at the Green River Crossing. The Hafens (1954) mention both of these routes. Another variant is reported to traverse the intricate canyon country between the Needles and Robber's Roost, crossing the Colorado at the head of Cataract Canyon at Spanish Bottom; although it is possible to take horses through this rugged area there is no particular reason why travelers during the Mexican period, which ended in 1848, should take such an involved and slow route when they could stay in the comparatively open country adjacent to the established Spanish Trail. No evidence has

been found to suggest that the latter route was ever used by Spaniards, Mexicans, or Americans moving through the region before 1848.

I have not learned of the existence of any remains marking the course of the Spanish Trail east of the Green River. West of it, in Castle Valley, informants have said that at a number of places remains of the trail (actually numbers of trails closely parallel to one another) may be seen.

3. Wasatch Pass (Salina)

Wasatch Pass, outside of the subject area, is included here as it was the historic east-west gateway between central Colorado and the Colorado basin to the mouth of the Green River and the Great Basin. The Spanish Trail passed through it, and Gunnison carried his railway survey through it in 1853 (Beckwith, 1855). It was replaced as a principal gateway when the Denver & Rio Grande Western Railroad was completed through Price Canyon and built across the divide at Soldier Summit in 1883. Steeper on the eastern slope, Wasatch Pass rises to nearly 8,000 feet and descends gradually through Salina Canyon to the floor of the Great Basin at Salina in the valley of the Sevier River. It is traversed now by Utah State Route 10 between Price and Salina.

*4. Green River Crossing (Salina)

The crossing of the Green River near the town of Green River, Utah, is one of historic importance. By the white men it was used first by those who opened the Spanish Trail (site 2) early in the nineteenth century. After the decline of the Spanish Trail as an east-west route after 1848 the crossing continued to serve those traveling from the basin of the upper Colorado River in Colorado and Utah to the Great Basin. It figured prominently in the railroad surveys of Gunnison (Beckwith, 1855), and of Beale (Hafen and Hafen, eds., 1957) and Fremont (1854; see also Korn's 1954 edition of Carvallo's 1854 account), all of whom crossed there in 1853. A railroad, the Denver & Rio Grande Western, was put across the Green in 1883, but the crossing was used after that time by horseback travelers and vehicular traffic until a road bridge was built at a later date; U. S. Highway 6-50 is the designation of the present automobile route. Another bridge across the Green downstream a mile or two from the town of Green River will be built to accommodate Interstate Highway 70.

The exact location of Green River Crossing, which was a ford except during the high water months in late spring and early summer, has remained in doubt. From the Book Cliffs the Green River debouches

into an open valley, originally called Gunnison Valley after John W. Gunnison of the U. S. Topographical Engineers, through which it flows for a few miles before entering the head of Labyrinth Canyon. The crossing, which made use of a gravel island in the river, is generally believed to have been some distance below the town, but its exact location has not been precisely determined. Gannett (1877, Plate L11) has a detailed map of the actual ford but he does not fix it with respect to any landmarks that would permit precise location today. The late Bert J. Silliman, whose papers are on file in the Utah State Historical Society, was much interested in the Spanish Trail and the Green River Crossing, and he assembled much information about them.

The completion of the railroad in 1883 was a matter of some importance to the country south to the Henry Mountains and beyond as Green River was the nearest railhead. The town that sprang up was first called Blake and later changed to Green River. With the opening of roads and highways the town has lost something of its importance and it strikes one as being rather characterless.

*5. Inscriptions of D. Julien

The first whites to become intimately familiar with the subject area were the fur trappers, or mountain men. There can be little doubt that they combed the entire West for beaver and other animals and literally discovered much of it. Beaver were plentiful in the canyons of the Green and Colorado, as they are today, and in the High Plateaus to the west of the area and in the La Sal and Abajo mountains.

That the mountain men knew much of the canyon country is evident from the book of Warren A. Ferris (Auerbach - Alter, eds., 1940), who roamed the Rockies, 1830-1835, but little actual documentation of their penetration into the basin of the lower Green and of the Colorado in Utah has come to light. The most important physical records so far discovered in the field are the inscriptions left by Denis Julien in the canyon of the Green River and in lower Cataract Canyon, all of them dated 1836. Julien was identified with the Roubidoux fur trapping enterprise located in the Uinta Basin (See Kelly 1933a, 1933b, and Morrill, 1941).

Three presumably authentic Julien inscriptions have been found in the subject area. They are as follows:

1. Labyrinth Canyon at Bowknot Bend (Moab, Salina - Precise location has not been ascertained) that reads: "D. Julien 16 Mai 1836"

2. Labyrinth Canyon at the mouth of Hell Roaring Canyon (Moab) that reads: "D. Julien 1836 3 Mai ⁷/₇ winged symbol and crude figure of a boat." "
3. Cataract Canyon (Escalante), 185.5 miles above Lee's Ferry, that reads: "1836 D. Julien."

Another date, "1837", presumably authentic, has been found opposite the mouth of Lake Canyon (Escalante), at mile 113.2 (Crampton, 1962, 44-45). This has a cast about it suggestive of the French language and it has the appearance of some age. Both the 1837 date and the D. Julien inscription in Cataract Canyon (see forthcoming report by Crampton, now in press, on historical sites in Cataract Canyon) will be inundated by Lake Powell.

6. Inscription in Westwater Canyon (Grand Junction)

In Sec. 5 T. 18S R. 24E., SLBM there is an important inscription left by Antoine Roubidoux. Near the mouth of Westwater Canyon where it debouches from the Book Cliffs, and slightly outside the subject area, the following inscription is to be found on a smooth sandstone rock:

"Antoine Roubidoux Passe ici le 13 Novembre 1837
 Pour Etablise maison Traitte a la Rv Vert ou
 Winte" In translation: Antoine Roubidoux passed
 here November 13, 1837, to establish a trading
 house on the Green, or Winte, River."

This inscription constitutes a valuable historical document: It helps to date the founding of the fur trading post of Fort Roubidoux in the Uinta Basin and to establish one route used by fur men traveling between Santa Fe and the Utah country (See the Hafens, 1954, 101-103). A picture of the inscription is to be found in Kelly (1933b).

Mr. Pat H. Miller, Park Naturalist at Colorado National Monument in 1963, (now at Rocky Mountain National Park), received information from a rancher that the date 1835 associated with some inscribed names had been found in the Book Cliffs area in Utah near the Utah-Colorado line. In correspondence Mr. Miller stated that he had not seen the inscriptions; apparently he was transferred to Rocky Mountain National Park before he had an opportunity to do so. If authentic, this date and the names would constitute another record of the years of the mountain men in the Utah canyon country.

7. Macomb Expedition, 1859 (Cortez, Moab)

In 1859 Captain J. N. Macomb, U. S. Topographical Engineers, was ordered to determine the course of the San Juan River, to fix the position of the confluence of the Green and Colorado rivers, and to find the most direct route between the Rio Grande and the southern settlements of Utah. In the field from mid-July through September, the expedition from Santa Fe followed the Spanish Trail to a point near the Utah-Colorado line where it took a more westerly route. Again, no detailed study of the routes of the Macomb expedition has been made and, as generally described here and as laid down on the accompanying maps, it is only approximate.

The expedition established a base camp at "Ojo Verde", a spring between the Abajo and La Sal mountains. From this place part of the party headed west, probably down Indian Creek, to find the confluence. They did not succeed in reaching the river but climbed out to a rim, probably on one of the projections of Hatch Point, where they could see the Colorado, and concluded they were near the confluence.

From Ojo Verde the expedition headed south paralleling U. S. Highway 160 to Monticello and Utah State Route 47 to the San Juan which they probably reached by way of Recapture Creek. By way of the right bank of the San Juan, Cañon Largo, and Jemez, the expedition returned to Santa Fe.

The Macomb expedition made the first detailed and scientific exploration of the subject area. Within the same decade Gunnison and Fremont had traversed the northern periphery of it at the base of the Book Cliffs and crossed the Green at the Green River Crossing. John S. Newberry made the first geological report of a portion of the region--this composes the larger part of Macomb's report (1876)--and Egloffstein's beautiful map in the same work with remarkable accuracy does locate the confluence of the Green and Colorado, the course of the San Juan, and numbers of prominent landmarks such as the La Sal and Abajo mountains and the Bear's Ears.

8. Bear's Ears (Cortez)

The Bear's Ears are two isolated buttes standing on top of the southern end of the Bear's Ears Plateau, or Elk Ridge, a lofty and dissected tableland west of the Abajo Mountains. The altitude at the base of the buttes is 8400 feet; the plateau drops sharply 1,500 feet to Grand Flat. The ears stand over 500 feet above the general level of the plateau. They are visible from points on the south as far as Monument Valley 50 miles away, and distant points to southeast and southwest. See Gregory (1938, 9-10).

The Bear's Ears have been a landmark in the extreme southeastern part of Utah since white men first appeared in the region, as indeed they probably were for the prehistoric people. Egloffstein on his map illustrative of the Macomb expedition of 1859 gave them the Spanish name, "Orejas del Oso," which suggests that the name was applied during the Spanish, or, most probably, during the Mexican period. See Egloffstein's map in Macomb (1876).

*9. Lee's Ferry (Marble Canyon)

Lee's Ferry, the dividing point between the upper and lower basins of the Colorado River, and closely identified with developments in both, is a place of historic and scenic importance. Here the Colorado leaves the cliff walls of Glen Canyon behind and breaks out into the open for two miles before plunging into Marble Canyon. This was the one place in the entire canyon system of the Colorado below Moab on the Colorado and the Green River Crossing on the Green where the Colorado was easily accessible.

The crossing at Lee's Ferry was not a ford. Dominguez and Escalante found that out in 1776. Years later the Mormon scout Jacob Hamblin rafted across but found it dangerous. The first Powell expedition in 1869 stopped there and in 1870 Powell and Jacob Hamblin built a crude boat, the Cañon Maid, on which they crossed the river. In 1871 Powell ended his run on the second expedition at this point and began the second leg of his river trip there in the summer of 1872.

In December, 1871, John D. Lee arrived and built a house at the mouth of the Paria. In 1872 Lee occasionally ferried people across the river using first a crude raft and later the Nellie Powell, abandoned by the second Powell expedition. On January 11, 1873, Lee opened regular ferry service with a boat he had built on the spot and named the Colorado. Lee's Ferry replaced the historic Crossing of the Fathers thirty-nine river miles upstream, and it served as a major crossing of the Colorado until it was replaced in 1929 by Navajo Bridge, built across Marble Canyon six miles downstream.

The ferry business was just one activity at Lee's Ferry. Lee opened a trade with the Navajo Indians--they were among his first customers--in 1872; during the gold excitement in Glen Canyon it was a point of departure for the miners upstream; here, during the height of the rush, the Hoskaninni Company, the biggest gold company ever to operate in Glen Canyon, set up one of its headquarters; here in 1910 Charles H. Spencer set about placering for gold in the highly colored Chinle shales; here was the point of beginning for the detailed survey of the Colorado River (upstream to the mouth of the Green River, including

the San Juan River to the mouth of Chinle Creek), undertaken in 1921 by the U. S. Geological Survey and the Southern California Edison Company.

The 1921 survey was done in anticipation of reclamation development of the upper basin, and in 1922 the Colorado River Compact, dividing the water of the Colorado between the upper basin and lower basin sites, was signed. As established in the compact, the point of division between the two basins was fixed at Lee's Ferry--technically, at a point one mile below the mouth of the Paria River.

There remain at Lee's Ferry and in the immediate environs numerous reminders of its historic past: The original Lee cabin (built in part from timbers from Powell and Hamblin's Cañon Maid) still stands near the mouth of the Paria; there is a complex of cut stone buildings about one mile above the mouth of the Paria, which was the center of the community, built by Lee, the Hoskaninni Company, and Spencer; anchor posts of the ferry, located about three-quarters of a mile above Lee's Ferry settlement may still be seen; there is much heavy mining equipment and the remains of a large boat brought in by Charles H. Spencer; approach roads, old and new, on both sides of the river may be easily traced; on the east side of the river there are numerous evidences of occupation and use by the Navajo Indians.

