Vermilion Dreamers, Sagebrush Schemers



An Overview of Human Occupation in House Rock Valley and the Eastern Arizona Strip

By Jerry D. Spangler

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Jan. 30, 2007

Document prepared by the Colorado Plateau Archaeological Alliance, Ogden, Utah

on behalf of the Grand Canyon Trust, Flagstaff, Arizona

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Chapter 1 The First Inhabitants

A Brief Overview of Archaeological Observations In the House Rock Valley and Easter Arizona Strip

Introduction

The arid canyons north of the Grand Canyon in the region referred to as the Arizona Strip feature a broad range of environmental settings with an abundance of wild plants and animals suitable for human exploitation during various seasons. Indeed, there are tantalizing remnants of human occupations that suggest small groups have utilized the region for seasonal hunting and gathering forays for the past 10,000 years. However, despite almost a century of sporadic archaeological research, very little is known of the prehistoric inhabitants of the region and how they adapted to a region largely devoid of permanent water. If the ethnographic record documented for the Kaibab Band of Southern Paiutes (Kelly 1964) can be postulated for earlier periods, prehistoric adaptations were likely focused during the spring on the procurement of wild seeds and cacti found in valleys like House Rock Valley and along the Colorado River corridor. As different economic species matured at higher elevations, hunter-gatherers moved gradually into higher elevations where they exploited summer grass seeds, berries, nuts and tubers. The Kaibab Plateau would have been the focus of major mule deer procurement in the fall months prior to the bands' return to lower, more temperate environments to pass the winter.

It is possible, based on a limited number of unique projectile points recovered from the area, terminal Ice Age hunters passed through the region in pursuit of remnant populations of now-extinct Pleistocene mammals retreating into higher elevations of the Kaibab Plateau as the environments at lower elevations became more hot and arid. There were certainly later Archaic groups in the region who hunted mule deer and gathered wild plant seeds. Most current archaeological evidence suggests these groups, always small in number, were temporary residents, exploiting food resources in preferred ecological niches during optimal seasons. This adaptive strategy remained unchanged for millennia.

For reasons not entirely clear to archaeologists today, the region experienced rapid and unprecedented population growth late in Formative times, from about A.D. 1050 to 1200, when hundreds of small agricultural hamlets appeared in favorable niches, usually but not always associated with intermittent springs and seeps. These hamlets, attributed primarily to an expansion of Ancestral Puebloan groups, are found in a variety of environmental settings, none of them conducive to growing domesticated food crops today. This remarkable ability has been attributed to environments at the time that were favorable to dry farming (natural rainfall sufficient for food crops to mature) or to the development of remarkably efficient water collection systems that capitalized on summer monsoonal thunderstorms, or to some combination of both. As elsewhere north of the

Colorado River, agricultural adaptations to marginal environments like the Arizona Strip fluoresced briefly and then collapsed, prompting the widespread abandonment of population centers throughout the region by A.D. 1250.

A growing corpus of evidence, however, suggests that agriculture may have persisted in isolated locations after most local groups dispersed to areas south and east of the Colorado River. It cannot be stated whether this evidence is attributable to small remnant populations of Ancestral Puebloan farmers or the adoption of agriculture by recently arrived Southern Paiute populations, who may have coexisted with Puebloan villagers in the waning decades of the Formative. When Euroamericans first arrived in the region, they encountered Southern Paiute foragers living throughout the Arizona Strip, all practicing a hunting and gathering lifeway that was undoubtedly similar to that of the Archaic hunters and gatherers millennia before, although some may augmented their wild foods with maize and squash, and perhaps beans.

The Early Chronicles: 1869-1890

The Arizona Strip has traditionally been described by archaeologists as an extension of prehistoric human adaptations to the north and east, primarily in the Kanab and Kayenta areas, and to a lesser extent in the Kaiparowits Plateau to the northeast and Virgin River Basin to the northwest. Given the paucity of large or architecturally spectacular ruins, the region was largely ignored by early researchers. The earliest reference to archaeological resources in the region was that of John C. Sumner, a member of the 1869 Colorado River Exploring Expedition, who wrote of making camp at the mouth of the Paria River where he found "trails and ancient camps [that] show that this point has been used for ages as a crossing place of the Colorado. There are great numbers of milling stones used by the Indians to grind, or rather pound, pinyon nuts and grass seeds, mixed with dried grasshoppers and an occasional lizard, to make their day — or rather weekly — bread. There is an ancient fort crowning a small butte near the crossing" (in Stanton 1982:190). Sumner also mentioned "a lot of Moqui ruins" just below Silver Creek (later renamed Bright Angel Creek).

John Wesley Powell later wrote in "The Canyons of the Colorado," a compilation of the 1869 and 1871 expeditions, that he had, in the area of Silver Creek, "discovered the ruins of two or three old houses, which were originally of stone laid in mortar. Only the foundations were left, but irregular blocks, of which the houses were constructed, were scattered about. In one room I found an old mealing stone, deeply worn, as if it had been much used. A great deal of pottery was strewn about, and old trails were seen, which in some places, were deeply worn into the rock" (1981:45; see also 1961:259-260).

Various members of the Colorado River Exploring Expedition of 1871-72 also made numerous references to prehistoric sites and artifacts along the Colorado River corridor, in House Rock Valley and in areas to the west. During the party's winter camp at Eight Mile Spring south of Kanab, journal accounts make repeated reference to the prehistoric architecture, artifacts and rock art of the region. Among the 1872 references, Alvin H. Thompson (Figure 1) wrote that they found "foundations of Moquis houses in

valley" near Stewart Canyon or Jump Up Canyon (1939:69), and Stephen V. Jones referred to "ruins of Shinumos houses, and inscriptions on the rocks, near a small spring" in Moquis Canyon (1948:112). Later, Thompson mentioned "Moquis inscriptions" in the upper end of Snake Gulch, and Frederick Dellenbaugh wrote that they left Kanab Canyon via a tributary they named "Shinumo Canyon because we found everywhere indications of the former presence of that tribe" (1908:184).



Strip (J.K. Hillers Collection No. 611, courtesy of the U.S. Geological Survey)

Dellenbaugh, a journalist, attributed these sites and artifacts to the Shinumos, a name he popularized through numerous publications during the late 1800s and early 1900s. He indicated it was a Paiute name for the ancestors of Puebloan peoples (1901:44), but it is actually a variation of the word "Numa" and is a term applied to all Numic-speaking peoples (Fowler and Fowler 1971:5). Dellenbaugh also noted that local residents were aware of the archaeological resources during his travels in the 1870s, and in many cases were actively involved in the looting of prehistoric sites for saleable artifacts in the latter half of the nineteenth century (Dellenbaugh 1877).

Figure 1: Professor A.H. Thompson, 1872, Arizona

These passing references may have inspired renowned early archaeologist W.H. Holmes, himself a participant in the great Ferdinand Hayden expeditions, to visit the region in the 1880s. Holmes (Figure 2) later described and illustrated prehistoric ceramics from the Kanab-Fredonia region, writing that "The remarkable desert-like plateau lying north of the Grand Canyon of the Colorado contains many house and village sites. At intervals along the very brink of the great chasm we come upon heaps of stones and razed walls of houses about which are countless fragments of this ware. These are identical in nearly every character with the pottery of St. George on the west, of the San Juan on the east, and of the Gila on the south" (1886:281).

The Early Archaeologists: 1915-1950

Several early researchers conducted investigations in areas north of the Arizona Strip in the latter part of the nineteenth century and early in the twentieth century, but these expeditions apparently avoided the waterless Arizona Strip. The earliest formal

archaeological investigations in the House Rock Valley area were those of Neil M. Judd, who first visited the area in 1915 (Judd 1920, 1926). Judd, who became a major force in American archaeological research in the first half of the twentieth century, returned in 1916 under the auspices of the Smithsonian Institution's Bureau of Ethnology, and in 1917 as part of an expedition sponsored jointly by the University of Utah and Smithsonian Institution. He resumed research in 1919 and 1920 under the authority of the Smithsonian Institution. He again returned in 1923, under the joint sponsorship of the Smithsonian Institution and the National Geographic Society. Judd's classic *Archaeological Observations North of the Rio Colorado* (1926) synthesizes his many years of research in the region, and it reflects a hypothesis that the origin of prehistoric Pueblo cultures would be found north and west of the Colorado River, and that Ancestral Puebloans migrated from north to south, becoming more sedentary as they approached the Colorado River (1917:40).

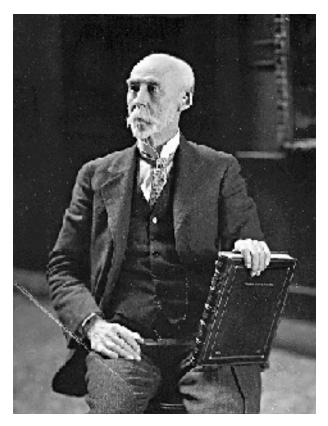


Figure 2: W.H. Holmes (Photo courtesy of National Museum)

Judd wrote little about his early observations there other than to mention masonry architecture and prehistoric mounds near Short Creek and Pipe Springs. He returned to the Arizona Strip in 1918 to investigate a report of a large tower structure reportedly located on the rim of Walhalla Glades overlooking House Rock Valley and the Grand Canyon. The expedition subsequently explored the entire region south of Kanab, including the Kaibab Plateau, Paria Plateau and House Rock Valley. As Judd summarized, "Prehistoric ruins were seen throughout much of the region traversed. Their walls were rough, unworked blocks of limestone, sandstone or chert, depending upon the material most accessible to the site occupied. Most of them had so completely collapsed as scarcely to be recognized as one-time

human homes. No two of them were exactly alike. Each was

distinct within itself, and yet each possessed certain characteristics common to the others" (1926:76).

In upper House Rock Valley, Judd described one group of about a dozen structures on a sand ridge at Two Mile Spring. Local informants indicated human remains and pottery vessels had been exposed by wind erosion, but Judd conducted no excavations (1926:77). Just beyond the mesa rim were two similar sites and "a number" of inconspicuous ruins. Groups of "single and adjoining rooms" were located west of the road connecting New House Rock and Old House Rock corrals. "For the most part they

appear as low, rambling piles of irregular limestone blocks, often bronzed by lichens. Invariably they stand on slight elevations bordering shallow courses that drain the wide valley.... The outlines of their individual rooms are not always apparent" (1926:77-78).

Judd (Figure 3) mentioned at least a dozen sites north of New House Rock, others beyond Two Mile Spring, others south and east from the "new corrals," and others near springs along the Vermilion Cliffs on the north side of the valley. A group of ruined structures was located on bare knolls about 7 miles south of New House Rock, within a quarter mile of Kane Spring, and in Tater Canyon just south of Grand Canyon Cattle Company headquarters at Kane Spring. Judd also investigated several cave sites in the Cockscomb above House Rock Valley. One large cave with multiple structures was described, and basket fragments and a wooden vessel were collected from the midden (1926:80-81). Additional ruins were mentioned in the area around the ranger station at the mouth of the "north fork" (1926:82).

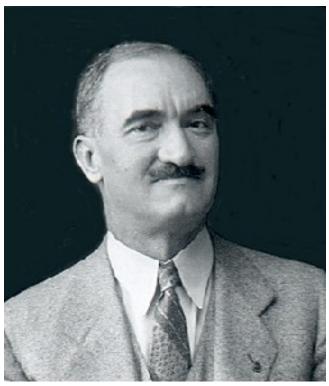


Figure 3: Neil Judd, 1931, National Anthropological Archives, (Smithsonian Institution, neg. no. 18,107-a)

Judd returned to the Arizona Strip in 1920 to investigate sites in the Toroweap Valley, Paria Plateau and upper Bright Angel Creek, where several open ruins and three groups of cliff structures were inspected. He described sites along the east rim of the Paria Plateau as "more numerous than was anticipated" with residential structures "superior to those seen elsewhere in northwestern Arizona: likewise, potsherds examined at each site exhibit greater perfection of form and a higher decorative technique. These two factors — architectural and ceramic remains — alone are sufficient to connect the former inhabitants of this region with the pre-Puebloan peoples east of the Rio Colorado..." (1921:28)

In the Paria Plateau area, Judd observed large numbers of small, dilapidated masonry structures that lacked significant middens or evidence of adobe mortar. Eight such ruins were located between Joe Hamblin's "camp" and the head of Badger Creek, and another ruin was located near Hamblin's horse pasture. This ruin featured coarse sandstone no more than three courses high; associated midden materials were dominated by black-on-white ceramics, and graywares were rare (1926:129). The largest ruin on the Paria Plateau was located on a sandstone butte about 2 miles northeast of Hamblin's upper reservoir. At least 28 rooms, most of them contiguous, were constructed of

unworked sandstone set on a bedrock surface in a semicircular pattern around the edge of the butte (1926:130; see also Figure 4).

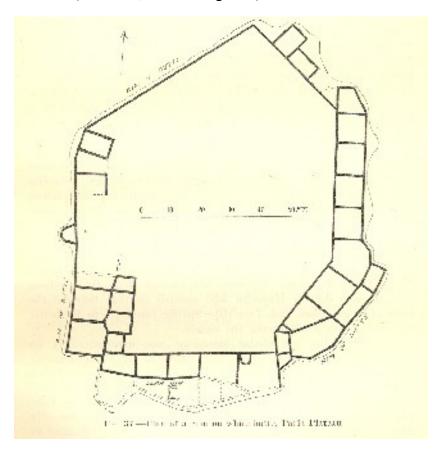


Figure 4: Plan sketch of Judd's Fig. 37 (1926:131), Paria Plateau ruin on top of distinctive butte. See also Judd's photographs labeled Plates 28b. 29a and 29b.

In the Buckskin Gulch area, Judd described a rock art panel and "below its mouth" a series of "holes for toes and fingers" that marked routes across Paria Canyon (1926:130). An additional rock art panel and several small cliff dwellings were reported about 5 miles above Lees Ferry, but it does not appear that Judd visited these sites. Judd failed to verify reports of ruins about a mile south of Buckskin Gulch, but he observed lithic and ceramic scatters. In the area just north of White Pockets, Judd visited a small cave containing the collapsed masonry of several structures. A larger cave to the southeast contained no architecture, but it did offer considerable evidence of human occupation. Local informants indicated that two reed arrows and a yucca sandal had been recovered from the cave. Among the White Pockets "cones" are several small natural reservoirs where "no stranger would suspect their presence ... Pecked steps lead to at least two of these tanks, showing that the ancient inhabitants drew at times upon the limited water supply" (1926:131-132).

Judd noted a correlation between the distribution of prehistoric architecture on the Paria Plateau and the availability of tabular sandstone. These structures featured no evidence of vertical slabstone bases, which were common at structures in Cottonwood Canyon and at Two Mile Spring. The ceramic evidence established "a close relationship

between the occupants of Paria Plateau and those families that dwelt in House Rock Valley and the broad drainage of Kanab Creek," although Judd observed that one type of pottery would dominate at one site, while another type would dominate the collection at another site nearby (1926:132-133).

In Bed Rock Canyon at the south end of House Rock Valley, Judd observed that "prehistoric habitations here are more numerous than one would suspect. They are found on each side of the canyon, situated, in most instances, on bare projecting points. Their ancient walls were built up of undressed limestone blocks gathered from nearby ledges. These walls are now rarely more than two or three courses high; the highest wall we saw in a dozen ruins stood less than 4 feet. The amount of fallen stone outlining the individual rooms is insufficient to have formed a wall of more than half the required height. It would seem, therefore, that at least the upper walls ... had been constructed of adobe or other disintegrable material (1926:133-134).

Other early archaeologists subsequently conducted investigations in the region, although their reports were cursory, at best (Sturdevant 1928; Count 1930; Hall 1942; Soper 1930; McKee 1933). Influential early archaeologist Julian Steward also made observations in the region, assigning the Arizona Strip region to his "Lower Colorado Plateau" delineation, which he characterized as having a stronger relationship to major areas of the Southwest as evidenced by Basketmaker and Pueblo characteristics, advanced Pueblo II masonry, kivas and black-on-white and black-on-red ceramics. In fact, he concluded "many of the elements which are absent from the remainder of the Northern Periphery are found here" (1933:19). And Edward T. Hall Jr. (1938) also documented a minor Pueblo I and major Pueblo II presence in the Walhalla Glades area where about half of the 273 sites he recorded were one- or two-room rectangular structures. He also documented the presence of agricultural terraces and masonry pueblos, some with courtyards.

The Baseline Surveys: 1950-1980

A number of archaeological surveys were initiated in the 1950s and 1960s to better determine the spatial distribution of cultural resources in the Grand Canyon and Arizona Strip regions and to establish temporal frameworks. In the 1950s, Walter W. Taylor (1958:29) conducted a survey along the Colorado River corridor from Lees Ferry to Lake Mead, concluding that the inner gorges of Grand Canyon were sparsely occupied, the primary occupation occurring between A.D. 1000 and 1150. Also in the 1950s, various individuals recovered a number of split-twig figurines from cave sites in the Grand Canyon gorge (Farmer and DeSaussure 1955; Schwartz, Lange and DeSaussure 1958), and a number of Late Archaic radiocarbon dates (ca. 2000 B.C.) were subsequently reported from these artifacts.

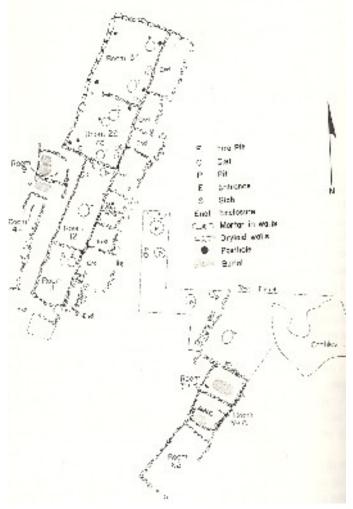
Investigations in the House Rock Valley area were sporadic, with most attention focused on the Paria Plateau area to the east, the Kaibab Plateau to the west and the Walhalla Glades to the southwest. In 1967, the Museum of Northern Arizona initiated a multi-year survey of the Paria Plateau, Paria River Canyon and House Rock Valley (Bradford 1974; Haskell 1978; C. Jennings 1978; Mueller et al. 1968; Mueller 1972). In

1967 and 1968, crews identified 498 prehistoric sites within an 85.5 square-mile area. More than half of the sites (272) were masonry pueblos. These ranged in size from small sites with one to five structures (72 percent) to large pueblos with 16 to 50 rooms (8.5 percent). Additionally, 95 sites were ceramic scatters, 22 were ceramic and lithic scatters, and 67 were pithouses. Aceramic sites included six rockshelters, five lithic scatters and two rock art localities. Researchers concluded the plateau was intensively utilized during Pueblo II and Pueblo III times. Some 366 of the 467 ceramic-bearing sites had late Pueblo II ceramic components, and 172 reflected continued use during Pueblo III times (Altschul and Fairley 1989:63).

Surveys in the House Rock Valley area identified 108 sites, most of which were surface pueblos with one to 10 rooms. However, a small number of larger pueblos with up to 35 rooms and associated kivas were identified. Only about half were located in close proximity to major springs or seeps. Most sites were located on small knolls and alluvial fans. Unlike pueblo sites in the nearby Walhalla Glades, there was no evidence of irrigation or water control devices. Haskell (1978:271) concluded "enough water for domestic needs probably could be derived from weathering pits, springs and seeps on a year-round basis. Water for horticultural uses depended solely upon the exigencies of the weather." Virtually all of the occupations were assigned to a late Pueblo II and/or early Pueblo III time period.

That same year, museum crews backpacked through Paria Canyon from the head of the canyon to about 5 miles above its confluence, identifying nine sites in the canyon corridor. Sites were all indicative of temporary occupation during late Pueblo II and early Pueblo III times. C. Jennings (1978:24-31) believed the canyon served as a transportation corridor between Ancestral Puebloan occupations to the north and other population centers south of the Colorado River. Despite the fact stream terraces in some areas could have been cultivated, no such evidence was located.

In 1967, the School of American Research (SAR) initiated an ambitious project in the Unkar Delta and Walhalla Glades area. Initial surveys in the Unkar Delta area identified 52 sites, 17 of which were subjected to test excavations; one seven-room pueblo was fully excavated. In 1968, additional excavations were conducted at 20 sites (Schwartz, Chapman and Kepp 1980; Schwartz, Kepp and Chapman 1981). The ceramic data were interpreted as evidence of a short-lived Cohonina occupation about A.D. 900, followed by a hiatus of 150 years and subsequent reoccupation by Ancestral Puebloan peoples about A.D. 1050. Considerable evidence of agricultural activities was identified, including check dams, terraces, trough metates, maize, squash and cotton. Researchers described the period from A.D. 1050 to 1150 as a time of periodic abandonment and resettlement, each characterized by changes in site layouts, settlement locations and ceramic assemblages (Schwartz, Chapman and Kepp 1980).



Kepp and Chapman 1981:148)

In 1969, SAR researchers shifted their attention to the Walhalla Glades, an extension of the Kaibab Plateau north of the Unkar Delta on the southwestern periphery of House Rock Valley. More than 60 sites were recorded within three study tracts that were chosen for their topographic and environmental characteristics. One large pueblo site (Figure 5) was excavated and 21 other sites subjected to test excavations. Meanwhile, another crew excavated a six-room pueblo at the mouth of Bright Angel Creek (Schwartz, Marshall and Kepp 1979). In 1970, additional surveys were conducted on the Kaibab Plateau and in Unkar Canvon. Four sites were excavated and 21 others tested.

Figure 5: Plan view of excavated GC212 (Schwartz,

As summarized in Altschul and Fairley (1989:66; see also Fairley et al. 1994), researchers concluded that sites in the Unkar Delta and Walhalla Glades sites constituted a single settlement system involving seasonal movements between uplands and lowlands, and that sites on the Walhalla Glades were summertime occupations by agriculturalists who wintered in the Unkar Delta and other inner-canyon locales. This hypothesis was based on the paucity of artifacts and kivas at Walhalla Glades sites, the abundance of agricultural features at Walhalla Glades sites, the similarity of ceramic assemblages between the two areas, the severity of winters on the plateau and the accessibility of the plateau from the inner canyon (Schwartz, Kepp and Chapman 1981:130-131).

In the 1970s, Abbott (1979) conducted a study of the distribution of cultural resources above 7,000 feet elevation on the Kaibab Plateau, where he found that structural sites attributed to Ancestral Puebloan occupations from A.D. 1000 to 1150 were uncommon on top of the plateau, but they were abundant in the pinyon-juniper zone along the flanks of the plateau. He attributed most of the sites to Pueblo II occupations, noting the paucity of evidence for earlier or later occupations (1979:134). Donald G. Wood (1979) conducted numerous small-scale clearances in the Kaibab National Forest in the late 1970s, but no significant sites were identified. Recent inventories on the eastern flank of the Kaibab Plateau and Saddle Mountain area documented occupations by Ancestral Puebloan farmers that demonstrated "few agricultural niches around the flans of the plateau were overlooked during the Pueblo II period" (McFadden 2004:7).

Elsewhere in the Arizona Strip region, investigations in the Grand Canyon area were conducted by Douglas W. Schwartz (1957, 1958), who in the late 1950s initiated a series of surveys on the north side of the river, including investigations in Shinumo Canyon (Schwartz 1960), upper Nankoweap Canyon (Schwartz 1963) and the river corridor between Nankoweap and Unkar (Schwartz 1965). Other researchers conducted additional surveys of Nankoweap Canyon (Kelly 1971), the river corridor between Nankoweap and Unkar (Euler and Taylor 1967) and the river corridor from Lees Ferry to Marble Canyon (Euler 1963). Euler also conducted a helicopter reconnaissance of the less accessible areas of the inner canyons (Euler 1967a, 1967b). These surveys revealed a broad regional Pueblo II settlement pattern characterized by small dispersed habitations concentrated along arable portions of spring-fed tributaries. Ceramics indicated the Ancestral Puebloan occupation spanned a 300-year period between A.D. 900-1200, with the period of greatest population density between A.D. 1050 and 1150 (Fairley and Altschul 1989:62).

Numerous smaller-scale projects were also initiated during the 1960s and 1970s, most conducted in response to the National Historic Preservation Act of 1966 and Executive Order 11593 that mandated that federal agencies apply NHPA provisions to cultural resources located on public lands. The order required federal agencies to inventory and evaluate all significant cultural resources under their jurisdiction. In the mid 1960s, the Arizona State Highway Department and Federal Highway Administration contracted with the Museum of Northern Arizona to salvage archaeological data from 16 sites along the proposed highway right-of-way for U.S. Highway 389 between Fredonia and Littlefield. Most of the sites were pithouse habitations with associated masonry storage and surface rooms, storage cists, extensive middens and burials dating to late Pueblo I and mid-Pueblo II times (ca. A.D. 850 to 1100) (Altschul and Fairley 1989:62-63; Wade 1967).

In the 1970s, the Museum of Northern Arizona conducted surveys along three trails in Grand Canyon National Park where 34 sites were recorded, including pictographs, check dams, artifact scatters, mescal pits and open and sheltered architectural sites. The presence of water was determined to have been a critical factor in site location, and some evidence of water control devices was identified, something "that has not been described for the Virgin, and is only recently being recognized for the Kayenta" (Brook 1979:89-90).

Numerous projects associated with electrical power development in the Kaiparowits Plateau and Glen Canyon Dam areas resulted in archaeological investigations, all of them linear in scope and traversing hundreds of miles, in connection with proposed corridors for the transmission of electrical power to California, Nevada and northern Utah. One of these projects, the Navajo-McCullough Transmission Line, identified significant Archaic occupations in the region (Moffitt, Rayl and Metcalf 1978). Additional corridor surveys in connection with the Kaiparowits Coal Project (Hunt and McPherson 1975) identified 16 sites in the Arizona Strip.

Southern Utah State College conducted surveys on the Kaibab Paiute Indian Reservation in 1974 and 1975, identifying 111 sites and a high density of habitation sites

(Altschul and Fairley 1989:70; Thompson 1978; see also Lindsay and Madsen 1978). SUSC also conducted numerous investigations in the Little Creek Mountain area of the Arizona Strip (Heid 1982; Lyneis and Thompson 1979; Thompson and Lyneis 1979; Wise 1986).

Explaining Prehistoric Lifeways: 1975-2004

An important theoretical shift began to emerge among Arizona Strip archaeologists in the mid 1970s as researchers sought to better explain how prehistoric peoples adapted to local environments. The evolution from descriptive archaeology to problem-oriented explanatory archaeology forced a fundamental reexamination of the archaeological record of the Arizona Strip within the context of human behavior. In the 1970s, the Southwestern Anthropological Research Group initiated a study in the Grand Canyon area to address the problem of why human populations located their settlements where they did. They concluded that domestic water was the most critical resource for location of habitation, access to canyon trails was second and protection from the elements was third. Access to food resources was not critical to site location, the exception being agave (Euler and Chandler 1978).

In the nearby Powell Plateau area, Effland, Jones and Euler (1981) conducted studies to develop a model of Puebloan settlement and subsistence between A.D. 1000 and 1150. They interpreted site size and distribution as evidence of a non-centralized, locally autonomous society employing a subsistence strategy based on a combination of summer horticulture and fall-winter-spring hunting and gathering. Unlike the biseasonal movement between inner canyons and plateaus suggested for the Walhalla Glades (e.g., Schwartz, Chapman and Kepp 1980; Schwartz, Kepp and Chapman 1981), Effland, Jones and Euler (1981:46) postulated a settlement and subsistence pattern involving seasonal movements between multi-room winter pueblos and summer field houses on the plateau, but with minimal movement between the plateau and inner canyons. Redistribution functioned as a complementary strategy to seasonal transhumance, and reciprocal exchange of ceramics, lithic materials, turquoise and shell with adjoining populations was a mechanism for maintaining social networks, panregional cooperation and redistribution of critical resources during periods of localized resource shortages.

In the 1980s, Anne Trinkle Jones, working under a project sponsored by the National Park Service, conducted several investigations in the Grand Canyon National Park area (1986a, 1986b, 1986c). In the Walhalla Glades area, she identified 84 sites, most associated with complex water-control systems focused toward irrigation of cultivated food resources (1986a). Jones found that agricultural systems on the plateau were dominated by linear borders, "the building blocks from which all the systems were constructed," and that the basic water control system was enhanced by the use of check dams, reservoirs and gridded borders (1986a:435).

Jones also conducted excavations at three sites north of the Colorado River (Jones 1986b, 1986c). Site AZ:C:13:10, located in the Furnace Flats area, was a large multi-component Ancestral Puebloan habitation site just upstream from the Unkar Delta. Site AZ:B:15:7 was a rockshelter with stratified deposits in the Tuna Creek drainage. A third

site, AZ:A:16:1, was a stratified rockshelter and midden upstream from the mouth of Whitmore Wash. The sites provided the first substantial chronometric data that the Colorado River corridor was occupied by Puebloan peoples before and after the late Pueblo II-early Pueblo III time period typically ascribed to Ancestral Puebloan occupations in this region.

