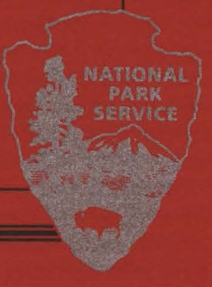
Place of Passages

Jewel Cave
National Monument

Historic Resource Study

National Park Service
Midwest Region

Gail Evans-Hatch
and
Michael Evans-Hatch



PLACE OF PASSAGES:

JEWEL CAVE
NATIONAL MONUMENT
HISTORIC RESOURCE STUDY

2006

by
Gail Evans-Hatch
and
Michael Evans-Hatch
Evans-Hatch & Associates

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Places of Passages:

Jewel Cave National Monument

HISTORIC RESOURCE STUDY

by

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Astoria, Oregon
2006

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Introduction

Jewel Cave is in the Black Hills of southwestern South Dakota. The Jewel Cave National Monument Visitor Center and Headquarters is located about thirteen miles west of Custer, South Dakota, and about twenty-five miles east of Newcastle, Wyoming, on US Highway 16. The monument encompasses 1,275 acres of rugged, rocky land, deeply dissected by two steep-sided canyons: Hell Canyon, generally extending to the southeast, and Lithograph Canyon, trending southwest into Hell Canyon.[1] Jewel Cave itself is located in a sedimentary rock layer of limestone. Its natural passageways follow a geometric pattern of eroded underground fissures in the limestone, which intersect at various angles. In 2005, around 130 miles of underground passages had been explored and mapped. The potential for finding additional tunnels is extraordinary; less than 3 percent of the cave has been discovered, it is believed. Perhaps 5,000 miles awaits future exploration and mapping. Jewel Cave remains cool (in the 50s F) year round.

Much of Jewel Cave National Monument supports a forest of tall Ponderosa (western yellow) pine (*Pinus ponderosa*), whose dark needles and bark appear black at a distance, thus giving the Black Hills its name. Mountain mahogany (Meliaceae family) and other shrubs also thrive on the dry canyon hillsides. In addition to the open pine park that clothe the hillsides of the park, a tangle of boxelder, birch, quaking aspen, willow, snowberry, and other berries are scattered in the lower canyons and lower moister valleys. Nearby low-sloping valleys are clocked with various grasses and perennial wildflowers that bloom from spring into autumn—pasqueflower (crocus), shooting star, phlox, evening primrose, kinniknick,

[1] Information in this and several subsequent paragraphs has been synthesized from several sources, including: James B. Thompson, *The Geology of Jewel Cave* (Hot Springs, SD: Wind Cave National Park and Jewel Cave National Monument Natural History Association,1900); William A. Braddock, *Geology of the Jewel Cave SW Quadrangle Custer County, South Dakota, Geological Survey Bulletin 1063-G* (Washington, DC: Government Printing Office, 1963); Arthur N. Palmer, *Jewel Cave: A Gift from the Past* (Hot Springs, SD: Black Hills Parks and Forests Association, 1999); "Jewel Cave National Monument" brochure, December 1974, Vertical File, Special Collections, Devereau Library, South Dakota School of Mines and Technology, Rapid City; Sven G. Froiland, *Natural History of the Black Hills and Badlands* (Sioux Falls, SD: Center for Western Studies, Augustana College, 1999); E. P. Rothrock, *A Geology of South Dakota, Part I: The Surface, Bulletin No. 13* (Vermillion, SD: State Geological Survey, 1943).

western wallflower, and anemone, followed in season by segolily, scarlet globemallow, white penstemon, bluebell, coneflower, daisy, and golden rod. Historically, the vegetated landscape above Jewel Cave and in the southern Black Hills generally supported large herds of elk, white-tail and mule deer, some Rocky Mountain goats, buffalo, and a few grizzly bears, as well as coyotes, bobcats, mountain lions, badgers, and smaller mammals. Many of the mammals (mule deer, white-tailed deer, coyotes, bobcats, weasels, porcupine, marmots, ground and tree squirrels, chipmunks, and cottontail rabbits) remain in the forests above Jewel Cave today.

Fire has played a historic key role in shaping the plant and animal communities and associated ecosystem processes at Jewel Cave and throughout the Black Hills. Prior to Euro-American settlement in the southern Black Hills that began in the mid-1870s, natural fires occurred relatively often in the Ponderosa pine forests above Jewel Cave (on average about every twenty to twenty-three years). The diminishing frequency of fires due to fire suppression forest management practices since the early 1900s have caused numerous changes in the Ponderosa pine forests in the Jewel Cave area: fewer fires have created crowded clusters of tree saplings and young pole trees; slower tree growth and higher death rates among older trees; retarded the production of soil nutrients; increased forest vulnerability to damaging insects and tree diseases; diminished the water in streams; and reduced wildlife that depends on herbaceous vegetation. All of these changes brought about by less frequent fires above Jewel Cave have contributed to a loss of diversity of wildlife habit and the species it supports.[2]

The underground world of Jewel Cave owes its existence to the geologic history that created the Black Hills many millions of years ago. Rising some 4,000 feet above the encircling northern Great Plains, the Black Hills are a great oval island of uplifted layers of the earth's crust, stretching 125 miles to the north and south and 75 miles to the east and west at the oval's widest section. (Although most of the uplift forming the Black Hills is in South Dakota, a small portion of the uplifted formation stretches northwest into Wyoming, where it is known as the "Bear Lodge Mountains.") The hard igneous rock of granite and schist that comprise the central dome, climaxing in 7,242-foot Harney Peak (about twenty miles

[2] Peter M. Brown and Carolyn Hull Sieg, "Fire History in Interior Ponderosa Pine Communities of the Black Hills, South Dakota, USA, *International Journal of Wildland* 6: 3 (1996): 97-105.

northeast of Jewel Cave), has been eroded to expose deposited layers of softer material, which have been sculpted by wind and rain over hundreds of thousands of years.[3]

The wild jumble of pinnacles, cliffs, and chasms that form the central dome of the Black Hills is surrounded by an oval outward-sloping limestone plateau on the western flank of the Hills, known as the Pahasapa limestone, or "Minnekahata" limestone. Roughly 300 million years ago, this outer ring of limestone, sandstone, and shale was deposited at the bottom of an ancient inland sea. Over time, this mile-wide encircling ring of softer less-resistant sedimentary material eroded resulting in deeply incised narrow canyons that occasionally widened into broader valleys.

For modern European and Euro-American explorers the outer high limestone cliffs presented an escarpment that discouraged access to the interior central dome of the Black Hills. The few streams that flowed outward from the heart of the Hills moved to the east through the narrow canyons of Beaver Creek, French Creek, Battle Creek, Spring Creek, Rapid Creek, and Boxelder Creek into the branches of the Cheyenne River. Although the gradually sloping southern Hills made human entrance to the mountains easier, the scarcity of water and the sparse vegetation on the southern slopes presented its own distinctive challenges to early Euro-American access. The slightly higher steep ramparts of the dryer more isolated broad western limestone plateau, the host rock of Jewel Cave, experienced extremely severe winters caused by exposure to storms approaching from the west.

Jewel Cave and most other Black Hills caves are located in the Pahasapa limestone rock layer of the Black Hills. The cave formed over a period of millions of years as water dissolved and later deposited calcium carbonate in the limestone. Early in the geologic history of Jewel Cave formation, groundwater joined with rainwater that had seeped through

[3] For more detailed scientific information on Jewel Cave geology see: Dwight Deal, "Geology of Jewel Cave National Monument, Custer County, South Dakota (M.S. thesis, University of Wyoming, 1962); Delmer L. Brown, "A Study of the Geology and Description of a Portion of Jewel Cave" (B. S. thesis, South Dakota School of Mines and Technology, 1959); John Edward Roth, "Porosity Evolution of the Pahasapa (Madison) Limestone at Jewel Cave National Monument" (M.S. thesis, South Dakota School of Mines and Technology, 1977); Michael Wiles, "Infiltration at Wind and Jewel Cave, Black Hills, South Dakota (M.S. thesis, South Dakota School of Mines and Technology, 1992).

overlaying sandstone filled fractures in the limestone (created by movement of the earth's crust). This water slowly dissolved limestone as it moved along joint planes. Over several million years, the limestone that was dissolved and carried away in solution, enlarged small fractures into larger passageways that formed a three-dimensional grid-like network.

Sometime after the initial formation of passageways, new water that flooded cave passages and deposited calcium carbonate in the form of calcite crystals, mostly in bluntly pointed hexagonal crystals (called "nailhead spar"). In places, the layering of calcite crystals that lined the passageways reached a thickness of eighteen inches. Finally, the water receded, leaving all known passages above the water table. The only known natural entrance, through which blowing wind attracted the attention of visitors to the area, is found in the east cliff above Hell Canyon.[4]

The subterranean Jewel Cave became a national monument in 1908, principally for the scientific interest in its geologic history and its curious and attractive rock formations. Although initially considered for designation as a game preserve that would have highlighted terrestrial wildlife, it was Jewel Cave's underground features that served as the principal rationale for creating a federal public park. The long history of the land now contained in the national monument has much more to do with human use of the land above the cave and with the historic and present cultural features on the landscape that convey some of the evolving efforts to develop and promote Jewel Cave's underground attractions.