Since 1921 Lee's Ferry has been the site of a U. S. Geological Survey gaging station, and since 1933 the Geological Survey has controlled the site of Lee's Ferry community as a government reservation. Several of the old buildings have been maintained for the use of the engineer in charge of gaging, but the older and most historic buildings were not being preserved. When I was there in September, 1959, the two old log cabins on the right bank approach to the ferry had been burned and were still smoldering. I understood that they had been set afire, presumably upon orders of the Geological Survey, to prevent occupancy by squatters.

It should be emphasized that Lee's Ferry is a historic place and one that would lend itself admirably to historical interpretation. A detailed study should be made of the entire area. As the site was outside of the reservoir area I made only a very superficial study of it during the course of the Glen Canyon investigations (see Crampton 1960, and an addendum in a forthcoming report on historical sites in Cataract and Narrow canyons, and in Glen Canyon to California Bar). The buildings and remains about the site should be preserved until such a detailed study is made in order to determine the most significant ones for permanent preservation for interpretive purposes.

One of the historic places on the Colorado River, and in a very scenic location, Lee's Ferry could and should be developed into an interpretive center of primary importance.

No detailed history of Lee's Ferry has been published: Creer (1958b) briefly surveys the history to 1929; Barnes (1935, 243-244) has valuable details; the explorations of Jacob Hamblin are studied briefly by Creer (1958a) and more extensively by Corbett (1952) and Bailey (1948); Juanita Brooks' article on Lee's Ferry (1957) is useful and her important biography of John D. Lee (1962) based largely on Lee's diaries edited by Cleland and Brooks (1955) is basic; Crampton and Smith (1961) have edited the papers of the Hoskaninni Company; Crampton (1959, 1964c) are general works placing Lee's Ferry in regional and historical perspective.

10. Navajo Bridge and Marble Canyon Post Office (Marble Canyon).

Navajo Bridge on U. S. Highway 89A was built across Marble Canyon of the Colorado in 1929 and put an end to the ferry service at Lee's Ferry (site 9) six miles upstream. Creer (1958a) has some details on the building of the bridge. Sometime before 1929 Marble Canyon lodge and trading post was built on the right side and about half a mile from the rim of the canyon where the public has been served since. Barnes (1935, 263) says the post office was established in 1927.

At the base of the right support of Navajo Bridge there are a number of plaques commemorating persons who have lost their lives on the Colorado River; among them is a plaque honoring Norman and Doris Nevills.

11. Jacob's Pools (Marble Canyon)

At the base of the Vermilion Cliffs and the Paria Plateau is Sec. 6 T. 38N R. 5E. Gila and Salt River Meridian are located Jacob's Pools, a spring that has long figured in the history of the region. About two miles from U. S. Highway 89A, the location of the spring may be seen from there as there is a patch of green at the base of the towering red cliffs behind it. In 1776, Domínguez and Escalante probably camped there on the night of October 25 (Bolton, 1950, 111) where they found a good spring of water near some cottonwoods.

Dellenbaugh (1926, 158-160) in 1871 described the spring as consisting of two pools of fine clear water, each about seven or eight feet long; they were named, he states, after Jacob Hamblin, Mormon scout. Not long after Dellenbaugh and other members of Powell's party passed that way, John D. Lee established a primitive home there which he used from time to time as a way station on the trail to Lee's Ferry (see Cleland and Brooks, eds., 1955; I: XVI; II: many references). The spring is still used as a source of water for stock.

*12. House Rock Spring (Grand Canyon).

House Rock Spring is located at the base of the Vermilion Cliffs near the head of House Rock Valley in the south central part of Sec. 3 T. 39 N. R. 3E. Gila and Salt River Meridian. It is incorrectly located on the House Rock Spring Quadrangle (1957) published by the U. S. Geological Survey; on that map House Rock Spring is lower and in the same draw as "Onemile Spring."

The name derives from two huge talus blocks leaning together at the base of the cliffs. When Dellenbaugh and other members of the Powell expedition visited the site in 1871 they noted that some one had printed on the rocks in charcoal the words "Rock House Hotel." The name was put on the maps as "House Rock" by the Powell Survey which also named House Rock Valley (Dellenbaugh, 1926, 160).

Until the construction of a modern road across the Kaibab Plateau (the present U. S. Highway 89A), House Rock Spring was on the main route of travel between Utah and Arizona. Domínguez and Escalante may have camped by the spring on October 24, 1776; it was certainly known to Jacob Hamblin and John D. Lee as it was to the Powell Survey. Once Lee's Ferry was opened in 1873 one could take wagons through to Arizona, and the Mormon colonization of the Little Colorado Valley began. This continued through the 1870's, and House Rock Spring was a favorite camping place for the colonizers en route from Utah to Arizona. This is apparent from the number of names on the square blocks of sandstone that line the gulch on both sides of the spring. Done by picks, knives, and in graphite grease and charcoal, hundreds of the names are followed by dates in the 1870's. See sites 13, 14.

13. Pioneer Utah-Arizona Road Across Kaibab Plateau (Grand Canyon, Cedar City)

Once Lee's Ferry was opened in 1873 Mormon colonists from Utah began settling in Arizona, mainly in the upper valley of the Little Colorado River. From the settlements on the Virgin River they came across the Arizona Strip by way of Pipe Spring and Kanab, and from points in northern Utah they came down Johnson Canyon. At the mouth of Johnson Canyon (where it breaks through the Vermilion Cliffs) the two routes merged and continued straight east to Navajo Well (site 15). This was the last sure water until House Rock Spring was reached, and the distance was at least 25 miles; this included a tough pull over the northern tip of the Kaibab Plateau. From Navajo Well the pioneer emigrant road to Arizona struck off east-southeast and crossed the plateau in the approximate vicinity of the northern boundary of the Kaibab National Forest. It dropped down over the sharply dipping

east slope of the Kaibab at about the divide between Coyote Creek (a tributary of Buckskin Gulch) and House Rock Valley, some distance above House Rock Spring. The road over the Kaibab, which was a hard pull from either side, has not been traced with certainty. There are a number of routes over the Kaibab in the vicinity of the old road now employed by cattlemen. Some study would be required to locate it accurately; on the accompanying map I have only indicated it by a number and have made no attempt to mark the route.

14. House Rock Valley and House Rock Ranch (Grand Canyon, Marble Canyon).

Both of these names derive from the "House Rock" near House Rock Spring (site 12) named by the Powell Survey. At its upper and northern end the valley is narrowly compressed between the rounded slopes of the Kaibab Plateau and the sharp, angular Vermilion Cliffs. Proceeding southward it opens out like a cornucopia south of the Paria Plateau. The valley, together with the generally flat plateau between Marble Canyon and the Kaibab north of Grand Canyon, has been used primarily as a cattle range. This usage dates back possibly to the late 1870's.

According to Barnes (1935, 213), the headquarters for the early day cattle industry was a large stone building to be seen alongside the highway. This building, now called House Rock Ranch, still stands and is used as a small store, dwelling, and Chevron gasoline station. The place has often been identified, quite incorrectly, with the origin of the name House Rock for the spring, valley, and ranch.

The State of Arizona cooperating with the Federal Government maintains a herd of buffalo on the range south of U. S. Highway 89A. The origins of the herd are believed to go back to about 1905 when Charles J. "Buffalo" Jones brought some of the animals into the area. See Easton and Brown (1961).

15. Navajo Well and Pioneer Gap (Cedar City)

Located in the NE-1/4 of Sec. 31 T. 43S. R 4W. SLBLM, Navajo Well (or Wells) has long been an important watering place. Also known as Sixteen Mile Spring (ca. sixteen miles east of Kanab), it served trail riders and wagon travelers going from Utah to Arizona. Its location is marked, especially when coming from the east, by a low gap in the low Shinarump cliffs known as Pioneer Gap. This is about three quarters of a mile east of the spring, and through it passed trail and road. From about this point the emigrant road to Arizona struck off across lots east southeast to cross the Kaibab Plateau some distance north

of House Rock Spring (see sites 13, 12). Navajo Well is used today as a stock watering place. It is half a mile south of U. S. Highway 89 at a point about 15.3 miles east of Kanab.

16. Kanab (Cedar City)

Kanab is a pioneer town in Kane County, Utah, located at the point on Kanab Creek where it breaks through the Vermilion Cliffs. People were living in the area before 1865 when it was abandoned because of Indian troubles. Permanent settlement began in 1870 when a fort was founded. See Carroll, comp., 1960, for many details. Owing to an abundance of water supplied by Kanab Creek, Kanab since its founding has been a farming center and a stable frontier town on the edge of a largely unoccupied area extending east and south to the Colorado River.

17. Fredonia (Grand Canyon)

Located on Kanab Creek eight miles below Kanab, Fredonia is largely a farming community dating from 1887. The name, according to L.D.S. Church Historian Jenson (1941, 264), is a contraction of the English "free" and the Spanish "doña", thus signifying a "free woman." Carroll (1960, 397-398), who says that the first house was built in 1885, states that the early polygamists in Utah found Fredonia a convenient place to send their plural wives during the 1880's, when zealous U. S. marshals were raiding practitioners of plural marriage. This situation suggested the name.

18. Pipe Spring National Monument (Grand Canyon)

Outside of subject area but closely related to it as an important watering place on the Arizona Strip. It was probably the best spring source on the entire Strip.

*19. Johnson and Johnson Canyon (Cedar City).

Johnson Creek, heading on the high slopes of the Paunsaugunt Plateau, southwest of Bryce Canyon National Park, flows south and breaks through the White Cliffs, and then the Vermilion Cliffs, about ten miles east of Kanab. Between these two lines of cliffs there are a number of ranches whose green irrigated acres stand out in pleasant contrast to the red cliffs (in the lower section) and white cliffs (in the upper section) that border the narrow valley.

The first settlement along this section of the creek was made by four Johnson brothers in the spring of 1871 (Jenson, 1941, 376). The Johnson Ranch is on the west side of the creek on Utah State Route 136 about three and a half miles north of U. S. Highway 89. A two-story adobe house marks the location today. The house faces east and looks across the creek (now deep in an eroded arroyo) to green fields used by stock as a pasture area. Behind the fields is a low cliff of red sandstone. West of the house less than half a mile is a cemetery where numbers of pioneer settlers are buried.

Johnson Canyon may be regarded as fairly typical of the land resources available to Mormon settlers who were the first to occupy the region between the High Plateaus and the Colorado River. The amount of that which could be brought under the ditch was limited; grazing on the open range became the principal industry. Overgrazing caused heavy erosion and deepening of the stream beds and loss of agriculture land--nicely illustrated in Johnson Canyon.

20. Alton (Cedar City)

Alton, once called Upper Kanab, is near the head of Kanab Creek and just at the southwestern base of the Paunsaugunt Plateau and practically on the divide between Kanab Creek and Long Valley on the upper Virgin; it is not far from the rim of the Great Basin and the upper tributaries of the Sevier River. Settled by the Mormons as early as 1865 (Jenson, 1941, 17), it was in pioneer days a point of contact between the settlements in all three drainages as well as Johnson Canyon. See Granary Ranch, site 21.

21. Granary Ranch (Cedar City)

Before the construction of the present U. S. Highway 89 which crosses the rim of the Great Basin and then reaches Kanab by way of Long Valley and Kanab Creek, an earlier road (now Utah State Route 136) went through Alton and Johnson Canyon to Kanab. It was also used as a wagon road for those emigrating from the settlements in central and northern Utah to Arizona (see site 13). At the Granary Ranch in Johnson Canyon about eight miles north of U. S. Highway 89 the old road passed close by a smooth vertical cliff. In the vicinity of a number of prehistoric petroglyphs there are dozens (perhaps hundreds) of names left by travelers from pioneer times to the early days of the automobile.