Jones postulated the Furnace Flats site was occupied later than other sites in the region, perhaps by remnant populations following a general Ancestral Puebloan abandonment of the region about A.D. 1150. She suggested that prior to Ancestral Puebloan abandonment of the area, local exchange networks may have deteriorated to the point where local production became necessary at individual sites. "The evidence for the local production of ceramics, pendants and gaming pieces in the late component of Furnace Flats supports this. Atypical Tusayan Gray Ware ceramics, along with unfired sherds, more than two dozen worked sherd scrapers, and an inordinate quantity of groundstone were found in this same structure" (Jones 1986b:324-325).

At Whitmore Wash, Jones identified occupations during Late Archaic and Pueblo II times, as well as Paiute occupations during the late thirteenth century (1986b:328). And the midden at the Tuna Creek site produced evidence of Basketmaker occupations, concluding there was a temporal gap before reoccupation by Pueblo I or Pueblo II peoples, "but their Basketmaker period ancestors were present throughout the canyon by at least the fifth century A.D., if not by the time of Christ" (1986b:324).

Additional surveys were also conducted by Grand Canyon National Park in 1990 and 1991 along 225 miles of Colorado River corridor from Glen Canyon Dam to Separation Canyon. More than 100 sites were recorded (Fairley et al. 1994). Archaeological data was recovered at several sites, and numerous radiocarbon dates were obtained. Of note, excavations at AZ C:13:273 in the Furnace Flats area identified five roasting pits in association with groundstone and chipped-stone tools, as well as ceramics defined in contexts both north and south of the Colorado River. Although the roasting pits were similar to those described in Southern Paiute contexts, two radiocarbon dates placed the occupation within a Basketmaker III temporal context (Yeatts 1998).

Most recently, and more relevant to this overview, Grand Staircase-Escalante National Monument archaeologist Doug McFadden described a cluster of 92 Puebloan sites located in the Pleasant Valley Outlet area near Kane Ranch in House Rock Valley (McFadden 2004). These sites included agricultural terraces, field houses, room blocks and formal Puebloan architecture that were part of a single agricultural system that operated from about A.D. 1100 to 1150 (Figure 6). However, the co-occurrence of two distinct styles of architecture (room blocks and unit pueblos) may be evidence of two different influences, one reflecting the Virgin tradition and the other the Kayenta tradition where small family groups with cultural affinity to two different areas occupied the area simultaneously.

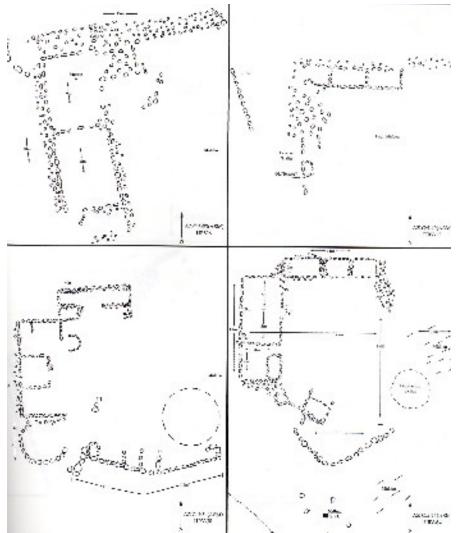


Figure 6: Representative examples of room blocks identified near Kane Ranch (McFadden 2004:37)

Interpretive Summary

The Arizona Strip has a long history of human occupation that is reflected in unique hunter-gatherer adaptations beginning about 10,000 years ago and continuing through post-Euroamerican acculturation of the Southern Paiute in the 1800s. Wild plant and animal resources may have been supplemented by domesticated foods as early as A.D. 600, but the florescence of agriculture in the region did not occur until about A.D. 900 or 1000, when populations expanded, small pueblos were constructed and a variety of water control measures were employed to assure the viability of domestic crops. Agriculture had been largely abandoned by A.D. 1250, the result of persistent droughts, falling water tables and the collapse of regional interaction spheres. Archaeological evidence after that time is indicative of broad-based seasonal hunting and gathering involving high band mobility over thousands of square miles.

Paleoindian Hunters. Evidence of terminal Pleistocene big game hunters in the Arizona Strip region is scant. Even though no radiocarbon dates have yet been reported

from Paleoindian sites in the region, there remains a high likelihood, based on recent research in the Glen Canyon region, that such sites will be identified. The end of the Pleistocene in western North America was a period of remarkable environmental change. Entire plant communities were reorganized and huge glacial lakes common throughout the Great Basin desiccated. Some 35 genera of mammals and 19 genera of birds became extinct, and the lack of these animal remains in deposits dating to the last 10,000 years suggests that the extinctions had concluded prior to that time, or that the animals had dwindled in number to the point they had become inconsequential (Grayson 1993:68).

Researchers generally believe the plateau region was in Pleistocene times a sagebrush-steppe upland with a riparian community near the streams. As climates warmed, the botanical communities found in lower ecozones evolved. Forage for remnant populations of Pleistocene mammals would have shifted to higher elevations, and highland areas like the Kaibab Plateau would have become environmental refuges for Pleistocene mammals (see Agenbroad and Mead 1990a, 1990b). As remnants of these mammal populations retreated, they were pursued into the upland environments by human groups that had developed "highly mobile strategies and manufacturing sophisticated hunting tools and a diversity of items appropriate for butchering game and processing hides, wood and bone" (Cordell 1984:142). That Paleoindian peoples have been persistently labeled big-game hunters is due in large part to the archaeological bias toward easily recognizable kill or butchering sites that have yielded abundant evidence of hunting technologies and meat processing.

Evidence of Paleoindian hunters is limited to the recovery of two distinctively fluted projectile points. A Clovis Point, typically associated with mammoth hunting about 11,000 years ago, was recovered during surveys in the Sullivan Canyon area on the western periphery of the Arizona Strip (Miller 1978). A possible Folsom point, typically associated with hunting extinct bison, was recovered during surveys of the north bank of the Colorado River in the Grand Canyon region on the southern periphery of the study area (Janet Balsom, personal communication 1999). Evidence of later non-fluted projectile points, dated in contexts elsewhere in the West to after about 10,000 years ago, is extremely limited. As summarized by Schroedl (1992:6), "as fluted point complexes gave way to Plano complexes on the High Plains and the greater Southwest, Paleoindian subsistence patterns on the Colorado Plateau seem to have swiftly shifted to an Archaic mode with the corresponding artifact assemblage. Outside of a few scattered Plano points in the region at the higher elevations, there is no evidence that Plano complex cultures played a significant role in the prehistory of the area."

Archaic Hunters and Gatherers. The Archaic in the West is traditionally characterized as a period of supra-familial, mobile bands of about 25 individuals who seasonally exploited a wide spectrum of plant and animal species in different environmental niches. Archaic cultures are generally seen as sharing broadly similar hunting and gathering lifeways, but with distinct regional adaptations to local environmental conditions (J. Jennings 1978; Schroedl 1976). In concept, the Archaic is defined more in terms of hunter-gatherer lifeways than by variations in material culture. In practice, this period of time has been described more in terms of changes in basketry

(Adovasio 1970a, 1970b), sandals (Ambler 1996), figurines (Coulam and Schroedl 1996) and projectile points (Holmer 1978, 1986).

There is growing evidence from the northern Colorado Plateau that late Paleoindian occupations may have been indistinguishable from Early Archaic adaptations, and that Archaic lifeways may be recognizable in archaeological contexts dating to about 8000 B.C. Numerous sites in the region have produced radiocarbon dates earlier than 6000 B.C. (the end of the Paleoindian period as traditionally defined on the Plains), but these are unequivocally associated with Early Archaic evidence, like opentwined sandals and smaller atlatl dart points (see Agenbroad et al. 1989; Geib 1989). All of these sites are indicative of occupations focused on the hunting of modern fauna and the gathering of Holocene floral resources.

Geib (1996) has proposed a seven-period temporal sequence for the Archaic on the northern Colorado Plateau, and he attempted to correlate these periods to demographic shifts, changes in projectile point types and sandal manufacturing techniques, and the appearance of split-twig figurines between B.C. 3000 and 2200. Generally, Geib's sequence (and others proposed for the region) can be simplified into four broad periods of time: The Early Archaic Period from about 8000 to 5000 B.C., the Middle Archaic from about 5000 to 3000 B.C., and a Late Archaic from about 3000 to 1000 B.C. A Terminal Archaic Period from about 1000 B.C. to A.D. 500, was characterized by dramatic shifts in adaptive lifeways, including the addition of horticulture, bow-and-arrow technology and pithouse architecture suggesting reduced mobility (see Spangler 2000).

Generally, hunting and gathering during the Archaic remained remarkably consistent through time, with only minor changes in preferred footwear and evolving stone technologies that were reflected across broad regions north of the Colorado River. Based on the distribution of specific atlatl dart points that have been dated in Archaic contexts elsewhere, it appears the Arizona Strip region and contiguous areas to the north were occupied to a greater extent during the Early Archaic than were areas to the east, but that trend reversed itself in Middle Archaic times when the area was sparsely exploited. An intense exploitation region appears to have resumed during Late Archaic times, which coincided with the introduction of the Gypsum atlatl dart.

The best evidence of Early Archaic occupations in the region was reported from Broken Arrow Cave (42Ka4356), a site located in a large alcove above Wahweap Bay overlooking Crossing of the Fathers and just north of the Utah-Arizona border (and technically not part of the Arizona Strip). Test excavations produced six radiocarbon dates demonstrating occupations of the shelter during Early Archaic times, and possibly during Basketmaker II and Basketmaker III times (Talbot et al. 1999:1).

The earliest radiocarbon dates from in the eastern Strip area are those from AZ B:12:3, a high-elevation base camp on the Kaibab Plateau that appears to have been repeatedly occupied throughout the Archaic. The camp, situated around an alpine meadow, was apparently the focus of deer hunting, plant procurement and processing, and tool manufacturing and/or maintenance. Twelve atlatl dart points were recovered,

and one hearth returned a radiocarbon date of 9090 ± 180 years B.P. (B.C. 8275 calibrated) and another returned a date of 8810 ± 300 years B.P. (B.C. 7928 calibrated). Researchers suggested the possibility of occupation by terminal Paleoindian hunters, but no corroborative evidence was identified (Gary M. Brown, in Schroedl 1988:157-190).

At nearby Crane Lake Site (AZ B:8:7), analysis of two obsidian samples provided additional evidence of Early Archaic occupations in the region. The samples, both exhibiting geologic characteristics from the Wild Horse obsidian outcrop, returned obsidian hydration dates of 5518 B.C. ±332 years and 5971 B.C. ±271 years, respectively (Schroedl 1988). The site provided evidence of mobility strategies incorporating resources found both north and south of the Colorado River. The site demonstrated high-elevation environments were being exploited by hunter-gatherers from early Holocene times, and the pattern of resource exploitation remained relatively unchanged through subsequent millennia.

Generally, the Middle Archaic is poorly represented north of the Colorado River, and it is seen as a time of more-dispersed occupations reflecting greater mobility. As summarized by Geib, "middle Archaic populations could have increased the frequency of residential moves, greatly expanded the territory of seasonal rounds, and decreased the periodicity of residential reuse. All of these factors could have led to a substantially less visible archaeological record, one greatly diminished in cultural remains and more spatially diffuse. The middle Archaic material record might be far more dispersed than that of the early Archaic and thus less subject to archaeological discovery and investigation" (1996:34). Even if tethered to a major river corridor like the Colorado River, hunter-gathers would have moved frequently up and down the corridor as resources depleted. Foraging territories would have expanded, residential bases would have moved more frequently and there may have been longer periods between reoccupation of certain residential sites.

Middle Archaic occupations have been identified on the Kaibab Plateau where the VT Lake Site (AZ B:12:2) yielded a variety of artifacts, including chipped-stone tools, groundstone tools, potsherds, a soapstone pendant fragment and faunal remains. Some 101 dart points and 21 arrow points were recovered. Among the points were Elko Series, Sudden, Rocker, Hawken, Gatecliff, Northern, San Rafael, Desert side-notched and Rosegate types. The shallow nature of the deposits made it difficult to distinguish multiple occupations, and no radiocarbon dates were obtained. However, obsidian hydration analyses of seven samples identified Middle Archaic occupations ranging from about 3076 BC ±321 years to 3481 B.C. ±316 B.C. Additional samples could reflect Middle Archaic occupations. The samples indicated exploitation of obsidian outcrops at Modena and Wild Horse, implying mobility strategies involving resources both north and south of the Colorado River. The site was likely a camp focused on the seasonal procurement of mule deer (Gary M. Brown, in Schroedl 1988:125-156).

Also on the Kaibab Plateau, investigations at the Crane Lake Site (AZ B:8:7), discussed above, also revealed a McKean lanceolate point indicative of a Middle Archaic occupation. Obsidian hydration analyses also returned two Middle Archaic dates. One sample from the Modena obsidian outcrop returned a date of 4031 B.C. ±297 years, and

another from the RS Hill obsidian returned a date of 4333 B.C. ±177 years. The site was interpreted as a campsite utilized repeatedly over a period of 6,000 to 7,000 years, although most strata were attributed to Archaic occupations (Gary M. Brown, in Schroedl 1988:65-113).

Across the northern Colorado Plateau, the increase in radiocarbon dates during the Late Archaic is seen as evidence of reoccupation of areas abandoned during the Middle Archaic times and perhaps a population expansion. The appearance of distinctive splittwig figurines and Glen Canyon Linear Style rock art is attributed to this period of time. Radiocarbon analyses of split-twig figurines from the Grand Canyon region have produced dates of 3100 ±110 years B.P. (B.C. 1327 calibrated), 3530 ±300 B.P. (B.C. 1837 calibrated) and 4095 ±100 years B.P. (B.C. 2608 calibrated). These dates placed the temporal context of these distinctive artifacts clearly within the Late Archaic (see Euler 1963; Euler and Olson 1965; Farmer and DeSaussure 1955; Jett 1968; Kelly 1966; McNutt and Euler 1966; Olson 1966; Reeder 1967; Schwartz, Lange and DeSaussure 1958; Wheeler 1949).

The distribution of temporally diagnostic atlatl dart points also implies utilization of the region in Late Archaic times. Teague and McClellan (1978), during their investigation in the Kanab Creek area, identified Late Archaic evidence there. And surveys along the Navajo-McCullough Transmission Line through the upper portion of the Arizona Strip identified significant numbers of Archaic points (Moffitt, Rayl and Metcalf 1978). The number and spatial distribution of Archaic points suggests a much greater exploitation of the region during Late Archaic times than the preceding Middle Archaic (Spangler 2000).

There is little evidence of Late Archaic occupations in the eastern Strip area. Most evidence comes from the Kaibab Plateau sites discussed above. Investigations at site AZ B:12:3 revealed subsurface hearths, burned-rock middens and subsurface pits, and charcoal from a burned midden area returned a date of 3350 ±90 years B.P. (B.C. 1658 calibrated). And at the Crane Lake site (AZ B:8:7), obsidian hydration analysis on four samples returned dates ranging from 1801 BC ±89 years to 2326 BC ±138 years. All four were obsidian from the Government Mountains (Gary M. Brown, in Schroedl 1988:157-190). And the VT Lake Site (AZ B:12:2), produced 14 Late Archaic obsidian hydration dates ranging from 1417 BC ±333 years to 2914 BC ±146 years. Eleven samples were from the Modena obsidian outcrop and three were from the Government Mountain source (Gary M. Brown, in Schroedl 1988:125-156).

Additional evidence of Late Archaic occupations comes from excavations at the Whitmore Wash Site (AZ A:16:1) where a pit feature returned a radiocarbon date of 2940 ±60 years B.P. (B.C. 1181 calibrated). Other features at the site returned radiocarbon dates consistent with Formative and Protohistoric occupations, implying the site was repeatedly occupied over a period of at least 2,500 years (Jones 1986b:43-52). Of note, the Late Archaic midden contained wild seeds in about the same proportions as in the Ancestral Puebloan levels, suggesting the intensity of wild floral procurement remained about the same during Archaic and Formative times (1986b:328).

The relationship of higher-elevation base camps found on the Kaibab Plateau to those reported at lower-elevation alcoves remains unresolved. However, it is probable that small groups of hunter-gatherers seasonally exploited floral and faunal resources found in a broad range of environmental settings. It is certainly conceivable that human groups established base camps in the high-elevation plateaus during the summer and early fall when plateau resources were most abundant. Alcove occupations in the Glen Canyon and Grand Canyon areas may be indicative of winter and spring occupations focused toward the procurement of lower-elevation plant resources available much earlier than those found at higher elevations. If the Southern Paiute ethnographic model (cf. Kelly 1964) can be considered an accurate indicator of Archaic hunter-gatherer lifeways, this annual subsistence strategy may have involved a transhumant lifeway involving exploitation of resources found over thousands of square miles.

Changing Lifeways. The Terminal Archaic (B.C. 1000 to A.D. 600), which is also referred to in this region as Basketmaker II, can be characterized by a continuation of hunter-gatherer subsistence strategies and settlement patterns featuring seasonal mobility focused on the procurement of wild plant and animal resources. However, this period is also characterized by a gradual increase in sedentism, the incorporation of horticulture into local economic strategies and the utilization of the bow and arrow, which may have enhanced the efficiency of hunters. These strategies were augmented by complex storage strategies that may have mitigated the effects of reduced mobility. The development of more predictable subsistence strategies may have precipitated significant changes in social structure and mobility.

How and when these lifeway changes appeared in the archaeological record of the northern Colorado Plateau is not clear from the few sites investigated. Temporary architecture associated with hunting and gathering activities may have become part of local settlement patterns by about 200 B.C. Ephemeral architecture appears by at least A.D. 200, and formal pithouse architecture by at least A.D. 400, becoming increasingly complex through time. Bow-and-arrow technologies may have appeared as early as about A.D. 200, arriving in the region from the north and west. Recent investigations in Kanab Creek and at Cave DuPont near Kanab have demonstrated that maize farming was firmly established in the region by about A.D. 50 (McFadden 2006). These fundamental shifts in adaptive lifeways did not occur uniformly, either spatially or temporally, across the northern Colorado Plateau, and little evidence of this shift has been reported from sites in the Arizona Strip.

Given the adaptability of local populations to hostile environments, it is certainly probable that Terminal Archaic or Basketmaker peoples living in the Arizona Strip incorporated a variety of adaptive strategies including full-time foraging, full-time farming, and virtually every combination of foraging and farming conceivable within the limits of local environments. There is considerable evidence of Terminal Archaic occupations in contiguous regions to the north and northeast, much of it described within the context of Basketmaker farmer-forager adaptations, and such evidence will likely be found in the Arizona Strip. However, based on current evidence, adaptive strategies evident in the archaeological record of the Arizona Strip suggest fundamental lifeways changed little during this period. The Crane Lake Site (AZ B:8:7) revealed two hearths

and an ovoid rock alignment, with charcoal returning a radiocarbon date of 1640 ± 70 B.P. (A.D. 417 calibrated), but utilization of the site remained the same as in earlier periods (Gary M. Brown, in Schroedl 1988:65-113).

The midden at the Tuna Creek site (AZ B:15:7) in the Grand Canyon area produced evidence of Basketmaker II and Basketmaker III occupations, and one level returned a radiocarbon date 1595 ±65 B.P. (A.D. 432 calibrated). The absence of corrugated wares and the presence of Lino-style ceramics were consistent with an early occupation for the site, perhaps during Basketmaker III times after about A.D. 600 (Jones 1986b:58-64). The only other radiocarbon date from the region is from site AZ C:13:384, which was described as a campsite along the Colorado River in the Furnace Flats area. Charcoal from a hearth feature exposed by erosion returned a radiocarbon date of 1490 ±80 B.P. (A.D. 598 calibrated), but the site yielded no temporally or spatially diagnostic artifacts (Jan Balsom, personal communication 1999).

Farmers Who Foraged. All evidence to date suggests the Arizona Strip was sparsely occupied prior to A.D. 1000, and probably only seasonally. A handful of farmer-forager families with Basketmaker III-like characteristics may have lived along the Colorado River corridor, and others appear to have hunted mule deer and gathered wild seeds in the high elevation settings of the Kaibab Plateau, occupying the same base camps that had proven productive over many millennia. These farmer-foragers were undoubtedly familiar with the location of seeps and springs in the region, and the location of water probably influenced choices on where to hunt and gather.

The appearance of agricultural farmsteads in the Arizona Strip region has not been firmly established and is based primarily on ceramic cross-dating. It is likely that small populations of Basketmaker III farmers occupied favorable environmental niches, but there is, as yet, no evidence for water control devices prior to about A.D. 1000 that would have facilitated farming in areas without permanent water sources. Excavations by Brigham Young University at Antelope Cave (Janetski and Hall 1983:47-48; see also Janetski and Wilde 1989) produced a radiocarbon date from a Basketmaker-style atlatl fragment, suggesting Basketmaker hunters were in the area during the A.D. 200s, and that corn was cultivated from about A.D. 680 to 980. Pollen, macrobotanical and coprolite data from the cave suggested a broad-based subsistence strategy throughout the occupation of the cave.

These data would appear consistent with the midden at the Tuna Creek site (AZ B:15:7), which produced evidence of Basketmaker II and Basketmaker III occupations, and the roasting pits at AZ C:13:273, which returned two radiocarbon dates consistent with a Basketmaker III occupation. Both of these sites, located in the Grand Canyon corridor, are more indicative of foraging activities rather than farming. The absence of corrugated wares and the presence of Lino-style ceramics at Tuna Creek were consistent with an early occupation for the site, perhaps during Basketmaker III times, or sometime after about A.D. 600 (Jones 1986b:58-64). The roasting pits at AZ C:13:273 were similar to those used in Late Prehistoric contexts for wild plant processing (Yeatts 1998). Additional evidence of Basketmaker II and Basketmaker III occupations were described at Broken Arrow Cave, discussed above (Talbot et al. 1999).

The Immigrants. Major demographic and social changes occurring throughout the greater Southwest appear to have had major implications for the Arizona Strip. Beginning about A.D. 900, maize-dependent populations in the Four Corners area and elsewhere south and east of the Colorado River began to expand into areas that had been sparsely populated before. This expansion undoubtedly had a ripple effect on existing farmer-forager populations, who saw increased competition from the immigrants for wild food resources that had supplemented maize farming. There is no consensus of the social, environmental and demographic events that prompted the expansion, when it began or the source of the immigration. Surveys in the Grand Canyon region have identified the appearance of agricultural communities as early as A.D. 900, although the imprint of these farming communities was apparently minimal prior to A.D. 1050.

The source of the Ancestral Puebloan immigration remains a topic of considerable debate, as it does elsewhere in the Southwest. Ceramic evidence has been interpreted invariably to suggest a migration from the Virgin River Basin near St. George, from the Kayenta region of northern Arizona and from the Kanab region bordering the Arizona Strip on the north. Others have argued for an occupation by many different groups with disparate heritages. For example, Judd observed almost a century ago that the ceramic evidence established "a close relationship between the occupants of Paria Plateau and those families that dwelt in House Rock Valley and the broad drainage of Kanab Creek," even though one type of pottery would dominate at one site, while another type would dominate the collection at another site nearby (1926:132-133).

As discussed by McFadden (2004:7-8), there is a long history of debate as to whether Ancestral Puebloan occupations of this region are attributable to migration (or influence) from the Virgin Branch or the Kayenta region. Researchers have expended considerable energy describing regional differences in ceramic preferences from one region to the other, the presence of agricultural terraces among the Kayenta but the paucity of such evidence among the Virgin peoples, and the Kayenta architectural style that preferred unit pueblos over the Virgin style of curvilinear room blocks (2004:51). In the Kane Springs area, small family groups representative of both traditions appear to have occupied the area concurrently, albeit briefly from A.D. 1100 to 1150, after which severe droughts prompted widespread abandonment (2004:54).

Regardless of its source(s), the vast majority of the archaeological data from the eastern Arizona Strip are attributable to a major and unprecedented Ancestral Puebloan expansion into the area that occurred from about A.D. 1050 to 1150. Hundreds of small and medium-sized pueblos were constructed during this time in a variety of environmental settings. House Rock Valley with its series of springs and seeds was heavily occupied, as was the Paria Plateau to the east, the foothills of the Kaibab Plateau to the west and the Walhalla Glades to the southwest. Collectively, more than 1,000 sites have been identified in this area, almost all attributed to the brief Ancestral Puebloan occupation from A.D. 1050 to 1150.

As was the case elsewhere in the region, climatic changes appear to have facilitated dry-land agriculture in arid upland plateaus, like the Paria Plateau and Walhalla Glades, where irrigation was not possible. Many of these pueblos, but not all, were situated in proximity to intermittent seeps and springs, prompting Haskell (1978:271) to conclude that "enough water for domestic needs probably could be derived from weathering pits, springs and seeps on a year-round basis. Water for horticultural uses depended solely upon the exigencies of the weather."

In nearby Walhalla Glades, Ancestral Puebloan farmers constructed elaborate irrigation or water control systems focused toward irrigation of cultivated food resources in the absence of permanent water. These features included linear borders, "the building blocks from which all the systems were constructed." The efficiency of the water control system was further enhanced by the utilization of check dams, linear borders, cross walls and grid borders to apportion rainfall and snow melt. Jones identified differential strategies for agriculture on canyon bottoms and on mesa tops. In wet years, crops in canyon bottoms would have thrived, while temperatures on the North Rim would have been too cold for crops to have reached maturity. During dry years, the crops on the canyon bottoms would have withered, while those on the mesa tops would have thrived. By working in cooperation, groups would have compensated for both environmental extremes (Jones 1986a:435-437).

The movement of local populations in response to the availability of food resources was likely a fundamental component of local adaptive strategies from A.D. 1050 to 1150, with the entire Ancestral Puebloan experience on the Arizona Strip characterized by periods of abandonment and reoccupation, each characterized by changes in site layouts, settlement locations and ceramic assemblages (Schwartz, Chapman and Kepp 1980). Jones concluded that less than 10 percent of the available land in the Walhalla Glades was actually cultivated and that "replenishment of soil nutrients in the thin, rocky soil may have been a problem so that periodic relocation was necessary" (1986a:436). Because of the relatively long distance between sites and the existence of several distinct site clusters, usually consisting of single-habitation units surrounded by field structures, the highest order of social integration was the nuclear or extended family unit. There was also the possibility of sequential site abandonment and relocation at various intervals within that 100-year period due to soil depletion or other environmental factors (1986a:435-437; see also Altschul and Fairley 1989:73).

Whereas agriculture was a fundamental component of the adaptation, foraging remained a major focus of local subsistence. Data from the Pinenut Site near lower Kanab Canyon, and just west of study area considered here, indicate a mixed subsistence strategy that incorporated both farming and foraging for plant resources during the summer season. The small quantities of animal bone implied seasonal abandonment prior to the fall. "Instead, the site inhabitants may have moved and transported their stored horticultural surplus to a fall-winter settlement located elsewhere" (Westfall 1987:182). In the Powell Plateau area much further to the west, Effland, Jones and Euler (1981) interpreted site size and distribution as evidence of subsistence based on a combination of summer horticulture and fall-winter-spring hunting and gathering, with seasonal movements between multi-room winter pueblos and summer field houses on the plateau.

Dislocation and Redistribution. Whereas climatic conditions from A.D. 1050 to 1150 facilitated population expansion into most areas of the Arizona Strip, climatic deterioration after that time appears to have resulted in widespread abandonment of certain areas, and population shifts into others. House Rock Valley, the Paria Plateau and Walhalla Glades appear to have experienced major population declines, but not abandonment after A.D. 1150. Based on ceramic analyses, 366 of the 467 ceramic-bearing sites in the area had late Pueblo II ceramic components, but 172 reflected continued use during Pueblo III times (Altschul and Fairley 1989:63).

Remnant populations persisted elsewhere in the region. Excavations west of Kanab Canyon produced radiocarbon dates consistent with continued occupation of these sites into the mid-A.D. 1200s, or about 100 years longer than the terminal date typically ascribed to agricultural occupations in the region. And evidence from the Pinenut Site in Kanab Canyon suggests a reoccupation of that site from A.D. 1200 to 1275 (Westfall 1987:185-186). Additional evidence from the Kanab area north of the Arizona Strip also indicates remnant populations of Ancestral Puebloan farmers persisted in selected locations throughout Pueblo III times (see Spangler 2000 for an overview).