This Historic Resource Study presents an overview of the history now contained in Jewel Cave National Monument. Emphasis in this study is on the time period before the National Park Service (NPS) began administering Jewel Cave in 1933-1934. This study endeavors to not only narrate the history of local events and people that have been associated with Jewel Cave history, but also aims to provide an understanding of this local history by placing it in the broader context of regional and national historical trends and movements. The Michaud family, beginning with the arrival of Felix Michaud in the late 1870s and ending with Mamie Michaud's sale of Jewel Cave in the late 1920s, has been a central player in a fifty-year slice of Jewel Cave history. The Michaud family serves in this study as a thread that connects larger historical themes (such as settlement, ranching,

[4] Different hypotheses about the formation of Jewel Cave are presented briefly in Palmer, *Jewel Cave*, 46-47.

mining, and tourism) in the tapestry of Black Hills history with the sequence of local activities at and near Jewel Cave.

Chapter 7 goes beyond the pre-NPS period of administration. It tells the history of Civilian Conservation Corps activities at Jewel Cave in the 1930s and of the period of NPS Mission 66 building construction in the 1960s and early 1970s. The physical imprint of these activities is very much in evidence in the early twenty-first century, along with cultural landscape features (such as the faint remains of paths, roads, building foundations, grazing, and human-caused fires) that predate-NPS administration and date back to the late 1800s.

Chapter 1

First Residents

Introduction
Paleo-Indian
Archaic
Protohistoric
Europeans
Rock Art
Lakota

Introduction

The first residents of the Black Hills like other residents of other places and times, shared a common morphology, a common physiology, and resulting common biological imperatives. The few ways in which their responses to physical environments differed from that of other peoples provides us an opportunity to expand our knowledge and understanding of ourselves. Although the story of pre-European Black Hills residents was not memorialized by tomes of writings, it is recorded by those objects they created, used, and left behind.

The first residents of the Black Hills left artifacts of their daily lives; arrow points, spear points, fire pits, and bones. They left tools for butchering, and tools for creating. They left rock art as well as offerings to the concepts depicted in that art. In short, they left dots along the contour lines that defined their culture. Connecting those dots into a meaningful matrix is our profoundly legacy.

Paleo-Indian

The prehistoric human use and occupation of the Black Hills not only fascinates us with its wealth of anthropological lessons about human commonality and human divergence, it tempts us to fill the gaps in our knowledge. Scientific evidence shows prehistoric human activities along the middle Missouri River to the east, human presence along the Loup River to the south, and small Paleo-Indian groups hunting the Prairies. But prehistoric Black Hills could be compared to a family album that not only has lost an occasional page, but has entire sections missing. In 1984, when United States Forest Service archaeologist Steve Cassells with David Miller and Paul Miller had completed their survey of 544,264 acres of Forest Service land, they wrote:

> Given that quantity of systematic survey, along with limited excavation, it might be expected that our knowledge of the prehistory of the Black Hills and the Black Hills National Forest would essentially be complete. This is not the case. There do seem to be some holes in the cultural sequence, and the question remains whether the gaps are reflective of reality, or a bias in sampling, preservation or exposure.

> Two obvious gaps in the Black Hills culture sequence are the lack of Clovis and Folsom sites. These are known from the Badlands to the east, and from the Powder River Basin to the west. It is true that such finds are rare even in the richest of Paleo-Indian locales. However, it seems unusual that the Black Hills lack the most minimal of evidence.[1]

Clovis artifacts found adjacent to the Black Hills include a mammoth kill site excavated in the White River area of the Badlands east of the Black Hills and an excavation in the Powder River Basin west of the Hills. Additionally, a Clovis-age deposit comprised the lowest section of an excavation in Agate Basin immediately southwest of the Hills.[2]

The Clovis (or Llano) culture was the earliest of Paleo-Indian cultures dating from 10,000 to 9,000 BC whose artifacts have been found from the Rocky Mountains to the Atlantic and from southern Canada to northern Mexico. Clovis people are thought to have lived primarily by hunting mammoths, bison, horses, camels, and other large Pleistocene animals as well as having foraged for edible plants. The Folsom culture dates from around 9,000 to 7,000 BC.[3]

Gaps in the prehistoric chronology also make it difficult for anthropologists to draw definitive conclusions about the specific ethnological origins of modern tribes. Archaeologist Patricia Albers, a University of Minnesota faculty member who conducted anthropological work in the Black Hills in 2003, state the problem succinctly:

> Notwithstanding numerous hypotheses on the subject, it is nearly impossible to determine whether a given archeological assemblage is associated with any one ethnolinguistic group or whether it contains cultural features widely adapted and shared by people of different

[1] E. Steve Cassells, David B. Miller, Paul V. Miller, *Paha Sapa: A Cultural Resources Overview of the Black Hills National Forest, South Dakota and Wyoming* (Custer, SD: United States Department of Agriculture, Forest Service, 1984), 50. Note: Artifacts of the Folsom culture are also found throughout North America between the Rocky Mountains and the Atlantic and between southern Canada and northern Mexico. Edward B. Jelks and Juliet C. Jelks, editors, *Historical Dictionary of North American Archeology* (New York: Greenwood Press, 1988), 106, 166.
[2] Linea Sundstrom, *Storied Stone: Indian Rock Art in the Black Hills Country* (Norman: OK: University of Okalahoma Press, 2004), 9.
[3] Cassells, Miller, Miller, *Paha Sapa,* 50

> backgrounds. Except in instances where sites are associated with deep and uninterrupted chronologies that can be traced to the historic era, often the case for horticultural groups with some degree of sedentism, attempts to trace tribal identities become very speculative as one moves back in time beyond the protohistoric[4] to the Late Archaic period.[5]

When the physical evidence is not clearly presented in uninterrupted, physically ascending layers of artifacts (which provide a chronological picture of cultures from the most ancient to the most recent), we are left to conjecture.

Regardless of the gaps, what we do know about prehistoric Black Hills is impressive. There is abundant evidence supporting the conclusion, for example, that Plano groups[6] were present in the Black Hills. As of this writing, archaeologists have excavated at least four Plano group sites in and immediately adjacent to the Black Hills: the Hudson-Meng bison kills site, fifty miles south of the southern Hogback; the Long site immediately outside of the southern Hogback; and the Agate Basin, and Jim Pitts sites, both in the southwest Hills.[7] Importantly, some of the Plano artifacts found (points and biface knives) were constructed of material indigenous to the Black Hills.[8] An archaeologically significant find in the Wind Cave National Park, known as the Beaver Creek Shelter site, was radiocarbon dated from 7,550 to 8,570 BP (before the present) so we know that people were living in the Black Hills at least then.

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[4] The ***protohistoric*** period is that period of time when European goods had appeared within the Native American culture, but before the actual appearance of Europeans.

[5] Patricia C. Albers, Anna Bendickson, Christina Berndt, Elizabeth Brown, Yvonne Kelly, Vanessa Kittelson, Kim Rossina, Stacy Schlegel, Andrea Yardley, *The Home of the Bison: An Ethnographic and Ethnohistorical Study of Traditional Cultural Affiliations to Wind Cave National Park* (Custer, SD: Wind Cave National Park, National Park Service, 2003).

[6] The ***Plano*** culture is the most recent of the three groups into which archaeologists have divided the Paleo-Indian cultures. The Plano culture is generally dated from 7,000 to 4,000 BC. Plano groups were hunter-gatherers, whose hunting focused principally on large animals, particularly bison. Jelks and Jelks, *Historical Dictionary of North American Archeology*, 378.

[7] Sundstrom, *Storied Stone,* 12.

[8] Cassells, et al., *Paha Sapa*, 51.