22. Skutumpah (Cedar City)

Skutumpah, also spelled Scutumpah, Skumpah, and many other ways, was settled as early as 1870 by John D. Lee, sometime before he went on to open Lee's Ferry. See Jenson (1941, 783) and Lee's diary (Cleland and Brooks, II, 142-149, et. seq.) apparently there was something of a community there at one time but only one ranch, composed of several buildings, now used as a cattle spread, is to be seen today. The ranch is located at the mouth of Skutumpah Creek, an upper tributary of Johnson Creek, above the White Cliffs.

23. Peter Shirts Ranch (Escalante)

In 1865, Peter Shirts, or Schurtz, squatted on some bottom land on the Paria River in a place that was then remote from his nearest white neighbor. About five miles below the settlement called Paria (site 24) and about five and a half miles north of U.S. Highway 89 in Sec. 4 T 42S. R 1W. SLBLM, Shirts built a rock house and diverted the waters of the Paria for irrigation. At the time there was probably a family or two at Kanab fifty miles away; St. George was well over a hundred miles. But the Shirts place was on the Indian trail coming from the Crossing of the Fathers so he had occasional company. However, when the Indians, mainly Navajos, threatened the settlements Shirts was forced to leave. No trace of his rock house, which is precisely located on the township plat surveyed in the 1870's, has been located. It was probably located on flat land subject to overflow by the erratic Paria River and has disappeared. John D. Lee was unimpressed with "Fort Peter" in 1870. See Cleland and Brooks, eds., 138-139, 255-256.

*24. Paria (Escalante)

Paria settlement on the Paria River is an excellent example of a retracted frontier in the canyon country of Utah. The place was occupied in 1870 by Mormons who practiced subsistence agriculture along the narrow bottom lands on each side of the stream; the economic mainstay of the community was stock raising. Numbers of people settled at Paria (there is a sizable cemetery half a mile southwest of town), but flood waters of the Paria so frequently washed out crops that the place was gradually abandoned. In 1929 there was only one resident (Jenson, 1941, 627-628).

Paria was the site of a mining operation by canyon country entrepreneur Charles H. Spencer, who hoped to recover gold by washing the Chinle beds that surround the site. This was associated with a

similar operation of his at Lee's Ferry (Crampton, 1960, 85-88, 94-96). Spencer put up several buildings and it is evident that he carried out some operations before closing down.

Paria is located in a scenically beautiful spot. The green vegetation supported by the Paria River stands out in sharp contrast to the variegated coloring of the Chinle marls that seem literally to enclose the site; less than a mile below "town" the Paria flows through the Narrows, a defile that pierces the upturned beds of the Cockscomb, a local name for the East Kaibab Monocline. Access to the townsite, where a number of vacant log buildings may still be seen, is by dirt road five or six miles from a point on U. S. Highway 89 where it loops around the northern end of the Kaibab Plateau. The place is still used as a seasonal headquarters for cattlemen. See also Caineville (site 44).

25. Adairville (Escalante)

Adairville was a Mormon settlement occupied in 1873. Located on the Paria River about ten miles downstream from Paria (site 24), it has suffered the same fate; the Paria was more than a match for the farming efforts of the colonists. Practically nothing remains at the original site, located about half a mile north of the bridge across the Paria on U. S. Highway 89 in Sec. 33 T. 42S R. 1W., SLBM. Some farming (alfalfa) is carried on in the vicinity at the Hamblin Ranch.

On the Paria below Adairville for about three miles there are other ranches some of which probably date from the pioneer period--the 1870's to 1900.

26. Grave of Elijah Averett (Cedar City)

The expansion of the Mormon frontier into southern Utah was met with considerable Indian resistance. The Walker War, 1853-54, was followed in 1865 by a general outbreak of the Utes in central Utah and of the Paiutes in southern Utah and northern Arizona. This uprising, called the Black Hawk War, caused a serious retraction of the Mormon frontier and cost many lives before it was brought to an end by the Utah Territorial Militia in 1868. During the war the Navajos crossed the Colorado and often teamed up with the Paiutes in the fight against the southern settlements; the Navajos did not make a general peace until 1870.

After the outbreak of the war in southern Utah a significant reconnaissance in 1866 was made by a unit of the militia under the command of James Andrus, Captain. Andrus explored the rugged country

at the eastern base of the High Plateaus from Johnson Canyon to the valley of the Escalante River and ascended to the top of Boulder Mountain before returning to St. George, the place of beginning. During the course of this exploration, in August and September, one man, Elijah Averett, was killed by Indians. This was in a shallow canyon, now known as Averett Hollow, or Canyon, a tributary of Willits Creek, a fork of Sheep Creek which flows into the Paria River.

The grave was marked with a round stone with the inscription "E. A."; this stone now marks the foot of the grave. A new headstone was erected in the 1930's with a bronze plaque (which, unfortunately, contains a number of misspellings of proper names) describing the circumstances of the killing.

The grave is in the hollow where the tragedy occurred and is very difficult to find. It is about six miles south-southwest from Cannonville not far from the county road between Cannonville and Skutumpah Ranch. A marker should be put up on this road directing interested parties to the site. See Crampton (1964a) for details of the Andrus expedition. See also Paria Amphitheater (site 26).

27. Paria Amphitheater (Cedar City, Escalante)

The Paria Amphitheater is a huge bowl some twenty miles in diameter. On the west, north, and east it is ringed around by the lofty escarpments of the High Plateaus Paunsaugunt (Bryce Canyon National Park), Table Cliff Plateau and Escalante Mountain (local names for southern projections of the Aquarius Plateau), and Canaan Peak (a northern extension of the Kaiparowits Plateau). On the south the country is more open but rises gradually only to drop off suddenly at the White Cliffs. From the High Plateaus on three sides the Paria gathers its headwaters and pours them into the narrow canyon cut by the river through the rising southern slope. At the base of the plateaus and before the Paria enters the canyon there are some areas on the floor of the amphitheater suitable for farming.

The significance of the 1866 military reconnaissance (see site 26) is that it spied out these and other lands at the base of the plateaus. Once the Indian wars were over Mormon settlers from the older settlements in the Great Basin (Sevier Valley, Cedar City area) and along the Virgin River, began to settle on these lands, and others along the eastern base of the High Plateaus as far north as Price in Carbon County.

In some places as early as the 1870's cattle had been ranged on the High Plateaus, and the reports of these pioneer stockmen also added to the information about potential farming lands. Thus, for

example, the Kanarra Cattle Company was ranging stock in what is now Bryce Canyon National Park as early as 1874, during which year the first settlement was made in the Paria Amphitheater by members of that company. During the years from 1874 to 1891 there was a gradually increasing settlement in the Paria Amphitheater reflected by the appearance of five separate communities. Clifton, the first, was located one and a half miles below Cannonville but was soon abandoned in favor of the Cannonville site. Georgetown, about three miles below Cannonville, Henrieville about two miles east, and Tropic, about five miles north northwest of Cannonville, were all later settlements. Cannonville, Henrieville, and Tropic are post offices, but numbers of shuttered houses, especially in the first two, indicate a decline in population. The remains of pioneer dugout homes may be seen at the site of Clifton, and there is an abandoned log cabin or two at Georgetown. There is probably less irrigated land in the Amphitheater now than in 1890, when water from the basin of the East Fork of the Sevier River was successfully brought over the rim at Bryce Canyon to Tropic. The economy of these small settlements rests pretty largely, as it always has, on the grazing industry. Gregory and Moore (1931), Gregory (1951), and Jenson (1941), under the names of the three post office communities.

28. Bryce Canyon National Park (Cedar City)

29. Ute Trail (Escalante, Cedar City)

As early as 1866 the "Ute Trail" appears in the literature of the canyon country (Crampton 1964a; Crampton and Miller, eds., 1961, 158-161). This was a route by which Indians traveled between the canyon lands of the Colorado and the upper valleys of the Sevier heading on the lofty Paunsaugunt and Markagunt plateaus. From the Crossing of the Fathers, also called the "Ute Crossing," the trail crossed Warm Creek to Wahweap Creek and by one of its tributaries--Coyote Creek--crossed to the Paria River not far below the ranch of Peter Shirts. The trail then followed up the open, and sometimes narrow, Paria canyon to the Paria Amphitheater. The trail crossed the divide between the Paria and the East Fork of the Sevier in the immediate vicinity of the present Utah State Route 54 between Tropic and the junction points of Utah State routes 54, 22 and 12 near the north entrance to Bryce Canyon National Park.

The divide at this point was also used as a pioneer wagon route by those moving from the older settlements in the Sevier Valley, and elsewhere in the Great Basin, to the new lands "under the rim" of the High Plateaus. The steep slope, dropping off sharply from the rim, was known as the "dump." The remains of the old track may be seen

south of the present highway and only a few yards from it near the rim. In pioneer days the settlements were spoken of as being "under the dump." The word "dump" is occasionally heard in the canyon country and appears to signify a steep slope over which one must pass to reach a given destination.

There is little evidence, other than the campaign documents cited above, to suggest that the Ute Trail was actually used very much by the Utes. However, the route was definitely used by the Navajos in their raids on the Mormon settlements eastward from Kanab. In these forays they would branch off at the site of Paria settlement and from there follow a trail closely parallel to that of Dominguez and Escalante and the present U. S. Highway 89. These were, of course, trunk trails from which there were many branches. See accompanying map.

*30. Escalante (Escalante)

This is an excellent example of the typical Mormon village, and as such was selected by Nelson as one of the communities for his study (1952) of this frontier institution. The Escalante River (named by the Powell Survey for Padre Escalante who never saw the drainage--Dellenbaugh, 1926, 210) heads on the high rims of the Aquarius Plateau (the segments of which locally are more often called Escalante Mountain and Boulder Mountain). The numerous headstreams drop quickly down and here and there flow through short, narrow, and open valleys before entering the main canyon of the stream, which is a deeply entrenched gorge well over forty miles in length. One such narrow valley was discovered by the Andrus military reconnaissance of 1866 and named by them Potato Valley (Crampton, 1964a, 154). In June, 1875, Mormon colonization began. The village, with its large individual lots, was laid out, ditches were dug, and nearby fields were cultivated.

Once the available lands were taken up and the public ranges divided the population became static; if anything, it has declined. The number of residents today (702 - 1960 census) is less than it was thirty years before (1009 - Jenson, 1941, 235-236). Although it felt the excitement of the uranium boom of the 1950's, Escalante today is essentially what it was in the pioneer period--a farming and stock raising community in which village life, characteristic of the pioneer period, is still in evidence. Remove the few signs of modern living and the town would be a museum of the past. The large lots in town are still used to raise subsistence crops and stock; the farmer travels daily to work his larger field on the edge of town, or he goes longer distances to herd cattle on the Kaiparowits Plateau, the Escalante Desert, the Circle Cliffs, or Boulder Mountain. Social life centers in the town and largely around the L.D.S. Church. There are numbers

of log dwellings in town reminiscent of the pioneer period and some well-constructed rock homes of the post-pioneer period; these outnumber homes of modern construction.

31. Grazing County West of Kaiparowits Plateaus (Escalante, Cedar City)

West of the Kaiparowits Plateau and east of the Paria River is a vast extent of country cut up by streams draining off into the Paria River or into the Colorado. This region, as most of the subject area, has been primarily devoted to the raising of cattle; practically all has been ranged by cattlemen living in the communities of the Paria Amphitheater. The Kaiparowits, however, is ranged largely by Escalante stockmen.

The region has been prospected at times for coal (which exists in large quantities - see sites 32, 33), sulphur, copper, uranium, and at the present time, oil.