If the data from the Pinenut Site can be considered representative of the Arizona Strip generally, the period from A.D. 1150 to 1200 was a time of deteriorating hydrologic conditions exacerbated by drought. This resulted in widespread population dislocation and the collapse of regional alliances and interaction spheres. The interval from A.D. 1200 to 1275 was marked by a gradual return to a high water table and aggraded floodplains, but it generally featured low precipitation. Beginning around A.D. 1250 and continuing to A.D. 1300, a resumption of drought conditions dealt the remnant Ancestral Puebloan populations a severe blow, resulting in additional abandonment. The Pinenut Site was abandoned about A.D. 1275 (Westfall 1987:185-186).

Rather than total abandonment after 1150 A.D., the period from A.D. 1150 to 1275 could be better characterized as a time of persistent droughts that prompted a steady abandonment of small pueblos, with small remnant populations persisting in isolated environmental niches. Insignificantly small in number, these groups were unable to maintain social and economic networks that had functioned as a mechanism for resource redistribution. This redistribution was a critical complementary strategy to seasonal transhumance and means for reciprocal exchange of ceramics, lithic materials, turquoise and shell with adjoining populations as a mechanism for maintaining social networks, panregional cooperation and redistribution of critical resources during periods of resource shortages (Effland, Jones and Euler 1981:46). By A.D. 1275, the last remaining populations had retreated.

Possible evidence of terminal Ancestral Puebloan occupation was identified at the Furnace Flat Site (C:13:10) in the Grand Canyon, where slab-lined storage structures, a deep masonry kiva and several masonry rooms were evident. The fill inside one room yielded more than 50 groundstone tools, pendants of green and white-banded travertine, and fragments of unfired pottery vessels. In addition to the pendants found in various stages of manufacture, more than two dozen potsherds and five pieces of bone had been shaped and ground into discs and rectangular pieces. The site produced three radiocarbon

dates with calibrated midpoints between about A.D. 1023 and A.D. 1343 (Jones 1986b). Jones suggested that prior to abandonment local exchange networks may have deteriorated to the point where local production became necessary at individual sites. "The evidence for the local production of ceramics, pendants and gaming pieces in the late component of Furnace Flats supports this. Atypical Tusayan Gray Ware ceramics, along with unfired sherds, more than two dozen worked sherd scrapers, and an inordinate quantity of groundstone were found in this same structure" (Jones 1986b:324-325).

It should be noted that McFadden believes "there is no material evidence (ceramics) for a PIII phase on the Arizona Strip, although 13th Century radiocarbon dates are becoming increasingly common. I might note that these late dates are not supported by tree-ring dates, however" (McFadden 2006:1).

After the Farmers. The terms Late Prehistoric or Protohistoric are commonly used to describe post-A.D. 1300 occupations after the abandonment of farming (and the disappearance of the Ancestral Puebloan and the subsequent appearance of hunting and gathering lifeways characteristic of the Southern Paiute). However, the archaeological evidence is equivocal in this matter. Some sedentary populations just north of the Arizona Strip appear to have aggregated into larger pueblos in the A.D. 1200s, and these villages may have persisted well into the early A.D. 1300s. Furthermore, there is limited evidence that hunter-gatherer populations in this area were at least part-time horticulturalists, raising maize, squash and beans into historic times (see Spangler 2000 for an overview of the data from Kane County). With the exception that residential architecture has not been documented after about A.D. 1300, Late Prehistoric lifeways may not have been substantially different than Terminal Archaic lifeways that preceded sedentism.

What is clear is that distinctive Southern Paiute artifacts, primarily brownware ceramics, begin to appear in archaeological contexts after about A.D. 1250 and often co-occur with Ancestral Puebloan cultural materials. For example, the Whitmore Wash Site (AZ A:16:1), a multi-component rockshelter with Southern Paiute brownware and Shoshonean-style sandals yielded a radiocarbon date of 705 ±75 years B.P. (A.D. 1288 calibrated). These deposits overlaid Virgin Ancestral Puebloan deposits that were not subjected to radiocarbon analyses (Jones 1986b:43-52).

And at the Tuna Creek site (AZ B:15:7), excavations revealed evidence of post-A.D. 1300 Southern Paiute occupations with a stratified midden and roasting pits with organic deposits. One level with brownware ceramics returned a radiocarbon date of 550 \pm 75 years B.P. (A.D. 1406 calibrated). Charcoal from the lowest level returned dates of 620 \pm 150 years B.P. (A.D. 1354 calibrated) and 1595 \pm 65 years B.P. (A.D. 432 calibrated), suggesting that Ancestral Puebloan cultural materials had become mixed with later Paiute deposits (Jones 1986b:58-64).

Another Late Prehistoric radiocarbon date was reported from AZ B:12:3 on the Kaibab Plateau where a hearth feature returned a date of 370 ± 80 years B.P. (A.D. 1486 calibrated) (Gary M. Brown, in Schroedl 1988:157-190). And a date of 560 ± 80 B.P. (A.D. 1390 calibrated) was reported from an eroded hearth along the Colorado River corridor (Fairley et al. 1994). The only other radiocarbon dates come from AZ C:13:10 in

the Furnace Flats area (Fairley et al. 1994), which produced two Late Prehistoric radiocarbon dates and one terminal Formative date in association with masonry structures, including a kiva, cultigens and ceramics. Also present at the site were historic Hopi ceramics, suggesting Puebloan peoples revisited the site after its abandonment (Fairley et al. 1994).

Summary. The archaeological resources found in the eastern Arizona Strip, including those described in the areas of Two Mile Spring and Kane Spring, reflect occupations by large numbers of Ancestral Puebloan agriculturalists who exploited favorable climatic conditions between A.D. 1050 to 1150, applying dry-farming techniques that allowed food production without irrigation. The area experienced a dramatic population decline after A.D. 1150, but not abandonment as pottery evidence suggests continued occupation through Pueblo III times. In fact, the entire population sequence in this area is defined on the basis of ceramics inasmuch as no radiocarbon dates have been reported.

The relationship of occupations in the House Rock Valley to those in contiguous areas of the Paria Plateau, Kaibab Plateau and Walhalla Glades remains poorly understood. Researchers have observed differences in ceramic assemblages, site layout and architecture from one area to another, and even within the same area. These differences have generally been attributed to periodic abandonment and reoccupation by different groups with similar but not identical ethnic heritages. Less attention has been focused on the environmental differences from one area to the other that may have precipitated differences in human behavior through time. House Rock Valley farmers probably augmented their maize production with wild flora and fauna procured from the nearby Kaibab Plateau (pine nuts, berries, tubers and mule deer), and to a lesser extent from the Colorado River corridor (mescal).

Given the reliability of the numerous springs and seeps in the House Rock Valley, it is anticipated that considerable evidence of Archaic foraging activities will be identified, and that this evidence will be consistent with seasonal exploitation of wild seeds that proliferate around water sources. There is less potential for evidence of early horticultural activities due to the absence of sufficient water to facilitate sub-irrigation, the primary method of domestic crop production in Basketmaker II and Basketmaker III times. Limited evidence may yet be identified in direct proximity to the springs. More likely, the wild plant resources of House Rock Valley were exploited seasonally by farmer-foragers living in the upper Kanab Creek and Paria River drainages north of the Arizona Strip. This pattern is also consistent with ethnographic observations of Southern Paiute populations in historic times (see Chapter 2).

Chapter 2 Exploration and Acculturation: A Brief History of House Rock Valley from 1776-1872

Introduction

The history of the Arizona Strip is loosely but unmistakably intertwined with the broader history of the exploration, economic exploitation and colonization of the American West. However, this participation was peripheral to events occurring elsewhere, and there are few historical references to the terrain or the indigenous peoples who lived there. Because of its rugged canyon topography, early explorers generally avoided the region, preferring the more efficient Old Spanish Trail that bypassed the region to the north and west. Because of the paucity of water, there were no beaver and little economic incentive for Euroamerican fur trappers to venture into the area. With the abundance of better agricultural lands and permanent water in the St. George area, colonization of the Kanab area by Mormon pioneers was delayed, and formal colonization of the Arizona Strip never matured as it did elsewhere in the territory.

The sources for the early history of the Arizona Strip are journals, primarily those of Fray Silvestre Velez de Escalante, a Spanish missionary in search of an overland trade route from New Mexico to California; Jacob Hamblin, an early Mormon missionary and ambassador to Native American peoples who pioneered the House Rock Valley Trail; and various participants of the Colorado River Exploring Expedition, who offered important insights between 1869 and 1880. Also relevant to this discussion are the ethnographic research of Isabelle Kelly, whose informants included Southern Paiutes who were alive during the latter half of the nineteenth century.

The Spanish Entrada

The first Euroamerican sojourn into the Arizona Strip was a near-disastrous affair undertaken against the advice of local Paiutes familiar with the area and its paucity of water. Escalante later lamented that the "main cause of our having suffered so much, ever since we entered Parussi country, was our having no one to guide us through so much difficult terrain. For through the lack of expert help we made many detours, wasted time from so many days spent in a very small area, and suffered hunger and thirst" (in Warner 1976:100). It is evident from the journal account that different bands of Southern Paiute occupied certain areas of the Arizona Strip, including House Rock Valley, and that they were familiar with routes to river crossings but were unwilling to guide the Spaniards. The tortuous experience resulted near the end of the expedition after the friars had abandoned their original mission of reaching California.

By the mid-1700s, the Spanish had become firmly entrenched among Pueblo peoples of the Southwest and had established trade networks with Ute bands to the north in Colorado and New Mexico. Within that context, Fray Francisco Atanasio Dominguez

and Fray Silvestre Velez de Escalante were commissioned in 1776 to explore a northern route from Santa Fe to the recently established garrison of Monterey on the California coast, "... but not without the option to explore new mission possibilities en route" (Warner 1976:ix-x). That enthusiasm led directly to descriptions of Ute and Southern Paiute peoples in Utah and northern Arizona prior to significant sociopolitical intercourse with Euroamericans.

Proceeding south from the Utah Lake area, the expedition arrived in the St. George area on October 16, 1776, where they encountered the Parussis, who "speak Yuta so differently from all the rest that neither the interpreter nor Joaquin the Laguna could make them understand fully." The Parussis, wearing turquoise and conch-shell jewelry that they offered to trade, were farmers living in the St. George Basin (1976:81). They were likely Southern Paiutes, but the language differences raises the possibility they were Hopi traders, "although this is doubtful" (Euler 1966:34).

Upon learning the Spaniards, who were famished and adamant about returning to New Mexico, intended to veer southeast across the Arizona Strip, local Southern Paiutes warned the expedition they "could not go by the route we intended because there were no water sources, nor could we cross the river by this route for its being very much boxed in and very deep, and having extremely tall rocks and cliffs along both sides, and finally that between here and the river there was very bad terrain" (in Warner 1976:82). The insistent Spaniards proceeded south and east along a tortuous route along the base of the Hurricane Cliffs, subsequently suffering from lack of food and water (Warner 1976:84; see Figure 7 for a depiction of the route).

On Oct. 18, 1776, about 20 miles north of Mount Trumbull, they bartered with four Southern Paiutes for wild sheep meat, dried prickly pear made into cakes and seeds from wild plants (Warner 1976:86-87). These Paiutes were called Yubuincariri, and they are believed to have been Uinkarets Paiute who once occupied the western Grand Canyon region (Euler 1966:34). On October 21, the expedition reached Johnson Wash about 5 miles south of Fredonia, and the following day they veered north, east and south, crossing the Kaibab Plateau. While encamped that night, they saw nearby campfires and found a small band of Southern Paiute, called Pagampachi, camped at or near Coyote Spring. The Paiutes provided food (rabbit and pinyon nuts) and helped them locate water. Escalante provides the first description of the springs found on the east flank of the Kaibab Plateau, writing "to the west-southwest from the same little bluffs at the sierra's base there is also a little spring of permanent water" (in Warner 1976:89). The Pagampachi are believed to have been Kaibab Paiutes.

The expedition remained at camp "San Juan Capistrano" on Oct. 23, 1776, due to the fact the members of the party had become quite ill from eating the wild plant seeds. Unable to convince local Southern Paiutes to sell them meat, they slaughtered a horse. They were later visited by 26 Paiutes, who endured a sermon and secured a promise that missionaries would return to instruct them. "When we asked them where we could find them on our return, they said it would be on this same sierra and the adjacent mesas" (in Warner 1976:91).

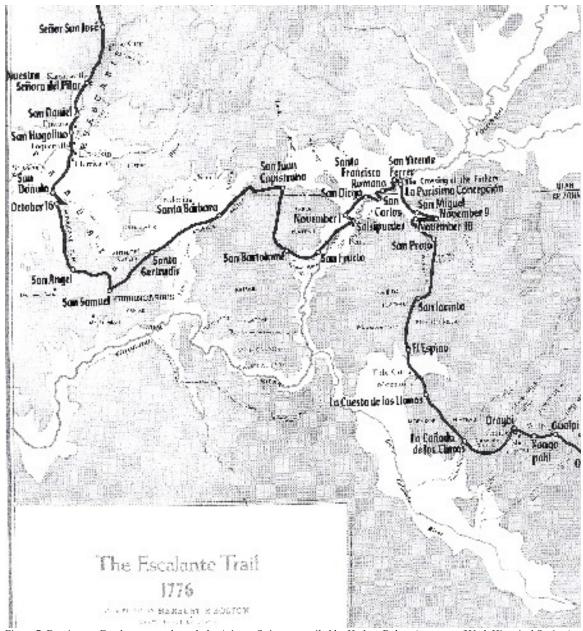


Figure 7: Dominguez-Escalante route through the Arizona Strip as compiled by Herbert Bolton (courtesy of Utah Historical Society)

On Oct. 24, 1776, the party departed up Coyote Wash toward the divide that separates it from House Rock Valley, proceeding south-southeast down House Rock Valley "over sandy and troublesome country." No mention was made of any springs. They camped on Emett Hill, a divide between House Rock Wash and Emett Valley on the east of the southern periphery of the Paria Plateau. They called the camp San Bartoleme (Warner 1776:92). On Oct. 25, they headed east-southeast, then east and then north before finding a spring in Soap Creek Canyon, which they called San Fructo. Don Juan Pedro Cisneros was dispatched to explore a possible crossing in Marble Canyon, returning to report "the river looked all right to him and had a ford there" (1976:93). They arrived at the Colorado River (they called it El Rio Grande de los Cosninas) the

following day, and two members swam across the river to explore the south side. They lost their clothing in the crossing and were forced to return rather than explore the region naked (1976:94).

On Oct. 27, 1776, "others went to explore in different directions and found nothing but insuperable obstacles for getting to the ford without retracing much terrain" (Warner 1976:94). The expedition remained in the area until Nov. 1, scouting ways across the river. On Nov. 1, they went up the Paria River (El Rio de Santa Teresa) a short distance, and the following day they began working their way out of Paria Canyon through a difficult incline (known today as Dominguez Pass) and then down the east side of the plateau, camping at a prominent formation known today as Castle Rock. They again reached the rim above the Colorado River, opposite the mouth of Navajo Creek, on November 3. Two men were sent to reconnoiter the opposite side of the canyon, and November 4 was spent awaiting their return and getting the horses to water (1976:97).

On November 5, they moved north through "many ridges and gullies and a very high-walled canyon" that researchers now believe was Warm Creek. They camped near the base of Ramona Mesa near the head of Cottonwood Wash, a Warm Creek tributary, where they found forage and water (Warner 1976:98). They resumed their march to the northeast on November 6, experiencing a flash flood in Gunsight Canyon before arriving at a canyon rim above the suspected river ford. The following day, they were forced to cut steps into the stone cliff to allow the horses to descend to the river bank. The successful crossing was cause for considerable thanksgiving and celebration (1976:99-100). The crossing later became known as Crossing of the Fathers.

Although considered a failure in the annals of Western exploration, the Dominguez-Escalante expedition nonetheless made important contributions to the history of the Arizona Strip. They offered the first descriptions of the topography of the region, noting the location of springs and describing features that are recognizable today. More importantly, they offered the first descriptions of Southern Paiutes living in the region with some commentary on local adaptive strategies. It appears that Paiutes in the region were hunters and gatherers with settlement patterns focused around permanent springs. Band size ranged up to about 25 people, a number consistent with ethnographically observed hunter-gatherers elsewhere.

Escalante was also the first to recognize geographical and linguistic distinctions among the Southern Paiute. He assigned the name Parussis to those who cultivated maize along river banks in the St. George area; Yubuincariris to those who lived in the Arizona Strip in the area of Mount Trumbull; Ytimpabichis to those living on cliffs and mesas in the Kanab region; and Pagampachis to those who inhabited sterile mesas above the Colorado River with no access to irrigation water.

After the Dominguez-Escalante foray into the Arizona Strip area in 1776, the area appears to have been largely ignored by the various waves of trappers, traders, military expeditions and Euroamerican colonists for much of the next century. The deeply incised canyons made overland commerce difficult, while the paucity of water resources afforded

few economic opportunities for fur trappers. Military expeditions generally avoided the rugged terrain, preferring different variations of the Old Spanish Trail that bypassed the Arizona Strip to the north and west. The region was undoubtedly explored by intrepid travelers through the West, but written accounts of those adventures are rare.

The one exception appears to have an 1829 expedition by Antonio Armijo, who led a pack train west and north from Abiquiu, New Mexico, directly toward the Crossing of the Fathers. The expedition successfully crossed the Colorado River and proceeded west along the Utah-Arizona border (Euler 1966:43). Armijo described the Paiute in this area as inhabiting the Colorado River corridor where "their living quarters are jacales, and they live on grass seeds, hares and rabbits, using the skins of the latter to cover a small part of their body" (in Euler 1966:43). Armijo offered little commentary other than the fact the "Payuches" were "gentle and cowardly" (in Euler 1966:44), a condition that perhaps reflected depredation by Mexican slave traders at that time (see Auerbach 1941; Euler 1966:46-47; O'Neil 1964, 1968; Snow 1929).

Mormon Arrival

The Euroamerican colonization of southern Utah was initiated shortly after the arrival of Mormon pioneers in the Salt Lake Valley in 1847. Within five years, Mormon colonies had been established throughout southern Utah where Mormons came into contact with local Southern Paiute populations, initiating a process of dispossession of local indigenous populations from traditional hunting and gathering ranges. Among the first areas of the southern Utah to be settled were the Virgin and Santa Clara drainages in the St. George Basin. It is likely that scouts searching for suitable agricultural lands and exploitable timber ventured into the Arizona Strip region at that time. However, the paucity of permanent water suitable for cultivated crops appears to have militated against permanent settlements in this region.

Early Mormons were certainly familiar with the Arizona Strip through the first-hand accounts of travelers who had braved the rugged terrain as early as 1847. William Bailey Maxwell, along with two other members of the Mormon Battalion who had mustered out of the military in California in 1847, sought to return to Utah through Arizona, eventually crossing the Colorado River at the mouth of the Paria River. Their route took them along the base of the Vermilion Cliffs across the north end of House Rock Valley and then over the Kaibab Plateau, which they had difficulty crossing due to deep snows. Maxwell later returned to settle in House Rock Valley (Charlotte Maxwell Webb, reprinted in Larsen 1998).

The identification of Kanab as a potential settlement likely occurred in 1855 when Ira Hatch was dispatched on a mission to the Southern Paiutes living on the north end of Buckskin Mountain (Kaibab Plateau), where Hatch was "ordered out alone to seek out trails, springs, waterholes and places suitable for settlement" (Richard Elkins, in Larsen 1998:27). There is no indication that Mormon settlement occurred immediately thereafter. The official "founding" of Pipe Springs is placed at 1863 and Kanab at 1865.

However, journals of early Mormons in the region indicate that families had begun to settle the area years before.

Jacob Hamblin

Important descriptions of the Arizona Strip resulted from Mormon missionary journals of those traveling through the region on their way to the Hopi mesas south of the Colorado River. These missionary expeditions were led by Jacob Hamblin (Figure 8), a major figure in the Mormon experience in southern Utah and northern Arizona. Hamblin has been lionized in Mormon and non-Mormon historical accounts as a legendary ambassador to many different groups of Native American peoples. He was undisputedly adept at diffusing conflicts between Mormons and indigenous peoples.



Figure 8: Jacob Hamblin (Photo courtesy Utah Historical Society)

In the fall of 1858, Hamblin and fellow missionaries Thales H. Haskell (Figure 9), Frederick Hamblin, William Hamblin, Dudley Leavitt, Thomas Leavitt, Samuel Knight, Ira Hatch, Andrew Gibbons, Benjamin Knell, Ammon M. Tenney, James Davis and Naraguts (a Paiute guide) departed the St. George area, later arriving at Pipe Springs where they visited a Paiute encampment. They continued southeast across the Kaibab Plateau to House Rock Valley where they met and traded with a band of Southern Paiutes. Hamblin indicated that "we camped at the foot of the Kibab [sic], or Buckskin Mountains, with the chief and nearly all of the tribe of Kibab Indians. They provided supper by cooking a large number of rabbits. They put these in a pile and covered them with hot ashes and coals" (Little 1909). East of the Paria

River, on a trail to Crossing of the Fathers, more Paiutes visited the expedition (Euler 1966:70-71; Little 1909:62-64).

In late 1859, Hamblin led another expedition of Mormon missionaries consisting of Marion J. Shelton, Thales Haskell, Taylor Crosby, Benjamin Knell, Ira Hatch and John W. Young, following and returning by the same route used in 1858 (Little 1909:68-69). This expedition likely exposed John W. Young to the region where he would later

become a major historical figure. Another missionary expedition was launched in the fall of 1860 that included Jacob Hamblin, Thales Haskell, George A. Smith Jr., Jehiel McConnell, Ira Hatch, Isaac Riddle, Amos Thorton, Francis M. Hamblin, James Pierce and an Indian guide called Enos. On the return trip, the expedition camped with Paiutes in the Buckskin Mountain area, where Jacob Hamblin wrote "the Paiutes brought us an abundance of pine nuts. The supply was very acceptable, as edibles were scarce in camp" (Little 1909:78).

There is no doubt that Hamblin was intimately familiar with the House Rock Valley and other contiguous areas. Wixom (1996:233) writes that Hamblin spent "many cold nights in the 1860s, watching and guarding with the Piutes to keep Navajo raiders from crossing" and that he "sometimes crossed Buckskin Mountain when the snow was waist deep." Wixom marveled at length at Hamblin's ability to find his way through the canyon country of the Arizona Strip without assistance of maps, and in some cases without guides. The original Hamblin trail from St. George, called the "Mid Mountain" trail, led to Pipe Springs along the modern route of Utah Highway 59 and Arizona Highway 389, then over the Kaibab Plateau near present-day Jacob Lake, off the east flank and then through House Rock Valley. Hamblin forged a new route from Kanab through "The Gap," located 15 miles east of Kanab, and became "almost certainly the first white men to use the Gap route as they headed

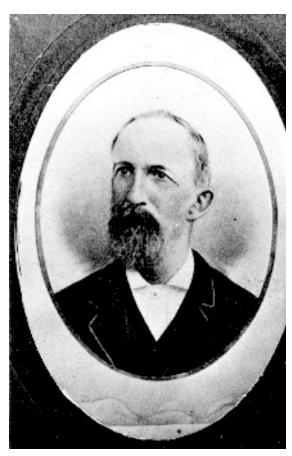


Figure 9: Thales Haskell (Photo courtesy Utah Historical Society)

for the Colorado River via House Rock Valley in the early 1860s" (1996:184-187).

In fact, Hamblin is credited with blazing most of the routes in the region. For example, although Isaac Riddle is credited with driving the first wagon across the Kaibab Plateau, he certainly followed the earlier trail blazed by Hamblin (Wixom 1996:195). Many of these routes inevitably led through House Rock Valley, a name formalized in 1871 by the John Wesley Powell expedition and credited to a local guide named Riggs or to a member of an earlier Hamblin missionary expedition. According to Frederick Dellenbaugh's account of his November 1871 visit, "About sunset we passed two large boulders which had fallen together, forming a rude shelter, under which Riggs or someone else had slept, and then had jocosely printed above with charcoal words Rock House Hotel" (1991:160). Hamblin and others had already assigned the name House Rock Spring to a nearby water source and House Rock Valley to the broad expanse

between the Kaibab Plateau and Paria Plateau, and "we called it the same, and finally it went on the maps and is now permanent" (1991:160). Larsen maintains Dellenbaugh mistook the shelter for "House Rock," and that House Rock actually refers a prominent square-shaped formation on a nearby cliff face with what could be viewed as an open door, giving it the appearance of a "house" (1998:48-49).

The House Rock Valley route(s) led eventually to the Paria River confluence where William Maxwell had first crossed in 1847. Although the Crossing of the Fathers further to the northeast was easier, it was also longer and potentially more dangerous depending on the mood of Navajos living in that vicinity. Hamblin was certainly aware that a river crossing could be made at the Paria River confluence, and Wixom mentions the construction of "crude skiffs or rafts" and a tactical strategy of starting the crossing farther upstream to compensate for the swift current (1996:189-191). The precariousness of the crossing apparently prompted Hamblin to enter into a partnership with John D. Lee in the early 1870s for construction of a ferry at this point to accommodate the growing number of Mormon colonists dispatched by Brigham Young to settle Arizona south of the Colorado River.

The paucity of water was a frequent topic in the missionary journals, and often they would travel days without finding water. Local Paiutes, who continued to camp at the springs throughout the 1860s, were adept at knowing the location of springs, seeps and rock cavities holding rain water, but Hamblin only occasionally used local guides (Wixom states guides were used only on the first expedition, although a Hamblin journal reference mentions a guide on a later trip, as well). The frequent thirst prompted one missionary to quote Shakespeare and "wished Shakespeare was in hell and that he was with him if they had such a commodity as water there" (Thales Haskell, in Wixom 1996:191). The journal accounts mention they occasionally found springs along the eastern escarpment of the Kaibab Plateau, but the spring names are not mentioned.

Hamblin was arguably the first "cattleman" in the House Rock Valley region, taking dozens of cattle along on some missionary journeys for sustenance and trade with the Hopis. "It was one thing to get a man and his horse across the Colorado; quite another to push reluctant oxen up the narrow Paria Gorge, down the precarious ledges to the Ute Crossing, then across the river with its tricky quicksand bottom and frightening currents." More often, the missionaries ate rabbits, and in one case crows (Wixom 1996:189). There is no indication Hamblin grazed cattle in House Rock Valley any significant period of time, although he clearly saw the potential of the area for livestock and intended to occupy the region more permanently.

Hamblin's missionary journeys continued through the mid 1860s. Another expedition was dispatched to the Hopi mesas in 1862, but by a more southwestern route (via Pierce Ferry), and in January 1863, the expedition returned by way of the now-familiar route through House Rock Valley and across the Kaibab Plateau toward St. George. Jacob Hamblin's narrative also included descriptions of efforts in 1869 and 1870 to negotiate peace with the Navajos, his impressions of the Moquis (Hopis) and the vigilance of local Paiutes and Mormons ranchers who were always guarding against

Navajos who crossed the Colorado River to raid Paiute and Mormon livestock in the 1860s (Little 1909:101-102).

Jacob Hamblin had a remarkable relationship with Native American groups that proved beneficial to Mormon colonists during periods of increased hostility with indigenous groups, particularly after Mormon expansion into traditional hunting and gathering territories. At one point, Hamblin observed that "when natives resorted to gather seeds, they found they had been destroyed by cattle ... only the poor consolation was left them of gathering around their campfires and talking over their grievances" (in Wixom 1996: 231).

Hamblin's journal also offers a description of peace negotiations with Paiute peoples of the upper Sevier River and Johnson Canyon areas (Little 1909:103; see also Wixom 1996:245), and his journey in 1870 to the Mount Trumbull area with John Wesley Powell to negotiate with Shivwits Paiutes for peaceful passage of Powell's 1871 river expedition (Little 1909:103-106). He also accompanied Powell in the fall of 1871 to Fort Defiance and the Hopi villages to further negotiate peace with the Navajos, whose raiding of Mormon livestock north of the Colorado River remained a persistent problem (1909:106-109).