Paleo-Indian[9] occupations (which, by definition, included Plano groups) were concentrated in the Black Hills interior (west-central limestone plateau—an area defined by Beaver Creek, Deerfield, Moon, and Gillette ridges). It appears that foragers during this late Paleo-Indian period only slightly used the southern Hogback and central mountain uplift. Their greatest presence, based upon the archaeological evidence, seemed to have been on the western Limestone Plateau near springs. Chisels, spoke shaves, and biface implements have been found at sites in this area; their close spatial and temporal proximity would appear to indicate the manufacture of hunting weapons there. Interestingly, these finds are generally characterized by physical evidence of both hunt preparation and butchering activity. Assemblages of the remnants resulting from the manufacture of biface hunting points as well as the hunting shafts to which the points were attached were present. This is a departure from evidence discovered from the Archaic period of Black Hills occupations, where staging or hunt-preparation activities such as shaft manufacture appeared to have been performed in areas peripheral to the Black Hills.[10] Some researchers believe that the Paleo-Indian groups may have entered the interior of the Black Hills in small, specific-task groups, such as hunting groups rather than family groups.[11]

Significantly, very few grinding stones were found in the Hogback area, implying that very little food preparation was done there. However, grinding stones were found not far to the south, along the Cheyenne River, indicating the preparation of food and, permitting the reasonable

[9] It is important that the reader be somewhat familiar with some terms and conventions used by archaeologists that are not a part of common lexicon. Some of the terms necessary for an understanding of this chapter's narrative are: ***Paleo-Indian*** (11,000-4,000 BC); ***Archaic*** (a period, culture or era sandwiched between the Paleo-Indian and the Woodland periods); ***Woodland*** (a cultural tradition that followed the Archaic tradition and generally appeared by 1,000 BC). As used by archaeologists, these terms denote a plethora of cultural, temporal, and spatial detail. None, however, are intended to precisely define a specific time, but rather are used to broadly define general cultural attributes. For example, the production of clay pots using techniques that left fabric or cordage impressions on the pot is one of the attributes used to classify a culture as a Woodland period culture. But such pots found in one geographical region may date from 1000 years before or after similarly made pots found in a different region. An excellent source for a fuller treatment of these and other terms is Jelks and Jelks, editors, *Historical Dictionary of North American Archeology.*

[10] Brad Noisat, "The PaleoIndians., *Black Hills National Forest Cultural Resources Overview,*" Lane Rom, Tim Church and Michele Church, editors (Custer, SD: US Department of Agriculture, Black Hills National Forest, 1996), 2a-5.

[11] Alice M. Tratebas, "Black Hills Settlement Patterns: Based on Functional Approach*"* (Ph.D. dissertation, Indiana University, 1986), 338.

conclusion that these sites were occupied by family groups rather than specific-task groups such as hunting parties.[12].

Archaic

About 8000 years ago, the climate was undergoing a dramatic change. It was the end of the most recent ice age and the advent of a climate more comparable to what we have today. During the ice age, the weather was predominately wet and cool, with little seasonal variation. As the ice age ended, the climate became dryer and warmer, and seasonal variations became more pronounced. Climatic changes necessitated not only adding new foods to the diet but also adapting to a wider variety of foods. For example, one archaeological site located on the Belle Fourche River in present-day Wyoming, which is bounded on the west by open prairie and on the east by wooded areas of the Black Hills, uncovered evidence that the residents had availed themselves of a very wide diversity of plant and animal resources: mussels from the Belle Fourche River; squirrel and deer from the forest edge; and bison from the edge of the Prairie. Their diet also included wild onion, silver buffalo berry seeds, Plains prickly pear cactus leaves and seeds, chokecherry pits, limber pine nuts, wild rose hips, sego lily, biscuit root, and bitterroot.[13]

Greater seasonal variations in the weather also had a significant social influence on human groups living near the Black Hills. Since plant varieties became increasingly available only during certain times of the year; and game animals moved in response to floral seasonal changes, human groups became more mobile in pursuit of the plants and animals that constituted their diet. This forced increase in mobility inhabited the development of large, long-term communities among the original residents. Groups were often forced to split into smaller groups to travel different directions, each seeking its own sustenance. During good years, they would rejoin, forming large communities that would participate in communal bison hunts. During lean years, the community would again split into small groups, wandering to hunt small game and gather plant food.

Archaeologists generally identify this period that foretold the end of the ice age and the advent of a dryer, warmer, more seasonal era (about 7,500 years before the present) as the end of the Paleo-Indian period and the beginning of the Archaic Period. The Archaic Period stretched from 7,500 years until approximately 1,500 BP.

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[12] *Ibid.,* 72.

[13] Raymond DeMallie, ed., "Plains," *Handbook of North American Indians, Volume 13, Part 1* (Washington, DC: Smithsonian Institution, 1988), 136.

Several sites excavated in the Black Hills that have revealed physical evidence from the Early Archaic Period: Beaver Creek, Boulder Creek, and Red Canyon, all Black Hills rock shelters, Victoria Creek, Buster Hill, and Blaine. The Black Hills, however, saw its heaviest prehistoric use by humans during the Middle Archaic Period, beginning about 5,000 BP. Radiocarbon dating from Black Hills sites substantiate a peak in prehistoric use between 3,500 and 4,000 BP.[14] Based on the nature and quantity of artifacts found at various Black Hills sites, archaeologists have hypothesized two general site types from the period. First, sites along permanent streams or high-discharge springs were probably occupied by larger groups for longer periods. A wide variety of foods appear to have been processed, and tools and weapons were manufactured at these sites. Second, sites adjacent to low-discharge springs appear to have been used primarily for hunting and butchering but for very little other food production.[15]

Some anthropologists argue that the Black Hills was first occupied year-round as long ago as 5,000 BP.[16]

> With climatic improvement about 5,000 BP, these groups [were] fully adapted to the Black Hills environment. [F]or the first time one can speak of a native population, or at least an inquiry about the meaning of 'native occupations' versus 'intrusions' can be initiated.[17]

Year-round residents of the Black Hills during the Archaic Period appear to have continued to hunt and gather as they had when they were visitors—communal bison hunting combined with individual hunting for deer and other large and small game, as well as broad spectrum foraging.[18] Archaeologist Brad Noisat observed that their methods of exploitation had to adapt to changing resources:

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[14] Sundstrom, "Middle Plains Archaic," *Black Hills National Forest: Cultural Resources Overview,* Rom, et al., editors, 2c-1.
[15] Tratebas, *Black Hills Settlement Patterns,* 83.
[16] Cassells, *Paha Sapa,* 55.
[17] Brad Noisat, "Early Plains Archaic," *Black Hills National Forest: Cultural Resource Overview*, Rom, et al., editors, 2b-3.
[18] James D. Keyser and Carl M. Davis, "Cermanics from the Highwalker Site: A Study of Late Prehistoric Period Cultural Systematics on the Northwestern Plains," *Plains Anthropologist* 27 (1982): 287-303. Also see James D. Keyser and Carl M. Davis, "Lightning Springs: 4000 Years of Pine Parkland Prehistory," *Archeology in Montana* 25 (1984): 1-64.

> These people . . . found their principal food source, bison, scarce. Possibly decimated by the old mass kill techniques and under severe stress to reach a viable carrying capacity, bison may have vanished from the food regimen. This only reinforced the pattern of broad-spectrum foraging and cultural isolation. Previously this pattern had been countered by periodic food surpluses and communal hunts. Individual groups in their territories were compelled to 'reinvent' themselves to survive. They became hunters of deer and elk. Individual ability and initiative needed to obtain these species supplanted the ethic of group cooperation and group success. This 'scaled-down' life way left small imprints: a few, small sites scattered throughout the Forest, all but invisible in light of succeeding Middle and Late Archaic occupations.[19]

The archaeological hypothesis being argued by Noisat in this quote is that human groups began placing an increasing emphasis on exploiting food sources of the Black Hills as the bison population on the Plains surrounding the Black Hills diminished, and this change in emphasis resulted in a broader dispersal of the population into smaller groups that were spread farther apart across the landscape.

We can learn about prehistoric groups not only from the nature of their tools and implements, but also from the raw material that they use to make these objects. In the case of Archaic Period Black Hills residents, that raw material was stone. Much of the lithic material present in the Black Hills was of inferior quality, and Archaic Period residents imported the lithic resources used for tool manufacture. A type often found today in archaeological explorations is porcellanite, a silicate often found in Wyoming's Powder River Basin. Other lithic materials found in the Hills that are associated with the Archaic Period human presence are flint from the Knife River and brown and plate chalcedony from the Badlands. The source of these materials permits conclusions regarding the travels of the Archaic Period Black Hills residents as well as their commercial intercourse. Since Powder River Basin porcellanite and Badlands chalcedony are often found together and the two locales are not terribly remote from each other, one can logically conclude that the original users of these materials probably

[19] Noisat, "Early Plains Archaic," *Black Hills National Forest,* Rom, et al, editors, 2b-2.

visited both locales. The Knife River Flint, on the other hand, had been imported from a distance of more than three hundred miles, which would lead one to conclude that that material was probably a trade item. Based upon geomorphological and spectrographic studies, scientists have concluded that there were four major outside sources of lithic material that was imported into the Black Hills: Spanish Diggins, Wyoming (which included a fine-grained, yellow-to-tan quartzite often confused with a quartzite indigenous to the Black Hills); porcellanite sources north and northwest of the Hills (the nearest is the Powder River Basin)[20]; Knife River in west-central North Dakota (Knife River Flint); and the Badlands east of the Hills (flattop and plate chalcedony).[21]