32. Spencer Coal Mine (Escalante)

Near the bed of Tibbet Canyon, or South Branch of Warm Creek, in the SW1/4 of Sec. 3 T 42S. R 3E. SLBIM there are two adits driven into coal veins. These were developed by Charles H. Spencer about 1911 to provide fuel for his placer mining operation at Lee's Ferry. Coal was hauled down the creek bed to the cabins at Warm Creek, thence to the mouth of Warm Creek where the coal was placed on a boat, the Charles H. Spencer, to be taken to Lee's Ferry nearly twenty-eight miles downstream. For details of Spencer's mining operation see Crampton (1960).

33. Smoky Mountain (Escalante)

So named from coal burning near the top of the mesa in Sec. 2 T. 42E. R 4E SLBIM.

34. Boulder (Escalante)

This is a small community settled as early as 1889 by Mormons who found enough water in Boulder Creek to irrigate the limited lands at the southern foot of Boulder Mountain. The green fields stand out in sharp contrast to the white sandstone knobs and mesas about the settlement which is literally on the edge of the sandstone wilderness of the Escalante River canyon system. See Jenson (1941, 80) for details of founding and U. S., WPA, Utah (1941, 340-341) for details relating to

its long isolation from the automobile. The Coombs site, an important archeological area, excavated in 1958-1959 (Lister, Ambler, and Lister, 1959, 1960) is practically in the center of town.

*35. Hole-in-the-Rock Road (Escalante, Cortez)

The Hole-in-the-Rock road (marked on the accompanying map) is an example of bold pioneering seldom found in the West. The background of this colonization mission undertaken by Mormons from the Cedar City-Parowan area in 1879-1880, and extensive details of the trek itself, including much data on road building and the present condition of the pioneer road, has been studied by Miller (1959), and details will not be given here. The most dramatic part of the road was that built across Glen Canyon at Hole-in-the-Rock and some details in addition to those in Miller are reported by Crampton (1962, 1-15). Additional dramatic places on the road were Grey Mesa (Wilson Mesa), Clay Hill Pass (Clay Hills Divide), and at San Juan Hill, where a road was built from the mouth of Comb Wash up and over Comb Ridge. This latter place, and one of the most difficult of all, was within a few miles of Bluff, where the trek ended.

Remains of the road built by the pioneer Mormon band in all of these places (Hole-in-the-Rock, Grey Mesa, Clay Hill Pass, and San Juan Hill) are still to be seen and might be appropriately marked or developed as historic sites of primary importance.

Owing to the extreme difficulty in traveling the Hole-in-the-Rock road with wagons, an alternate route in 1881 was worked out by Charles Hall. This road (marked on accompanying map with the same symbol as the Hole-in-the-Rock route) left the older road at Harris Wash, ten miles from Escalante, and rejoined it east of the Colorado having crossed Glen Canyon at Hall's Crossing (Crampton, 1962, 49-54).

Neither Miller (1959) nor anyone else has published details of the entire route by way of Hall's Crossing. Some details of that route and of the country through which it passed in reaching Hall's Crossing are given in sites 36-39 below.

36. Harris Wash - Silver Falls Creek (Escalante)

The Hall's Crossing road crossed the Escalante River canyon by way of Harris Wash and Silver Falls Creek. I have not been in Harris Wash below the point where the Hole-in-the-Rock route crossed it, about ten miles from Escalante. A few miles below this point Fowler (1963,

1, 104) reports that a wagon road entering the wash on the right side has been built of crossed logs and rocks and is locally known as the "Emigrant Steps." This is believed to have been the pioneer road and was probably built to avoid the sandy bed in the upper part of the wash.

Harris Wash empties into the Escalante River about a quarter of a mile downstream from Silver Falls Creek. The pioneer road follows up the narrow canyon of this creek, probably taking the main, or southern, fork to reach the Circle Cliffs. About three miles from the mouth of the creek is located "Emigrant Spring," reported to be a constant source of water. Until recently this route was passable to jeeps, but a rock slide about 1959 in Silver Falls Creek below Emigrant Spring has blocked the road.

37. Circle Cliffs (Escalante)

After leaving the canyon of Silver Falls Creek the Hall's Crossing road traversed the relatively open, if rough, area ringed around by the Circle Cliffs. The road kept to the south of Wagon Box Mesa, reaching a high point on the divide between the Escalante drainage and that of Hall's Creek.

The Circle Cliffs area has been interesting historically as a grazing ground and for its mineral potential. There have been several oil excitements; in 1921 the Ohio Oil Company drilled a well about a mile west of the northern tip of Wagon Box Mesa, apparently with negative results (Gregory and Moore, 1931, 156). Machinery for drilling was hauled into the site by way of Muley Twist Canyon (site 38). The Circle Cliffs area was also intensively prospected during the uranium boom of the 1950's.

*38. Muley Twist Canyon and the Waterpocket Fold (Escalante)

From the highest point reached in the Circle Cliffs area the Hall's Crossing road pitched off abruptly, dropping a thousand feet within two miles to the floor of Muley Twist Creek that in a narrow, serpentine canyon flows through the Waterpocket Fold. The Waterpocket Fold, a high monoclinial ridge, or hogback, runs for eighty miles from Capitol Reef National Monument south to the Colorado River below Hall's Crossing. It can be crossed even on horseback in but few places. The narrow, twisting canyon of Muley Twist is typical of the canyons of this area and nicely illustrates the difficulties of surface travel. The canyon was so winding, local folklore has it, that even the mules (hence the name) had to twist to negotiate the bends.

Company Muley Twist canyon was used as the access route by the Ohio Oil
Wagon in 1921 to reach a drilling site in the Circle Cliffs near
of Box Mesa (see site 37). About a mile and a half from the mouth
a canyon under a huge overhang the company must have maintained
wall, for there are many names and the year 1921 written on the

wall elsewhere along the course of the canyon there are names on the
canyon. In a small cave on the left side at the very mouth of the
canyon there are a number of names inscribed, numbers of them ante-
1921.

39.

Hall's Creek (Escalante)

Hall's Creek, taking its name from Charles Hall, who opened the
Mule Crossing road from Escalante through the Circle Cliffs and
Canyon Twist Canyon, was from 1881 an important access route to Glen
Twist. The pioneer road reached the creek at the mouth of Muley
above Creek and continued south to Hall's Crossing a short distance
Muley the mouth of Hall's Creek (Crampton, 1962, 49-55). North of
Creek Twist the heads of Hall's Creek interlocked with those of Sandy
providing whose open valley, and that of the adjacent Pleasant Creek,
served as easy access to the valley of the Fremont River. This route
on Baker emigrants, miners, river travelers, and cattlemen. See notes
Baker Ranch in Crampton (1962, 58-61).

River horse and stock trails across the lower canyon of the Escalante
to the and the Waterpocket Fold, were developed making it possible
of the travel the intricate country from the Escalante Desert at the foot
Hall's southern extension of the Kaiparowits Plateau to Baker Ranch on
Historical Creek. See Crampton (1962, 28-29) and a report in press on
Bar. local sites in Cataract, Narrow, and Glen Canyon to California

*40.

Fremont River, Fruita, and Capitol Reef National Monument (Salina)

this the Fremont River between Fremont and Hanksville (paralleled in
ments distance by Utah State Highway 24) supports a string of settle-
the Glen most of them settled by Mormons from the older districts in
environs at Basin. This life-giving stream heads at Fish Lake and
Fremont flows and flows through Rabbit Valley, containing the town of
Rabbit Valley, Loa (Wayne County Seat), Lyman, and Bicknell, and below
Fruita Valley, Teasdale and Torrey, all settled between 1876 and 1893.
first known as Junction (probably from the confluence of

Sulphur Creek and the Fremont River) may date from 1880, perhaps earlier, but Jenson (1941, 270) places the date of first settlement by the Mormons in 1892.

Capitol Reef, the northern extension of the Waterpocket Fold, was made a national monument in 1937. It has been reported that the canyon of the Fremont River, which breaks through the reef, and which now accommodates Utah State Highway 24, and Capitol Gorge (the old route of Highway 24), were both used during the pioneer period as routes passable to wagons between the upper and lower portions of the Fremont River Valley. The Capitol Gorge route (the pioneer register on its walls at the narrowest part is well known) was preferred as it was less subject to flooding and washouts. See Gregory and Anderson (1939) for many details. See also site 42.

41. Miner's Mountain (Salina)

Located west of Capitol Reef National Monument, Miner's Mountain was the scene of a copper mining prospect about the turn of the century, probably during the period of high copper prices, 1905-1907. No details about precise dates, locations, and extent of development have been found.

42. Pleasant Creek and Oak Creek Ranches (Salina)

Pleasant Creek and Oak Creek, heading on the high western slopes of Boulder Mountain, like the Fremont River break through Capitol Reef and the Waterpocket Fold and provide permanent water sources that were appropriated for use in the 1880's. The Pleasant Creek Ranch (Sleeping Rainbow Lodge) and Notom on Pleasant Creek and Bown's Ranch on Oak Creek are good examples of ranches used as headquarters for a range cattle industry that utilized the Boulder Mountain area and the intricate canyon country between the lower canyon of the Escalante and Hall's Creek and the southern peaks (Mt. Holmes and Mt. Ellsworth) of the Henry Mountains.

43. Burr Trail (Escalante)

The Burr (it probably should read Buhr) Trail crosses the steep Waterpocket Fold from a point near the head of Hall's Creek to the middle section of the Circle Cliffs area. It was opened at an uncertain date, probably by cattlemen, and it offered a direct route from the Henry Mountains to the east and the southern slopes of Boulder Mountain. During the uranium boom of the 1950's a road passable to automobiles

was built up over the Burr Trail. In the lateral distance of less than a mile the road, in a series of switchbacks, climbs about 700 feet.

*44. Caineville and Environs (Salina)

Along the Fremont River from about the point where it emerges from Capitol Reef National Monument downstream to a point about on a line drawn north and south between the eastern extremities of North and South Caineville mesas, there were in pioneer times a number of settlements settled largely by Mormons who worked their way down to these locations from Rabbit Valley and Capitol Reef, having come from the older areas in the Great Basin. The nucleus was Caineville, settled in 1881 and located on some rather extensive bottom lands at the mouth of Caineville Wash, which heads in the vast desert area between Thousand Lake Mountain and the San Rafael Swell. The pioneer cabin built by I. C. Behunin in 1881 still stands alongside the road about a mile upstream from the mouth of Caineville Wash where the main settlement was located.

Upstream from Cainville, notably at Aldrich, or Aldridge, about eight miles, near the mouth of Pleasant Creek, was a secondary settlement located in 1882, and downstream for half a dozen miles from Caineville there were scattered ranches along the Fremont centering about a settlement called Elephant.

As in the case of Paria (site 24) on the Paria River, the Caineville area is an example of a retracted frontier. The Fremont River has cut deeply into its bed (very clearly seen at points near Caineville) and it has swept away much of the adjacent agricultural land. Irrigation water at present is taken from the Fremont River at a point about four and a half miles above Caineville, and it continues downstream as many miles again to serve a few ranches. The few residents today in Caineville live largely in log dwellings built during the pioneer period or shortly afterward, and some of them are vacant. Aldrich and Elephant have disappeared entirely. For details of the settlement of this area see Jenson (1941, under the names of the settlements), Gregory and Anderson (1939), and Hunt and others (1953, 19-21). See also Blue Valley, site 45.

45. Blue Valley (Salina)

Blue Valley, a section of the Fremont River Valley below Caineville, first settled by Mormons in 1883, has disappeared as a settlement though the remains of one rock house at Blue Valley, later called

Giles, is still to be seen alongside Utah State Highway 24. Nearby the line of the old ditch, which brought water from the Fremont River, may still be seen, together with an occasional hardy fruit tree persistently clinging to life though producing nothing more than a few leaves. See Jenson (1941, 284); Hunt and others (1953, 21).