10: Emma Batchelder Lee (Photo courtesy Utah

Hamblin was apparently associated with the construction of Lee's Ferry, deemed the only means of transporting wagons of Mormon colonists seeking to settle in Arizona south of the Colorado River. The ferry was operated by Emma Lee (Figure 10) while her husband was a fugitive wanted in connection with the Mountain Meadows Massacre, and "it appears Brigham" [Young] wanted Hamblin to look after her from time to time in her key role at Lee's Ferry" (Wixom 1996:304). Hamblin stated "In 1871-72, I explored many places between Lees Ferry and Uinta Valley; assisted in locating a settlement on the Pah-reah, in starting a ranch in House Rock Valley, and in building a small boat at Lees Ferry" (Little 1909:118). The reference to a ranch in House Rock Valley may be evidenced by a notation in Walter Clement Powell's journal entry for July 13, 1872, wherein he states the members of the John Wesley Powell expedition reached House Rock Springs and "found a stone hunt built near the springs, but no one in it." He also says they proceeded to Jacob's Pools 14 miles away Figure

where they found "a brush hut and a couple

of pretty Mormon girls," whose father, John D. Lee, was elsewhere on the Paria

Historical Society)

River (W. Powell 1948:432; see Figure 11). The references to permanent or semi-permanent Euroamerican residences in House Rock Valley suggest that Mormon settlement in areas around springs may have begun to disrupt indigenous Southern Paiute lifeways at about the same time John Wesley Powell began his ethnographic studies in the same area.



Figure 11: View of John D. Lee brush house at Jacob's Pools. Date and photographer not indicated, but probably about 1872 (Photo courtesy Utah Historical Society)

Jacob Hamblin left the area briefly in 1867, but soon returned to "Fort Kanab," a lonely outpost established two years before (Wixom 1996:255). He remained in the area several years, claiming rights to all of House Rock Valley. He later relinquished those claims to John D. Lee, while Hamblin left to establish a ranch south of the Colorado River. Lee, a fugitive facing arrest by federal authorities, later traded his holdings at Jacob's Pools back to Hamblin for Hamblin's farm in Moenave, Arizona. Hamblin never used the Jacob's Pool ranch and it was soon abandoned altogether (Larsen 1998:57). Hamblin sold his rights to House Rock Valley in 1874 to the church-owned New Canaan livestock cooperative, and again left the area in 1884, this time to settle in Pleasanton, New Mexico. Several of his adult children remained behind in the Kanab area, and some remained involved in ranching in House Rock Valley and on the Paria Plateau.

Fort Kanab and Early Ranching

The nature of early livestock ranching in the Arizona Strip was certainly small, consisting of a few dozen head of cattle belonging to the handful of early pioneers (see

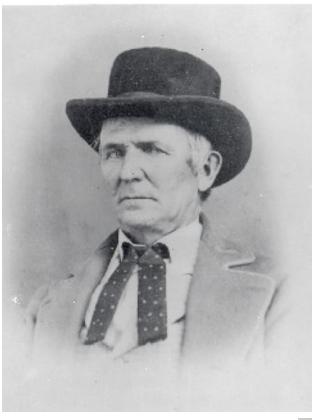
Lucy I. Isom's account, reprinted in Larsen 1998:44). Bradley indicates that Kanab-area ranchers first began running cattle on the Arizona Strip in 1863 (1999:61), although no details were offered and the date appears too conservative. She also states that Jacob Hamblin and others constructed "crude dugouts" in Kanab as early as 1858, and that small parties of settlers began arriving in 1859 (1999:60-61). Inevitably, regions to the south would have been explored for suitable livestock forage and potential agricultural enterprises.

Elsewhere in the area, William B. Maxwell, arguably the first Mormon to see the Arizona Strip country in 1847, laid claim to Moccasin Spring and the surrounding valley in 1860. He sold it in 1863 to a man named Rhodes who built the first cabin there that same year (Larsen 1998:70). Elsewhere, John Conrad Naegle (originally Naile) first established a ranch at Big Springs on the west flank of the Kaibab in 1866 after negotiating a financial settlement with local Paiute tribal leaders. Naegle and his sons continued to run cattle and sheep on Buckskin Mountain for the next 25 years (Rosanna N. Lunt, in Larsen 1998:34-35).

Armed hostilities with indigenous groups were clearly a threat in the early years of white settlement. In 1863, James M. Whitmore acquired rights for 160-acre ranch at Pipe Springs, which had been a popular layover for the Hamblin missionary expeditions (from whom Whitmore acquired the rights is not clearly stated). He built a dugout just downhill from the spring, as well as corrals for at least 50 milk cows. He planted grapevines, peaches and apple trees, and brought cattle and sheep to the area. In late December 1865, Whitmore and his brother-in-law Robert McIntyre were killed while trying to recover stolen livestock. Reprisals by the Mormon militia resulted in the deaths of two Paiutes and capture of five others, or the killing of seven Paiutes and the capture of one other, according to the differing accounts. The Paiutes maintained their innocence, blaming the killings of Whitmore and McIntyre on marauding Navajos, who had camped with the Paiutes the night before and left behind the dead men's personal effects that were recovered by the posse. The stolen livestock was never recovered, lending support to the Paiutes' version of events (see Larsen 1998:101-103).

Other Mormons were later killed in the same area, accentuating concerns throughout the region of widespread conflict (Harriett Stapley, in Larsen 1998:104). Consequently, construction of Fort Kanab was initiated in 1865 and continued through 1869 with the erection of two rows of five to seven cabins on the east and west, and one or two cabins on the north. The south was a cedar post stockade or fence tied with rawhide strips. The cabins and stockade enclosed a 112-square-foot area. Among the early builders of Kanab were Moses Farnsworth, Edward Pugh, John Rider, Allen Frost, James Lewis, Reuben Broadbent and Charles Cram, the latter of whom would play a prominent role in the history of House Rock Valley. Settlement of the region was apparently slow. The personal history of John Franklin Brown indicates that he arrived with his family at the age of 13 to settle Kanab in the spring of 1871, and "at that time there were only two houses in Kanab, one was the rock house of Edward Pugh, the other was a lumber one room shack belonging to Abraham Winsor" (in Larsen 1998:76).

It is likely that Indian hostilities in the late 1860s that forced the temporary abandonment of Kanab and Pipe Springs also brought a dramatic reduction to nascent cattle ranching on the Strip. Families began returning to the area in 1870, and a resumption of small-scale family livestock operations resumed throughout the region. Among the most prominent of these early ranchers was John D. Lee (Figure 12), a fugitive openly protected by the Mormon populace. In December 1871, Lee, apparently in partnership with Jacob Hamblin, began construction on a ranch at Lee's Ferry (also known as Lonely Dell), where his wife Emma remained behind to operate the ranch and ferry. Lee moved frequently throughout the Strip, apparently to avoid arrest by federal authorities. Of note, the earliest pioneer inscription at House Rock Springs is that of John D. Lee, dated Christmas Day 1871 (Larsen 1998).



In 1872, Lee decided to construct a second ranch at Jacob's Pools, arriving with a wife Rachel Lee in early May of that year. They completed a one-room willow residence within a week. This is likely the same structure mentioned by Walter Clement Powell, who arrived at Jacob's Pools on July 13, 1872, to find two of Lee's daughters living in a temporary willow structure (Powell 1948; see citation above). John D. and Rachel Lee (Figure 13) apparently brought a herd of 40 cows to Jacob's Pools that were to provide the stock for a permanent cattle ranch. Within six months, Lee had constructed a short distance away a rock corral, a second shelter and a 35 by 30 foot stone house with a cellar, two parlors, two bedrooms and a kitchen. Rachel and the children rolled stones to the building site from the

Vermilion Cliffs
Figure 12: John D. Lee (Photo courtesy Utah Historical Society)
accumulating enough
building

material "to enclose five acres of

garden" (Larsen

1998:55).

Lee was optimistic about initiating other ranches in the area. In the fall of 1872,



Lee rode with Almon Harris Thompson of the Powell Expedition to assess ranching opportunities at Kane Springs (Larsen 1998:55). And Lee also considered ranching prospects on the Kaibab Plateau. In late 1872, while serving as a guide to the Powell expedition, Lee wrote that he had "learned through our Indian guide a splendid ranch could be made on the Buckskin or Kaibab Mountain," describing a valley 15 miles long and three-fourths of a mile wide with three springs, grand meadows and forests (Cleland and Brooks 1983:215). Lee never pursued the idea of a ranch at what is today known as DeMotte Park or VT Park.

Figure 13: Rachel Lee (Photo courtesy Utah Historical Society)

Lee was not the only local Mormon rancher looking to expand into rangelands south of Kanab. Levi Stewart, the Mormon bishop of Kanab, in early 1871 claimed water rights at Big Springs on the west flank of the Kaibab Plateau and transferred a sawmill at Skutumpah north of Kanab to his new ranch there. How Stewart acquired the rights from John Naegle, who reportedly arrived there in 1866, is not specified. After serving a church mission to Germany in 1873, Naegle returned to the "Nail Ranch" at Big Springs where the family cattle ranch was still operating in 1885 (Murbarger 1958:31).

Members of the John Wesley Powell expedition visited the Stewart ranch in February 1872, describing two cabins, a corral and the arrival of a younger Stewart who "drove up a band of horses" (Powell 1948:398). Effie Dean Rich (1941:5) indicated that Brigham Young sent Stewart and the steam sawmill to Big Springs. Local tradition maintains Stewart was the first to bring cattle to the Kanab area when he arrived in 1870, but as discussed above there were many others involved in cattle operations at the same time, including Joseph Hamblin and Charles S. Cram, both of whom had extended their operations into the Arizona Strip at this time (Bradley 1999:84).

Sheep ranching also emerged about this same time. Altschul and Fairley (1989), citing Haskett (1936), described significant droughts in California in 1870 and 1871, and again in 1876 and 1877, that resulted in large numbers of sheep being driven into the Arizona Strip. Other sheepherders followed, and "some California and Nevada sheep men began using the Arizona Strip for winter range on a regular basis, and a number of men from St. George and Kanab took up sheepherding for the first time" (1999:193). This is supported by an April 1872 entry in Walter Clement Powell's journal that indicates 11,000 sheep were grazing near Pipe Springs at that time (1948:403). Bradley indicated that Mormon sheepherders James A. Little and Royal Cutler first brought sheep to the area in 1871 from the Glendale area (1999:132).

Dramatic economic changes occurred in the early 1870s that would transform the Arizona Strip from a little-known wilderness known only to a handful of small family farmers into an Eden for large-scale cattle operations. In 1870, Brigham Young purchased the Whitmore estate in the name of the Mormon Church and assigned Asnon Winsor to improve the spring and manage the church's growing livestock herds, all acquired as payment of tithes. Young returned later that year to outline the construction of a ranch headquarters that could also function as a fort if continued hostilities warranted. This structure, which became known as Winsor Castle, was completed in 1872 (Lavender 1982), and became the headquarters of major Mormon Church cattle operations throughout the Arizona Strip (Figure 14).

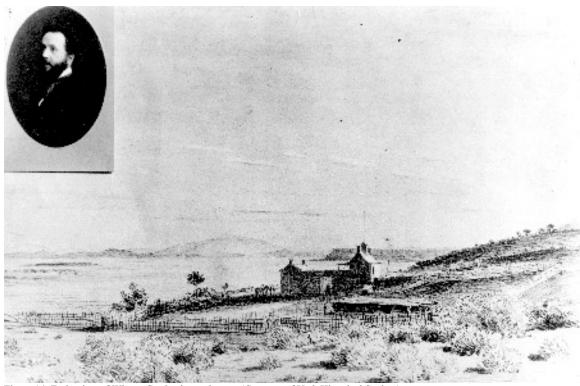


Figure 14: Early view of Winsor Castle, date unknown (Courtesy of Utah Historical Society)

Southern Paiute Ethnographies

The establishment of Fort Kanab in 1865 and Jacob Hamblin's passing reference to Southern Paiute discontent over the loss of traditional seed gathering areas to cattle suggest that Mormon expansion into the Arizona Strip was occurring prior to the arrival f John Wesley Powell, whose descriptions of Paiute lifeways in the region remain a hallmark of early Native American ethnography. Powell, whose expedition camped south of Kanab, described the Southern Paiutes of the 1870s as a nomadic people who engaged in the seasonal exploitation of wild plants and animals.

A tribe will move around a grand circuit which has been previously determined in council, often taking for its completion several months or even a year. This constant moving is necessary to successful hunting. Also every season has its peculiar nuts, seeds, fruits or roots, and the place where such articles of food are found in abundance and largely determine the course of their wanderings. Thus early in the spring when meskelle [sic] is in good condition for food their camp should be on the side of the mountain where that plant is found in great abundance, or late in the fall when the pine nuts are ripe, and the deer are fat, they will be found encamped on the high plateaux [sic]. Late in the summer and early in the fall when the seeds of grass and various weeds are ripening, and these afford a rich and abundant subsistence, they may be found camping on the plains [in Fowler and Fowler 1971:38].

The nomadic lifeway of the Southern Paiute undoubtedly brought them into contact with other peoples exploiting the same resources. The hunting and gathering rights of other bands appear to have been a major subject of discussion in tribal council meetings (Figure 15), and delegations were often dispatched to neighboring bands to ensure no interference in food-gathering activities. "In fact, this is a source of much disagreement, and many feuds and wars arise concerning their right to favorite regions. Tribes are very tenacious in clinging to their rights over such places, and very jealous of the encroachments of other tribes ... usually such disputes require the holding of many councils, and sometimes they are not settled until the whole nation meets in grand council" (Powell, in Fowler and Fowler 1971:39). Southern Paiute lifeways at the time of the Powell expeditions were illustrated in a large number of photographs by J.K. Hillers, but there is some question as to whether they were staged to appeal to Eastern audiences.

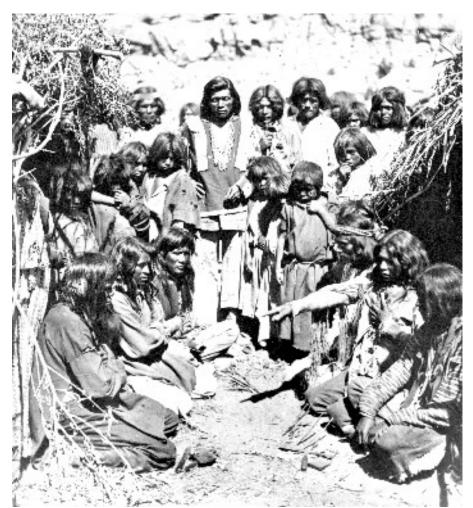


Figure 15: Southern Paiute tribal council photographed by J.K. Hillers ca. 1872 (Photo courtesy Utah Historical Society)

Ethnographer Isabelle Kelly, who in 1932 and 1933 interviewed informants who were alive in the latter quarter of the nineteenth century, expanded on the issue of territoriality, describing Kaibab claims of ownership to the springs along the Buckskin Mountain escarpment. Kelly divided the Kaibab band into 10 local units, of which the

seven more populous ones had a headman who directed seasonal movements and activities (Park et al. 1938:633-634). These 10 local units may be similar to those listed by William Palmer (1933:99-100, see also Palmer 1928), who identified those around Pipe Springs and Moccasin Springs as Pa-spika-vats and Unka-kanig-its; those in Johnson Canyon as Pa-epas; those on the north slope of the Kaibab Mountains as Kaibabits; those of the Glendale and Orderville area as Paria-ru-e-i-at; those on the western slopes of the Kaibab Plateau as Timpe-sha-wa-gots-its; and those north and east of Mount Trumbull as Timpe-ab-ich-its, Timpe-pa-caba and Timpe-ab-its.

Generally, the Kaibab Paiute occupied territories bordered on the north by the Pink Cliffs area near the headwaters of Kanab Creek and the Virgin River, on the east by Johnson Canyon, on the west by Zion Canyon and on the south by the north rim of the Grand Canyon. Kelly observed that the higher plateaus were well watered, but were generally unsuitable for permanent habitation because of the depth of winter snows. The lower elevations were likewise unsuitable because of the paucity of reliable water. Permanent streams were of little importance, probably because of the absence of any need for irrigation. Consequently, the determining factor in human settlement was the location of springs, which occur "in a long, almost continuous line" along the base of the Vermilion Cliffs, including the western and southern fronts of the Paria Plateau and along the western edge of the Kaibab Plateau" (1964:5).

Kelly described the annual economic cycle in terms of food resources being exploited.

Fall was one time of plenty; then most households made trips to the plateaus, to collect yucca fruit, harvest pinenuts, and hunt deer. Stores were cached for winter use but ordinarily ran short; late winter and especially spring were seasons of near famine. At the time, many traveled to the rim of the Colorado and several tributary canyons to gather mescal, the standby when all else failed; cacti and juniper berries also were starvation foods. With the approach of summer, the people returned to what they considered home base, at the foot of the plateaus, to resume residence at their privately owned springs. On the adjacent flats, they harvested valley seeds, and late in summer some returned to the higher elevations to gather 'plateau' seeds and berries. A large number of plant foods supplemented those just enumerated, and small game, available throughout the year, must have been the principal source of meat [1964:22].

There is considerable evidence of inter-group contact and social aggregations at all times of the year. In fact, it was difficult to distinguish some groups from others because of the amount of seasonal movement from one spring to another, the interrelationships bringing migratory groups into repeated and regular contact with other groups. Almost all of the social or economic clusters were based upon extended family units. In many cases, these family relationships extended into other economic clusters (Kelly 1964:22-24), further blurring Kelly's distinctions among economic clusters.

Although Kaibab Paiute populations were concentrated around springs, Kelly observed that camps in these areas "were semi-permanent in the sense that the occupants returned to them following hunting and foraging trips. The sites were strategically situated. Drinking water was at hand; the juniper-dotted slopes of the backing scarps provided fuel; the desert flats were nearby for rabbit hunting and seed collecting; and the higher plateaus could be visited periodically for deer, pinenuts and yucca fruit" (1964:7). Southern Paiute residences were consistently described as temporary brush structures (Figure 16).



Figure 16: Southern Paiute brush structures (J.K. Hillers photo courtesy Utah Historical Society)

According to Kelly's informants, the springs were owned by individual families who occupied the area adjoining the spring year after year. Typically, the oldest child inherited the spring, although in practice ownership passed to the nearest male relative in the family group who continued to live at the spring. However, Kelly doubted that ownership was as formal as her informants indicated, suggesting instead that ownership rights were determined more by "habitual occupation" (1964:7). She identified 77 springs or watering places, not all of which were permanent sources of water or were claimed by any particular family group. Based on the utilization and/or ownership of these water sources, she identified 10 "economic

clusters" generally delineated as to the location of their semi-permanent camps at particular water

sources.

These clusters varied greatly in size of population and the extent of the local environment being exploited. One cluster included six springs, but only one camp. Another included three springs but 14 or 15 households. Her utilization of "economic clusters" to delineate various social units was not acknowledged by her Southern Paiute informants, who recognized no distinctions between the groups. Only one group, those living along the western base of the Kaibab Plateau, was given any distinctive appellation (1964:22). Even Kelly admitted her economic clusters in the Kaibab area may be somewhat arbitrary given (1) the fact that all groups shared the same annual cycle of

hunting and gathering, (2) the considerable amount of inter-group contact and shifting of camps to various springs without apparent consideration of spring ownership and (3) the Kaibab Plateau, Paunsaugunt Plateau and the rim of the Grand Canyon were viewed as communal lands accessible to all Paiute groups (1964:22-23).

Kelly expended considerable effort determining indigenous names for and defining ownership of the various springs in the region. In House Rock Valley, she identified Si ivac, or squawbush water, on the east above Kaibab Gulch; Pagampaci, or cane water, south of Kaibab Gulch; Kankwi, or water singing, which is House Rock Spring; Oarinkanivac, or salt-cave water, at Kane Ranch; Uinpikavoc, or pine tree pothole, which is Jacob's Pools; Panwiavac, or mud water, at the base of the cliff below Jacob's Pools; Sovinokwicic, or cottonwood running, which is Soap Creek; and Pagampiaganti, also identified at Kane Ranch (she indicates pagampi is a word for cane) (1964:9-10).

Kelly's account offers clues as to the first claimed ownership of the Kane Ranch area. It appears from Kelly's account that Oarinkanivac and Pagampiaganti refer to two different springs on ranch property (she spelled it Cane Ranch). Oarinkanivac was initially not "owned" by any single group, but was the focus of repeated visitation. The family of Tasiaci, claimed ownership of nearby Kwanki spring, and the family of Sakic claimed ownership of Mukuvac spring (location not indicated). Both families would pass the winter at Oarinkanivac where they lived in a cave, making return trips to Kwanki to retrieve caches of seeds throughout the winter months (1966:18). Ownership of Kwanki later passed to Kwaganti and Keno, who then claimed ownership of Mukuvac and Oarinkanivac (1966:19).

Dellenbaugh (1909) later wrote that Powell named the Kwagunt Valley for Kwaganti, who claimed "that his father, who used to live there, had given it to him." He discouraged visitors to the valley "because he wanted to keep the sage seeds for himself." Kwagunti later moved to Kanab and finally to the Kaibab Reservation. "Nobody owned the springs then" (in Kelly 1964:19).

Early Kanab cattleman B.A. Riggs purported to offer a seven-page "life story" of Kwagunt (or Quag-unt). Although Euler (1966:87) called Riggs' account "suspect," it offers good descriptions of Southern Paiute subsistence activities, presumably in the House Rock Valley area. According to the account,

We would find a place where rabbits like to run and set up our nets. The nets were made of yucca strings. They were from ten to twenty-five yards long. We would put all we had out in a long string, sometime a hundred yards long. We would put them up on stakes driven into the ground. When we got our nets set we would take a circle out around the part of the country we wanted to make our drive through. We then formed into a half-circle a short distance apart and would go towards the net. The rabbits would go to the nets and follow along it. There would be an Indian stationed at each end and some times along in the center. When the rabbits came along the Indians would shoot them. We would take the rabbits to camp, build a large fire out of sagebrush, and would take enough

rabbits to make a meal for the camp and put them in the fire and burn the hair off, when we didn't want the hair to make ropes with. When the hair was all burned off we moved the coals and ashes away and put the rabbits in a pile, then bury them in hot ashes and coals. When they are cooked we take them out and pull the ears off and give them to the older people, chief or Medicine man. That was the best part of the rabbit. The children got a leg or a piece of the back. The liver and heart were eaten, then the intestines were removed and the stuff was stripped out with the finger and the thumb, then eaten. The eyes and brain and every bit of the rabbit was eaten but the hide and bones. There were not many rabbits [in Euler 1966:87].

The account attributed to Kwagunt also mentioned the gathering of grass and weed seeds in the summer and fall, pinyon nuts, acorns and agave, and the hunting of antelope and deer (Euler 1966:87).

Pagampiaganti spring was owned by Kisaici, who reportedly "camped alone." However, others also camped at the spring without ownership rights, including two shaman brothers, Saitimpi and Kwiuinimpi, and their sister. Kelly indicated they wintered just below the rim of the Grand Canyon, sometimes east of the southern tip of the Kaibab Plateau and sometimes at the mouth of Kanab Canyon. They would return to Pagampiaganti in the spring, bringing mescal with them. They remained there through the summer, harvesting wild seeds, and they were sometimes joined by residents of Oarinkanivac. In the fall, they hunted deer on the Kaibab Plateau, as did all Southern Paiute families in the region (1966:20). Subsequent claims of ownership were not identified. Kelly's account does not mention Two Mile Springs.

Of note, Wixom, citing a 1943 *Arizona Highways* article, claims the Southern Paiute gave House Rock Valley to Jacob Hamblin as a show of respect, "although it is not known if it was theirs (or some other tribe's) to give" (1996:188). Given that claims of ownership was to springs and that ownership claims involved many different families without centralized governance, the claim is likely spurious. Hamblin, for whom Jacob's Pools was named, had planned to construct a ranch in the House Rock Valley, but it is not known if this was ever completed (see discussion above). His son Joseph did become a prominent rancher in the House Rock Valley.

It is apparent that the dispossession of the Paiutes of House Rock Valley was well underway by the 1870s. As summarized by Julian Steward (1939), the Southern Paiute in the areas of St. George and Kanab "were too poor and unorganized to offer effective resistance to settlement. They lingered in their original habitat in the vicinity of the newly founded Mormon villages and, as the destruction of their native foods by cattle, sheep and farming made life difficult, they gradually attached themselves to these communities" (1939:2). When John Wesley Powell's men arrived in Kanab in the fall of 1871, they found several hundred Mormons with abundant livestock, and Kaibab Paiutes were camped nearby (Figure 17).

The Great Surveys

An important historical component of the House Rock Valley area can be found in the journals of participants of the second Colorado River Exploring Expedition (the first expedition bypassed the area), commanded by Major John Wesley Powell (Figure 18), who was nonetheless absent for most of the river trip. The second expedition arrived at the mouth of the Paria River on October 21, 1871, where several days later they met Jacob Hamblin, Isaac Haight, George Adair and Joe Mangin, along with a party of Navajos, returning from Hopi Mesa. Expedition members transported members of the Hamblin party across the river in their boats, and at least two members of the party, Mangum and Chief Agna Grande, were sent ahead to Kanab with a letter to send wagons from Kanab to transport sick members of the Powell party. The relief train did not arrive until November 3, having attempted a descent of Paria Canyon rather than through House Rock Valley (Thompson 1939:60-61). This implies that a wagon route through House Rock Valley was not yet established in 1871, and that the location of water sources was poorly known by local residents.





Figure 17: Representative examples of J.K. Hillers photographic views of Southern Paiutes in the Kanab area ca. 1872 (Photos courtesy of Utah Historical Society). There is some evidence the photographs were staged by Powell.

The Powell expedition eventually returned to Kanab with the relief train through House Rock Valley, mentioning Spring and Clear Creek (now Badger Creek), Soap Creek, Jacob's Pools and House Rock Springs (Powell 1948; Thompson 1939). The expedition reached Kanab in early November and spent about two weeks there socializing. According to expedition member John Steward (Figure 19), Brigham Young was among the many who visited the Powell expedition in Kanab at that time. Steward left the expedition at this point, traveling to Salt Lake City and returning to the East by

train (Steward 1948:250-251). The remaining members of the expedition left Kanab on November 16, 1871, to resume explorations of the Kaibab Plateau.

They first camped at Eight Mile Springs, but returned often to visit Kanab. In mid December, the camp was moved to The Gap. A brief description of House Rock Valley topography was offered on January 22, 1873, and camp was again moved the following day to Mount's Spring (Thompson 1939:66). The camp was moved frequently as the crews mapped the region, again to Eight Mile Spring, then to the Buckskin and then to "Stewart's Ranch" in Stewart or Jump Up Canyon and then to Kanab Creek. They spent most of 1872 mapping and exploring the Kaibab Plateau, Mount Trumbull and other areas to the west. The expedition, with various changes in personnel, continued to survey the area throughout much of the 1870s.

The journals make numerous references to House Rock Valley, but they generally offer few detailed descriptions of the area (Bishop 1947; Jones 1948; Powell 1948; Steward 1948; Thompson 1938). Dellenbaugh (1908) indicated the group camped at House Rock Spring in January 1872 and then followed a "road" about 10 miles into House Rock Valley. In this area, they encountered a camp of Navajos on their way to trade in Kanab. None of the journals mention Paiute encampments or Mormon cattle herds in the House Rock Valley at that time. Rather, the valley was described primarily as a transportation corridor between the crossing at the Paria River confluence and Kanab, and House Rock Springs was frequently mentioned as a preferred campsite.



Figure 18: John Wesley Powell and Southern Paiute in northern Arizona (J.K. Hillers Photo 1019 courtesy U.S. Geological Survey)

Members of the Powell expedition were apparently not the only ones traveling about the Arizona Strip. Walter Clement Powell, a member of the Powell expedition, observed in March 1872 "a constant stream of miners to and from" the Grand Canyon, apparently in response to a nonexistent gold rush. Those going to it were hopeful and confident, and those returning were despondent and disgusted. "The excitement broke out

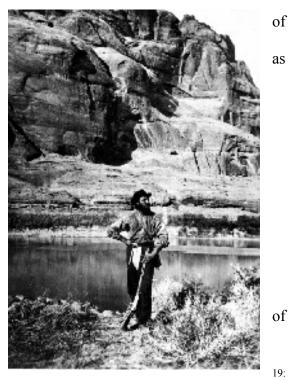
so suddenly, the fever ran so high, that people crowded to the auriferous shore without food, without

knowledge of mining, and without proper implements. After prospecting for a time, and getting but a few fine grains of gold, provisions run out, hopes fall, starvation stares them

in the face. The dismal reports of the luckless ones sometimes cause new-comers to turn back when within 10 miles of the river" (1948:102-103).

Powell was also not the only government surveyor in the region. Lieutenant George M. Wheeler was surveying in New Mexico, Arizona, southern California, Nevada and southern Utah, even overlapping the Powell surveys in the Arizona Strip (Wheeler 1889). One irony of the apologetic histories that have lionized John Wesley Powell, often to the discredit of Wheeler, is that Wheeler's surveys were staffed by competent scientists who epitomized the "Great Reconnaissance." They certainly were better than those of Powell's expedition, producing a wealth of richly illustrated scientific reports of the U.S. Geographical Surveys West of the 100th Meridian that are among the finest such documents ever produced by a military expedition (Goetzmann 1967).