The Archaic Period in and around the Black Hills also appeared to be a time of other innovations, both physical and social. Pit houses, corrals and pounds for the capture and killing of large animals, caches to store both food and tools, production of micro blades and micro tools, rock-filled roasting pits—these represented either new developments during this time or substantial improvements to earlier innovations.[22] Some anthropologists have conjectured these physical innovations led to or were accompanied by significant social changes. Specifically, a new way of life, characterized by an adherence to scheduled and organized patterns of resource exploitation, developed out of more unscheduled hunting and foraging. Regular seasonal movements in pursuit of resources also served to encourage different social interactions. Pit houses, compounds, and corrals had to be constructed and available during the appropriate season year after year, and the logistics of group movements had to be coordinated.[23]

The late Archaic Period saw Black Hills population decline compared to its level during the Middle Archaic Period. Extrapolations of population size from human use intensities indicate that population levels reached a low point between 3,000 and 2,500 BP. Radiocarbon dating of fire pits and components seem to indicate a steady population recovery, but not reaching the numbers seen in the Middle Archaic Period.[24] Close proximity of components at various sites around the peripheral foothills

[20] Interestingly, porcellanite is a silicate created by protracted exposure of slate depositions to the intense heat of natural fires occurring in subterranean coal deposits.
[21] Cassells, *Paha Sapa*, 61.
[22] Kevin D. Black, "Archaic Continuity in the Colorado Rockies: The Mountain Tradition," *Plains Anthropologist* 36 (1991): 1-29. See also George Frison, *Prehistoric Hunters of the High Plains* (New York: Academic Press, 1991).
[23] Linea Sundstrom, "Middle Plains Archaic," *Black Hills National Forest,* Rom, et al., editors, 2c-1—2c-21.
[24] Tratebas, *Black Hills Settlement Patterns,* 114. See also Linea Sundstrom, *Cultural History of the Black Hills With Reference to Adjacent Areas of the Northern Great Plains* (Lincoln, NE: J & L. Reprints, 1989).

have led some archaeologists to conjecture that sites used by Black Hills Middle Archaic populations continued to be used seasonally by groups during the Late Archaic Period.[25]

Scattered Late Archaic sites have also been found throughout the Black Hills interior as well. These sites include large base-camp sites as well as smaller, special-activity sites, and include open-air as well as rock-shelter sites. Late Archaic sites appear to have often been situated near springs and meadows; however, rock shelters throughout the Black Hills were also occupied, particularly in the western foothills. The archaeological evidence also appears to support the conclusion that Late Archaic Black Hills residents used several types of dwellings. Tepee rings have been found in both the eastern and the western foothills. Large, multi-component fire-pit and hearth complexes lead to the conclusion that Late Archaic groups may have continued the diversification-based lives that developed during the Middle Archaic. This pattern included a subsistence economy based on the scheduled exploitation of plant food as well as procurement of a wide diversity of fauna, including deer, pronghorn, jackrabbit, and elk. The location of plant food as well as wood for fires appears to have dictated the specific locations of sites.[26]

Significantly, as the Late Archaic Period wore on, the northern Plains became increasingly rich in grasses, with resulting increase in the bison population. And those changes caused the human pendulum to swing again. Human groups again placed increased emphasis on bison procurement, but this time with a new technological innovation—the bow and arrow. First introduced approximately 2,000 years BP, the bow and arrow offered greater accuracy and range compared to the dart and lance, and increased the hunter's efficiency, thus permitting an increased reliance on bison as a food source. As the bison population grew during the Late Archaic Period, the Black Hills hunter-and-gatherer groups had more frequent encounters with hunting parties from the Missouri River farming communities. These farmers were leaving their villages after spring planting to procure bison meat, returning in the fall to harvest their crops.[27]

It is important to bear in mind that the transformations being discussed here, such as the changing emphasis on the types of food relied upon, were neither immediate nor total. Climate changes and the related changes in the flora and fauna mix were slow, protracted evolutionary events taking several decades, generations, even millennia in some cases. Consequently, the changes in resource exploitation were a prolonged

[25] Linea Sundstrom, *Rock Art of the Southern Black Hills: A Contextual Approach.* (New York: Garland Publishing, Inc., 1990).
[26] Linea Sundstrom, "Late Plains Archaic," *Black Hills National Forest,* Rom, et al., editors, 2d-1—2d-23.
[27] Lindstrom, *Storied Stone,* 16.

transformation. Neither were these changes total—over time some new flora and fauna items were added to the food mix, or diet, and others abandoned as they became increasingly difficult to find. In short, these transformations are more accurately characterized as shifting emphases, not all-or-nothing changes.[28]

The archaeological literature is of little help when trying to develop understanding of the truly significant cultural and environmental issues specific to Jewel Cave National Monument. As anthropologist Linea Sundstrom has written:

> Lacking a local cultural sequence, much of the current reading of site material from the Black Hills is carried on from the perspective of sequences associated with the Northwestern Plains and also the Plains Woodland and Village Complexes.[29]

A 1995 survey of Jewel Cave National Monument searching for cultural artifacts was conducted by Glenna J. Sheveland and Ann Johnson. Sheveland, the field investigator, spent three seasons from 1992 to May 1995 walking the area in parallel courses, each course separated from the preceding parallel course by approximately one hundred feet. In addition to watching for artifacts lying exposed on the ground surface, the investigator carefully exampled subsurface material that had been exposed by natural phenomena. Roots of trees felled by wind, ground turned by burrowing animals, and ground layers newly exposed by the erosion caused by rain, snow-melt runoff, and the seasonal swellings of streams and springs were all carefully examined. Additionally, the same areas were checked during different seasons in an attempt to avoid ground-obscuring plant growth. The field investigator examined some areas multiple times, including five separate searches of Hell Canyon. The field investigator discovered sixteen new sites, fourteen of which were within the monument. Previous investigations had disclosed six sites within the monument.[30]

In an attempt to develop a statistical base from which a period of use could be extrapolated, the investigator expanded the spatial scope of the study to encompass both the monument as well as an area one mile beyond its borders. A records search revealed that a total of twenty-one archaeological sites had been found by various investigators within this

[28] Tratebas, *Black Hills Settlement Patterns.*
[29] Sundstrom, *Cultural History of the Black Hills,* 11.
[30] Glenna J. Sheveland, "An Intensive Cultural Resources Survey of Jewel Cave National Monument" (Custer, SD: Jewel Cave National Monument, National Park Service, 1995).

expanded area. Of these twenty-one sites, fourteen were presumed to be prehistoric, five were historic, and two sites contained both historic and prehistoric artifacts. Extrapolating from these numbers, the 1992-95 investigators concluded that 75% of the sites located within the monument boundaries should be prehistoric. This projection based on probability proved to be a relatively accurate predictor—87% of the sites found by the 1992-95 investigators were prehistoric. The results of Sheveland's investigation are presented in an appendix to this study.[31]

Unfortunately, the scope of the investigation did not include any subsurface examination either physically or through the employment of remote sensing equipment. Consequently, little more can be said other than that physical evidence of prehistoric human use probably exists within the boundaries of Jewel Cave National Monument.

Protohistoric

Many historians and archaeologists maintain that the cultural consequences attributable to the retreat of ice and glaciers from much of the North American continent were equaled or even surpassed by the appearance of European trade goods and the pathogens that came with them. Spain had established a colonial presence in what is today Mexico; France and England had arrived on the Saint Lawrence in eastern Canada, and France also had arrived at the mouth of the Mississippi River. Europeans wanted furs and pelts from the indigenous populations of North America and traded steel, cloth, guns, and horses for them. The Protohistoric Period is the period when European goods began to enter the material culture assemblage of Native Americans, but was prior to the actual settlement of Europeans. In the Black Hills, the Protohistoric Period is generally considered to be from 1600 to 1874 AD. Much of the information regarding native cultural dynamics during the Protohistoric Period is derived from writings of European trappers, explorers, or military personnel.