46. Factory Butte Coal Mines (Salina)

The Factory Butte coal mines are located alongside a dirt road in Coal Mine Wash, a tributary of the Muddy River, about two miles north of Factory Butte, a spectacular isolated landmark five miles north of the Fremont River. Coal is commonly found north of the Fremont River (Hunt and others, 1953, 216-217) and was used as fuel in pioneer times and later. The history of the Factory Butte coal mines has not been determined.

*47. Hanksville (Salina)

Located on the south side of the Fremont River just above the confluence of the Muddy River, Hanksville, in the midst of rather extensive irrigated bottom lands, is an oasis in an otherwise barren region. Originally known as Graves Valley in honor of the first settler, it was renamed Hanksville when the Mormons arrived in 1883. To irrigate lands water was brought from the Fremont River; diversion in pioneer times was probably in the same location as the present dam, the reservoir of which has completely filled with silt.

Hanksville has felt a good many of the historical currents of the region. From the railroad at Green River, sixty miles to the north, it was the jumping-off place for the mining fields in Glen Canyon, the Henry Mountains and even the San Juan River. It has been something of a supply point for the region all around, and it has benefited from the tourist traffic upon which much of its future will probably depend. But it has grown very little in population over the years, and a number of pioneer buildings remain to mark the past, including the L.D.S. Church building, made of cut sandstone.

*48. Henry Mountains (Salina, Escalante)

One of the classic areas in geology owing largely to the pioneer study made by G. K. Gilbert (1877) of the Powell Survey. Gilbert developed the hypothesis of a laccolithic origin of these mountains and others in the area--La Sal and Abajo (or Blue) mountains east of the Colorado. A restudy of the region for the U. S. Geological Survey

was made by Hunt and others, whose monograph (1953) is an important source of information on history, economic and physical geography, and of course, geology.

The group consists of five peaks. The northern three (Mt. Ellen, Mt. Pennell, Mt. Hillers) are the highest and bulk the largest on the skyline, which is otherwise flat and angular. The southern two, called locally the "Little Rockies" (Mt. Holmes, Mt. Ellsworth), are lower and stand virtually on the rim of Glen Canyon.

The Henrys are an important summer grazing area and several ranches are to be found around the base of the mountains; they have been frequently prospected, the earliest excitement being a gold boom in the 1890's, the latest being the uranium rush of the 1950's. There was during the pioneer period some lumbering in these mountains, though timber stands were insufficient apparently to justify inclusion in the National Forest System. See sites 49-55 below.

*49. Starr Ranch (Escalante)

The Starr Ranch on the southern slope of Mt. Hillers is probably one of the oldest of the ranches established in the Henry Mountains; this may have been in the 1880's, though Hunt and others (1953, 24) place it at 1890. This place is frequently mentioned in the literature of the Glen Canyon mining boom (the several Starr brothers were themselves active prospectors in Glen Canyon and in the Henry Mountains), and it appears also to have been something of an outlaw hideaway. The ranch house, now abandoned, was made of stone cut from trachyte, the volcanic magna that pushed up the mountains in geological time and which is now exposed in places. The Starr Ranch, which includes a vaulted smokehouse of cut stone, is one of the most interesting historic sites in the Henry Mountains.

50. Trachyte Ranch (Escalante)

On Trachyte Creek east of Mt. Hillers and Mt. Pennell; an early ranch but history not known.

51. Mt. Ellen Ranches (Salina)

Granite Ranch on Granite Wash is a pioneer ranch on the north-eastern slope of Mt. Ellen. No details are available, but old buildings are known to exist at the site; it is believed to be inactive. The King Ranch is an active ranch of early date on the

western slope of Mt. Pennell, but its history otherwise is not known to me.

52. Bromide Basin and Eagle City (Salina)

High on the eastern slope of Mt. Ellen in the Bromide Basin, ore containing values in gold, silver, and copper was discovered, and a rush to these mines occurred in 1892. The boom soon burst but not before Eagle City was laid out about three miles below the mining area. From time to time a certain amount of mining has been done in the Bromide Basin and machinery reminiscent of this activity is to be seen here and there. A log cabin or two marks the location of Eagle City. Below Eagle City about two miles on Crescent Creek there have been some gold placers developed for a distance of five or six miles; there are numerous diggings to be seen and an occasional building, some in ruins. Hunt and others (1953, 217-220) describe mining in fissure deposits in the Henrys but the interesting history of the site has yet to be written.

53. Wolverton Mill (Escalante)

In 1918 E. T. Wolverton and partner built a gold reduction mill high on the eastern slope of Mt. Pennell; if little gold was ever milled Hunt and others (1953, 20-21) state that the elaborate mill and other machinery, including a twenty-foot water wheel, were all carefully made by hand with wood. This and the neighboring cabins Hunt describes as a tribute to Wolverton's craftsmanship. "The mill in particular," Hunt says, "is one of the show places of the Henry Mountains." Below the Wolverton Mill in the narrows just above Trachyte Ranch there are extensive uranium prospects and mines.

54. South Pass (Escalante)

Robert B. Stanton, field superintendent for the Hoskaninni Company, which carried on a gold dredging operation in Glen Canyon, 1897-1901, built a wagon road from Hanksville through the Henry Mountains to Glen Canyon. Stanton built the road to cross the divide between Mt. Hillers and Mt. Pennell; it is called South Pass, or Stanton Pass. The entire route of this spectacular road, the remains of which (although modern roads follow it much of the way) may be seen in a number of places, is traced on the topographic map in Hunt and others (1953). See Crampton and Smith, eds., 1961; Crampton, 1962, 62-71. See site 55.

55. Stanton Mine (Escalante)

Alongside the Hoskaninni Road (site 54) in Sec. 36 T. 34S. R 10E SLBIM is the Stanton coal mine, so-called because it was the source for coal for some of the gold mining operations in Glen Canyon as conducted by the Hoskaninni Company, 1897-1901. Robert B. Stanton was field superintendent for the company. See Crampton and Smith, eds., 1961; Crampton, 1962, 62-71.

Coal from the Henry Mountains was occasionally used by the miners in Glen Canyon.

56. Goblin Valley (Salina)

Utah State Park.

*57. Temple Mountain (Salina)

Though perhaps technically not within the subject area, Temple Mountain at the eastern edge of the San Rafael Swell is at once a landmark of some importance (as it can be seen for several miles from the north, south, and east), but it is historically important as an early uranium mining site, dating back to near the turn of the century. And it was the scene of intensive activity during the uranium boom of the 1950's. I have not made any detailed examination of the area, but local citizens have reported that there are certain evidences (rock buildings, machinery, etc.) reminiscent of the earliest uranium-vanadium era which probably reached a peak during World War I. See Gilluly (1929) and Johnson (1957) for brief mention and bibliography.

*58. Robber's Roost (Salina)

From the circumstance that the rugged and isolated tip of the Land's End Plateau, between the Dirty Devil (the name of the Fremont River below the mouth of the Muddy) and the Colorado River where it flows through Cataract and Narrow canyons, was an excellent hiding place for rustlers, bank robbers and assorted felons, it has been given the name Robber's Roost. From the 1880's to about the turn of the century a number of colorful characters hid out along the plateau's precipitous rims which drop away on three sides. The residents of the Roost are perhaps typified by Butch Cassidy and the Wild Bunch, the subject of Kelly's (1959) book.

Around the turn of the century the Roost became the scene of legitimate cattle raising. A ranch headquarters, dating back to the outlaw days, consists of a rough building or two and other improvements at nearby springs including corrals. The place is to be remembered not as an outlaw hangout but as an area rather typical of the range in the subject area--the flat (generally speaking) but rocky and sandy surface of the plateau bounded by rims breaking away into precipitous canyons. It was difficult range at best and it took a lot of it to keep one cow alive. Baker (1946) has a description of the entire region from Land's End Plateau to Green River. Pearl Baker (1963) describes her youthful days at Robber's Roost. See also sites 59, 60, 61.

59. Ernie Country and the Land of Standing Rocks (Salina, Moab).

Ernie, or Ernie's, Country and the Land of Standing Rocks are two adjacent areas, having been used for grazing, overlooking the head of Cataract Canyon and reached by trail from Land's End Plateau and Robber's Roost (see site 58). From Robber's Roost there are two trails by which one may drop off the rims and reach the area. One, known as the North Trail (see arrow on map for point of beginning of this and the Middle Trail), crossed the Elaterite Basin, through The Gap, or Windy Gap, and past Lizard Rock. Another, known as the Flint or Middle Trail, came down over the Golden Stairs. A third trail reached the area by way of the Dirty Devil crossing the Hatch Canyon and Happy Canyon drainages and passing through Sunset Pass near Gunsight Butte. This route joins with a trail up Poison Spring Canyon that leads to the Henry Mountains.

A single trail from the Land of Standing Rocks and Ernie's Country reaches the floor of Cataract Canyon at Spanish Bottom. This name has led some to believe that the region was visited during the years of Spanish control, but there is practically no evidence to support the idea.

The land of Standing Rocks was visited and named by the Powell Survey.

See site 60 - Cataract and Narrow canyons. See site 61 - Elaterite Basin.

60. Cataract and Narrow Canyons (Moab, Salina, Escalante)

Historic sites in Cataract Canyon from the confluence of the Colorado and the Green rivers have been reported by Crampton as part

of the Glen Canyon historic site survey. The report, which goes into details on Spanish Bottom and Powell's visit to the Land of Standing Rocks, is now (August 1, 1964) in press.

61. Elaterite Basin (Salina)

This is a spectacular basin at the head of Horse Canyon, a tributary of the Green River. Used as a grazing area, it has also been the scene of some prospecting by, among others, E. T. Wolverton, who also built a mill on Mt. Pennell in the Henry Mountains (see site 53). A ruined stone cabin, reportedly built by Wolverton, is on Land's End Plateau on the boundary between Sec. 34-35 T. 30-1/2 S. R. 16E. SLBLM.

62. San Rafael River and San Rafael Reef (Salina)

The San Rafael River heads on the lofty Wasatch Plateau and, being an antecedent stream, has cut a profound gorge through the north end of the domal upwarp called the San Rafael Swell. The eastern side of the Swell consists of a plunging slope of steeply tilted rock--called the San Rafael Reef--best seen in the vicinity where the San Rafael River breaks through it. The view is excellent from Utah State Highway 24. The course of the river between the Reef and the Green River is through a shallow canyon wide enough to afford bottom lands of proportions significant enough to support an occasional ranch. These are perhaps typified by the irrigated acres of alfalfa seen at the point where the highway crosses the San Rafael River.

The old wagon road between the railhead at Green River and Hanksville passed closer to the San Rafael Reef than the modern highway. That way one could avoid the endless miles of loose sand, and there were water sources near the base of the Reef.

63. Crescent Junction, Thompson, Cisco (all on Moab) and Westwater (Grand Junction)

Crescent Junction, service station and cafe, is at the junction of U.S. Highway 50-6 and 160.

Thompson, Thompsons, or Thompson's Springs, is a station on the Denver & Rio Grande-Western Railroad and a post office on U.S. Highway 50-6. The place owes its existence to Thompson's Springs located five miles above town in Thompson Canyon, or Wash; the water was piped down to the railroad, and, until the advent of the automobile, this was an

important watering place. It was also the shipping point for the country south to Moab and beyond (it still is for railroad freight), and in this regard Thompson for the country east of the Green River was the counterpart of Green River on the western side (see site 4). The appearance of the town today belies its one-time historical importance. Campbell (1922) has a good description of the towns and scenic features along the line of the D. & R.G.W.

Cisco is a very unprepossessing place on U.S. Highway 50-6 and a station on the D. & R.G.W. It has long been an important stock (sheep and cattle) shipping point for ranches in the Book Cliffs to the north and south as far as the La Sal Mountains.

Westwater, if anything, is smaller than Cisco and is a station on the D. & R.G.W. on the Colorado River at the head of Westwater Canyon and near the Utah-Colorado boundary. Campbell (1922, 195) states that plans for a large townsite failed to develop but a few ranches along the river keep the place alive.