In 1871, Wheeler surveyed portions the Virgin River drainage as far north as the St. George area and the Grand Canyon far upstream as the Paria River (1889:33). Wheeler's report contains panoramic sketches (all drawn from photographs by W. Bell and T.H. O'Sullivan) of the Paria River (1889:Plate 5) and Kanab Canyon (1889:Plate 6). Wheeler mentioned the presence of Native Americans in the region, noting "the roaming Indians lead a precarious existence, alternating between valley and plain, foot-hills and mountains north of the Colorado River, subsisting on pine nuts, seeds of all kinds, jack-rabbits, lizards and a few small birds ... In the valley of the Colorado, small Indian fields corn, melons and squashes were seen. From among the Utes and Pah-Utes found north and west of the Colorado River it



John Steward (J.K. Hillers Photo 569, courtesy U.S. Was possible to obtain friendly guides, Geological Survey) many of whom proved most valuable in pointing out the little hidden springs and streams" (1889:34).

Wheeler continued his surveys in 1872 in the Marble, Kanab, Paria, Virgin and Grand canyons (1889:46). He also mentioned coal deposits in the Paria River and Kanab Creek areas (1889:50), both of which were extensively photographed (Figure 20). Other illustrations included a sketch of the Crossing of the Fathers (1889:Plate 7). Walter Clement Powell mentions in his Nov. 10, 1872, journal entry that on his way to House Rock Springs he met the Wheeler expedition with 25 or 30 men and a six-mule team (1948:470-471). The 1873 Wheeler field season included explorations and topographical work in Colorado, central Arizona and southern Utah, in particular the Paria River and Castle Valley drainages (Wheeler 1889:58). The official report also included an illustration of the mouth of the Paria River and Buckskin Mountains (1889:Plate 8).

The presence of Wheeler's men north of the Colorado River was certainly disconcerting to Powell, who saw Wheeler not only as arrogant and ambitious, but as a threat to his own congressional funding. Wheeler had first invaded Powell's field in 1871 by using Mojave Indians to drag three boats up the Colorado River in lower Grand Canyon as far as Diamond Creek — clearly territory within Powell's domain. During subsequent years Wheeler had prowled the Virgin River and Dirty Devil drainages, and in 1873 he had even named some of the western tributaries of Glen Canyon (Lavender 1982:130). The overlapping surveys provoked the ire of congressmen and further fueled the professional jealousy that existed between Powell, Wheeler and leaders of two other



Figure 20: T.H. O'Sullivan photo view of Paria Canyon ca. 1872 (Courtesy of U.S. Geological Survey).

great Western surveys, Clarence King and Ferdinand Hayden. As discussed earlier, Wheeler, and later Hayden, would lose their battles in Congress to maintain their surveys, while Powell and King continued their meteoric rise to prominence. King became the first director of the U.S. Geological Survey and Powell the second. Powell also founded the U.S. Bureau of Ethnology.

Summary

The early history of the House Rock Valley area reflects the transitory missions of Euroamerican exploration and the mobility of the local Southern Paiutes who exploited wild food resources around springs and plateaus. Based on the journals of Escalante, Hamblin and members of the Powell expedition, it appears the region was lightly occupied, and that the paucity of water precluded long-term occupations by anyone. Southern Paiute claims to the springs at Kane Ranch suggest that longer-term occupations were part of the Native American adaptation to the region, but these claims are poorly

documented by the various journalists (only Escalante and Hamblin make references to large groups of Paiutes in the House Rock Valley area).

It is evident that the arrival of Mormon colonists at Pipe Springs and Kanab likely precipitated dramatic changes to indigenous lifeways through the introduction of herds of livestock. Journal accounts suggest that Southern Paiutes were living around the Mormon settlements, but they also maintained an intimate knowledge of the location of water sources throughout the Arizona Strip. These water sources were critical to the selection of transportation routes from Mormon settlements through the Arizona Strip to areas south and east of the Colorado River. These routes were pioneered primarily by Jacob Hamblin during his many missionary and peacemaking trips across the Colorado River. It appears that the route through House Rock Valley to the Paria River crossing had become a preferred route by 1871, and that wagon traffic was initiated about this time or shortly thereafter. It was about this time the route became familiar to scores of prospectors, and perhaps non-Mormon sheepherders.

Aside from Walter Clement Powell's 1872 reference to a stone cabin at House Rock Springs and John D. Lee's willow hut at Jacob's Pools, there is little convincing evidence of Mormon ranches in that area prior to that time. However, Kanab-area ranchers had been expanding onto the northern Arizona Strip since the 1860s, and ranches had been established at Moccasin Springs and Big Springs on the northern periphery of the Strip. The purchase of Pipe Springs by Brigham Young in 1870 demarcated a radical shift from small family ranching operations with small herds to large, profitable cooperatives involving thousands of head of cattle and sheep.

Chapter 3

Livestock Cooperatives, Cattle Barons and Homesteaders: An Overview of Ranching History in the House Rock Valley From 1872 to 2005

Introduction

The history of Euroamerican activities in the Arizona Strip generally, and the House Rock Valley specifically, is a confusing muddle of squatters' rights, conflicts over water and range, and shifting ownership claims that are not clearly documented in the historic or legal record. However, two overriding factors are unequivocal: (1) Early economic exploitation of the region was focused almost exclusively on cattle ranching, with lumbering in the higher elevations playing an important but less significant role; and (2) The early history of the Arizona Strip is inextricably intertwined with the evolution of The Church of Jesus Christ of Latter-day Saints (Mormon) economic enterprises in the region, although this relationship was, at times, informal and conducted through surrogates. In this regard, the history of the eastern Strip is clearly an extension of the settlement history of the Kanab area, whereas the western Strip is generally an extension of the settlement history of the St. George region. This overview focuses primarily on the events and individuals relevant to the House Rock Valley and Kaibab Plateau, and hence is relevant to a discussion of Mormon settlement of the Kanab region (see Altschul and Fairley 1989 for a superb overview of the Arizona Strip generally).

As discussed earlier, the identification of Kanab as a potential Mormon colony would likely have occurred in the mid 1850s as exploring parties set out to discover new areas suitable for agricultural endeavors. Jacob Hamblin, renowned as a Mormon ambassador to various Native American groups, trailed dozens of cattle through House Rock Valley on his way to missionary assignments south of the Colorado River during the late 1850s and early 1860s, but there is no indication he grazed cattle there any significant period of time or established permanent residency there, although he may have intended to do so. In fact, permanent settlement of the region generally appears to have been slow, dispersed and confined primarily to the northern portions of the Arizona Strip in proximity to Kanab.

The Mormon Cooperatives

The origin of major cattle enterprises in the Arizona Strip is deeply rooted in the economic history of the nineteenth century Mormon Church in southwestern Utah. Two events, in particular, prompted the dramatic shift to large cattle operations: (1) Scheduled construction of the Mormon temple in St. George and the consequent need to feed a large work force, and (2) the economic Panic of 1873, which prompted an experiment by the Mormon Church in communalism that had profound effects on regional economics, resulting in large pools of financial capital that allowed Church business enterprises to expand exponentially and, for a time, to the exclusion of non-Mormon interests.

The construction of the St. George Tabernacle, commenced in 1867, and the St. George Temple, started shortly thereafter, was undoubtedly a driving force behind the involvement of the Mormon Church in Arizona Strip cattle ranching. Both were, in a sense "public works" projects providing employment to families whose fathers and sons were away on church missions (Arrington 1958). The workers were paid from church tithing receipts, which at that time consisted primarily of livestock and farm produce paid by members. With rangelands around St. George at or near capacity, Brigham Young immediately saw the potential of the Pipe Springs area to accommodate the church's growing cattle herds and thereby maintain the supply of food necessary for the temple workforce (Lavender 1982).

In 1870, after Indian hostilities in the region had diminished (see Chapter 2), Brigham Young toured the "Dixie" colonies, in the process visiting Pipe Springs and Kanab. In April of that year, Young and other prominent Mormons from the St. George area organized the Canaan Cooperative Stock Company with assets owned jointly by the Mormon Church and selected individuals (Larson 1961). Young then purchased Pipe Springs from the Whitmore estate and assigned Asnon P. Winsor to improve the spring and manage the livestock, all of it derived from tithing payments by members. In late 1870, when Young returned to outline the headquarters for the ranch, there were already about 500 cattle and a number of horses at the ranch (Olsen 1969:19), undoubtedly the largest cattle herd anywhere in the area.

In 1871, the company was reorganized as the New Canaan Stock Company, with James Andrus as superintendent, and the headquarters were moved to Canaan Spring about 20 miles northwest of Short Creek. "For the next six years, the New Canaan Stock Company subsidized the temple work by contributing beef and dairy products to sustain the massive labor force" (Altschul and Fairley 1989:187). In 1873, the Winsor Castle Stock Growing Company, headquartered at Pipe Springs, was organized as a subsidiary to New Canaan, and like its parent company it was owned by the Mormon Church and selected local officials. The reason for the subsidiary is not indicated, but it may have been a pragmatic one designed to better manage herds on the eastern portion of the Arizona Strip far removed from the new headquarters. In January 1879, Winsor Castle Stock Growing Company again became part of New Canaan (Larson 1961:242).

The presence of large Church-owned cattle herds on the northern part of the Arizona Strip did not preclude others from expanding into the area. Bishop Levi Stewart of Kanab and his sons expanded their own cattle operations onto the Kaibab Plateau in 1871, and later into DeMotte Park. In 1878, David King Udall (Levi Stewart's son-in-law) and two of Udall's brothers-in-law, Lawrence C. Mariger and William T. Stewart, acquired water rights in DeMotte Park from the Stewart estate and started a ranch there in the fall of 1879, planting trees and harvesting at least one crop of wheat. The operation was dissolved in 1880 when the three partners were assigned to church missions elsewhere (Nelson 1959). Altschul and Fairley suggest the partnership had about 100 head of cattle in DeMotte Park when the partnership ended. The water rights in DeMotte Park subsequently passed to the Orderville United Order (OUO) (1989:188).

Orderville United Order

The United Order movement, or more formally known as the United Order of Enoch or the United Order of Heaven, was a short-lived experiment in communal cooperatives that had profound effects throughout Utah and northern Arizona. Economic cooperation and self sufficiency had always been a fundamental tenet of Mormonism, which upon its arrival in Utah fostered the local production of all food, clothing and other materials needed for human sustenance. However, the arrival of non-Mormon merchants in the Salt Lake Valley in the 1860s and 1870s was perceived as a threat to the Church's economic self-reliance, and the Church responded by creating a variety of cooperatives wherein Church-produced goods were traded exclusively to Church members. Church members were even forbidden to patronize non-Mormon merchants. "Virtually every important enterprise organized by the Mormons after 1869" was a cooperative (Arrington 1958:314), including the New Canaan cattle cooperative.

The United Order, initiated in 1874 in the wake of the economic Panic of 1873, took cooperatives to a radical new level. As described by Arrington (1958:324), "Under stimulus of the church, each community was asked to extend the cooperative principle to every form of labor and investment, and to cut the ties which bound them to the outside world. The resources of ward members were pooled, and an attempt was made, under the aura of religious sanction, to root out individualistic profit-seeking and trade, and achieve the blessed state of opulent self-sufficiency and equality."

Across Utah, communities embraced the United Order principles, pooling their assets (in return for equivalent stock in the order) and creating an environment where they "would eat together, pray together and work together" (Arrington 1958:326). Orders were created in Kanab and nearby Orderville, and in most instances the entire adult population added their names to the United Order rolls with the pledge to devote all of their "time, labor, energy and ability" (1958:328). Most of the 150 United Orders that were created during this period, including the one in Kanab, failed within a few years. The United Order of Orderville survived the longest and was not formally disbanded until 1900 (Woodbury 1944:184), although it had ceased as an economic force by 1885.

Orderville was founded in Long Valley north of Kanab in 1875 by 24 families, most economic refugees from a failed farming endeavor on the Muddy River, expressly to practice the United Order. All were zealous devotees, deeding all personal possessions to the order. Each was given capital stock, but it was formally decided the stock did not entitle the owner to dividends or profit sharing, but that it would all belong to God. Adherents built a store room, shoe shop, bakery, blacksmith shop, carpentry shop, cooper shop, tannery, school house, telegraph office, woolen factory, dairy barns, garden house and sheep sheds (Arrington 1958:334).

The Orderville United Order's aggregated livestock herds were sent to open ranges on the Arizona Strip where UOU cattle soon were ubiquitous (Bradley 1999; Woodbury 1944). "They early recognized the country afforded for stock and sheep

raising, and lost no time in controlling the range by acquiring possession of watering places in southern Utah and northern Arizona. These ranches included House Rock, Jacobs Pools, Cane Springs, Castle, Elk and one hundred and fifty acres on the Pahreah River" (Pendleton 1939:149). As the OUO became increasingly successful, and as other local United Order experiments failed, Mormons in surrounding communities also joined the OUO, subsequently contributing their personal ranch holdings and water rights to the effort (Altschul and Fairley 1989:190-191).

The Order apparently was grazing cattle herds on the Kaibab Plateau (summer range) and in House Rock Valley (winter range) by 1877, a move that reflected the rapid expansion of the Order's cattle operations into the southern reaches of the Arizona Strip. In 1875, the Orderville United Order owned only a small band of sheep and 50 cattle. Six years later, the Order paid taxes on 5,000 sheep, and the number of cows had increased ten times (Pendleton 1939). The rapid growth of the OUO from 1875 to 1880 "led to a growing unease among neighboring communities that the OUO might eventually absorb the whole region, since it alone had the financial resources at its disposal for the purchasing of property and water claims" (Altschul and Fairley 1989:191; see also Larson 1961:306).

The VT Brand

The OUO was clearly the greatest economic force at play on the Arizona Strip in the 1870s. What is not clear is if the Order was the only major force in the region, or whether there was a second, competing cattle operation with the distinctive VT brand. As summarized by Altschul and Fairley (1989), the events surrounding the VT brand in the 1870s are confusing and may never be resolved. Crampton (1965) believed the Order acquired cattle in the mid 1870s from non-Mormon ranchers in the House Rock Valley who branded their cattle with "VT," which stood for VT Park, an alternate name for DeMotte Park, a summer headquarters on the Kaibab. Hodgin (1962) suggested two men named Thompson and Van Sleck purchased the cattle from the Order and then branded them with the first initial of their surnames.

Cleland and Brooks (1983), quoting Walter Hamblin, suggested VT stood for "Valley Tan," a reference to a Church-owned tannery in Long Valley. Gery and Smith (1915) believed the VT brand was used by ranchers operating in the area alongside the United Order, and Granger (1983) suggested that Van Slack and Thompson were both members of the Orderville community, but that the VT brand referred to Valley Tan. Altschul and Fairley (1989) concluded that the VT brand came into existence in the mid 1870s or early 1880s, and that the VT operation coexisted for a time with the United Order. "The VT outfit apparently concentrated their winter operations in the lower portion of House Rock Valley, south of Kane Springs, and used the southern portion of the Kaibab Plateau during the summer, while OUO dominated the northern areas" (1989:191; see also Woodbury 1944:190).

There is support for the idea that other, perhaps non-Mormon cattle ranchers were operating in the DeMotte Park area during the latter part of the OUO's tenure in the

region, but not in the 1870s. John Franklin Brown indicated he was hired by the "VT Ranch outfit" in 1884 to fence in the DeMotte Park Ranch. He indicated the ranch was then owned by J.B Elsie, a Mr. Gibson, W.E. Kennison and H.J. Jillett, all from Missouri and Indiana (in Larsen 1998:78). Brown, who later went on to own and operate sawmills on the Kaibab from 1901 to at least 1912 (in Larsen 1998:76), offered no additional clarification on the origin of the VT brand. There are no other references in the historical record to these particular ranchers.

Researchers have been reluctant to accept the "Valley Tan" explanation of the VT brand, noting the paucity of evidence for a tannery in Long Valley. This reluctance seems ill-founded inasmuch as tanneries were clearly operating in both Kanab and Orderville at the time of the United Order experiment. Early Kanab resident Frank M. Hamblin, interviewed in 1937, indicated that the first industry in Kanab was an "old tannery" (Judd 1938). Bradley also indicated the United Order of Kanab, initiated in 1874, created a company to build a tannery, among other projects (1999:90) and that the tannery and shoemaking shop were operated by Edwin Ford, Lyman E. Hamblin and James Bunting (1999:91). Arrington (1954:334) stated the Orderville United Order built a tannery, and that shoes manufactured there were referred to as "valley tan" shoes (1954:336). Furthermore, when the Orderville United Order was dissolved in 1885 under the direction Kanab LDS Stake President Edwin D. Woolley, "the order retained ownership of three entities: the tannery, the woolen factory and the sheep enterprise," all of which were leased to individuals who managed them (Bradley 1999:127).

Further support for the "valley tan" explanation for the VT brand is the minimal convincing evidence that a second cattle outfit was operating on the southern half of the Kaibab Plateau and House Rock Valley by non-Mormon owners in the mid-1870s. An encroachment by non-Mormons into Mormon range would have been greeted by hostility and suspicion that would have been noted in the historical record. This was certainly the case when non-Mormon cattle baron Preston Nutter moved into the region in the 1890s. But references to non-Mormon cattlemen are glaringly absent in the 1870s and most of the 1880s. The only evidence for non-Mormon cattlemen in the area is Brown's account (in Larsen 1998) of building a fence for them in DeMotte Park in 1884. Given that DeMotte Park was part of the Levi Stewart family holdings in the mid to late 1870s when the brand was instituted, and the strong aversion of the Mormon culture to non-Mormon economic interests, it is unlikely that the VT brand, if derived from non-Mormon ranchers, would have been retained by church interests.

Also unresolved is the relationship of the OUO operations and the Levi Stewart ranch operations in the same area. Stewart continued cattle operations in the DeMotte Park area at the same time OUO herds were on the Kaibab Plateau, and the Stewart holdings were later passed on to surviving members of the family, who in 1880 deeded them to the OUO (Altschul and Fairley 1989:188). Given Levi Stewart's ecclesiastical role in the community and the dedication of his family to church principles, it is more likely the Stewart cattle operation operated in concert with OUO. It is also possible that Stewart's operation was one and the same with the United Order operations there. It seems highly unlikely that Stewart, the Mormon bishop and spiritual leader of Kanab,

would not have participated in the United Order experiment. Instead, he or his family would have transferred ownership of family herds to the United Order of Kanab. One reasonable possibility is that after the Kanab United Order failed in the late 1870s, the ranch operation reverted to the Stewart family, which then deeded it to the surviving Orderville Order in 1880.

New Canaan

The Mormon Church-owned New Canaan Stock Company was also running cattle in House Rock Valley at the same time as OUO, having entered the region in 1874 when it purchased House Rock Valley and Kane Springs from Jacob Hamblin. By 1877, it was operating in tandem with the Orderville United Order, running cattle on the Kaibab Plateau in the summer and House Rock Valley in the winter. Also in 1877, the two cooperatives built a rock house, out buildings and corrals four miles south of House Rock Springs that became known as the House Rock Ranch. The southwest cornerstone on the ranch house bears the names E.P. Adair, superintendent of herds for the Orderville United Order, and J.G. Bleak, the secretary treasurer of the Canaan Cooperative Stock Company. The joint names are further evidence there was little practical distinction between the two cooperatives (Larsen 1998:59). Initially, the Canaan cooperative was a huge success, returning a dividend to shareholders of 38.5 percent after the first 14 months, and a dividend of 30 percent for the fiscal year ending June 30, 1875 (Larsen 1998:41). However, the New Canaan cooperative, more often referred to as "Canaan," was in financial trouble by the early 1880s. In 1883, it sold its Oak Grove Ranch to non-Mormon businessman B.F. Saunders of Salt Lake City, and the following year management of the struggling cooperative was transferred to the Orderville United Order (Arrington 1958).

The northwest cornerstone bore the names of William Bailey Maxwell and his son John, both members of the Orderville cooperative who constructed the building. Another name is listed only as Ephraim, which is "undoubtedly that of Ephraim Hanks." In the summer of 1877, Hanks was advised by Brigham Young to purchase Lee's Ferry, but the plan fell through when Young died that year. The ferry was later purchased from Emma Lee by Warren Johnson, reportedly as an agent for the Mormon Church, for 100 cows the church had received as tithing from Mormons in southern Utah and northern Arizona (Larsen 1998:59-60). W. Dart Judd related that his grandfather, Warren Johnson, operated the ferry from 1874 until 1894.

It was during Johnson's stewardship of Lee's Ferry that it was visited by members of an ill-fated Denver, Colorado Canyon and Pacific Railroad Survey, which attempted to establish a railroad route along the Colorado River from Grand Junction, Colorado, to the mouth of the Colorado River at the Gulf of California. The expedition was launched March 28, 1889, with 16 men under the supervision of Frank C. Kendrick and railroad president Frank M. Brown. However, it was the journal of engineer Robert Brewster Stanton (1965) that provided the details of the disastrous adventure during which Brown and two others were killed in Marble Canyon. A second expedition of 12 men, led by Stanton, embarked in early December 1889 near the head of Glen Canyon, arriving at

Lee's Ferry in time for Christmas dinner (Figure 1). Only eight men completed the journey, arriving at the Gulf of California on April 26, 1890. Stanton subsequently prepared a 1,038-page manuscript of the expedition, in the process establishing himself as one of the first great historians of the Colorado River and the authority on what has become known as the "Stanton Expedition" (Stanton 1982).

In 1896, the Johnson family either sold the ferry to the Mormon Church, or simply reassigned title to the church, which then assigned ferry operations to James Emett (there are various spellings of the last name). The Emett family subsequently purchased the ranch holdings in the area, but the Church retained ownership of the ferry (Larsen 1998; Rider 1985).



Figure 21: Christmas dinner at Lee's Ferry with the Stanton Expedition in 1889 (Photo courtesy of Utah Historical Society)

House Rock Road

At the same time Church cattle cooperatives were expanding throughout the eastern Arizona Strip, Brigham Young issued a call in 1876 for scores of Mormon families to colonize Arizona south of the Colorado River. The preferred route to the Arizona colonies at that time was south from the Mormon settlements in Utah through Kanab, across Buckskin Mountain and down House Rock Valley to the crossing at Lee's Ferry. House Rock Spring was a natural camp with plenty of water, forage for livestock and fuel wood. It also allowed time to rest draft animals and to carve names and dates in the sandstone faces of the Vermilion Cliffs. Several trails off the Kaibab converge at Two

Mile Spring a few miles north of House Rock Spring (Larsen 1998:47, 50-51). House Rock Spring subsequently became a major destination along the route. At least two pioneer graves are located at House Rock Spring, one of Susan N. Robbins who was born there and died nine days later in July 1873, and the other of 20-year-old May Whiting, who died there in 1882 while being transported for treatment of tuberculosis (1998:51).

Many Arizona Mormons returned via the same route to get married in the St. George Temple, so many that it became popularly referred to as the Honeymoon Trail. Despite the heavy traffic, the route was arduous and passable primarily by horseback, even into the early 1910s (Hall 1975). The first automobiles had traversed the Kaibab Plateau to the North Rim in 1909 (Rich 1941:11), and it is likely that auto traffic through House Rock Valley was attempted at this time or shortly thereafter, although the route would have remained largely impassable to all but the most determined. By 1929 hundreds of vehicles traveled the route to the dedication of a suspension bridge (Figure 22) at Marble Canyon that eliminated the need for Lee's Ferry. Even then, the dirt road proved onerous, and "pairs of men were stationed all along the route up the hill to give the cars, especially the large and heavily loaded ones, a boost out of the deep chuck holes... exposed rocks, too added to the difficulty" (Larson 1979:435)



Figure 22: Suspension bridge in 1929 at its dedication (Photo courtesy Utah Historical Society.

John W. Young Legacy

The economic dominance of the Mormon Church began to wane in the mid 1880s in the wake of a national campaign against polygamy. Passage of federal laws, in particular the 1882 Edmunds Act and the 1887 Edmunds-Tucker Act, allowed the government to seize church property not linked to religious practices, as well as the holdings of practicing polygamists. In this political climate, church leaders advised the dissolution of the Orderville United Order, and in 1885 it began selling its commercial holdings, although in most cases the property was acquired by faithful members of the Church who served as *de facto* trustees for the Church's interests (Arrington 1958). Two

of these *de facto* trustees appear to have been John W. Young (Figure 23), a son of Brigham Young, and Anthony Ivins, who would later rise to prominence in the First Presidency of the Mormon Church.

The imminent passage of the Edmunds-Tucker Act was viewed as inevitable by



the Church hierarchy and prompted a preemptive move by the Church to avoid confiscation of its assets by divesting direct ownership to surrogates (see Arrington 1958). Edwin D. Woolley, named the Kanab Stake President in 1884, was a "committee of one" assigned by the Church in 1885 to dissolve United Order holdings in southern Utah and northern Arizona. The ranches in House Rock Valley were listed for sale, but no one bought them. "It took two or three years to find a buyer, and he finally sold them to John W. Young for \$5,000" for which Woolley received a \$1,500 commission (Larsen 1998:60-61). This would have placed the sale of House Rock Valley to John W. Young at about 1887 or 1888.

Young may indeed have been

operating as a *de facto* trustee for the Mormon Church, or at least in close cooperation with Church authorities. When the Edmunds-Tucker Act accelerated the divestiture of church cooperative assets, some of those assets were passed to individual shareholders. One was John W. Young, who acquired several hundred head of cattle that he used to stock his newly created Kaibab Cattle Company, and another was Athony Ivins, who acquired 600 head of cattle that he used to start the Mojave Land and Cattle Company, headquartered at the Oak Grove Ranch. This appears to have been about 1887 or 1888, and it occurred in tandem with the creation of the Kaibab Cattle Company and the Mohave Land and Cattle Company (Altschul and Fairley 1989:192-193). Figure 23: John W. Young (Photo courtesy Utah Historical Society)

Range conditions in the late 1880s did not portend well for new cattle ventures. A series of droughts in the 1870s had devastated the ranges. In addition, throughout the 1870s Mormon ranchers maintained an open policy toward the limited water sources on the Arizona Strip. Ranchers who assumed responsibility for the maintenance of the springs were considered to be the rightful owners and had priority use of the water. But other ranchers were not barred from the springs if the supply was sufficient to support additional use. "This informal and open policy not only encouraged over-use of the range, but it also left the water sources and the surrounding range, open to use by stockmen from outside the area, some of whom did not share the local ranchers' time-honored approach towards range and water use rights" (Altschul and Fairley 1989:193).

Young embraced the new cattle enterprise with enthusiasm and apparently with capital. In addition to House Rock Valley, he acquired major holdings on the Kaibab Plateau (perhaps from the non-Mormon ranchers mentioned by Brown, given that Young's holdings apparently included DeMotte Park). He soon embarked on a major expansion that included a log cabin summer headquarters at DeMotte Park, and two new stone buildings, one at Jacob's Pools and the other at Kane Springs. Dan Seegmiller was placed in charge of operations and Woolley was hired as foreman of the herds (Bradley 1999:132). Both were experienced veterans of the OUO cattle operations. The operation was apparently based out of Kanab with local wranglers hired to actually move the herds.

Larson maintained the Canaan cooperative was reorganized (in about 1887) as a quasi-private enterprise and that it maintained its House Rock Ranch headquarters and brand until 1895, when it sold out to B.F. Saunders (1961:247). The headquarters of John W. Young's cattle operation was also the House Rock Ranch, constructed earlier by the Canaan and Orderville cooperatives (Larsen 1998). This suggests that Canaan was operating herds alongside Young's Kaibab Cattle Company on the same range, if indeed it was not indistinguishable from the Kaibab Cattle Company. This is further evidenced by John W. Young's brand, which was a simple modification of the cooperative's Y brand, which had stood for Brigham Young, himself a major stockholder in the cooperative. John W. Young's brand added a J to the left wing of the W and a Y to the right wing of the W (Paulsen 1975:53).

The ranch headquarters were clearly the focal point of ranching and social activities in the region for some time. The ranch was located along a major transportation thoroughfare to and from Lee's Ferry and the Mormon colonies in Arizona south of the Colorado River. This apparently resulted in the establishment of regular mail service through House Rock Valley area in the 1880s. Bradley indicates that Zadok K. Judd and his sons, Zadok Jr., Eli and Samuel, carried mail via horseback to and from Lee's Ferry (1999:134) and all would have been regular visitors at the ranch.