Unfortunately, along with European trade goods from the Old World came pathogens, most notably the small pox virus, that were new to the peoples of the New World. Smallpox is a disease transmitted by casual human interaction but with potentially deadly results. A person infected with the smallpox virus can communicate the viral infection to other human hosts with minimal contact, and when antibodies are not present, there is a comparatively high probability that the new human host will die from the disease. The denser the human population, the higher the incidence of communication. When this biological fact is juxtaposed

[31] *Ibid.,* 5-6.

against the demographics of the Late Archaic and early Protohistoric Plains, it becomes apparent why smallpox had a much more devastating effect on those agricultural populations living in densely settled villages along the middle Missouri River than they did on small roving bands of nomads like the Lakota. The wandering groups of the Sioux, in general, were far less vulnerable to various epidemics than the agricultural villages of the Arikaras, Hidatsas, and Mandans.[32]

Prior to these epidemics, residents along the Missouri River, including Mandan, Arikaras, and others, had traveled into the Black Hills in the summer to hunt and trade. This pattern of summer use, which may have prevailed for nearly a millennium,[33] was dramatically altered by the arrival of smallpox pathogens. Epidemics occurred along the Missouri River in the winters of 1779-1780, 1780-1781, and again in 1801-1802. In 1795, Jean Truteau reported that the Arikaras had been reduced from thirty-two large villages to two villages, and from 4,000 warriors to 500 warriors. The smallpox virus reached the Mandan and Hidatsa villages in 1781, having a similarly devastating effect on those populations.[34]

The high mortality from smallpox experienced by these villages had a profound and lasting effect on the demographics of the Black Hills. Historically, the presence of these densely populated, well-defended farming villages along the middle Missouri River had been a barrier to population groups that had moved west across the Missouri River, onto the Plains, and ultimately to the Black Hills. Among these groups, was the population that would ultimately have a profound impact on the Black Hills—the Lakota groups, who had been moving south and west from above the Great Lakes area for generations. The devastation visited upon these Missouri River farming village populations by the smallpox epidemics compromised their ability to defend themselves. The decimation of Indians located below the mouth of the Cheyenne River by smallpox epidemics between 1771 and 1781 opened the way for the more northerly Teton tribes (Lakota) to cross the Missouri River.[35]

By 1803-1804, when the arrival of Meriwether Lewis and William Clark announced the new American presence on the Missouri, the old borders and the old balance of power along the Missouri River were already undergoing radical change. The Mandans, Hidatsas, Arikaras, and Omahas

[32] Richard White, "Winning the West: The Expansion of the Western Lakota in the Eighteenth and Nineteenth Centuries," *Journal of American History* (September 1978), 325-26.
[33] Linea Sundstrom, "Prohistoric and Historic Native American," *Black Hills National Forest,* Rom, et al., editors, 2f-4.
[34] Donald Jackson, editor. *Letters of the Lewis and Clark Expedition with Related Documents* (Urbana, IL: University of Illinois Press, 1962), 166, 228, as quoted in White, "The Winning of the West," 326.
[35] DeMallie, "Sioux Until 1850," 722.

possessed only a shadow of their former strength. The Lakota dominated the upper Missouri nearly to the Yellowstone River. An Oglala party under Standing Bull had reached the Black Hills in 1775-1776, and by the turn of the century the Oglalas were contesting the Plains country between the Missouri and the Black Hills with the Kiowas, Arapahos, Crows, and Cheyennes.[36]

It is important to be aware that not only was there great loss of life within these communities, there were profound changes in regional cultures and demographics. Groups once part of strong, thriving, well-defended villages were suddenly alone and isolated, and forced to cast their lot with other similarly isolated groups from other areas, or with nomadic groups. Life patterns defined by village community, adhering to seasonal planting, cultivation, and harvesting—life patterns that had predominated along the Missouri River for millennia—were forever changed for these epidemic survivors and their children and their children's children.

Anthropologists have been unable to ascertain which tribes occupied the Black Hills at which times. There is general agreement, however, that the Black Hills was never occupied by any single tribe to the exclusion of another tribe during the Protohistoric Period. According to a team of National Park Service anthropologists who completed an enthnohistorical study of nearby Wind Cave National Park in 2003:

> This lack of territorial exclusiveness was very common in the Plains region, and contrary to the conventional image of tribes being dispersed across the landscape like separate pieces in a jigsaw puzzle, populations of diverse ethnic origin were generally not separated by distinct territories but were interspersed over the same territorial ranges.
>
> A strong case can be made for the presence of Apachean-speaking peoples, commonly known as the Padoucas, in the vicinity of Wind Cave National Park from the sixteenth through the early eighteenth century. For reasons that are not at all clear, the Padoucas' powerful presence in the region was destroyed, leading them to abandon the area or join forces with other tribes, including some of their erstwhile enemies.

[36] Jackson, *Letters of the Lewis and Clark Expedition,*" as quoted in White, "Winning of the West," 327.

> By 1804 the Black Hills were held and completely surrounded by the Cheyenne with small numbers of Plains Apaches and Arapaho in their midst. At this point in time, most of the Arapahos and Plains Apaches had moved to the western side of the Hills and to locations along the Platte River and beyond.
>
> It is clear that in the first decade of the nineteenth century, when Lewis and Clark wrote about the locations of tribes in the region, the lands between the forks of the Cheyenne River and the Platte, which included the southern Black Hills and Wind Cave National Park, were the shared territorial domain of the Arapahos and Cheyennes. Indeed, we can assert that the Hills were at the center of these two tribes' territorial ranges, with the largest concentrations of Cheyennes reported on the northern and eastern sides of the Hills and the main body of Arapahos located in areas to the west and south. It was not until the decades after 1825 that the Lakota became the dominant population in the region.
>
> In the coming decades, the Arapahos, Cheyennes, and Lakotas would be the only populations regularly affiliated with the Black Hills.[37]

The horse and the gun would also profoundly and permanently transform many aspects of life in the Black Hills and the surrounding Prairie. The first horses and guns reached the Black Hills area during the period 1679-1750[38]; horses came from Spanish sources to the Southwest,

[37] Patricia Albers, Anna Bendickson, Christina Berndt, Elizabeth Brown, Yvonne Kelly, Vanessa Kittelson, Kim Rossina, Stacy Schlegel, and Andrea Yardley, *The Home of the Bison: An Ethnographic and Ethnohistorical Study of Traditional Cultural Affiliations to Wind Cave National Par* (N.p.: National Park Service and the University of Minnesota, 2003), 50-51. Unfortunately, the authors neither present the evidence supporting their arguments, nor refer the reader to the source(s) of their information.

[38] Frank Secoy, *Changing Military Pattern of the Great Plains Indian, Monograph 21, American Ethnological Society* (Seattle: University of Washington Press, 1953). See also Wilbur Ney, *Bad Medicine and Good: Tales of the Kiowa* (Norman, OK: University of Oklahoma Press, 1962) and Mildred Mayhall, *The Kiowas* (Norman, OK: University of Oklahoma Press, 1871.)

and guns from the French and English sources to the Northeast. According to some anthropologists, including Linea Sundstrom, the gun and horse not only transformed tribal alliances, which became increasingly based upon the ability to acquire guns or horses, it also resulted in some groups abandoning semi-horticultural activities in favor of a more nomadic life.

Native American uses of the Black Hills must be examined within the context of those radical and rapid contemporary changes taking place in the Plains surrounding the Black Hills. Prior to the introduction of the horse, several ethnic groups occupied the Black Hills and the surrounding area. By 1700, Crow, Kiowa-Apache, Kiowa, Comanche, and Suhtai are believed to have been there,[39] followed first by the Arapaho and Cheyenne and much later by Lakota groups moving south and west. Arapaho and Cheyenne had abandoned their semi-sedentary, horticulturist life near the Missouri River east of the Black Hills. This movement resulted in the displacement of the Crow and Kiowa. As presented in the table in this chapter, entitled "Native American Groups That Occupied the Black Hills," by the mid-1700s the Arapaho and Cheyenne were the predominant ethnic groups in the Black Hills.[40] Some researchers maintain that some Arapaho may have been in the Black Hills area as early as 1550.[41] The Arapaho, in turn, were displaced by groups, including the Lakota. There may have been a time when the Arapaho and the Cheyenne both lived in the Black Hills area and perhaps even cooperated in trade activities; however, by the end of the 18th century, increasing pressure from Lakota groups resulted in the Arapaho moving south to live along the Platte River.[42] By 1816 Lakota groups had displaced both the Cheyenne and Arapaho, who then occupied the area of the headwaters of the Platte, Arkansas, and Red rivers, well south of the Black Hills.[43]

[39] Douglas Bamforth, *Ecology and Human Organization of the Great Plains* (New York: Plenum Press, 1988).
[40] Sundstrom, "Protohistoric and Historic Native American," *Black Hills National,* Rom, et al., editors, 2f-3.
[41] Carl Schlesier, "Introduction," *Plains Indians, A.D. 500-1500: The Archeological Past of Historical Groups,* edited by Karl Schlesier (Norman: OK: University of Oklahoma Press, 1994).
[42] Albers, et al., *Home of the Bison.*
[43] Zachary Gussow, "Cheyenne and Arapaho Aboriginal Occupation," *Arapaho-Cheyenne Indians,* edited by D. A. Horr (New York: Garland Publishing, 1974), 83.