Crescent Junction, Thompson, Cisco, and Westwater, small though each may be, constitute the principal settlements in the huge triangle of territory bounded on the north by the railroad (and U.S. Highway 50-6), on the west by the Green River, and on the southeast by the Colorado River. See sites 64 and 67.

64. Area Between Colorado River and U.S. Highway 160 (Moab)

The large triangular area bounded on the north by the D. & R.G.W. and U.S. Highway 50-6, on the west by U.S. Highway 160, and on the southeast by the Colorado River, is largely a blank in the historical literature. The same may be said for the territory north of the Dolores River and between the Colorado River and the Utah-Colorado boundary. I am not familiar with the region, having made only a superficial investigation of it. The economic development of it has been much the same as the rest of the canyon country--livestock raising. The first penetration probably dates from about the time of the coming of the railroad across the northern side at the base of the Book Cliffs; cattle and sheep growing remain today the principal industry of the entire region.

Mining has been a secondary industry. Dane (1935), whose geological monograph constitutes (to my knowledge) the single comprehensive work on the area, reports that oil and gas prospecting dates back as far as 1899 (p. 158). In the years beginning immediately after World War I and continuing through the 1920's there was intensive prospecting for oil, but Dane (1935, 172) reports that the drilling

failed to produce oil in commercial quantities. Exploration during this time was largely concentrated in the area around Cisco and in the Salt Valley Anticline southeast of Crescent Junction, including some of the region now within the boundaries of Arches National Monument. There has, of course, been much oil prospecting in the region in recent times.

Danie (1935, 176) reported a successful uranium-vanadium mine eight miles south of Sagers station on the D. & R.G.W., in an area where, during the uranium boom of the 1950's, there was intensive prospecting. Al Look (1956, Chapter II) tells of the uranium boom in the area where Charles A. Steen, whom Look calls the "Cisco Kid," got his start.

65. Arches National Monument (Moab)

66. Valley City (Moab)

Valley City, about seven or eight miles south of Crescent Junction on U.S. Highway 160, was a way station at the forks of the road as one traveled north from Moab. At this point one road turned north northeast to Thompson and another turned northwest across lots toward Green River reaching the D. & R.G. W. tracks at about Floy siding. When I first visited the area several years ago, a building was to be seen at the spot, but it has since been removed.

67. Area Between the Green and Colorado Rivers (Salina, Moab)

The area bounded on the north by the D. & R.G.W. and U.S. Highway 50-6, on the west by the Green River, on the east by U.S. Highway 160, and on the southeast by the Colorado River, is essentially a grazing region, but there has been much prospecting for petroleum and for other minerals. When McKnight (1940) in 1927 studied this large area, consisting of approximately 900 square miles, he estimated the permanent population to have been less than twenty persons. This figure would have to be raised considerably today, but such concentrations of people as do exist are found along the edges. See sites 68-70.

68. Elgin Oil Well (Salina)

The first oil well in Utah according to Hansen and Bell, comps. (1949, 4), was drilled near Green River in 1891. McKnight (1940, 131) locates the site precisely as being in the SW-1/4 SE-1/4 Sec. 15 T. 21S.

R. 16E. SLBLM. This is just south of Elgin, a small "town" on the east bank of the Green River opposite the town of Green River. McKnight (1940, 131-133) states that no oil was found in the hole, but he cites a record of subsequent prospecting in the general vicinity to 1936.

69. Little Grand Mining District (Salina)

In the drainage of White Wash about three miles from the Green River and about thirteen miles south-southeast of Elgin, there are some deposits of manganese ore in what is known as the Little Grand District. These were worked profitably during World War I by Colorado interests (McKnight, 1940, 130-131).

70. Labyrinth and Stillwater Canyons on the Green River (Salina, Moab).

Labyrinth and Stillwater are two continuous canyons on the Green River extending from the mouth of the San Rafael River to the mouth of the Green River, a distance by river of ninety-five miles. Both names, descriptive of the river and its canyons, were given by the Powell Survey in 1871. Labyrinth Canyon, ending at a rincon called Bonita Bend, is sixty-five miles long, and Stillwater is thirty miles long. Owing to a structural rise of the adjacent country, the canyon grows deeper as it approaches the mouth of the Green; there it is nearly 1300 feet deep.

At a number of places in Labyrinth, and to a lesser extent in Stillwater, there are bottom lands, often of considerable acreage, which from time to time have been used as farming areas, grazing spots, hideouts, mining sites, and camping places. I have very little specific information on the history of this use and occupancy, but the number of named bottom lands suggests considerable activity. Proceeding downstream, the named bottom lands that I have found are as follows: Little Valley (and all the rest are followed by the word "Bottom"), Yokey, Anvil, June's, Ten-mile, Hanging Rock, Oak, Cottonwood, Horse Thief, Upheaval, Hardscrabble, Fort, Potato, Saddle Horse, Granite, Beaver, Queen Anne, Anderson, Unknown, Tent, Valentine, Grassy, Tuxedo, and Cabin.

Access to these numerous bottom lands is by land largely. In the upper part of Labyrinth one may reach the river at a number of places by automobile or jeep, and roads (though I have not been over them) of recent construction from the east reach the canyon floor by way of Spring Canyon above Bowknot Bend, and at a point below Mineral Canyon. Stock trails from both sides reach the canyon floor at a number of points. Some of the bottom lands, especially in the deep Stillwater Canyon, are accessible only by boat. See Site 5.

*71. Barrier Canyon Pictographs (Salina)

Along Barrier Creek in Horseshoe Canyon (more often called Barrier Canyon) in Sec. 17 T. 27S. R 16E. SLBIM are some of the finest, undepiled pictographs in the canyon country (color plate in Crampton 1964c).

72. Courthouse Mail Station (Moab)

Shown on the map in McKnight (1940) where the present U.S. Highway 160 crosses Courthouse Wash. I have no information on the site other than McKnight. It probably dates from staging days.

73. Jumping Off Place (Moab)

In Moab Canyon about half a mile above the headquarters building of Arches National Monument (and within the monument) is a dugway built over a steep projection of rock. This was the early wagon route through the canyon and it was a necessary construction to by-pass the narrows in the creek bed at that point. Remnants of the dugway are visible. See U.S. WPA Utah (1941, 424) for some details.

*74. Dead Horse Point and other Rim Areas (Moab)

Utah State Park. Dead Horse Point is an excellent place to see the flat lines and angular topography so characteristic of the canyon country. The approaches to the Point and the character of the rim overlooking the river there are characteristic of rim areas on downstream to Grand View (rather than Grand River) Point where the triangular area between the Colorado and the Green reaches its maximum elevation. As noted in the remark on site 64 the country back from the rims has long been used for grazing, although water is scarce. The story persists that the name for Dead Horse Point came from the circumstance that several animals once died of thirst when they became isolated and confused on the rim there overlooking the Colorado River.

Although the Colorado River was generally inaccessible from the rim areas in the section between Dead Horse Point and Grand View Point, there were a few stock trails developed by stockmen and/or rustlers between the two. One such was the Murphy Trail that reached the Murphy Range above the White Rim at the base of Grand View Point. The location appears on the map in McKnight (1940). Other trails are believed to exist, but other than the Shafer Trail (see site 75) they have not been identified.

*75. Shafer Basin and Lockhart Basin (Moab)

After World War I there was extensive petroleum prospecting in the canyon country of the Colorado in Utah. Numbers of wells were drilled in widely scattered places. Although oil was indeed struck in some of the wells, no commercial was developed until 1948, and that was in the Uinta Basin (Hansen and Bell, 1949, 4). During the 1920's there were a number of wells drilled along the Colorado River below Moab in both Shafer Basin, on the right side of the river, and Lockhart Basin, on the left side and some distance below the former. A number of the roads and trails in use today in this rugged area were developed by oil companies during the course of this prospecting. By way of Indian Creek a long road was built to reach the mouth of Lockhart Canyon and environs, and the Shafer Trail that reaches the rim at the Neck, between Dead Horse Point and Grand View Point, were developed during this period. Perhaps the most dramatic discovery was made on the right bank eighteen miles downstream from the Moab bridge when a gusher was struck at the Frank Shafer Well No. 1 in December, 1925. It immediately caught fire but this was extinguished and drilling resumed. Apparently commercial accumulations of petroleum were not found. Drilling on the right side of the river is summarized by McKnight (1940, 133-134). Many supplies were brought in by boat from Moab (Ekker, 1964). The history of petroleum prospecting on the left side of the river in the Lockhart Basin and elsewhere is summarized by Baker (1933, 80-83). At a number of places along the Colorado below Moab there are reminders of the exploratory activity--rusting machinery, ruined buildings, trails and roads.

*76. Moab (Moab)

Beautifully located in Moab, or Spanish (from the circumstance that the Spanish Trail passed through it) Valley, Moab (with its biblical name) is interesting historically as the location of the first anglo settlement in the subject area. In 1855 the L.D.S. Church sent a colonizing party to take possession of the valley. This was known as the Elk Mountain (a name for the La Sal Mountains) Mission. Arriving in June, the group erected a fort and put in crops, and water was taken from Elk Mountain and Pack-saddle (now Mill and Pack) creeks for irrigation. When Ute Indians killed three men in September the mission was abandoned.

Colonization was not resumed until 1877 when numbers of people traveling the Spanish Trail from the older settlements in Utah arrived and occupied the Valley; some of them quickly moved on to La Sal (see site 77). Moab was made a post office in 1880 and has since been one

of the principal towns in southeastern Utah--a center and headquarters area for much of the historical activity south and east of the Colorado River. It is the capital of Grand County. It is said that remains of the 1855 irrigation ditch are to be seen at Moab. There are a number of houses in town built in the years from the 1870's to 1900. See Tanner (1937); Jenson (1940, 520-521).

*77. La Sal (Moab)

La Sal (now called Old La Sal) at the southern base of the La Sal Mountains was settled early in 1878; shortly afterward Coyote (now La Sal) was settled. The beginnings in both places were made by people from central Utah (Perkins, Neilson, and Jones, 1957, 170-182). These, the oldest settlements in San Juan County, Utah, have never become very large. Old La Sal is reported to be a site only. Present day La Sal (the old Coyote) is the single settlement in which the cattle industry, as it was from the beginning, is the principal pursuit of the residents. Old La Sal was located in Sec. 34 T. 28S. R 25E SLBLM.

*78. La Sal Mountains (Moab)

A magnificent group of laccolithic peaks the (it is common usage to speak of "the" La Sal Mountains though it sounds strange to use a double article) La Sal Mountains rise to heights in excess of 12,000 feet in elevation. The downward departures in short distances are extreme. For example: Mt. Waas, fourteen airline miles from the Colorado River in Castle Valley is over 8330 feet above the river; Mt. Tukuhtivatz about seventeen miles from Moab is also over 8000 feet above the town.

The mountains were known and named before 1776 at which time as the "Sierra La Sal" they were accurately fixed by Bernardo de Miera on his map drawn to illustrate the exploration made by Domínguez and Escalante (see a facsimile of his map in Bolton, 1950). Members of the Hayden Survey in 1875 studied the group scientifically for the first time (Peale, 1877); it was in fact the studies of Hayden's survey in eastern Utah and western Colorado in 1874 and 1875 that attracted public attention to the region and promoted its colonization.

Since the late 1870's, when the first Anglos began to settle about the base of the La Sals in both Utah and Colorado, they have been an important source of water, minerals, lumber, and grass.

My own familiarity with the group is limited, but some of the more important historic places are indicated in sites 79-83 below. Hunt's geological monograph (1958) carried a description of the La Sal Mountains and a good bibliography including early scientific studies. There is no history of the region. However, in the office of the La Sal-Manti National Forest at Moab there is a file entitled "Historical Information." This consists of notes made up to December, 1940, by forest rangers in conversation with prominent pioneers. It will be cited here as La Sal NF (1940). It has much of value for the Abajo (Blue) Mountains.