William Cody and the Englishmen

It is also evident that Young, Woolley and Seegmiller were partners in a scheme to transform the area into a tourist Mecca. While on a mission to England (about 1890), Young convinced some English aristocrats to visit the Kaibab Plateau, which Young had pitched as a destination for sport hunting. Young also convinced Buffalo Bill Cody, who was in England at the time with his Wild West Show, to act as guide for the English sportsmen in return for replenishing his Wild West Show stock from Young's ranch, which was still referred to at that time as the VT Ranch. The adventure was later joined by American army officers, businessmen and potential investors (Rich 1941:8). Larsen (1998:62) lists the names of the Englishmen as Major McKinnon of Queen Victoria's guard, Lord Ingram and Lord Milmey.

The expedition arrived by train at Flagstaff in the summer of 1891 where they were met by Dan Seegmiller, who transported the party on a three-week, bone-jarring journey by wagon (Figure 24) from Flagstaff to Kane Ranch, where they met up with

Edwin Woolley, who had procured wranglers and entertainment for the venture. The participants toured the North Rim area and "were overflowing in their praise for the grandeur of the forest and the Grand Canyon and enthusiastic for its wonderful resource potential" (Larsen 1998:63). A number of historic photographs depict the travelers at Kane Ranch (Figure 25), hunting deer on the Kaibab Plateau (Figure 25) and sightseeing at North Rim of the Grand Canyon.



Figure 24: Buffalo Bill Cody and English aristocrats in route to the Kaibab Plateau (Photo courtesy of Utah Historical Society)

However, the guests "declined the invitation to invest in the Kaibab as a hunting ground and tourist center for sportsmen and sightseers," saying it was too remote and inaccessible for commercial development. And rather than return on the arduous route through House Rock Valley, they opted for a northern route through Kanab and other Utah settlements. "Their presence in Kanab was almost too much for the inhabitants. ... On the return trip, Col. Cody was entertained by E.D. Woolley, whose wife Emma had prepared a sumptuous dinner which included her especially good custard pies. Woolley surprised Col. Cody by asking him to say grace. He discharged this duty by saying, 'Dear Lord, please bless the woman that made this wonderful custard pie'" (Rich 1941:8-9).



Figure 25: Buffalo Bill Cody at Kane Ranch while in route to the Kaibab (Photo courtesy Utah Historical Society)



Figure 26: Buffalo Bill Cody posing with deer carcasses, Kaibab Plateau (Photo courtesy Utah Historical Society)



Figure 27: Buffalo Bill Cody at Grand Canyon, North Rim (Photo courtesy Utah Historical Society)

Bradley (1999:159-160) maintains that Young and Woolley concocted the scheme to bring the aristocrats to the Kaibab Plateau, and that Seegmiller was placed in charge of the enterprise. She also stated that Young initially purchased lands on the Kaibab in anticipation of the region becoming a tourist destination, and that the failure of the

venture eventually prompted the VT Ranch owners to relinquish ownership claims to the Kaibab Plateau in favor of the establishment of a national forest reserve there in 1893.

Anthony W. Ivins

The failure to find investors apparently resulted in financial difficulties for Young, who reorganized the company as the Kaibab Land and Cattle Company using money borrowed from New York bankers (Woodbury 1944:190). Another account suggests that Young was bought out by "Grant and Cannon" of Salt Lake City through the redemption of bonds, and that Anthony W. Ivins was assigned to manage the operation (Mann 1941:8). A biographical sketch prepared by the Utah State Historical Society indicates Ivins (Figure 28) became involved in the Arizona Strip cattle industry in 1884, and that he was a manager of the Mojave Land and Cattle Company and an owner of the Kaibab Cattle Company (Utah State Historical Society 2001). This is at odds with Altschul and Fairley (1989) and others who suggest Ivins' involvement was limited to the Mojave Land and Cattle Company.



Figure 28: Anthony Ivins (Photo courtesy Utah Historical Society)

As mentioned above, Ivins was a major stockholder in the New Canaan cooperative, and in the late 1880s he acquired 600 head of cattle from the cooperative to start Mojave Land and Cattle Company. Ivins had earlier worked for B.F. Saunders, a non-Mormon cattleman who arrived in the Strip in 1883 when he purchased the Oak Grove Ranch from the Canaan cooperative. Ivins later purchased the Oak Grove Ranch from Saunders in the 1890s, after which Saunders purchased the Pipe Springs Ranch (Belshaw and Peplow 1978). Lucy Isom (in Larsen 1998:44) indicates that Ivins had also been a manager of the VT Ranch, but for whom is not

specified. After Saunders Young's holdings.

purchased Saunders employed Antoine Ivins, Anthony's son, as his agent for the purchase and sale of cattle.

When asked to speak at the September 15, 1928, dedication of the Grand Canyon Lodge, Ivins said he came to the Kaibab Plateau in October 1875, where "I too became a tender of flocks and herds, first for others and later for myself" (1935:7), indicating he

became the representative of the "people who where the owners of the entire Kaibab Mountain and the Great House Rock Valley which lies to the east" (1935:9). He did not specify who those owners were.

Ivins was clearly among the most prominent of Mormon officials in the region, serving as mayor of St. George in 1890, being elected to the Utah Territorial Legislature in 1893 and serving on the Utah State Constitutional Convention in 1894. In 1907, he was chosen as a member of the Church's Quorum of Twelve Apostles, and in 1921 he was named second counselor to Church President Heber J. Grant, his cousin (Utah State Historical Society 2001:4-7). Given his ecclesiastical responsibilities and relationships with Mormon Church hierarchy, Ivins' involvement in the Kaibab outfit, however peripheral, lends credence to the suggestion that John W. Young was a "front man" for Mormon Church ownership to avoid the complications of anti-polygamy laws that targeted Church-owned property (cf. Lavender 1982).

Edwin D. Woolley

There is no dispute that the VT Ranch venture also involved Edwin Woolley, one of the most prominent local ecclesiastical leaders of his time and a man who had been involved in House Rock Valley ranching since he first managed OUO herds in 1877. As of 1941, his heirs still owned a "goodly portion of the House Rock Valley and Vermilion Cliffs area" (Rich 1941:5-6). Woolley and Seegmiller, Young's ranch manager, would later go on to organize the Utah Cattle Company in 1905, as well as sponsor various ventures with Persian sheep and Angora goats (Bradley 1999:165).

Woolley remained a major influence in the region, always pursuing the grander dream of the Kaibab Plateau as a tourist destination. It was Woolley, while traveling with John W. Young, who reportedly exclaimed "This is one of the Wonders of the World. People will come from all quarters of the globe and will pay great sums of money to gaze on what we now behold" (Rich 1941:10). In 1901, he and Jim Emett built a trail down Bright Angel Canyon to the Colorado River, and in 1908, with the financial assistant of Utah mining magnate Jesse Knight, built a cable-supported tram over the Colorado River. He also engineered the first automobile trip to the North Rim in 1909, and he lured Utah politicos, journalists and others to the Arizona Strip. Woolley said of these expeditions, "some [were] for enjoyment, others for publicity or promotional purposes, all of which served to focus public attention more and more on the area" (in Bradley 1999:190).

Grand Canyon Cattle Company

There is little agreement about the events surrounding the sale of the Kaibab Land and Cattle Company, which was still referred to as the VT Ranch, and to whom it was sold. Most historical accounts suggest that Benjamin F. Saunders, a non-Mormon businessman from Salt Lake City, purchased the property in 1896, and created the Grand Canyon Cattle Company. However, another account maintains Saunders did not consummate the purchase until 1899 (Gery and Smith 1915). One account claims investors named Farnsworth and Fotheringham from Beaver, Utah, acquired the ranch in

1886 and quickly sold it to Saunders (Gery and Smith 1915). Another account is that "Grant and Cannon" had foreclosed on Young, and that they installed Anthony Ivins as the ranch manager (Mann 1941). Another implies Saunders, who was friendly with the Mormon Church, was the latest in a long line of surrogate owners acting on behalf of the Church (Lavender 1982). Yet another claims it was California businessman Henry Stephenson who bought out the Church's cattle interests under the name Grand Canyon Cattle Company and instituted the Bar Z brand (Paulsen 1975).

There is little doubt that B.F. Saunders and the Mormon Church had a close business relationship prior to the acquisition of the VT Ranch. In 1883, Saunders purchased the Oak Grove Ranch from the Canaan cooperative, which he later sold to Ivins. He also purchased Pipe Springs when the Church put it up for auction, and he acquired financial interests in at least three ranches in the western Strip. When the Canaan cooperative liquidated the last of its holdings in House Rock Valley in 1895, Saunders sold Pipe Springs and his other holdings to the west. And in 1896 he acquired the cooperative's ranch headquarters (House Rock Ranch), followed later by his purchase of the VT Ranch from John W. Young (Gery and Smith 1915).

A review of the limited historical information available suggests that B.F. Saunders indeed purchased the Kaibab Land and Cattle Company holdings in House Rock Valley and the Kaibab Plateau, probably in 1886. It is also clear that he had a partner, Ara Farley (or Haley) of Laramie, Wyoming, and that the partnership was known in official court records as Farley and Saunders. It is possible that Saunders renamed the operation the Grand Canyon Cattle Company, but court records indicate Farley and Saunders sold out to the Grand Canyon Cattle Company, a corporation registered in Los Angeles, California. It is also possible that Henry S. Stephenson of Los Angeles was a silent partner in the venture who later acquired a controlling interest. Rowland Rider, who worked for the Bar Z outfit, insists it was "Stevenson" (actually Stephenson) who bought out the Mormon Church's holdings (in Paulsen 1975; see also Rider 1985). This is not supported by the historical record.

Controlling Water

It is apparent that Saunders was a shrewd businessman, and like his rival on the western Arizona Strip, Preston Nutter, he employed a variety of legal strategies to acquire legal control of permanent water sources in the area. Saunders continued to operate as his predecessors had done. He hired local wranglers and utilized the House Rock Ranch as a headquarters. Saunders began acquiring water rights soon after his purchase of the property from John W. Young. "Until that time, the range had been used in common, and watering places were not restricted to individual ranchers. Most of the watering places on the Kaibab Plateau became legally entitled to Saunders, though the nature of this legality was questionable" (Younghan and Rogers n.d.:7).

One such attempt was Saunder's filing in February 1904 of a placer mining claim on the lands around Kane Springs. The Forest Service disputed the mining claim and its inherent implications for ownership of Kane Springs, but in September 1905 granted

Saunders a permit to maintain a pipeline from the springs to the Kane Ranch. The permit was renewed in 1908 after Saunders and Haley sold out. In 1935, Henry S. Stephenson challenged the Forest Service ruling that Kane Springs was federally owned, but the Kaibab Forest Supervisor successfully argued that the springs were non-flowing seeps not subject to Arizona Water law and therefore held in reserve by the federal government (Mann 1935).

Given that all of the springs in east Arizona Strip are non-flowing seeps, the same argument made by the Kaibab Forest supervisor would seem to have applied to all of Saunder's claims made under mining claims. However, no legal determination on the other mining claims was located, and it is unknown if the federal court ruling in the Kane Springs case was ever applied to other holdings. In fact, it appears that mining claims recognized as valid today (e.g., Sunset Lode, Emmitt Lode) are remnants of Saunders legal efforts to acquire land patents to the springs needed for his cattle operation. These mining claims became part of the rights transferred during subsequent sales.

The Cattalo Scheme

Saunders was apparently not immune from Edwin Woolley's enthusiasm for financial schemes. In 1905, he became involved with Woolley, James T. Owen, Frank Ascott, Ernest Pratt and C.F. "Buffalo" Jones in the plan to cross-breed bison and Galloway cattle. Saunders was likely involved because he owned or controlled all of the range lands in the Kaibab and House Rock Valley at the time. Woolley acquired stock in the company in exchange for some of his own cattle, which were to be traded for Galloway cows. In January 1906, Jones received a federal permit to allow fencing of a large area on the Kaibab for the experiment, and six months later the first buffalo arrived (Easton and Brown 1961; see also Bradley 1999). Jones, Pratt and Woolley also dabbled in the breeding of Persian sheep at the same time (Easton and Brown 1961:133).

The "cattalo" venture failed after four years because either the cows and bison failed to breed (Bradley 1999:166) or the resulting offspring had undesirable traits (Altschul and Fairley 1989:195; Easton and Brown 1961:141). Sharlot Hall's account in 1911 suggests the cattle and bison indeed had offspring and that "they are lighter and smaller than the full-bloods, with sharper horns and without the beautiful manes" (1975:57). There is little dispute that the bison refused to stay on the Kaibab Plateau, preferring instead the open ranges of House Rock Valley, where Hall observed them. Owen, a purported former member of the Jesse James Gang (Rich 1941:15), later went on to become a game warden and well known hunting guide who claimed to have eradicated 1,100 cougars from the Kaibab Plateau. Among his clients were Theodore Roosevelt and Zane Grey (Larsen 1998:100).

Jones bought out Woolley and Saunders's interests in the bison and managed the herd on his own, apparently in House Rock Valley. Jones sold the herd to the government in 1934 for \$10,000 (Welton n.d.:8). It is unknown if the failure of the enterprise contributed to Saunder's decision to abandon the Arizona Strip in 1907. More likely, it was the deteriorating condition of the range, increasing federal restrictions on grazing and

the pending designation of Grand Canyon National Monument. It also appears that Saunders sold his interests in the cattalo experiment two or three years after he had sold his other holdings in the region.

E.J. Marshall Company

The historical record is clear that the Arizona Strip generally had suffered considerably from overgrazing by Saunders and Nutter, who collectively ran tens of thousands of cattle on the Strip. The overgrazing, as well as a growing public awareness of the unique scenic and wildlife attributes of the region, had prompted increased scrutiny by federal authorities, who sought tougher grazing restrictions even before Saunders acquired House Rock Valley and the Kaibab Plateau. The Kaibab Plateau forests had first been set aside as forest reserves in 1893, and a game preserve was established in 1906. Additional federal restrictions were seen by local ranchers as inevitable.

According to Coconino County land records, Saunders and Farley (listed as copartners) sold a portion of their holdings in House Rock Valley, including specifically Two Mile Spring and Jacob's Pools, in December 1907 to the Grand Canyon Cattle Company, registered in Los Angeles. Less than a month later, on Jan. 11, 1908, Theodore Roosevelt created the Grand Canyon National Monument. The following May, The Grand Canyon Cattle Company acquired the remainder of the Farley-Saunders partnership assets in the Arizona Strip, including the mining claims, water rights and Kane Ranch. This was the same year the Kaibab National Forest was created, bringing even more restrictions on open range cattle outfits. This prompted the Kane County Independent to lament at the time, "Do we want to stay in the cattle and sheep raising business or be lackeys for big brewers, soap-makers and stock gamblers and their wives, for the wages a tourist agency would pay?" (in Bradley 1999:168).

No signature was recorded for the new owners, listed as the Grand Canyon Cattle Company, but both deeds were "recorded at the request of E.J. Marshall." It does appear that little changed with the new ownership. The company retained the Bar Z brand and either instituted or bought the rights to the name Grand Canyon Cattle Company, with E.J. Marshall as president and Harry E. Way as vice president. Rowland Rider, a wrangler for the Bar Z, even referred to the outfit as the E.J. Marshall Company (Paulsen 1975; see also Larsen 1998; Rider 1985). Rider maintained the Bar Z outfit ran 100,000 head of cattle on the Kaibab Plateau at this time (1985:47), although other accounts place the number at 20,000 to 60,000.

The new owners retained the House Rock Ranch, apparently controlling most but not all of the water rights and private lands in the House Rock Valley. The Kane Ranch facilities were expanded as a seasonal headquarters (Rider 1985), apparently a reflection of the loss of DeMotte Park facilities through the creation of a national forest on the Kaibab. The historical record at this point becomes contradictory as to whether events occurred at the House Rock Ranch or Kane Ranch (cf. Larsen 1998). President Theodore Roosevelt and two sons reportedly stayed in the House Rock Ranch in 1913 while on a

lion hunt to the North Rim. The ranch was later acquired by John Rich, operator of the Jacob Lake Lodge (Larsen 1998:60; see also Rich 1941:14).

James Emett

The new owners of the Bar Z apparently inherited a problem that they immediately set out to resolve. Although the Bar Z controlled an area 45 miles square that included most of House Rock Valley and grazing rights on the Kaibab Plateau, it did not control Lee's Ferry or the small family cattle outfit there. With access to no summer range, James Emett ran cattle year-round in the Lee's Ferry area, where he had also operated the ferry for the Mormon Church since 1895. Emett had acquired the rights to run the ferry after Warren and Permelia Johnson sold it to the Church. Travelers using the ferry would pay Emett in cows, Navajo blankets or other supplies, but most of the livestock was "scrub" cattle not needed by the immigrants. Over the years, Emett had built up a considerable herd, but he had no place to run them other than lower House Rock Valley, which was the Bar Z winter range (Rider 1985:47).

The Bar Z cowboys suspected Emett of allowing his scrub cattle to drift among their high-quality breed stock. These suspicions were given added weight after Emett "produced a herd of white-faces that were just about as good and looked about as good and were the same breed as the Bar Z stock." The Bar Z subsequently invested \$30,000 in a barbed wire drift fence to keep the two herds separate, running from the base of the Paria Plateau near Jacob's Pools to the head of North Canyon, about seven miles. Emett reportedly would stampede buffalo through the fence, followed in short order by his own drifting herd. "As a result of this, the Bar Z and the Emetts were bitter enemies. They carried guns" (Rider 1985:48; see also Altschul and Fairley 1989:196).

On two occasions, the Bar Z filed formal cattle rustling complaints against Emett in Flagstaff, but he was acquitted for lack of evidence (Rider 1985:57). During one of these trials, probably in April 1907, Emett met and befriended Zane Grey, a young easterner who had gone west because of poor health. Grey lived with the Emett family at Lee's Ferry, performing various ranch duties. On one occasion in 1907, Emett and Grey stopped to water their horses at Kane Ranch when they were confronted by the Bar Z foreman Charles Dimmick and wrangler Rowland Rider (Rider described himself as Emett's only friend among the Bar Z outfit). Rider, 16 years old at the time, relates that when Dimmick pulled his gun that Rider kicked it away and then held Dimmick down to avoid bloodshed. When Emett pulled his own gun, Zane Grey begged Emett not to shoot Dimmick. Grey and Emett then rode off "to meet Uncle Jim Owen, with whom Zane Grey hunted lions" (1985:58). Grey later went on to become one of the greatest writers of fiction about the American West, liberally utilizing the stories told to him by Emett and other cowboys on the Arizona Strip.

The new owners of the Bar Z soon initiated efforts to buy out competing land owners in the area, in particular to acquire Lee's Ferry to facilitate quicker access to railheads in Flagstaff rather than the long route to Modena in southwestern Utah. According to Coconino County land records, in August 1909 the Grand Canyon Cattle

Company purchased what was left of the Mormon Church holdings at Lee's Ferry from church President Joseph F. Smith, (an event to which Edwin D. Woolley was an official witness) for the sum of \$1,750. The acquisition of the ferry not only deprived Emett of his primary source of income, but ensured Bar Z access to the railheads in Flagstaff (Reilley 1978). Rowland Rider indicates he was the courier between Bar Z officials and the Emetts, transporting offers to purchase Emett's ranch, cattle and other assets (1985:49-51). On the same day, the Grand Canyon Cattle Company bought out James Emett. In a separate transaction Emett sold to the Grand Canyon Cattle Company for \$1,000 all of their water rights, water improvements and mining claims in House Rock Valley, including specifically a spring four miles north of Jacob's Pools, according to Coconino County land records. Rider indicated it was he who rode from Kane Ranch to Lee's Ferry to finalize the deal, and while at the Emett ranch he filled in a blank check from Grand Canyon Cattle Company to the Emetts for \$65,000 (1985:64).

The land sale documents indicate that E.J. Marshall was president and Harry E. Way vice president of Grand Canyon Cattle Company. However, Rider insists that it was a man named "Stevenson, one of the main owners of the company" and "president of the Board of Directors of the Grand Canyon Cattle Company" who was personally on hand during the sale negotiations and who gave Rider written instructions on how to fulfill the terms of the contract (1985:49-51). It is unknown if this was Henry S. Stephenson, who acquired the Bar Z from the Grand Canyon Cattle Company in 1930, but it is possible.

The ultimate disposition of Lee's Ferry is not entirely clear. It has long been a key strategic asset that effectively controlled the shipment of cattle to railheads in Flagstaff (Figure 28). According to Coconino County land records, in July 1927 the Grand Canyon Cattle Company sold all of its holdings at Lee's Ferry back to the Mormon Church. But this is inconsistent with Altschul and Fairley (1989:196), who maintain that the Grand Canyon Cattle Company sold the ferry to Coconino County when it left the Arizona Strip in 1924. They also indicate that "water rights and ranch facilities were sold to D.E. Woolley of Kanab, a prominent member of the LDS Church hierarchy" (1989:197).



Figure 28: Lee's Ferry in operation, probably early 20th Century (Photo courtesy of Utah Historical Society)

No record of the transaction described by Altschul and Fairley was located in the Coconino County Recorder's Office. In fact, land records indicate that the Grand Canyon Cattle Company did not sell its holdings until November 1930, when Henry S. Stephenson and Genaro Fourzan purchased all of the company assets. Harry E. Way, who had been vice president of the company since its acquisition of the ranch from B.F. Saunders 23 years before, signed the deed transfer. Stephenson retained the Grand Canyon Cattle Company name until he sold the outfit to the Woolley family, in partnership with other Kanab ranchers. By 1932, Lee's Ferry appears to have been largely abandoned as a key transportation link to Flagstaff (Figure 29).

The Land Patents. The Grand Canyon Cattle Company, both before and after Stephenson's purchase, used different federal laws to acquire title to lands around springs and seeps. Among these were the Forest Reserve Lieu Selection Act, the Homestead Act and various Indian treaties whereby signers to the treaty were given "Indian scrip" that could be purchased and exchanged for public domain lands. These means, all legal but highly questionable, had been mastered on the western Arizona Strip by Preston Nutter, who used his wealth in tandem with a variety of federal laws intended to open the public domain to settlement, acquiring title to most springs on the west side of the Strip.



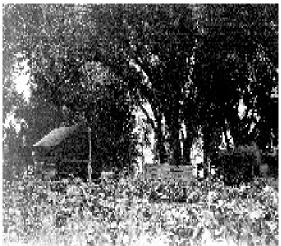


Figure 29: Views of Lee's Ferry ranch buildings by 1932 Steward Expedition (Photos courtesy Utah Historical Society). Additional photographs are on file.

A letter written in 1935 to J.N. Darling, chief of the U.S. Biological Survey, details how Nutter acquired title to the springs, using the same methods later applied by the Grand Canyon Cattle Company to acquire patents to water sources in the eastern Strip. Nutter wrote:

"The Strip country was public domain and unsurveyed and there was really no way to obtain title to lands until Congress passed a law, known as the Forest Reserve Lieu Selection Act, which allowed citizens to locate 40-acre legal subdivisions on the public domain. This was a great benefit to the cattleman as it gave a person the right to locate springs or water holes. The speculators entered into this game and sold 'scrip' covering these lands. I purchased a lot of this scrip and applied it on various

selections, and as Arizona began to survey that country, made application for surveys, thus through patents I acquired title to twenty-one 40-acre tracts, all covering springs. Then there were other means of acquiring title. I purchased Sioux Half Breed scrip and in later years bought two 640-acre proven up homesteads, also 80 acres of cultivated land known as Parashant Field, and in more recent years a purchase of land from the Santa Fe Railroad. This gives me more than 7,000 acres patented land practically all of the living water on that range" (1935:1-2).

While Nutter's approach to land acquisition was legal, it was viewed locally with disdain (similar criticisms of the Grand Canyon Cattle Company's identical strategies were not identified). "Just as the Mormons had filched the water from the Indians, so he in turn filched it from the Mormons. They had paid for it, they thought; they held the springs, and in this country possession was all ten points of the law. But they had not taken time and trouble to have their claims surveyed and recorded" (Brooks 1949:297). An oral history with Reed Mathis, whose father ran cattle in competition with Nutter, indicates Nutter "never did shut the waters off from other cattle.... But he owned it and he let you know it. This country wasn't fenced; the waters weren't even fenced; it was all open range" (Dixie Pioneers 1998:9). The Grand Canyon Cattle Company was more parsimonious, restricting access to their springs (Rider 1985).

A review of land patent records reveals the Grand Canyon Cattle Company was aggressively acquiring lands in House Rock Valley, often through intermediaries. For example, Congress, through the *in lieu* provisions of the Forest Reserve Act, allowed those with lands inside forest reserves to exchange their properties for public domain lands elsewhere. In September 1930, F.A. Hyde & Company, a company involved in land speculation throughout the West, exchanged their Sierra Forest Reserve parcels for lands in House Rock Valley. That same day, F.A. Hyde and Company sold their House Rock Valley holdings to the Grand Canyon Cattle Company. Similarly, Mary E. Coffin owned lands in the Gila River Forest Reserve in New Mexico. On June 18, 1930, she applied for an *in lieu* exchange for lands in House Rock Valley, and in September of the same year she sold the parcels to the Grand Canyon Cattle Company.

The company also used Indian scrip to buy properties. According to General Land Office records, on October 16, 1916, Indian script belonging to Joseph Montre or his descendants was exchanged for parcels in House Rock Valley, all under terms of an 1858 treaty for the benefit of mixed blood Indians in Minnesota. Joseph Montre is listed as "1st Chief of the Mississippi half-breeds" in a treaty with the Chippewa of the Mississippi and Lake Superior in 1847 (9 Stat 904). In July 1929, Joseph Montre's legal representative sold the parcels to the Grand Canyon Cattle Company. The attorney for the Montre heirs was E.J. Marshall, president of the Grand Canyon Cattle Company. The same year Henry and Margaret Ortley acquired holdings in House Rock Valley under terms of an 1842 law and immediately sold the parcels to the Grand Canyon Cattle Company.

The new owners of the Grand Canyon Cattle Company, while buying up most of the private land, apparently allowed some small cattle outfits to use the range and watering holes. Rowland Rider, his father and his brother ran their own cattle among the Bar Z, using the Bar JR and Bar DR brands (Paulsen 1975:197). However, the Bar Z found itself in disputes with other smaller cattle operators on the Kaibab Plateau, who complained their permits to run cattle were being held down by the Forest Service, which had blamed the reductions on overgrazing. Local ranchers in turn attributed the overgrazing to the heavy drift of Bar Z cattle from the east. At a grazing summit held in late 1908 and early 1909, the Forest Service agreed to construct a drift fence to keep Bar Z cattle away from other operators (Altschul and Fairley 1989:197).

The federal grazing restrictions were apparently too much for the Bar Z owners, who "sold and moved all their cattle off of here.... They wouldn't pay the grazing fee that the Forest Service imposed on them. They drifted to Arizona through House Rock, across Lee's Ferry to New Mexico where they had a range. That was the end of the Bar Z" (Rowland Rider, in Paulsen 1975:57). Altschul and Fairley place this event in 1924 (1989:196), although Coconino County land records indicate the Grand Canyon Cattle Company retained all of its private lands and water rights after that time, and that it actively increased its private holdings in House Rock Valley even after the company was supposed to have abandoned the Arizona Strip.

The Great Roundups

The movement of tens of thousands of cattle to and from rangelands on the Arizona Strip to railheads was an annual spectacle in Kanab and St. George (Bradley 1999:84-85). In the 1870s and 1880s, eastern Strip cattle were driven to Salt Lake City. A later railhead at Nephi shortened the distance, and by the early twentieth century a railhead at Modena about 100 miles from St. George became the preferred shipping point for Arizona Strip cattle operators. For the Bar Z, it would have been closer to push the herds south to Flagstaff, but until 1909 they were effectively limited in their use of the Lee's Ferry route by James Emett. Given the precariousness of driving cattle across the Colorado River, the Modena railhead remained a major hub of cattle shipping through the 1920s. Donald Kraack (1965:38-39) offered one particularly colorful description of the annual cattle drives in the early 1920s when Arizona Strip drovers would move thousands of head of cattle through St. George. "The cowboys, or drovers, carried sale-guns and revolvers, and we kids would ride our ponies to the outskirts of town to meet them – a sort of self-appointed escort. We were awed at the riders in their chaps, scuffed boots, leather wrist cuffs, battered Stetsons and stubble beards, and at hearing them holler and swear at the herd."