Europeans

A snapshot of these cultural dynamics is offered by the field notes prepared by Lewis and Clark in 1805 on their way west. Lewis and Clark recorded an ethnic dispersal they gleaned from conversations with trappers, traders, and Native Americans. They reported Cheyenne, Comanche, Kiowa, and Kiowa-Apache groups at the head of the Belle Fourche River; Suhtais at the head of the Cheyenne and White river; and Arapahos at the head of the North Platte. Lewis and Clark also recognized the formidable presence of Lakota groups along the Missouri River. They reported that it was the one tribe that had the power to significantly affect the ability of the United States to trade up the Missouri.[44]

Notwithstanding the Lewis and Clark report, some anthropologists believe that Lakota groups had entered the Black Hills area about 1775 and within a decade had driven out the remaining Kiowa and conquered and later befriended the Cheyenne and Arapaho.[45] The Lakota never exclusively occupied the Black Hills. As late as 1877 when the United States government removed all Native Americans from the Black Hills, Cheyenne and Arapaho camps were interspersed with the camps of the much larger Lakota population. By the 1830s, however, population in and around the Black Hills was predominately Lakota; in fact, some anthropologists assert that the Black Hills was the spatial center of the Lakota culture.[46]

Perhaps the two most important factors influencing the westward expansion of the Lakota toward and ultimately into the Black Hills were disease and commerce. The Western Lakota were very involved in the trade of pelts and continued their expansion westward in search of pelts and skins. Jean Baptiste Truteau described the Lakota he encountered (c. 1796) as being trappers and traders who also hunted buffalo:

> The Sioux tribes are those who hunt most for the beaver and other good peltries of the Upper Missouri. They scour all the rivers and streams without fearing anyone. They carry away every springtime . . . a great number of them, which they exchange for merchandise

[44] White, "Winning of the West."
[45] Marla N. Powers, *Oglala Women: Myth, Ritual and Reality* (Chicago: University of Chicago Press, 1986), 50.
[46] Robert W. Larson, *Red Cloud: Warrior-Statesman of the Lakota* (Norman, OK: University of Oklahoma Press, 1997).

> with the other Sioux situated on the St. Peter's [Minnesota] and Des Moines Rivers.[47]

Rock Art

For thousands of years, people who lived in or visited the Black Hills inscribed or painted messages on rock walls. The area is rich with these dynamic, first-person dispatches from the past.

Rock art, like letters written on paper, can make dry, third-person history and archaeology come alive. Such communications resonate with those who come later by imparting a sense of immediacy to the past, pointing out human commonalities, or showing us our differences. They are intentional, not accidental, and they can speak through the ages.

Unlike rock art, archaeological artifacts communicate to us by inadvertence. Spear points, biface knives, and arrow tips are found where they were thrown, dropped, shot, or perhaps simple lost or discarded. These artifacts can tell us a great deal based on the way they were constructed, what was used to make them, and what other artifacts or organic matter they were associated with *in situ* (at that location). But they were not intended as messages.

On the other hand, the man or woman standing before a rock face patiently chipping or painting is leaving a message. We may not know if the message is biographical, sociological, spiritual, astrological, or any (or all) of these. But we do know it is not the mere doodling hurried scratching of a person engaged in casual communication with nearby neighbors. Significant intentionality went into these petroglyphs, these rock art lythic memorials.

The Black Hills contains some the richest rock art in the entire Great Plains cultural area. As of 1996, 113 rock art sites had been recorded,[48] including both carved and painted figures. The great diversity in rock art styles (three styles of carved and four styles of painted) is evidence that the work was created by differing cultures and at different times.[49]

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[47] Annie Heloise Abel, editor, *Tabeau's Narrative of Loisel's Expedition to the Upper Missouri* (Norman, OK: University of Oklahoma Press, 1939), 120-23.
[48] Linea Sundstrom, *Rock Art of the Southern Black Hills: A Contextual Approach* (New York: Garland Publishing, 1990). See also Linea Sundstrom, "Rock Art," *Black Hills National Forest,* Rom, et al., editors, 3d; and Linea Sundstrom, *Storied Stone: Indian Rock Art in the Black Hills Country* (Norman, OK: University of Oklahoma Press, 2004).
[49] Sundstrom, *Rock Art of the Southern Black Hills.*

Linea Sundstrom, an archaeologist and recognized expert on Black Hills rock art, describes the chronology of rock art in her 2004 book *Storied Stone*. She commences with Late Paleo-Indian or Early Archaic and continues into the Historic Period. Sundstrom reports that the lithic substrate upon which the petroglyphs were placed has not been dated by geologists; however, dates have been estimated based on an assortment of circumstantial evidence such as the height of the petroglyphs above or below present ground level,[50] the type of weapons depicted (firearms/bow-and-arrow/spear)[51], and carbon-14 dating of organic matter found in close proximity. It appears that painting and engraving techniques were used concurrently—the use of one did not predate the use of the other. There is also evidence that the two media were mixed. Residue of material used to impart color has been found inside the incised cuts of engraved work.

Making reasonable fact-based conclusions about the motives behind the rock art is highly problematic. In fact, the nature and substance of the messages intended by the creators of rock art has been the subject of seemingly endless speculation. Some argue that the art is biographical, perhaps autobiographical; others believe the art is astrological or astronomical in its use of simplified star charts. Still others maintain that the work is spiritual or religious, or that humans didn't create the rock art at all. Sundstrom believes that all but the spirit-carvings are plausible motives.[52]

Identifying the motives of persons who acted thousands of years ago is inherently difficult. Even interviews of persons who share a high statistical DNA commonality with these artists of 5,000 years ago are very conjectural. A few proponents of the oral-tradition approach have on occasion asked twentieth-century Lakota to explain the meaning of specific symbols found in rock art that was created some two thousand years ago. Knowledge of a culture's mythology may lead to some informative possibilities. An exploration of Black Hills rock art by students of prehistoric Black Hills mythologies may disclose a high correlation between these ancient beliefs and this ancient art. This is the approach pursued by Linea Sundstrom in her *Storied Stone.*[53]

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[50] Familiarity with the rate of erosion or accretion of the ground immediately adjacent to the rock art can enable a researcher to extrapolate from the present height of the petroglyphs above or below the ground, the approximate number of years ago the ground level would have conveniently permitted a person to reach the rock face that he or she carved or painted.

[51] Most rock art reproduced in both Sandstrom's publications, as well as that published by others, appears to be focused predominately on either hunting or inter-personal violence, consequently, the tools almost always depicted are implements used to kill or injure.

[52] Sundstrom, *Storied Stone,* 24.

[53] *Ibid.*, 24.

Excavations at several sites immediately adjacent to extensive works of rock art have provided material evidence that links the spiritual beliefs of Native Americans and the rock art they created. Artifacts that appear to have never been used by the original owners—tools, arrows, arrow points, biface knives and jewelry—have all been found near petroglyphs. These items appear to have been eminently useable but were merely discarded, unused. One explanation, and a highly probable one that would comport with generally accepted human experience, is that the items were left as offerings. Carbon-14 dating of several of these artifacts has indicated that they were left behind some 2000 years ago.[54] Importantly, the offerings appear to be multi-cultural. It would be safe to conjecture, then, that the site and its associated petroglyphs were not tribe- or nation-specific.[55]

The content of the rock pictures is equally tantalizing. Several designs were used repeatedly by multiple individuals, apparently from multiple cultures or nations, and from multiple geological or anthropological times. These are cultural indicators that give us insight into the individual men and women who stood in front of rock faces thousands of years ago patiently chipping away.

Lakota

What makes a Sioux a Sioux rather than a Cheyenne, an Arapaho, or a Scotsman? Most anthropologists would say that a group is defined by common linguistic and cultural attributes that differ from other groups. Anthropologists traditionally identify three distinct groups within the Sioux culture: the Santee; the Yankton-Yanktona; and the Teton. Although linguistically each of the three had some systematic sound differences and some vocabulary unique to their area, members of each of the three groups were intelligible to one another. They did, however, speak three, distinct dialects, and were, therefore, considered by anthropologists as three discrete cultural groups. The Santee called themselves "Dakota," the Yankton-Yanktonai referred to themselves as "Nakota," and the Teton called

[54] Carbon-14, or radioactive carbon dating, is related to calendar time, but not directly linear with it. The amount of carbon in the atmosphere has varied from time to time throughout the history of the planet. Additionally, the amount of radioactive material within the environment has been substantially modified by climatic changes as well as human actions, particularly since the 1950s. However, for the purposes of the protracted periods being discussed here, being off by a couple hundred years is of minor significance, and increasing the temporal precision of this narrative would not enhance its accuracy or significance.
[55] Sundstrom, *Storied Stone,* 132.

themselves "Lakota."[56] The nomadic Lakota eventually separated from the eastern Dakota bands (Yankton-Yanktonai and Santee) and became predominant in the Black Hills. They became, therefore, a western branch of the Sioux.