79. Salt in the La Sal Mountains (Moab)

The name La Sal Mountains was given by Spaniards and it probably reflects the fact that Indians used the area as a source for salt. There are numerous salt-producing structures in the mountain group, according to Hunt (1958), and there are two Salt creeks. One, a tributary of the Dolores River, drains the oblong, sunken Sinbad Valley astride the Utah-Colorado boundary; this appears to be the one in oldest usage. On the older maps it is referred to as "Rio Salado". A second, of more recent usage, drains the southeastern flank of the mountain group and enters the Dolores in Colorado just above Paradox Valley.

*80. Uranium in the La Sal Mountains (Moab)

The area of the La Sal Mountains in Utah and in Colorado is interesting historically in the history of the mining of radioactive minerals. The first principal source of vanadium and uranium in the United States was developed in this area. In 1898 ores bearing these minerals were discovered on Roc Creek in Montrose County, Colorado. Specimens were sent abroad and Boutwell (1905, 200) states that it is probably that they were the object of chemical studies which resulted in the naming of the mineral carnotite, and also in the discovery of radioactive properties. Systematic prospecting throughout the region resulted in the discovery of further deposits of vanadium and uranium.

Among the earliest locations were those on Roc Creek and La Sal Creek in Colorado near the Colorado-Utah boundary (Hillebrand and Ransome, 1900) and in the Richardson Amphitheater at Richardson at the north base of the La Sal in Utah (Boutwell, 1905). Dane (1935, 177-178) found that extensive uranium-vanadium mining had been undertaken on Polar Mesa before 1929. During the uranium boom of the 1950's these areas and the entire region were intensively prospected. See site 81.

81. Richardson Amphitheater (Moab)

Along the Colorado River at the northwestern base of the La Sal Mountains there is a highly scenic, open area called the Richardson Amphitheater. It was probably occupied not long after the first settlement at Moab in the 1870's or early 1880's, but I have been unable to locate any data. There is some agricultural land along the Colorado here and at Dewey (named for Admiral Dewey) a few miles upstream at the mouth of the Dolores River. The Amphitheater was an excellent wintering ground for cattle and sheep, and it is primarily a ranching area comparable to La Sal (site 77) at the southern base of the mountains.

The Amphitheater at Richardson was an early uranium mining site (see site 80), and through upper Castle Valley it has been a principal entry way to mining localities higher in the mountains. See site 83. Placer gold on the Colorado below Dewey was dredged in 1927-1928 according to Dane (1935, 179).

82. Pinhook Battleground (Moab)

As the white men began settling about the base of the La Sal Mountains the Indians resisted, and on June 15, 1881, ten whites were killed and three badly wounded by them in Pinhook Valley at the upper end of Castle Valley. The event is described many years later by Frank Silvey in a newspaper article (La Sal NF 1940). Silvey said that renegade Indians committed the massacre. A monument marks the location of the event.

*83. Castleton and Miner's Basin (Moab)

Mineral prospecting in the La Sals antedated the quest for uranium and vanadium (site 80). I have mentioned the probable development of Salt by Indians (site 79). As a result of the gold discoveries made in Glen Canyon beginning in 1883, prospectors searched the adjacent mountain masses to try to locate the source of the mineral. The gold rush to the San Juan River (Crampton 1964b), 1892-1893, intensified the search on the eastern side of the Colorado, and during those years many prospectors combed the Abajo Mountains as well as the La Sals.

From the records I have seen it appears that no exciting discoveries of gold were made in the La Sals until near the end of the century. Between 1897 and 1900, strikes made in the exposed magna of the laccoliths near the tops of the several peaks caused

something of a rush to the La Sals. One of the first prominent discoveries was made in Miner's Basin, at the head of Placer Creek, at an elevation just under 10,000 feet.

A road was built up from the Richardson Amphitheater through Pinhook Valley and was extended subsequently southward to Gold Basin, at about the same elevation in the southern group of peaks, and to other places.

At the head of Castle Valley in the Richardson Amphitheater the town of Castleton sprang up on the road to Miner's Basin, and it became the entrepôt of the La Sal gold mining region. In 1900 Castleton (La Sal MF 1940) was said to be a booming town of about 1000 people; there was a general store, post office, and two saloons. I have not visited the place, which is reported as only a site today.

The roads opened up during the gold period, which probably did not last much beyond 1905, served other interests, including uranium mining, lumbering, and grazing.

84. Big Indian Mining District (Moab)

Documents in the Recorder's Office, San Juan County, at Monticello, reflect that the Big Indian Mining District in Big Indian Valley south of the La Sal Mountains was organized in 1892. Copper deposits were worked there intermittently. As so often happens in the sandstone country of the Colorado Plateau, copper and uranium are often found in the same strata. This is notably true in the Big Indian District, which is now one of the main uranium producers in southeastern Utah. Charlie Steen's "Mi Vida" mine in Sec. 11 T. 30S R. 24E. SLBIM has brought renown to the district. Look (1956) has a popular book on modern uranium mining.

85. Dry Valley (Moab)

Scattered references indicate that, when the white men began to settle in San Juan County, the more or less open area between the La Sal Mountains and the Abajo (Blue) Mountains was a prime grazing area with grass being stirrup-high. One of the areas most frequently mentioned is Dry Valley, a broad, flat area draining into Hatch Wash. See site 86.

*86. Carlisle Ranch (Cortez)

The San Juan country of southeastern Utah was the meeting ground of settlers coming from west and east at about the same time. From

the older settlements in Utah, mainly in the Great Basin, came farmers and cattlemen, mostly Mormons. From the east came cattlemen who sought to exploit the virgin ranges of the La Sal and Abajo mountains and the relatively level country in between typified by Dry Valley (site 85). Both columns of settlers arrived between 1877 and 1880. Those coming from the east often brought herds of longhorns from Texas. One of these from the east was Spud Hudson who set up headquarters at the Double Cabins, six miles north of the present town of Monticello. Hudson later sold out to Edmund and Harold Carlisle, managers of the Kansas and New Mexico Land and Cattle Company, Limited, a British concern. For ten years, 1886-1896, the Carlisles ran the largest herd of cattle in eastern Utah from their headquarters at the Double Cabins, or the Carlisle Ranch. Perhaps some of the original buildings remain at the ranch, which is still a cattle spread, but the original ranch house has been torn down. See Walker's informative articles on the cattle industry of Utah, the coming of the longhorns from Texas, and the Carlisles (1962, 1964a, 1964b).

The Carlisle Ranch is in Sec. 36 T. 32S. R 23E. SLBLM, alongside U.S. Highway 160 on the west side of the road.

*87. Dugout Ranch (Moab)

This is the ranch headquarters for the Scorup-Somerville Cattle Company founded by John Albert Scorup pioneer cattleman who came into the San Juan country in 1891. Scorup built up his herds and bought out his neighbors; in 1926 when the Scorup-Somerville Cattle Company was formed, the range covered a huge territory fifty miles deep along the Colorado from near the mouth of the Green River to the mouth of the San Juan--about two million acres comprising some of the most rugged country in the West. S. S. cattle and range camps are still seen today over this vast area (see sites 88, 90, 95, 101).

The Dugout Ranch is beautifully located on Indian Creek; green alfalfa fields stand out in pleasant contrast to the red rock buttes of Hart's Point in the background. Lambert (1964) has an article on Scorup; Stena Scorup (1944) has written a biography.

88. Beef Basin (Moab, Cortez)

This is a relatively open area just east of Cataract Canyon and draining into it largely through the profound Gypsum Canyon. Cattle range area of the Scorup-Somerville Cattle Company and noted for the profusion of archeological sites.

89. Butler Wash - Red Lake Canyon (Moab)

Possible route used by outlaws and rustlers to cross Cataract Canyon. The suggestion that the route may have been opened during the Spanish or Mexican periods is not supported by evidence. See a forthcoming site report on Cataract Canyon by Crampton.

*90. Abajo Mountains and Elk Ridge (Cortez)

The Abajo Mountains were known to Spain before 1776 and they appear on Miera's map made after the exploration of Domínguez and Escalante (see Bolton, 1950). I am not aware that anyone has decided what, precisely, the "abajo" (below) refers to. One could guess that it meant the mountains below, that is, south of the La Sal group. The Abajos, like the La Sals, are laccolithic mountains that stand up high (over 11,000 feet) on the skyline and are visible for many miles from all four directions. Although the name Abajo invariably is the map name for those mountains, the local name invariably used is the Blue Mountains, or simply, The Blues.

Adjoining the Abajos on the west is the lofty Elk Ridge, a tableland intricately dissected by the streams emptying into Gypsum Canyon, Dark Canyon, White Canyon, and Comb Wash.

The Abajos and Elk Ridge, like the La Sals, have provided a source of water, lumber, summer grass, and minerals. The group was first studied scientifically by the Hayden Survey (Holmes, 1878).

91. Gold Mines in the Blues (Cortez)

Following upon the gold rush to the San Juan Canyon (Crampton, 1964b), there was much prospecting of adjacent mountain masses to locate the source of the gold. Although there is some indication that prospectors were exploring the Blues before then, there was something of a rush when gold was discovered in 1892 and the Blue Mountain Mining District organized. In the Recorder's Office of San Juan County at Monticello there is abundant documentation of this mining rush in the form of mining location notices.

Actual mining seems to have been confined largely to the exposed igneous rock on the peaks and ridges below Abajo Peak. The small amount of low grade ore did not prove to be profitable and within a few years the field was abandoned, but not before many shafts were sunk and mills built. Gregory (1938, 109-110) has some details on this activity, which has never been summarized historically.

92. Kigalia Spring (Cortez)

A permanent water source on Elk Ridge named after a Navajo headman who was running sheep on the Ridge in the 1880's when Mormons from Bluff found him there.

93. Natural Bridges National Monument (Cortez, Escalante).

See Crampton (1959, 76-78) for some details of discovery and early history.

94. White Canyon (Escalante)

One of the principal gateways to Glen Canyon from the east in use as early as 1883, probably before; important uranium and copper mining area; archeological importance suggested by ruins in the inner canyon; scenically exciting. See forthcoming report on historic sites in upper Glen Canyon by Crampton.

*95. Fry Spring (Escalante)

A good and permanent water source near the mouth of Fry Canyon. The spring has been a camping place probably for as long as white men have traveled through White Canyon. Some overhanging rocks near the spring are blackened with many fires and there are numerous names of travelers inscribed on the wall. A one-room shack built against these rocks is known as "Fry Cabin"; it is used as a camp for the Scorup-Somerville Cattle Company. Charles Fry, the spring's namesake, was an associate of Al Scorup (Lambert, 1964).

Downstream from the spring about a mile and a half on Utah State Route 95 is Fry Canyon Post Office and general store. This place (not shown on accompanying map) was born of the uranium boom in 1957. There are a number of uranium mines in upper Fry Canyon and in the general vicinity of White Canyon.

*96. Soldier Crossing (Escalante)

In July, 1884, two men, Joe Wormington and James Higginson, were killed here by Indians. Some Ute Indians having stolen some cattle fled into White Canyon, where they were pursued by ranchers and some troops from Fort Lewis. The Indians fortified themselves in the

rocks overlooking this, one of the few crossings of White Canyon, and picked off Wormington, a government scout, and Higginson, a cowboy, when they exposed themselves. Perkins, Nielson, and Jones (1957) have some details of the fight.

The graves of the two men, a few yards from Utah State Route 95, are enclosed by a fence and the Utah Road Commission has erected a sign giving the story of the event.

97. Hour House (Escalante)

Located near a spring in the wilderness north of White Canyon are the ruins of a one-room slab-rock house built against an overhang. An inscription on the overhang reads "1891" and "Hour House." Nearby a weathered and broken wagon stands on a sheet of bare rock. The history of the place is altogether a mystery.