Breaking Up the Bar Z

The sale of the Grand Canyon Cattle Company to Henry S. Stephenson and Genaro Fourzan in November 1930 marked the end of the great cattle empires on the eastern Strip, although this transition is not clearly documented in the historic record. Rowland Rider indicated that it was "Stevenson" who had bought out the Mormon Church's holdings and started the Bar Z brand years before, but this is clearly incorrect. But Stephenson could have been involved as a Grand Canyon Cattle Company investor

with B.F. Saunders, or more likely with E.J. Marshall after Saunders sold out in 1907. There is no indication that Stephenson, who resided in Los Angeles, and Fourzan, a resident of New Mexico, continued to use the Grand Canyon Cattle Company name after 1930, although they are referred to in legal documents as "trustees and successors of the Grand Canyon Cattle Company."

There is no indication that Stephenson, who owned almost all of the water rights and most of the private land in House Rock Valley, was ever a major figure in cattle ranching. He may have leased his lands and water rights to other smaller operators and homesteaders, who had staked claims throughout Bar Z territory at that time. By the mid-1930s, the House Rock Ranch headquarters were being utilized by a cowhand assigned to winter saddle horses from Zion, Bryce and Grand Canyon National Parks (Larsen 1998:63). The manager was Charley Lewis, a "government man" who looked after the buffalo and lived in a "western style government house with a large pond of water just north of the house." The horses were apparently owned by Gronway and Chauncey Parry, two brothers from Utah, and the horses remained at House Rock Ranch from September 15 to May 15 from 1933 to 1936 (Park Beatty and Lola Campbell, in Larsen 1998:64). Rowland Rider also indicated that LeRoy Woolley, the last baby born at Winsor Castle, took over Kane Ranch about this time and ran it until he died in 1973 (in Paulsen 1975:57). Both facilities would have been owned by Stephenson in 1933.

Soon after acquiring the Grand Canyon Cattle Company, Stephenson expanded the ranch holdings by acquiring the homestead rights of James G.B Van Brunt and John Martin Fritz, and proving up on them in May 1933. Stephenson sold off Jacob Lake to Margaret McDowell, also in 1933, but the ranch assets otherwise remained static for five or six years. The only change is that Fourzan is no longer listed as a partner in the later documents. Little is known about Stephenson and his history as the largest landowner in the eastern Strip. It is clear that Stephenson's efforts to keep the Grand Canyon Cattle Company intact disintegrated within a decade of acquiring the properties.

Homesteaders and Family Ranchers

Whereas grazing fees and federal restrictions may have been a factor in the demise of his predecessors, the reason for Stephenson's abandonment of House Rock Valley and the fragmentation of Bar Z holdings among many different owners appears to be far more mundane: A divorce settlement. In July 1939, Stephenson sold off Two Mile Ranch and all associated water rights to a partnership of 18 Kanab-area ranchers, including members of the Woolley and Hamblin families. Stephenson also sold additional parcels around Haycock Spring to Hoyt Chamberlain of Kanab. Both land deeds list Stephenson as "a divorced man," a notation absent from the earlier deeds. In March 1945, he sold the remainder of his holdings, including lands, water rights and mineral claims in House Rock Valley, to Hoyt Chamberlain.

It was inevitable that the era of single ownership of the entire House Rock Valley and Kaibab Plateau would end. Years of overgrazing had devastated the range, prompting federal land managers to institute greater and greater restrictions on the number of cattle

that could graze on the public domain. Passage of the Taylor Grazing Act of 1934 was a death blow to large cattle outfits, including Nutter's on the western Strip. Before the Taylor Grazing Act, herd sizes were limited by rights to access water. But the new law divided the range into grazing allotments without regard to water rights, which created a confusing (to the ranchers) process where cattle outfits would have the right to graze a certain number of cattle in certain areas, but they did not necessarily own concurrent rights to use the water.

The law was intended to "stop injury to the public grazing lands by preventing overgrazing and soil deterioration; to provide for their orderly use, improvement, and development; and to stabilize the livestock industry dependent upon the public range" (in Muhn and Stuart 1988:37). The result was the division of public lands into grazing districts with strict limits on the number of cattle allowed within each district. This had devastating effects on the outfits like Nutter and the Bar Z, which were accustomed to open ranges with tens of thousands of cattle.

The Taylor Grazing Act also allowed the Secretary of Interior to open grazing lands to homesteading. Alexander Cram is credited by family members as the first homesteader in the area (Younghans and Rogers n.d.), although his was not the first homesteading claim to be patented. As mentioned above, Stephenson had acquired the homestead rights of James Van Brunt and John Martin Fritz, with Stephenson acquiring title under the Homestead Act on May 19, 1933. Cram, who had been ranching in the Kane Springs area for years, acquired title to his homestead near Kane Springs in January 1939, according to General Land Office records. Coconino County land records indicate it later passed to his wife Maggie in September 1943, who in turn sold it in December 1955 to Sherman and Farrice Jensen of Fredonia. According to Cram's son, Cecil, the Cram Ranch became part of the Kane Ranch in the 1960s (Younghans and Rogers n.d.:9). The third successful homestead entry appears to be that of Earl Parker, who proved his claim on July 1, 1942. Less than a year later, in March 1943, he sold the homestead to Melvin Schoppman and C.H. Vaughan, both of them Kanab ranchers who were buying and selling of lands in House Rock Valley at that time.

The House Rock Valley was not only crowded with homesteaders, but with newcomers from the Flagstaff area who were, to a greater or lesser degree, land speculators. When Congress expanded the Navajo Reservation in 1931, they added a provision that allowed private land owners within the expanded boundaries to select *in lieu* parcels elsewhere. Among those who selected parcels in House Rock Valley were John H. and Francisca Page, Kinter and Maisuna Koontz, and David B. Morgan, all of whom were speculating on lands throughout northern Arizona at the time, and who acquired parcels in House Rock Valley in November 1939. According to Coconino County land records, they sold the parcels in March 1940, to Hoyt Chamberlain, who had already purchased most of Henry Stephenson's holdings there.

According to General Land Office records, in January 1937 John A. Adams exchanged lands within the Navajo Reservation for lands in House Rock Valley. Adams had been buying and selling lands in the area for at least four years, including one 1933

sale to John Page, Kinter Koontz and David Morgan. This suggests that Adams may also have been a land speculator. It is also possible that this person is the same "Johnny Adams" referred to by Kelsey (1998:160-161) as having purchased the Sand Hills ranch from Nephi Hamblin in 1926. The disposition of the House Rock Valley parcel acquired by Adams in 1937 was not determined, but Kelsey indicated that Johnny Adams was forced out of the area when he was foreclosed on by Jim Jennings in 1941. Jennings subsequently sold to Phoenix cattleman A.T. Spence. Of note, Page was the attorney of record for most of the land deals involving House Rock Valley at the same time he was buying and selling lands in the same area.

The Kanab Cowboys

County land records indicate that Hoyt Chamberlain had become the primary owner of most private lands in House Rock Valley by the early 1940s. However, Chamberlain appears to have been an owner in name only, and was likely acting on behalf of his uncle, Royal Woolley. According to Chamberlain's son, Monte Chamberlain, his father never owned properties in House Rock Valley, and "it's a mystery to me" why Hoyt's name is on the land transactions. Hoyt Chamberlain was a small cattle operator, running a few cattle in the Wahweap area. Woolley later gave him permits to run about 100 head of cattle in the Sand Hills. "But Uncle Roy owned the whole thing, all of the Bar Z" (Monte Chamberlain, personal communication 2006). It remains unclear why Chamberlain was used as a front man to purchase the Bar Z holdings from Stephenson.

Additional evidence that Chamberlain was acting on behalf of others is found in a 1942 sale of one small parcel to Earnest and Frances Curtis that specifies that Chamberlain was a trustee, and the beneficiaries of the trust were C.H. Vaughan, John V. Schoppman, Rubin Broadbent, Royal Woolley and Alex Findlay, all of who were "in the cattle business" in House Rock Valley, according to Coconino County land records. The Curtis place was later purchased by John Rich, who still has a small cattle operation in the area (Ara Schoppman, personal communication 2006).

In March 1955, Chamberlain sold all holdings in House Rock Valley to Alex Findlay, C.H. Vaughan, Mel Schoppman and John V. Schoppman, according to Coconino County land records. This sale appears to demarcate the removal of the Woolley family from House Rock cattle ranching operations. Monte Chamberlain (personal communication 2006) remembers that Uncle Roy sold out to the "Bowmans," although that name does not appear on the land records. It also appears from land records that the Woolley, Schoppman, Vaughan and Findlay families owned, either individually or in partnership with each other, other lands in the area.

Ara Schoppman, the son of John Schoppman, indicates his father first went to the Arizona Strip in 1932 to work for his uncle, Johnny Adams, in the Sand Hills. "When the Bar Z came up for sale, he and four other guys went in together and bought it. My father ran Roy Woolley's cows for 20 years." This is consistent with the land records that indicate John and Mel Schoppman, Rubin Broadbent, Roy Woolley and Alex Findlay

were beneficiaries of a trust for which Hoyt Chamberlain was trustee. These five men, all local Kanab cowboys, ran their cattle "in common" for years before they divided up House Rock Valley among themselves. The Schoppman family still owns a major portion of House Rock Valley, "the first 10 miles coming off the Kaibab going east, on both sides of the road" (Ara Schoppman, personal communication 2006). The Broadbent family lived in Rachel's House (Younghans and Rogers n.d.:10).

Some of the five original partners began selling off some or all of their holdings in the 1950s. The Woolley family sold out in 1955, and in April 1958, Alex Findlay sold the Emmitt and Sunset lodes, along with surrounding lands and water rights to Jacob's Pools, Haycock Spring, Emett Spring, Soap Creek and Hibben Springs, to Darl Delmer Robinson. The Robinsons held on to the property until 1987, when they sold to Laverna and Emil Graff. In 1991, the Graffs gave the properties to the Mormon Church, which later that year sold them to Dean and Donna Carter. In 1997, the Carters sold their holdings to David and Monica Gelbaum, who the following year transferred them to the Kane Ranch and Land Stewardship Company, which sold it in 2005 to North Rim Ranch.

Alex Findlay acquired other properties in House Rock Valley in 1962, holding on to them until 1984 when he sold out to the Two Mile Corporation. In 1988, the Two Mile Corporation sold out to Mark A. and Nedra T. Stephenson, who in 1992 sold to C. Kay and Norma Sturdevant, who operated as Flying X Ranch Partners and Two Mile Ranch Inc. In 1998, the Sturdevants sold a portion to David Gelbaum, and a year later they sold the remainder of their holdings to Kane Ranch Land Stewardship and Cattle Company. This entity then sold in 2005 to the North Rim Ranch.

The history of ownership of other parcels is not clearly delineated in the Coconino County Land records. For example, the One Mile Springs area was purchased in June 1969 by A.P. and Pearl Sanders from Trevor and Ila Leach, but there is no indication from whom the Leachs purchased the property. In September 1969, the Vermilion Cliffs Cattle Company sold its holdings at North Two Mile Spring to the Sanders in exchange for One Mile Spring and South Two Mile Spring. Again, there is no indication from who the Vermilion Cliffs Cattle Company acquired the properties, although Kelsey, citing local informants, indicates the company acquired its properties from the Ramsey Cattle Company, which had acquired it the same year from the Findlay family (1998:160-161).

Two Mile Spring had been part of the holdings of major cattle operations from the nineteenth century, but the ownership history of the adjacent Sand Hills is not as well documented. Joe Hamblin, one of three sons of Jacob Hamblin, established a ranch in the Sand Hills in 1884, with Two Mile Spring and Coyote Spring the only nearby water sources. Hamblin was, at best, a squatter, although his claim was never disputed. This would have been the Hamblin ranch visited by Neil Judd's archaeological expedition in the early twentieth century (1926).

Kelsey (1998:160-161), quoting local informant Duncan Findlay, indicates that Johnny Adams acquired the ranch in 1926, purchasing the squatter's rights from Nephi Hamblin, Joe's son. Adams is credited with building stock tanks and ponds on the Paria

Plateau. As a consequence of the Great Depression, Adams was foreclosed on by Jim Jennings, who sold to A.T. Spence in 1941, a cattleman from Phoenix, who in turn sold out to the Findlay family in 1944. In about 1962, two Findlay brothers (Duncan and Lynn) divided the family holdings. Lynn sold his part to John Rich, who operated under the name Vermilion Cliffs Cattle Company. In 1980, Duncan Findlay sold his outfit to the Ramsey Cattle Company. That same year, the Two Mile Corporation took over the Ramsey outfit and Vermilion Cliffs Cattle Company

The history of ranch ownership after the demise of the Grand Canyon Cattle Company is confusing and incomplete. Some records are missing from the Coconino County Recorder's Office, and others are illegible. Smaller cattle operations, usually Kanab area ranchers, apparently purchased parcels here and there, but partners dropped out of the ventures frequently, prompting the repeated sale of lands after only a few years of ownership. This could also explain why names appearing on the initial purchase of lands do not appear on the subsequent sales. The consolidation of parcels under the umbrella of North Rim Ranch in 2005 marked a return to single ownership of most (but not all) of House Rock Valley. A review of the land records reveals there are many small private holdings within House Rock Valley area, including ranches operated today by the Schoppman, Rich and MacElprang families.

Summary

The history of the eastern Arizona Strip, and the House Rock Valley specifically, is one intertwined with religious and economic events occurring elsewhere during the late 1800s and early 1900s. The emergence of massive cattle cooperatives in the 1870s demarcated the beginning of cattle empires wherein a single entity owned most, if not all, of the springs needed to water livestock, and controlled access to most, if not all, summer forage on the Kaibab Plateau and winter range in House Rock Valley. This control was further accentuated by control over Lee's Ferry, which afforded a quicker transportation route to railheads in Flagstaff. The early ownership record of properties in the eastern Strip is clouded by fact the official owners appear to have acted as surrogates for others, primarily the Mormon Church hierarchy that was attempting to avoid confiscation of assets under anti-polygamy laws during the last quarter of the 19th Century. Even the transfer of the VT Ranch from official (or unofficial) church control to private, non-Mormon interests is not clearly delineated in official land records.

It is evident that the sale of the church's cattle ranch holdings in the area coincided with a dramatic deterioration in the quality of the range, and that this deterioration precipitated the creation of wildlife and forest reserves on the Kaibab Plateau designed to better protect the landscape from overgrazing. These restrictions culminated in the passage of the federal Taylor Grazing Act, which placed severe restrictions on the number of cattle on any given allotment of public lands. This law proved to be the death knell of the Grand Canyon Cattle Company on the eastern Strip, as well as the Preston Nutter operation on the western Strip. Collectively, the two outfits had run tens of thousands of cattle on open ranges, which had contributed to the deteriorating range conditions that prompted federal intervention.

The breakup of the Grand Canyon Cattle Company by Henry Stephenson marked the end of the big cattle outfits, although it could be argued that the Woolley family, through another surrogate, Hoyt Chamberlain, retained the legacy for a short time. The purchase of the Grand Canyon Cattle Company by a partnership of Woolleys, Hamblins and other Kanab area ranchers actually marked the emergence of the small family cattle outfits that characterize southern Utah and northern Arizona today. It is likely not coincidental that these ranchers are in large part descendants of the original Arizona Strip ranchers involved with the church cooperative livestock, and who have deep historical ties to the area. However, these small family cattle operations have rarely proven to be economically viable, and official land records reflect that property holdings – land, water rights and minerals – were repeatedly sold over the past four decades. The return of most, but not all, private holdings in the House Rock Valley to single ownership under the North Rim Ranch is a symbolic throwback to the old cattle empires of the past, while marking the beginning of a new chapter in the history of the region that will be, according to the new owners, characterized by environmental stewardship.

References Cited

Abbott, David R.

An Introduction to the Cultural Resources of the Kaibab Plateau. *Western Anasazi* 2(2):126-140. Cedar City, Utah.

Adovasio, James M.

- 1970a The Origin, Development and Distribution of Western Archaic Textiles. *Tebiwa* 13(2):1-40. Pocatello, Idaho.
- 1970b The Origin and Development of Western Archaic Textiles. Ph.D. dissertation, University of Utah, Salt Lake City.

Agenbroad, Larry D. and Jim I. Mead

- Investigations of a Newly Discovered Pleistocene Megafaunal Dung Bed and Alluvial Sequences in S.E. Utah. In *Quaternary Studies of Canyonlands National Park and Glen Canyon National Recreation Area*, by Larry D. Agenbroad, pp. 58-70. Manuscript on file, National Park Service, Denver, Colorado.
- 1990b Late Pleistocene Alluvium and Organic Deposits of the Central Colorado Plateau: New Data and a Review. In *Quaternary Studies of Canyonlands National Park and Glen Canyon National Recreation Area*, by Larry D. Agenbroad, pp. 42-57. Manuscript on file, National Park Service, Denver, Colorado.

Agenbroad, Larry D., Jim I. Mead, Emilee M. Mead and Diana Elder

Archaeology, Alluvium and Cave Stratigraphy: The Record from Bechan Cave, Utah. *Kiva* 54(4):335-351. Tucson, Arizona.

Altschul, Jeffrey H. and Helen C. Fairley

Man, Models and Management: An Overview of the Archaeology of the Arizona Strip and the Management of Its Cultural Resources. Manuscript on file, Arizona Strip District, Bureau of Land Management, St. George, Utah.

Ambler, J. Richard

Dust Devil Cave. In *Glen Canyon Revisited*, by Phil R. Geib, pp. 40-52. University of Utah Anthropological Papers No. 119. Salt Lake City.

Arrington, Leonard J.

1958 Great Basin Kingdom: An Economic History of the Latter-day Saints, 1830-1900. University of Nebraska Press, Lincoln.

Auerbach, Herbert S.

Old Trails, Old Forts, Old Trappers and Traders. *Utah Historical Ouarterly* 9(1-2):12-63. Salt Lake City.

Belshaw, Michael and Ed Peplow Jr.

1978 Historic Resources Study, Lake Mead National Recreation Area, Arizona. Manuscript on file, National Park Service, Tucson.

Bishop, Francis Marion

1947 Captain Francis Marion Bishop's Journal. *Utah Historical Quarterly* 25(1-4):154-253. Salt Lake City.

Bradford, James E.

1974 Final Report for an Archaeological Survey of the Paria Canyon from the Arizona-Utah State Border to the Glen Canyon National Recreation Area Boundary. Manuscript on file, Museum of Northern Arizona, Flagstaff.

Bradley, George Y.

1947 George Y. Bradley's Journal. *Utah Historical Quarterly* 25(1-4):29-72. Salt Lake City.

Bradley, Martha Sonntag

1999 A History of Kane County. Utah State Historical Society, Salt Lake City.

Brook, Richard A.

1979 Final Report for the Grand Canyon Cross Canyon Corridor Survey. *Western Anasazi* 2(1):75-97. Cedar City, Utah.

Brooks, Juanita

1949 The Arizona Strip. *Pacific Spectator* 3:290-301.

Cleland, Robert G. and Juanita Brooks (editors)

1983 *A Mormon Chronicle: The Diaries of John D. Lee, 1848-1876.* Huntington Library, San Marino, California.

Cordell, Linda S.

1984 Prehistory of the Southwest. Academic Press Inc., San Diego.

Coulam, Nancy J. and Alan R. Schroedl

Early Archaic Clay Figurines from Cowboy and Walters Caves in Southeastern Utah. *Kiva* 61(4):401-412. Tucson.

Count, E.W.

1930 A Grand Canyon Cliff Ruin. Grand Canyon Nature Notes 4(5):31.

Crampton, C. Gregory

Mormon Colonization in Southern Utah and Adjoining Parts of Arizona and Nevada, 1851-1900. Manuscript on file, Grand Canyon National Park.

Dellenbaugh, Frederick S.

- The Shinumos -- A Pre-Historic People of the Rocky Mountain Region. *Bulletin of the Buffalo Society of Natural Sciences* 3(4):168-180. Buffalo,

 New York.
- 1901 North Americans of Yesterday. G.P. Putnam's Sons, New York.
- 1908 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 1871-1872. Yale University Press, New Haven.
- 1909 The Romance of the Colorado River. G.P. Putnam's Sons, New
- 1991 A Canyon Voyage: The Narrative of the Second Powell Expedition (reprint of 1908 edition). University of Arizona Press, Tucson.

Dixie Pioneers and Story Tellers Oral History Collection

1998 The Arizona Strip: Reed and Grace (Shumway) Mathis. Oral history #98-012. Manuscript on file, Utah State Historical Society.

Easton, Robert and Mackenzie Brown

1961 Lord of the Beasts: The Saga of Buffalo Jones. University of Arizona Press, Tucson.

Effland, Richard W., Anne Trinkle Jones and Robert C. Euler

The Archaeology of Powell Plateau: Regional Interaction at Grand Canyon. *Grand Canyon Natural History Association Monograph* No. 3. Grand Canyon, Arizona.

Euler, Robert C.

- Archaeological Problems in Western and Northwestern Arizona, 1962. *Plateau* 35(2):78-85. Flagstaff, Arizona.
- 1966 Southern Paiute Ethnohistory. *University of Utah Anthropological Papers* No. 78, *Glen Canyon Series* No. 28. Salt Lake City.
- 1967a The Canyon Dwellers. *The American West* 4(2);22-27, 67-71. Palo Alto, Calif.
- 1967b Helicopter Archaeology. *American West Review* 1:24.

Euler, Robert C. and Susan Chandler

Aspects of Prehistoric Settlement Patterns in Grand Canyon. In *Investigations of the Southwestern Anthropological Research Group: An Experiment in Archaeological Cooperation*, edited by Robert C. Euler and George J. Gummerman, pp. 73-86. Museum of Northern Arizona, Flagstaff.

Euler, Robert C. and Alan P. Olson

1965 Split Twig Figurines from Northern Arizona: New Radiocarbon Dates. *Science* 148:368-369.

Euler, Robert C. and Walter W. Taylor

Additional Archaeological Data from Upper Grand Canyon: Nankoweap to Unkar Revisited. *Plateau* 39(1):26-45. Flagstaff, Arizona.

Fairley, Helen C., Peter W. Bungart, Christopher M. Coder, Jim Huffman, Terry L. Samples and Janet R. Balsom

1994 The Grand Canyon River Corridor Survey Project: Archaeological Survey Along the Colorado River Between Glen Canyon Dam and Separation Canyon. National Park Service, Washington D.C.

Farmer, Malcolm F. and Raymond DeSaussure

1955 Split Twig Figurines. *Plateau* 27:3-23. Flagstaff, Arizona.

Fowler, Don D., Robert C. Euler and Catherine S. Fowler

John Wesley Powell and the Anthropology of the Canyon Country. Geological Survey Professional Paper No. 670. U.S. Government Printing Office, Washington, D.C.

Fowler, Don D. and Catherine S. Fowler

Anthropology of the Numa: John Wesley Powell's Manuscripts on the Numic Peoples of Western North America, 1868-1880. *Smithsonian Contributions to Anthropology* No. 14. Smithsonian Institution, Washington, D.C.

Geib, Phil R.

1989 A Descriptive Report of the 1988 Bullfrog Archaeological Survey, Glen Canyon National Recreation Area. *Northern Arizona University Archaeology Report* No. 1058. Flagstaff.

1996 Archaic Occupancy of the Glen Canyon Region. In *Glen Canyon Revisited*, by Phil R. Geib, pp. 15-39. University of Utah Anthropological Papers No. 119. Salt Lake City.

Gery, R.E. and John A. Smith

1915 Report on Lieu Selections on that Portion of Arizona Line North and West of the Colorado River. U.S. Department of Agriculture, Washington, D.C.

Goetzmann, William H.

1967 Exploration and Empire: The Explorer and Scientist in the Winning of the American West. Alfred A. Knopf, New York.

Granger, Byrd H.

1983 *X Marks the Spot.* Falconer Publishing, Tucson.

Grayson, Donald K.

1993 *The Desert's Past: A Natural Prehistory of the Great Basin.* Smithsonian Institution, Washington, D.C.

Hall. Edward T. Jr.

An Archaeological Survey of the Walhalla Glades, Grand Canyon, Arizona. Master's thesis, University of Arizona, Tucson.

1942 Archaeological Survey of the Walhalla Glades. *Museum of Northern Arizona Bulletin* No. 20. Flagstaff.

Hall, Sharlot M.

1975 Sharlot Hall on the Arizona Strip: A Diary of a Journey Through Northern Arizona in 1911, edited by C. Gregory Crampton. Northland Press, Flagstaff.

Haskell, John Loring

1978 The Paria Plateau Survey. Western Anasazi 1(3):251-273. Cedar City, Utah

Haskett, Bert

1936 History of the Sheep Industry in Arizona. *Arizona Historical Review* 8(3):4-49.

Heid, James

1982 Settlement Patterns on Little Creek Mountain, Utah. *Western Anasazi* 3(2):87-179. Cedar City, Utah.

Hodgin, F.M.

History of the North Kaibab, Kaibab National Forest. Manuscript on file, Kaibab National Forest, Williams, Arizona.

Holmer, Richard N.

1978 A Mathematical Typology for Archaic Projectile Points of the Eastern Great Basin. Ph.D. dissertation, University of Utah, Salt Lake City.

Projectile Points of the Intermountain West. In *Anthropology of the Desert West:* Essays in Honor of Jesse D. Jennings, edited by Carol J. Condie and Don D. Fowler, pp. 89-116. University of Utah Anthropological Papers No. 110. Salt Lake City.

Holmes, William H.

Pottery of the Ancient Pueblos. In *Fourth Annual Report of the Bureau of Ethnology*, by J.W. Powell, pp. 265-360. Government Printing Office, Washington, D.C.

Hunt, Roy D. and Gale M. McPherson

1975 Preliminary Report for Archaeological and Ethnohistorical Phase I Investigations on Proposed Arizona Strip Alternate Transmission Line Corridor. Manuscript on file, Museum of Northern Arizona, Flagstaff.

Ivins, Anthony W.

1935 An Address Delivered by President Anthony W. Ivins Upon Completion of the Union Pacific Lodge at Grand Canyon, Utah. Union Pacific System, Salt Lake City.

Janetski, Joel C. and Michael J. Hall

1983 An Archaeological and Geological Assessment of Antelope Cave (NA5507), Mohave County, Northwestern Arizona. Manuscript on file, Museum of Peoples and Cultures, Brigham Young University, Provo, Utah.

Janetski, Joel C. and James D. Wilde

A Preliminary Report of Archaeological Excavations at Antelope Cave and Rock Canyon Shelter, Northwestern Arizona. Utah Archaeology 2(1):88-106. Salt Lake City.

Jennings, Calvin H.

An Archaeological Reconnaissance in the Paria Canyon, Arizona-Utah, 1967. *Western Anasazi* Reports 1(1):23-31. Cedar City, Utah.

Jennings, Jesse D.

1978 Prehistory of Utah and the Eastern Great Basin. *University of Utah Anthropological Papers* No. 98. Salt Lake City.

Jett, Stephen C.

1968 Grand Canyon Dams, Split-Twig Figurines, and Hit and Run Archaeology. *American Antiquity* 33(3):341-351.

Jones, Anne Trinkle

- 1986a Agricultural Systems in the Grand Canyon: Walhalla Glades. *Western Anasazi* 3(4):405-441. Cedar City, Utah.
- 1986b A Cross Section of Grand Canyon Archeology: Excavations at Five Sites Along the Colorado River. *Western Archeological and Conservation Center Publications in Anthropology* No. 28. Tucson, Arizona.
- 1986c Spatial and Temporal Variations in Grand Canyon Subsistence and Technology. *Western Anasazi* 3(3):260-272. Cedar City, Utah.

Jones, Stephen Vandiver

Journal of Stephen Vandiver Jones. *Utah Historical Quarterly* 26-27(1-4):10-174. Salt Lake City.

Judd, Ernest C.

1938 Pioneer Personal History of Frank M. Hamblin. Utah Historical Society HRS No. 314. Manuscript on file, Utah State Historical Society, Salt Lake City.

Judd, Neil M.

- 1917 Evidence of Circular Kivas in Western Utah Ruins. *American Anthropologist* 19(1);34-40. Lancaster, Pennsylvania.
- 1920 Archeological Investigations in Utah and Arizona. *Smithsonian Miscellaneous Collections* 72(1):66-69. Washington D.C.

- 1921 Archaeological Investigations in Utah, Arizona and New Mexico. Smithsonian Miscellaneous Collections 72(6):96-102. Washington D.C.
- 1926 Archeological Observations North of the Rio Colorado. Smithsonian Institution Bureau of American Ethnology Bulletin No. 82. Washington, D.C.

Kelly, Isabel T.

Southern Paiute Ethnography. *University of Utah Anthropological Papers* No. 69. Salt Lake City.

Kelly, Roger E.

- Split-Twig Figurines from Sycamore Canyon, Central Arizona. *Plateau* 38(3):65-67. Flagstaff, Arizona.
- Fourteen Prehistoric Sites in Nankoweap Canyon, Grand Canyon National Park. *The Arizona Archaeologist* 3:17-35.