Sioux oral tradition places their beginnings near "the northern lakes east of the Mississippi." By the middle 1600s, the Sioux resided in a broad area stretching from central Minnesota into the deciduous forests and open grasslands that followed the Missouri and Mississippi rivers; however, until the eighteenth century they remained on the east side of the Missouri River. Although it is without doubt a gross oversimplification, the movement westward from the Great Lakes region was stimulated in part by escalating warfare from the early 1640s to the mid-1660s when the Iroquois launched large-scale incursions into areas occupied by other nations, including the Sioux. The Iroquois, having been devastated by disease and warfare, looked to the land bordering the Great Lakes and down into the Ohio Valley for additional land and slaves to replace their losses. According to historian Richard White, the Iroquois intrusions into historical Sioux areas resulted in the region's populace becoming refugees.

> Never again in North America would Indians fight each other on this scale or with this ferocity. People fled west, fleeing the slaughter. The largely Algonquian-speaking world west of Iroquoia broke up, and the Iroquois pushed the fragments west.[57]

Initially the Iroquois were armed with guns, and the Algonquian groups—including the Hurons, Petuns, and others—were not. The only response of these groups was to flee west. The fleeing refugees ultimately bumped up against Sioux groups who initially were able to restrain them from occupying Sioux land, forcing the fleeing groups to gather in refugee centers along a strip of land stretching from the Great Lakes south toward the Mississippi.

In the eighteenth and early nineteenth centuries, the western Sioux refugees (representing all three divisions—Santee, Yankton, and Teton, or Lakota) sustained themselves primarily by hunting bison between the upper Mississippi and the Missouri rivers. They neither engaged in farming nor

[56] Raymond J. DeMallie, "Sioux Until 1850," *Handbook of North American Indians, Vol. 13, Part 2* (Washington, DC: Smithsonian Institution, 2001), 718-19. Also see Edward Lazarus, *Black Hills/White Justice: The Sioux Nation Versus the United States, 1775 to the Present* (New York: Harper Collins, 1991), 4.
[57] Richard White, *The Middle Ground* (Cambridge: Cambridge University Press, 1991), 1.

gathered wild rice as their neighbors to the east had done for centuries. During the hunting season, several villages of the western Sioux gathered for communal hunts. Hunters would circle the herd and kill as many bison as possible as the herd milled about. Some archaeologists estimate that between 100 and 120 buffalo were killed in a single hunt.[58] Western Sioux villagers depended almost totally on the food obtained during these hunts. The buffalo were butchered at the site of the kill and the meat was dried and cached for use throughout the winter; hides were treated and used for clothing and shelter covering. The communal hunting group would then move on in search of another herd.[59]

Western Sioux society of the late 1600s was one of small village groups loosely bound by common language and customs. One's primary allegiance was to his or her village, not to what we today refer to as the "tribe." Villages traveled independently of one another except for communal hunt gatherings during the summer months.[60] There was no unilinear organization; boys were named for elders in the father's family, and girls were named for members of the mother's family. Adoption was commonly practiced, and adopted adults and children, both Sioux and non-Sioux, were treated as if they were biological relatives and referred to using kin terms. Captives were on occasion adopted to replace a deceased relative. Leaders, or "chiefs" had no power over village residents other than the power of persuasion. Members of the village were free to follow or disregard advice given by the village leaders.[61]

As noted above, in the 1700s, the Sioux villages began shifting their residence westward because of pressure from the better-armed Chippewa and Cree to their east, and the need to follow the buffalo, whose population was shrinking and whose range was slowly moving west. Additionally, residents to the west of the Sioux, in villages along the Missouri River, became less able to protect their lands. The Teton Sioux, or Lakota, who later occupied the Black Hills, was in the vanguard of this westward movement, and by the mid-eighteenth century the Lakota were hunting the prairies west of the Missouri River.[62]

The band structure based upon lodge groups in large part enabled Sioux groups to maintain social and political stability yet be flexible in adapting to the rapid changes in their lives resulting from their western migration. The lodge group was the minimal social unit that remained together throughout the year. Frequently, two or three lodge groups would gather together for the summer months, but with the advent of winter, the

[58] DeMallie, "Sioux Until 1850," 725.
[59] *Ibid.,* 722.
[60] *Ibid*., 725-27.
[61] *Ibid.,* 725-27.
[62] *Ibid.,* 727.

group would again disperse into separate lodge groups. The lodge groups averaged between ten and twenty families consisting of approximately one hundred people. Although the lodge groups were frequently kinship groups, the members were not always related to one another. Each group was headed by a leader (frequently called "chief" in the more romantic literature), who usually inherited the position from his father.

The leaders did not rule as much as confer and counsel, while the village as a whole or a smaller group of leaders decided most village-wide issues. This political and social fact would later be partially acknowledged in the Laramie Treaty of 1868,[63] when the treaty language expressly required a majority of all males in the tribe to agree to any future changes or modifications to the treaty.[64]

Lakota Spiritual Connection to the Black Hills

Some writers have reported that Lakota tradition placed spiritual significance on the Black Hills. In fact, it would probably not be an overstatement to say that the literature dealing with the Lakota in the Black Hills contains a wealth of reported assertions by numerous Lakotas that the Black Hills were spiritually significant to them. Most of these reports present neither supporting physical evidence nor information supporting the reliability of their informants. For example, Edward Lazarus in his presentation of the Lakota occupation of the Black Hills, writes that "The [Black] Hills were a holy place, a place for vision quests, home to *Wakan Tanka,* the Great Spirit, the sum of all that was powerful, sacred, and full of mystery."[65] Lazarus acknowledges in the preceding paragraph, however, that the Lakota did not secure the Black Hills until the early 1800s. Lazarus also indicates that the source of his information was statements rumored to have been made by a Lakota named Red Thunder, who, in turn, had reported been told of the unique spiritual nature of the Black Hills by a god. Lazarus offers no physical evidence supporting the assertion. Similarly, Watson Parker in his 1962 Master's Thesis writes:

> Even Harney Peak itself, in the very center of the Hills, was supposed to be the shrine of the Indians, a suitable site for vision quests and spiritual exercises. It is significant, however, that one of the principal sources of this notion is the

[63] 15 Stat. 635
[64] A. H. Abel, 1939, quoted in DeMallie, "Sioux Until 1850," 734.
[65] Edward Lazarus, *Black Hills/White Justice: The Sioux Nation Versus the United States, 1775 to the Present* (New York: Harper Collins, 1991), 7.

> story which Black Elk tells of his vision quest -- in which he was transported to the top of Harney Peak, not physically, but in a dream. Even today, local tradition holds that the Indians performed religious rites in vast caves on the western slope of the Peak. It may well have been so, for Harney is an awesome and imposing mountain, well suited to be either the temple or the footstool of the gods.[66]

Parker then adds a footnote indicating that his source was an "old timer" in the Black Hills, who "was not considered a reliable informant by those who knew him best."[67]

The Lakota have argued forcefully that the Black Hills are a sacred space. They are "the heart of everything that is. They are the heart of our home and the home of our heart," the Lakota said during and after U.S. Senate hearings in the mid-1980s.[68] Yes, assertions that the Black Hills have been spiritually significant in Lakota tradition are rendered problematic by the fact that the Lakota occupation of the Black Hills spanned such a brief period of less than two hundred years. Such a brief period would appear to be an extraordinarily short time for a body of beliefs to become inculturated by any society. Even famous Lakota religious leader Black Elk, who told stories about the importance of the Hills, particularly Harney Peak, said nothing about their sacredness. This concept did not emerge until two decades after his death. Additionally, as noted above, there is a wealth of material cultural evidence of spiritual activity found within the Black Hills in the form of rock art. Yet, none of this evidence has been connected directly or indirectly to the Lakota. Prolific noted environmental historian Donald Worster, after exhaustive historical investigation, has found no hard evidence about the Hills sacredness, but instead a strong emotional attachment that the Lakota have for the Black Hills that has produced a feeling of sacred reverence for this place. According to Worster, the Lakota "are drawing on emotions and issues that have been around for a long while, breathing new life into them, finding coherence of purpose and depth of meaning where it may not have existed before."[69]

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[66] Watson Parker, "The Exploration of the Dakota Black Hills," (Masters Thesis, University of Oklahoma, 1962), 20.
[67] *Ibid.* 20.
[68] As quoted in Donald Worster, *Under Western Skies: Nature and History in the American West* (New York: Oxford University Press, 1992), 136.
[69] Worster, *Under Western Skies,* 151. Worster recommend returning the Black Hills to the Lakota for their cultural betterment and for improved racial relations.