98. Happy Jack Mine (Escalante)

This is one of the important uranium mines in the Colorado River canyon country. A mill to reduce the ore was built in 1949 at the mouth of White Canyon, but it was torn down a few years later and the ore is now shipped to the mill near Mexican Hat. See forthcoming report by Crampton on historic sites in upper Glen Canyon. The mine was developed first as a copper prospect at about the opening of the twentieth century (Crampton, 1959, 60-61).

99. Red Canyon (Escalante)

Red Canyon derives its name from the red cliffs that enclose it on two sides. It was intensively prospected during the uranium boom of the 1950's, and indeed it was one of the earliest areas prospected in the Glen Canyon area. See forthcoming report on historic sites in upper Glen Canyon by Crampton.

100. Red House, Red House Spring, Collins Spring (Escalante)

Red House was a dugout one-room cabin sided up with slabs of local red rock, hence the name. It is located at Red House Spring just west of the entrance to Red Canyon through Red House Cliffs. The original house is now in ruins, but a trailer house has been set up there probably during the uranium rush in the 1950's. There are watering troughs for cattle and a reservoir at the place, but I

have never seen anything more than wet mud here. Albert L. Lyman of Blanding, Utah, stated in an interview that Red House was built in the 1890's as a cattle camp.

Collins Spring at the head of a Grand Gulch tributary was a camp for the Scorup-Somerville Cattle Company (see Lambert, 1964, 307).

*101. Clay Hill Pass and Green Water Spring (Escalante)

Clay Hill Pass, an opening through the Red House Cliffs, was first used as a wagon route by the Hole-in-the-Rock party in 1880. It was, in fact, one of the most arduous places on that trek (Miller, 1959). Since 1880 Clay Hill Pass has been the entryway from the east to the big country south of Moqui Canyon and between the Colorado and the San Juan rivers. Often this is called the San Juan Triangle.

The approach to the Pass on the west, by way of Castle Creek, is easy and gradual, but on the eastern side the slope is steep, dropping a thousand feet over clay marls that become sticky mud when wet. Remains of the 1880 Hole-in-the-Rock road may be clearly seen on the eastern slope.

Green Water Spring on Castle Creek about three miles west of Clay Hill Pass is a fine, permanent water source used as a regular camp by the Scorup-Somerville Cattle Company during the spring roundup. Cattle from the San Juan Triangle were brought through Clay Hill Pass and then taken to the summer range on Elk Ridge. The spring bubbles up at the base of huge sandstone blocks against which the camp has been built. Numbers of names, probably including most of the cowboys in the roundups through the years, are incised on the rocks at the spring.

102. Lake Pagahrit (Escalante)

In 1880 the Hole-in-the-Rock party found that a natural dam had formed in Lake Canyon about eight and a half miles above its mouth. A beautiful sheet of water half a mile long greeted them, and they drove their wagons across the dam. Later, Lake Pagahrit, also known as Hermit Lake, and by other names, was a center for pioneer cattle operations in the "Lake Country," by which name the area is still known. In November, 1915, after three days of heavy rain, the lake overflowed and cut a channel in the sandy dam, and the impounded waters rushed down to the Colorado. The outlines of the lake bed may still be seen. It is an archeological site of some importance. See Crampton (1962, 40-43), Lyman (1909), Miller (1959); see Fowler (1961) for archeological data.

103. Grey Mesa (Escalante)

Grey Mesa, or Wilson Mesa, on the Hole-in-the-Rock Trail was a difficult place on the road. Much road building was required on either end of the mesa, and as a result the old road may be traced easily today. From the old road on top of the mesa, which passed near the rim of the canyon overlooking the Big Bend of the San Juan, the view in all directions was superb, especially north to the jagged slopes of Navajo Mountain.

104. Nakai Dome (Escalante)

Oil prospect site in the 1950's; perhaps earlier also.

105. Allen Canyon Indian Village (Cortez)

On Cottonwood Creek near the mouth of Allen Canyon is a settlement composed of both Paiute and Ute Indians who have been given allotments of land in the region and certain grazing rights. According to Gregory (1938, 29-31), the forty-five allotments are under government supervision.

106. Navajo Spring and Road Across Comb Ridge (Cortez)

At the base of Comb Ridge and just south of Utah Highway 47, this has long been a watering place in an area where there are few springs. The Hole-in-the-Rock road ascended Comb Ridge south from this point at San Juan Hill overlooking the San Juan River. However, at Navajo Spring there was an Indian trail crossing the ridge. This was later developed into a very steep wagon road, remains of which may still be seen. The modern highway has eliminated the steep grade.

*107. San Juan Canyon (Cortez, Escalante)

The historic sites in the San Juan Canyon from the mouths of Comb Wash and Chinle Wash to the mouth of the San Juan have been reported in the recent paper by Crampton (1964b) and will not be repeated here except to emphasize the importance of Mexican Hat (site 108).

*108. Mexican Hat (Cortez)

Mexican Hat takes its name from a sombrero-like balanced rock north of town. Historically the place is important as the site of a

pioneer oil boom town in southeastern Utah, 1908-1910. Though few buildings remain dating from this period there is much old machinery reminiscent of this activity, including an oil refinery. See Crampton (1964b) for details.

*109. Barton Trading Post (Cortez)

In 1883 William Hyde established a trading post on the San Juan River just upstream from the mouth of Comb Wash; the angle between the two streams was called the Rincon. The place was favorably located on the Hole-in-the-Rock road at the base of San Juan Hill (Miller, 1959), and it was just above an important crossing of the San Juan River (Crampton, 1964b). Amasa Barton married Hyde's daughter and acquired the property. In May, 1887, Barton was shot by some Navajo Indians and soon died. The remains of the rock walls of the solidly built trading post and other buildings, and the water-wheel on the bluff at the edge of the river, may still be seen. Apparently the post was abandoned after the tragedy and not re-activated. Lyman (1962, 85-93) has details of the murder.

*110. Bluff (Cortez)

Bluff was not the original destination of the Hole-in-the-Rock colonizing mission, but when the settlers arrived there in April, 1880, they were too tired to go on. Bluff, on the banks of the San Juan near the mouth of Cottonwood Wash, thus became a Mormon outpost in the San Juan country. It was a base close to the Utes, Paiutes, and Navajos, and it was a force to counteract the growing influence of the gentiles coming to Utah from Colorado and points east.

As a farming community Bluff did not prosper; the waters in Cottonwood Wash were intermittent and the San Juan soon washed away much of the farming land. But the settlement did become an important headquarters area for Mormon ranchers who built up herds and eventually bought out those who had preceded them into the region. Soon after its founding Bluff began to lose population, but some of those who remained became prosperous and built fine homes cut from local sandstone. Several of these are still to be seen though they are gradually falling into decay. Most of the original settlers, and their descendants, eventually moved up country toward the Blue Mountains to Verdure (site 112), Monticello (site 113), or to Blanding (site 114). In fact the population of Bluff at the start in April, 1880, was probably the highest figure ever reached.

111. St. Christopher's Mission (Cortez)

St. Christopher's Mission to the Navajo is an Episcopalian establishment founded by Father Harold Baxter Liebler in 1942. It is located on the banks of the San Juan about two miles above Bluff. Father Liebler after twenty years at St. Christopher's wrote a highly informative article on the Navajos (1962).

112. Verdure (Cortez)

Verdure on Verdure Creek, a tributary of Montezuma Creek, was the first settlement after Bluff to be occupied by the Mormons as they moved north from the San Juan River to localities about the base of the Blue Mountains. It dates from 1884. A number of houses of some age and barns are to be seen there today, but there are no modern structures. See Perkins, Neilson, and Butt (1957, 88-95).

113. Monticello (Cortez)

After Verdure (site 112), Monticello was the next of the Mormon communities to be founded at the base of the Blue Mountains. Dating from 1888, the county seat was removed from Bluff to Monticello in 1895. See Perkins, Neilson, and Butt (1957) for details of founding and early growth.

114. Blanding (Cortez)

Blanding on White Mesa is the youngest town in San Juan County, Having been founded as a settlement in 1905 when water was brought from the Blue Mountains. Called Grayson first, Blanding has grown to be the largest of the San Juan County towns. Perkins, Neilson, and Butt (1957, 133-155) have details of founding and early history. Gregory (1938, 114-115) discusses the project of bringing water from the Blues and other irrigation projects.

115. L. C. Ranch (Cortez)

The L. C. Ranch, located on Johnson Creek north of Blanding, was one of the early cattle spreads in the San Juan country dating from the 1880's. It was originally owned by the Widow Lacey, who brought cattle into the area from Colorado and points east in the early 1880's. Some details are in Perkins, Neilson, and Butt (1957, 133-143). The original ranch house has burned, but there are numerous buildings at the headquarters area, which is still used as a ranch.

116. Home of Truth (Moab)

The Home of Truth colony, located just west of U. S. Highway 160, is a religious colony founded in 1933 by Marie M. Ogden, a welfare worker from New Jersey. According to the U.S. WPA Utah (1941, 430), the colony started out strong but has dwindled in numbers since. See also Stegner (1942).

117. Sage Plain (Cortez)

The Sage Plain is a broad plain, tilting toward the San Juan River, extending from the base of the Abajo Mountains into Colorado. It is an important dry-farming area today; beginnings were made in this farming technique in the 1880's (Perkins, Neilson, and Butt, 276). A few settlements like Eastland and Lockerby represent prosperous farming areas. The word "plain" is somewhat deceiving for it is deeply gashed by canyons made by streams flowing into the San Juan. Of these Montezuma Canyon is the largest.

118. Hovenweep National Monument and Montezuma Canyon (Cortez)

Hovenweep National Monument preserves several groups of prehistoric ruins on the McElmo Creek drainage and environs in Utah and Colorado. Montezuma Canyon, which drains much of the Sage Plain, is also archeologically rich. Although members of the Hayden Survey visited the Hovenweep Ruins (see Jackson, 1876, 1878), in 1854 Mormon explorers, hoping to establish contact with the Navajo Indians, explored and described the ruins in both Montezuma Canyon and the Hovenweep area (Crampton, 1964c, Chapter VI). Montezuma Creek is just one of a number of places by that name in the Southwest. There are enough "Aztecs," too.

119. Trading Posts on the San Juan (Cortez)

As early as 1879 there were families living at the mouth of Montezuma Creek, where the Hole-in-the-Rock colonizing expedition in 1880 had planned to settle. With water close at hand, the river terraces seemed like attractive places for farms, but the vagaries of the stream (running from heavy floods in the spring run-off to a mere trickle at other times) were such as to discourage pioneer farming. Bluff is the most notable example of failure. The result was that the farmers went elsewhere, and the settlements along the San Juan from Bluff (see also site 109) upstream to Shiprock, New Mexico, took on the character of trading posts serving both white and Indian clientele.

I am not aware of any detailed study incorporating the history of the several posts that from time to time appeared along the north bank of the San Juan. The north bank was preferred owing to better watering places at the mouths of streams draining the long slope of the Sage Plain; also, a road connecting Bluff, and places downstream from there, with points in southwestern Colorado and northwestern New Mexico, passed along the north side. In his excellent book on the Indian Traders, McNitt (1962, 309) tells of the founding of the Aneth Trading Post by Noland about 1885 at the mouth of McElmo Creek. However, an earlier establishment, though perhaps not strictly a trading post, was established early at the mouth of Montezuma Creek. There were probably others.

In later years, when the road between Bluff and Colorado points was relocated to parallel the present highway now passing through the Aneth oil field, trading stores were established by Hatch at the crossing of Montezuma Creek and by Ismay at the crossing of McElmo Creek.

South in the Navajo country first at Oljeto and later at Kayenta John Wetherill established trading posts that played an important part in the history of the region (see Crampton, 1959, 74-89).

120. Aneth Oil Field (Cortez)

Utah's major producing field of recent development takes its name from the Aneth Trading Post. The field is much larger than indicated on the accompanying map.

121. Four Corners Monument (Cortez)

An elaborate monument marking the corners of four states was dedicated in September, 1962.