Kelsey, Michael R.

1998 Hiking and Exploring the Paria River. Kelsey Publishing, Utah.

Kraack, Donald F.

1965 Strip Country. Frontier Times, November 1965.

Larsen, Wesley P. (compiler)

1998 *Stories from the Arizona Strip*. Self-published manuscript, Toquerville, Utah. Manuscript on file, Utah State Historical Society, Salt Lake City.

Larson, Andrew Karl

- 1961 I Was Called to Dixie: The Virgin River Basin, Unique Experiences in Mormon Pioneering. Deseret Press, Salt Lake City
- 1979 *The Education of a Second Generation Swede: An Autobiography.* Deseret Press, Salt Lake City.

Lavender, David

1982 Colorado River Country. E.P. Dutton, New York.

Little, James A.

1909 Jacob Hamblin: A Narrative of His Personal Experience as a Frontiersman, Missionary to the Indians and Explorer. Deseret News Publishing, Salt Lake City, Utah.

Lindsay, LaMar W. and Rex E. Madsen

1978 Report of Archaeological Surveys of the Pipe Springs National Monument Water Supply Project. *Western Anasazi* 1:55-60. Cedar City.

Lyneis, Margaret and Richard A. Thompson

1979 A Test Case for Horticultural Dependence Among the Western Anasazi of Little Creek Mountain in Southern Utah: A Project Proposal. *Western Anasazi* 2(3):209-218. Cedar City.

McKee, Barbara

1933 A Large Cliff Dwelling. *Grand Canyon Nature Notes* 8(7):198-201.

McFadden Douglas A

2004House Rock Valley Inventory: Pleasant Valley Outlet Tract, An Alluvial Fan Floodwater Outwash System on the Arizona Strip. Manuscript on file, Arizona Strip Field Office, Bureau of Land Management, St. George, Utah

2006 E-Mail communication from Douglas McFadden to Jerry D. Spangler dated July 8, 2006, on file with Colorado Plateau Archaeological Alliance, Ogden, Utah.

McNutt, Charles H. and Robert C. Euler

The Red Butte Lithic Sites Near Grand Canyon, Arizona. *American Antiquity* 31(4):410-419.

Mann, Walter G.

The Kaibab Deer: A Brief History and the Present Plant of Management. Manuscript on file, Kaibab National Forest, Williams, Arizona.

Miller, Blaine A.

1978 An Archaeological Survey of Sullivan Canyon and Adjacent Areas, Mohave County, Arizona. *Western Anasazi* 1(1):34-54. Cedar City, Utah.

Moffitt, Kathleen E., Sandra Rayl and Michael Metcalf

1978 Archaeological Investigations Along the Navajo-McCullough Transmission Line, Southern Utah & Northern Arizona. *Museum of Northern Arizona Research Paper* No. 10. Flagstaff.

Mueller, James W.

1972 The Use of Sampling in Archaeological Survey. Ph.D. Dissertation, Department of Anthropology, University of Arizona, Tucson.

Mueller, James W., Gregory J. Staley, Gayle G. Harrison, Ronald W. Ralph, Carla A. Sartwell and Ronald P. Gauthier

1968 Paria Plateau Survey Report, 1968 Season. Manuscript on file, Museum of Northern Arizona, Flagstaff.

Muhn, James and Hanson R. Stuart

1988 *Opportunity and Challenge: The Story of the BLM.* U.S. Department of Interior. Washington D.C.

Murbarger, Nell

1958 Sovereigns of the Sage. Treasure Chest Publications, Tucson.

Nelson, Pearl Udall (editor)

1959 *Arizona Pioneer Mormon: David King Udall, His Story and His Family.* Arizona Sillouettes, Tucson.

Nutter, Preston

1935 Letter to J.N. Darling, Chief of the Bureau of Biological Survey, Washington, D.C. Copy of the letter on file, Utah State Historical Society, Salt Lake City.

O'Neil, Floyd A.

The Utes of Eastern Utah. Manuscript on file, Utah Division of State History, Salt Lake City.

The Old Spanish Trail Before 1848. Manuscript on file, Special Collections, University of Utah, Salt Lake City.

Olsen, Robert W.

The Powell Survey Kanab Base Line. *Utah Historical Quarterly* 37:261-268.

Olson, Alan P.

1966 Split-twig Figurines from NA5607, Northern Arizona. *Plateau* 38(3):55-63. Flagstaff, Arizona.

Palmer, William R.

1928 Utah Indians Past and Present. *Utah Historical Quarterly* 1(2):35-52. Salt Lake City.

1933 Pahute Indian Homelands. *Utah Historical Quarterly* 6(3):88-102. Salt Lake City.

Park, Willard Z. et al.

1938 Tribal Distribution in the Great Basin. *American Anthropologist* 40:622-638. Menasha, Wisconsin.

Paulsen, Deirdre M.

1975 Stories and Storytelling Techniques of Rowland W. Rider, Cowboy on the Arizona Strip in the Early 1900s. Masters thesis, Brigham Young University, Provo.

Pendleton, Mark A.

1939 The Orderville United Order of Zion. *Utah Historical Quarterly* 7:141-159.

Powell, John Wesley

- 1961 Exploration of the Colorado River and Its Tributaries. Dover Press, New York.
- 1981 The Canyons of the Colorado: The 1869 Discovery Voyage Down the Colorado River from Wyoming, into Colorado, through Utah, to Arizona and Nevada. Outbooks, Golden, Colorado.

Powell, Walter C.

Journal of W.C. Powell. *Utah Historical Quarterly* 26-27(1-4):252-490. Salt Lake City.

Reeder, Grant M.

Split Twig Animal Miniatures in the Southwestern United States. *Utah Archaeology* 13(4):12-16. Salt Lake City.

Reilly, P.T.

1978 Roads Across Buckskin Mountain. Journal of Arizona History 19:379-402.

Rich, Effie Dean

1941 Buckskin History, Kaibab Plateau and Grand Grand Canyon. Unpublished manuscript on file, Utah State Historical Society, Salt Lake City.

Rider, Rowland W.

1985 *The Roll Away Saloon: Cowboy Tales of the Arizona Strip.* Utah State University Press, Logan.

Schroedl, Alan R.

- 1976 The Archaic of the Northern Colorado Plateau. Ph.D. dissertation, University of Utah, Salt Lake City.
- 1988 Cultural Resource Investigations on the Kaibab Plateau, Northern Arizona: The Highway 67 Data Recovery Project. Manuscript on file, P-III Associates, Salt Lake City.
- Culture History. In *The Burr Trail Archeological Project: Small Site Archeology on the Escalante Plateau and Circle Cliffs, Garfield County, Utah,* by Betsy L. Tipps, pp. 5-20. Cultural Resources Report 439-01-9132, P-III Associates, Salt Lake City, Utah.

Schwartz, Douglas W.

- 1957 Climate Change and Culture History in the Grand Canyon Region. *American Antiquity* 22(4):372-377.
- 1958 Prehistoric Man in the Grand Canyon. *Scientific American* 198(2):97-102.
- 1960 Archaeological Investigations in the Shinumu Area of Grand Canyon, Arizona. *Plateau* 32:6167. Flagstaff, Arizona.
- An Archaeological Survey of Nankoweap Canyon, Grand Canyon National Park. *American Antiquity* 28(3):289-302.

Nankoweap to Unkar: An Archaeological Survey of the Upper Grand Canyon. *American Antiquity* 30(3):278-296.

Schwartz, Douglas W., Richard C. Chapman and Jane Kepp

1980 *Unkar Delta*. Grand Canyon Archaeology Series, School of American Research, Santa Fe, New Mexico.

Schwartz, Douglas W., Jane Kepp and Richard C. Chapman

1981 *The Walhalla Plateau*. Grand Canyon Archaeology Series, School of American Research, Santa Fe, New Mexico.

Schwartz, Douglas W., Arthur L. Lange and Raymond DeSaussure

1958 Split-Twig Figurines in the Grand Canyon. *American Antiquity* 23(3):264-274.

Schwartz, Douglas W., Michael P. Marshall and Jane Kepp

1979 Archaeology of the Grand Canyon: The Bright Angel Site. Grand Canyon Archaeology Series, School of American Research, Santa Fe., New Mexico

Snow, William J.

1929 Utah Indians the Spanish Slave Trade. *Utah Historical Quarterly* 2(3):66-90. Salt Lake City.

Soper, A.W.

1930 Report on Archaeological Findings in Bright Angel Canyon. Manuscript on file, Western Archaeological and Conservation Center, Tucson, Arizona.

Spangler, Jerry D.

Human Landscapes and Prehistoric Paradigms: A Class I Overview of Cultural Resources in the Grand Staircase-Escalante National Monument. Manuscript on file, Grand Staircase-Escalante National Monument, Kanab, Utah.

Stanton, Robert Brewster

1965 Down the Colorado. University of Oklahoma Press, Norman.

1982 Colorado River Controversies. Westwater Books, Boulder City, Nevada.

Steward, John F.

Journal of John F. Steward. *Utah Historical Quarterly* 26-27(1-4):174-251. Salt Lake City.

Steward, Julian H.

1933 Archaeological Problems of the Northern Periphery of the Southwest. Museum of Northern Arizona Bulletin No. 5. Flagstaff. Notes on Hillers' Photographs of the Paiute and Ute Indians Taken on the Powell Expedition of 1873. Smithsonian Miscellaneous Collections 98(18). Washington, D.C.

Sturdevant, G.E.

A Reconnaissance of the Northeastern Part of Grand Canyon National Park. *Grand Canyon Nature Notes* 3(5):1-16. Grand Canyon, Arizona.

Talbot, Richard K., Lane D. Richens, Shane A. Baker and Joel Janetski

Broken Arrow Cave (42Ka4356): 1997 Testing Results. *Museum of Peoples and Cultures Technical Series* No. 99-5. Brigham Young University, Provo, Utah.

Taylor, Walter W.

1958 Two Archaeological Studies in Northern Arizona. *Museum of Northern Arizona Bulletin* No. 30. Flagstaff.

Teague, George and Carole McClellan

1978 Archeological Reconnaissance of Lands Adjacent to the Grand Canyon.

Manuscript on file, Midwest Archeological Center, Lincoln, Nebraska.

Thompson, Almon Harris

Diary of Almon Harris Thompson, edited by Herbert E. Gregory. *Utah Historical Quarterly* 7(1-3):2-140. Salt Lake City.

Thompson, Richard A.

1978 Archaeological Report on the Pipe Springs National Monument Utilities Project. *Western Anasazi* 1:68-70. Cedar City, Utah.

Thompson, Richard A. and Margaret M. Lyneis

1979 A Test Case for Horticultural Dependence Among the Western Anasazi of Little Creek Mountain in Southern Utah: A Project Proposal. Manuscript on file, Southern Utah Museum, Southern Utah University, Cedar City.

Utah State Historical Society

2001 The Anthony W. Ivins Papers, 1875-1934: A Register of the Collection at the Utah State Historical Society. Manuscript on file, Utah State Historical Society, Salt Lake City.

Wade, William D.

1967 Archaeological Investigations in Northwestern Arizona. Manuscript on file, Museum of Northern Arizona, Flagstaff.

Warner, Ted J. (editor)

1976 *The Dominguez-Escalante Journal*. Translated by Fray Angelico Chavez. Brigham Young University Press, Provo, Utah.

Welton, Tracie

n.d. A Very Brief History of the Kaibab Plateau and Houserock Valley, Manuscript on file, Kaibab National Forest.

Westfall, Deborah Ann

1987 The Pinenut Site: Virgin Anasazi Archaeology on the Kanab Plateau of Northwestern Arizona. *Arizona Bureau of Land Management Cultural Resource Series* No. 4. Phoenix.

Wheeler, George M.

1889 Report Upon United States Geographical Surveys West of the One Hundredth Meridian Vol. I--Geographical Report. Government Printing Office, Washington, D.C.

Wheeler, S.M.

1949 More About Split-Twig Figurines. *Masterkey* 23(5):153-158. Los Angeles.

Wise, Karen Elizabeth

1986 Prehistoric Settlement Patterns and Site Plans on Little Creek Mountain and the Western Anasazi Region. *Western Anasazi* 3(3):273-339. Cedar City, Utah.

Wixom, Hartt

1996 Hamblin: A Modern Look at the Frontier Life and Legend of Jacob Hamblin. CFI Publishing, Springville, Utah.

Wood, Donald G.

1979 Reports of Cultural Resource Surveys Conducted in the North Kaibab Ranger District, Kaibab National Forest, Arizona. *Western Anasazi* 2(2):141-206. Cedar City, Utah.

Woodbury, Angus

History of Southern Utah National Parks. *Utah Historical Quarterly* 12:111-222.

Yeatts, Michael

1998 1997 Data Recovery at Five Sites in the Grand Canyon. Manuscript on file, Bureau of Reclamation, Salt Lake City, Utah.

Yonghans, Gretchen and Katrina Rogers (compilers)

n.d. A Short History of Kane Ranch. Manuscript on file, Grand Canyon Trust, Flagstaff.

Relevant Land Records Documentation Coconino County Clerk's Office Book of Deeds

Deed Transfer, from B.F. Saunders and Ara Haley (or Ara Farley) to Grand Canyon Cattle Company, dated Dec. 5, 1907. Page 321

Deed Transfer (2), from B.F. Saunders and Ara Haley to Grand Canyon Cattle Company, dated Dec. 5, 1907. Page 321

Deed Transfer, from Joseph F. Smith and the Church of Jesus Christ of Latter Day Saints to the Grand Canyon Cattle Company, dated Aug. 18, 1909. Page 285, Document No. 632

Deed Transfer, from James S. Emett to Grand Canyon Cattle Company, dated Aug. 18, 1909. Page 286, Document No. 633

Quit Claim Deed, from James S. Emett to Grand Canyon Cattle Company, dated Aug. 24, 1909. Page 355, Document No. 838

Quit Claim Deed, from Grand Canyon Cattle Company to Heber J. Grant and the Church of Jesus Christ of Latter Day Saints, dated July 11, 1927. Document No. 1036

Bargain and Sale Deed, from Margaret Ortley and Henry Ortley to Grand Canyon Cattle Company, dated March 8, 1929. Document 466

Patent Transfer, from the United States, to Joseph Montre and heirs, under provisions of 1858 Amendatory Act for the benefit of mixed blood Dacotah or Sioux, dated June 4, 1929. Patent No. 1028145

Bargain and Sale Deed, from Joseph Montre or heirs to Grand Canyon Cattle Company, dated July 17, 1929. Page 239, Document No. 1271

Patent Transfer from United States to Mary E. Coffin, under provisions of the Forest Reserve Act, dated June 18, 1930. Document No. 1443, Patent No. 1038279

Bargain and Sale Deed, from Mary E. Coffin and Herbert W. Coffin to Grand Canyon Cattle Company, dated Sept. 3, 1930. Document No. 1445

Patent Transfer from United States to F.A. Hyde & Co., under provisions of the Forest Reserve Act, dated Sept. 8, 1930. Document No. 1439

Bargain and Sale Deed, from F.A. Hyde Co. to Grand Canyon Cattle Company, dated Sept. 17, 1930. Page 268, Document No. 1441, patent No. 1040347

Deed, from Grand Canyon Cattle Company to Genaro Fourzan and H.S. Stephenson, dated Nov. 20, 1930. Book 58, Page 489, Document No. 542

Bargain and Sale Deed, from John A. Adams and Allie B Adams to John A. Page, Kinter Koontz and David B. Morgan, dated Jan. 11, 1933. Page 476, No Document Number

Warranty Deed, from H.S. Stephenson to Margaret G. McDowell, dated Oct. 9, 1933. Document No. 1452

Patent Transfer, from United States to Henry S. Stephenson, assignee involving the rights of James G.B. Van Brunt and John Martin Fritz, under provisions of the Homestead Act, dated May 19, 1933. Patent No. 1064232

Bargain and Sale Deed, from H.S. Stephenson, trustee, to S.E. Johnson, Lloyd U. Chamberlain, J.M. Johnson, Glen Hamblin, Ruben Broadbent, D.M. Tietjen, F.B. Hamblin, W.E. Hamblin, W.F. Hamblin, Frank L. Farnsworth, Neaf Hamblin, John V. Schoppmann, Arthur Jarvis, Royal B. Woolley, Fay Hamblin, Sandall Findlay, Orvil Averett and Dell Averett, dated Jan. 1, 1935. Document No. 393

Patent Transfer, from United States to Alexander S. Cram, under provisions of the Homestead Act, dated Jan. 5, 1939. Patent No. 1100638

Patent Transfer, from United States to John A. Adams, under provisions of the Forest Reserve Act, dated Jan. 13, 1937. Patent No. 1087977

Warranty Deed, from S.E. Johnson et al. to D.M. Tietjen, dated Sept. 3, 1937. Document No. 1122

Deed Transfer from H.S. Stephenson of Los Angeles to Hoyt Chamberlain of Kanab, dated July 3, 1939. Page 371, Document No. 1981

Bargain and Sale Deed, from John H. Page, Francisca B. Page, Kinter Koontz, Marisuna Koontz and David Morgan to Hoyt Chamberlain, dated July 29, 1939. Page 374, Document No. 1986

Miscellany Transfer, from H.S. Stephenson to Hoyt Chamberlain, dated Aug. 10. 1939. Page 372, Document No.1982

Notice of the U.S. Department of Agriculture, dated Dec. 24, 1939, by Walter G. Mann, in the matter of Kane Springs water rights. Document No. 5423

Patent Transfer, from United States to Earl W. Parker, under provisions of the Homestead Act, dated July 1, 1942. Document No. 43, Patent No. 1114219

Deed, from Hoyt Chamberlain to Earnest A. Curtis and Frances E. Curtis, dated July 10, 1942. Document No. 1828

Warranty Deed, from Earl W. Parker to Melvin Schoppman, dated March 23, 1943. Page 108, Document No. 350

Warrant Deed, from Earl W. Parker to C.H. Vaughn, dated March 23, 1943. Page 109, Document No. 351

Quit Claim Deed, from Earl W. Parker to Melvin Schoppman and C.H. Vaughan, dated March 23, 1943. Page 109, Document No. 352

Warranty Deed, from Maggie S. Cram to Sherman S, Jensen and Farrice Jensen, dated Dec. 31, 1955

Conveyance of Trust Properties, from Hoyt Chamberlain, trustee for H.S. Stephenson, to Alex Findlay, dated March 21, 1955. Book 70, Page 517

Conveyance of Trust Properties, from Hoyt Chamberlain, trustee for H.S. Stephenson, to C.H. Vaughan, dated March 23, 1955. Book 70, Page 523

Conveyance of Trust Properties, from Hoyt Chamberlain, trustee for H.S. Stephenson, to John V. Schoppman, dated March 28, 1955. Book 70, Page 529

Conveyance of Trust Properties, from Hoyt Chamberlain, trustee for H.S. Stephenson, to Mel Schoppman, dated March 28, 1955. Book 70, Page 533

Conveyance of Trust Properties, from Hoyt Chamberlain, trustee for H.S. Stephenson, to Royal B. Wolley, dated March 28, 1955. Book 70, Page 537

Quit Claim Deed, from Alex Findlay and Abbit Findlay to Darl Delmer Robinson, dated April 19, 1958. Book 119, Page 12

Deed, from Vermillion Cliffs Cattle Company to A.P. Sanders and Pearl Sanders, dated Sept. 22, 1969. Book 377, Page 717

Deed, from A.P. Sanders and Pearl Sanders to Vermillion Cliffs Cattle Company, dated Sept. 22, 1969. Book 378, Page 491

Quit Claim Deed, from Trevor Leach and Ila Leach to A.P. Sanders and Pearl Sanders, dated June 22, 1969. Document No. 9318

Appendix A Timeline of Major Events

Franciscan Friars Atanasio Dominguez	1776	
Crossing of across the northern Strip in route to California. trading route was never developed further by the Spanish.	1829 Antonio	Armijo leads a pack train from New Mexico to the Fathers and Arizona The
William Bailey Maxwell, upon dischargefrom the Mormon Battalion, returns to Utah through House Rock Valley and the Kaibab Plateau, becoming the first Mormon to travel the region. Maxwell became a major figure in the history of the Arizona Strip.	. 1847	
to preach to the also for would Kanab's ranching.	1855Ira Hate	h becomes the first Mormon missionary sent Buckskin Mountain to Kaibab Paiutes. Hatch was ordered to seek out areas Mormon settlements and likely have identified potential for farming and
Jacob Hamblin and 12 other Mormon	.1858	
surrounding three years later to named Rhodes, who built the cabin there.	1860 William	Maxwell lays claim to Moccasin Spring and areas. He sold it a man first
James M. Whitmore acquires rights to	.1863	

and corrals, and planting an orchard. Whitmore and his brother-in-law, Robert McIntyre, are killed two years later while trying to recover livestock reportedly stolen by Southern Paiutes or Navajos.

hostilities	1865 Construction of Fort Kanab begins in the wake of increased with Navajos. It
is completed in before the hostilities many families to leave.	1969, but not forced
John Conrad Naegle (originally Naile)establishes a ranch at Big Springs on the west flank of the Kaibab Plateau.	1866
to Jacob	1869 (ca.)The Southern Paiutes purportedly
ranch house there	in 1870 or 1871.
Brigham Young creates the Mormon	1870
	1871In partnership with Jacob Hamblin,
construction in	John D. Lee begins
construction in ranch at the Paria	
ranch at the Paria confluence. The ranch	John D. Lee begins December on a
ranch at the Paria confluence. The ranch known as Lonely Dell, and	John D. Lee begins December on a River
ranch at the Paria confluence. The ranch known as Lonely Dell, and the ferry as Lee's Ferry. The same	John D. Lee begins December on a River
ranch at the Paria confluence. The ranch known as Lonely Dell, and the ferry as Lee's Ferry. The same year, Levi Stewart claims Big Springs and transfers Lee'	John D. Lee begins December on a River became
ranch at the Paria confluence. The ranch known as Lonely Dell, and the ferry as Lee's Ferry. The same year, Levi Stewart claims Big Springs and transfers Lee' operation from S	John D. Lee begins December on a River became s sawmill kutumpah. In
ranch at the Paria confluence. The ranch known as Lonely Dell, and the ferry as Lee's Ferry. The same year, Levi Stewart claims Big Springs and transfers Lee' operation from St	John D. Lee begins December on a River became
ranch at the Paria confluence. The ranch known as Lonely Dell, and the ferry as Lee's Ferry. The same year, Levi Stewart claims Big Springs and transfers Lee' operation from St	John D. Lee begins December on a River became s sawmill kutumpah. In the second John Wesley Powell expedition arrives at the Paria confluence and travels with
ranch at the Paria confluence. The ranch known as Lonely Dell, and the ferry as Lee's Ferry. The same year, Levi Stewart claims Big Springs and transfers Lee' operation from St	John D. Lee begins December on a River became s sawmill kutumpah. In the second John Wesley Powell expedition arrives at the

called Winsor Castle, is completed at Pipe Springs, and Lt. George Wheeler's surveying expedition arrives in House Rock Valley to explore the Paria River.

1873John D. Lee, sought by federal authorities for his role in the Mountain Meadows Massacre, flees to Hamblin's farm at Moenave, Arizona. Lee trades his rock house and land at Jacob's Pools to Hamblin for the Moenave farm. Susan Robbins, a 9-day-old infant, dies at House Rock Spring. a year later by the Orderville United Order. The same year, the New Canaan Livestock Cooperative purchases House Rock Valley from Jacob Hamblin. And the Warren Johnson family takes over operation of Lee's Ferry. 1875 The New Canaan Livestock Cooperative begins running cattle in House Rock Valley in the winter and the Kaibab Plateau in the summer. running cattle in House Rock Valley and the Kaibab Plateau in tandem with the New Canaan cooperative. The two cooperatives construct the House Rock Ranch four miles south of House Rock Springs. John D. Lee is apprehended and executed for his role in the Mountain Meadows Massacre. 1879 David Udall and two brothers-inlaw start a ranch at DeMotte Park. acquiring water rights from the Levi Stewart estate. cooperative sells its Oak Grove Ranch to B.F. Saunders, a non-Mormon businessman from Salt Lake City. 1884Joseph Hamblin, a son of Jacob Hamblin, establishes a Sand Hills near ranch in the Two Mile Spring.

The Orderville United Order begins divesting assets, but there are no offers for the ranches in House Rock Valley.	.1885	
Canaan, starts Company with modifying the "Y" brand into his initials. At the same time, he purchases House Rock Valley and the Kaibab Plateau from the Orderville United Order.	1887John W. Young, stockho	a major older in New the Kaibab Cattle Canaan livestock, Brigham Young own
John W. Young, Edwin Woolley and	.1891	
	1893 The federal gove	ernment creates the forest reserve,
bringing the scrutiny of grazing on public domain lands.	Kaivav	first federal practices
The Kaibab Land and Cattle Companysells out to B.F. Saunders and Ara Farley (or Haley) of Wyming. They may have been the ones who instituted the famous Bar Z brand and renamed the outfit the Grand Canyon Cattle Company. Saunders also buys out the remnants of the Canaan livestock cooperative, including the House Rock Ranch. The same year, James Emett takes over Lee's Ferry and establishes a cattle ranch.	1896	
	1901 Edwin Woolley	
Bright Angel River.		ct a trail down n to the Colorado
B.F. Saunders attempts to gain title to	1904	
	1905B.F. Saunders, I James G	Edwin Woolley, Owen and C.F.

embark on a scheme to Jones cross-breed bison and Galloway cattle. The experiment fails after four years. as a game reserve. 1907Zane Grey witnesses a neargunfight between Bar Z foreman Charles Dimmick and rival rancher James Emett. In December, Saunders sells the Bar Z to the Grand Canyon headed by Cattle Company, president E.J. Marshall and vice president Harry E. Way. The Bar Z brand is retained. the Grand Canyon National Monument. Edwin Woolley and Jesse Knight construct a cable-supported tram over the Colorado River. $1909\,$ The new owners of the Grand Canyon Cattle Company finally buy out James Emett, giving them access to Flagstaff via Lee's Ferry. They also bought the ferry from the Mormon Church. the House Rock Ranch and hunts cougars on the Kaibab Plateau. $1924 \ldots \ldots Some \ accounts \ say \ the \ Bar \ Z \ outfit$ quit House Rock Valley and the Kaibab Plateau for New Mexico. Land records indicate they remained and acquired more land. to the Joseph Hamblin ranch in the Sand Hills. 1927 The Grand Canyon Cattle Company sells Lee's the Mormon Ferry back to Church.

A bridge over the Colorado River	1929
holdings through November, Stephenson and Genaro purchase the Grand Cattle Company and all of its holdings in House Rock Valley.	1930The Grand Canyon Cattle Company acquires private in House Rock Valley various federal laws. In Henry S. Fourzan Canyon
Henry Stephenson expands the	1933
to 18 among them Woolley, Hamblin, and Schoppman	1939
Johnny Adams loses his Sand Hill ranchto Jim Jennings, who sold it to A.T. Spence.	1941
who	1942
A.T. Spence sells the Hamblin Sand Hills	1944
	to be the real of House Rock Valley and the old Bar Z.
The Woolley family divests itself of	1955

House Rock Valley to the remaining four partners. About this time, the partners divide up House Rock Valley among themselves. The Schoppmans still retain their holdings in the area.

land and around Jacob's Pools, Spring, Emmett Spring, Creek and Hibben Spring to	1958Alex Findlay sells the Emmitt and Sunset lodes, as well as water rights Haycock Soap
Darl Robinson. Alex Findlay acquires other properties	1962
Lynn sold his share to John Rich and the Vermilion Cliffs Cattle Company.	
Mile Cliffs	One Mile Spring purchased by A.P. Sanders from the Leach family. Sanders exchanges Two Spring with the Vermilion Cattle Company for One
Mile	Spring.
Duncan Findlay sells out to the Ramsey	1980
	1984Alex Findlay sells out to the Two Mile Corporation.
Darl Robinson sells out to Emil Graff	.1987
	1988The Two Mile Corporation sells out to the Mark
Stephenson family.	
The Graff family donates its holdings tothe Mormon Church, which then sells them to the Dean Carter Family.	1991
	1992The Mark Stephenson family sells
who Partners and The Dean Carter holdings to the family, who a year later to the	out to C.Kay Sturdevant, operated as Flying X Two Mile Ranch. family sells its David Gelbaum transferred them Kane Ranch and

Land Stewardship Company.	
The Sturdevants sell part of their holdingsto the David Gelbaum family, and a year later the remainder of their holdings to the Kane Ranch and Land Stewardship Company.	1998
sells its Ranch.	2005The Kane Ranch and Land Stewardship Company holdings to North Rim