Native American groups that occupied the Black Hills and areas immediately adjacent to them between 1500 and 1781.[70]

Nation(s)	Location(s)
Padouca	Wind Cave National Park area (during the period 1500-1700 AD)
Comanche	Wind Cave National Park area (during the period 1500-1700 AD)
Kiowa, Arapaho, Plains Apache, Crows	Between the Platte River and the southern Black Hills (after 1760)
Arapaho and **Kiowa**	South Black Hills (after 1760)
Cheyenne and **Sutaio** allies	Black Hills (annual hunts and some settlements) Upper reaches of the White River and South Fork of the Cheyenne River (after 1760)
Wotapio Cheyenne with allied **Kiowa**	Upper reaches of the White River and the south fork of the Cheyenne River (after 1760)
Suhtai and **Omisis Cheyenne**	Northern edge of the Black Hills (after 1760)
Plains (Kiowa) Apache and **Arapaho**	Northern edge of the Black Hills. Also near the forks of the Cheyenne River (after 1760)
Oglala and **Sicangu Lakota**	Southern Black Hills (after 1760)
Minneconjou and **Itazipco**	Cheyenne River (after 1760)
Lakota, Arikara and **Ponca**	Seasonal hunting into the eastern and southern portions of the Black Hills (prior to 1781)

Table 1-1

[70] Source: Albers, et al., *Home of the Bison: An Ethnographic and Ethnohistorical Study of Traditional Cultural Affiliations to Wind Cave National Park* (2003). NOTE: The material presented in this table is extracted from a narrative in the cited publication. None of this particular narrative was accompanied by citations to the sources of the information upon which the authors based their findings.

Native American groups who occupied the Black Hills and areas immediately adjacent to them between 1782 and 1806.[71]

The smallpox epidemic of 1781 resulted in a large decrease of Indians living along the Missouri River. Prior to the epidemic, these were densely populated and well-defended villages presenting a barrier to groups moving west. After the 1781 epidemic, this barrier no longer existed and large groups began moving west across the Missouri River toward the Black Hills.

Nation(s)	Location(s)
Lakota	Major tributaries that flowed From, in, and around the Black Hills; Northern flanks of the Hills
Oglala and **Sicangu Lakota**	Tributaries of the White and Bad rivers
Kiowa	Southern Black Hills, including areas having tributaries of the White and Bad rivers, where they encountered and fought Lakota groups (until early 1800s.)
Crow	Southern Black Hills areas having tributaries of the White and Bad rivers where they encountered and fought Lakota Groups
Arapaho	Southern Black Hills, including areas having tributaries of the White and Bad rivers and the northern flank of the Black Hills
Cheyenne	Cheyenne River area and other locations around the Black Hills, including the northern flank.
Plains Apache	Southern Black Hills area (until early 1800s)
Comanche	Southern Black Hills area (until early 1800s)

Table 1-2

[71] Source: Albers, et al., *Home of the Bison* (2003). NOTE: The material presented in this table is extracted from a narrative in the cited publication. None of this particular narrative was accompanied by citations to the sources of the information upon which the authors based their findings.

Chapter 2

Exploration and Gold Discovery

1700s-1875

Introduction
The First Europeans
United States Exploration
The Lure of Gold
Gold Attracts Euro-Americans to Sioux Land
Creation of the Great Sioux Reservation
Pressure Mounts for Euro-American Entry
Economic Depression Heightens Clamor for Gold
Custer's 1874 Expedition
Gordon Party and Gold-Seekers Arrive in Black Hills

Introduction

The initial entry of Europeans into the area between the Missouri and Powder rivers, including the Black Hills, appears at first glance to have been culturally and environmentally benign. The first to arrive in the region were those trapping and trading for furs. Their presence and their interests served primarily to increase and intensify hunting and trapping activities that the first Black Hills residents had pursued for millennia. Although this is certainly true, two important facts are ignored: the devastating smallpox and other epidemics that periodically swept across the entire Mississippi and Missouri river drainages resulted from the pathogens that stowed away on those European trade goods; and the trade goods themselves (most notably firearms) permanently altered tribal relationships throughout the New World.

European exploration of the Black Hills was noticeably absent for a couple of decades after the central portion of North America was purchased by the young United States. Most American traffic followed the Platte River or the Missouri River hundreds of miles away. Only with the discovery of gold in Montana in the early 1860s was traffic diverted northward through the Powder River Basin, where game hunted by native residents was disturbed. The Indian-European clashes resulting from that northern shift in emigrant traffic, later followed by the severe economic needs of a depressed economy, focused the young republic's attention on the Black Hills. The reported discovery of gold in the Hills by the 1874 Custer expedition, soon followed by rumors of gold, brought a rush of gold-seekers to the Black Hills in the mid-1870s. Once displaced from more eastern drainages, the Sioux were once again soon pushed further west by the flood of early prospectors and, eventually, by the United States government.

The First Europeans

The first Europeans known to visit the Black Hills came in the mid-eighteenth century. French trappers traveled south from the Great Lakes area of present-day Canada, traveled up the Red River, continued into the Missouri River drainage, and entered the Black Hills area in search of fur. The pursuit of fur-bearing animals living along riverbanks also drew the French trappers and traders up the Mississippi River, then up the Missouri River, and finally westward up tributaries toward the Black Hills.

These first European fur-seeking explorers caused minimal environmental changes in the Black Hills. Their presence was manifested by little more than traps strung along stream banks. Frequently, the

European fur seekers were merely continuing a use of the land that Native American groups had pursued for millennia. Often, these Europeans would not even enter the trapping areas, but would purchase pelts from local residents. In those instances, European presence was principally by proxy.

Historians disagree about who was the first European to enter the Black Hills, and when that event took place. Some accounts assert that brothers Francois and Joseph de la Verendrye were the first Europeans in the Black Hills. Proponents of the de la Verendrye discovery assign August 11, 1742, as the date they entered the Hills. The evidence supporting this story is limited to the brothers' reference to a mountain they called "Mountain of the Horse Indians," which later readers have identified, for reasons they don't disclose, as present-day Bear Butte on the northeastern edge of the Black Hills. The de la Verendrye supporters also point to a lead plate purportedly inscribed by the brothers as further evidence that the de la Verendrye brothers were the first Europeans to enter the Black Hills. Unfortunately, the plate was found near Fort Pierre, South Dakota, approximately 140 miles east of the Hills. Not only is this limited evidence both vague and ambiguous, the reason for the brothers' journey argues strongly against their entering the Black Hills. They left Fort de la Reine, south of Lake Manitoba, to find a route to the Pacific Ocean. It can be assumed that they traveled by rivers, as most of their contemporaries did. (See Table 2-1 for a list of all European explorers, both speculated and confirmed, who approached or entered the Black Hills.[1]

Evidence supporting other "first" European visits to the Black Hills is equally unpersuasive. For example, one bit of evidence is based upon a report of seeing "shining mountains" (Jonathan Carver, 1766-1768), which later historians concluded was a reference to the Black Hills since its shale rock appears at times to shimmer.

In the final analysis, we simply don't know the identity of the first European to physically enter the Black Hills, nor do we know the precise date of that entry. We do know that Europeans were first drawn into the Hills in search of fur sometime in the early 1800s, and we know that later, during the third and fourth decades of the 1800s, a few Euro-Americans

[1] G. Hubert Smith, *The Explorations of the La Verendryes in the Northern Plains, 1738-43,* edited by W. Raymond Wood (Lincoln: University of Nebraska Press, 1980). Also see Hyman Palais, "A Survey of Early Black Hills History," *Black Hills Engineer* 27: 1 (April 1949): 3-4; Francois Verendrye and Joseph Verendrye, "Journals," *South Dakota Historical Collections* 7 (1914): 349-58. A detailed account of fur trading explorations in the Black Hills can be found in Donald D. Parker, "Early Explorations of Fur Trading in South Dakota," *South Dakota Historical Collections* 25 (1951): 1-211.

entered the Hills in search of gold. Euro-Americans did not enter the Black Hills in large numbers, however, until the 1870s.

United States Exploration

The United States' purchase of the Louisiana Territory in 1803 legitimized a preexisting curiosity on the part of the government about the enormous area separating the Mississippi River and the Pacific Ocean. In 1804, President Thomas Jefferson launched a scientific mission led by Meriwether Lewis and William Clark to map a route connecting the Atlantic and Pacific oceans, inventory flora and fauna along the route, and make demographic observations along the way. Although the so-called "Corps of Discovery" carried a map that accurately depicted the existence and location of the Black Hills, they didn't enter the Hills—they were simply not on the way to the Pacific Ocean. The explorers did happen to meet and interview a French trapper named Jean Valle, who had worked in the Black Hills during the winter of 1803-1804.

Reports of the Lewis and Clark exploration were received with interest, but didn't motivate a popular movement west from the United States. For a couple of decades after the return of Lewis and Clark, sojourns west of the Missouri River toward the Black Hills continued to be limited to persons in search of fur. Trappers employed by John Jacob Astor, including a party led by Wilson Hunt in 1811, probed the Black Hills. Jedediah Smith reportedly traveled through the Hills in 1823; and a stone inscribed with a message dated 1834 in the vicinity of the Hills suggested the presence of an unnamed European.[2] It wasn't until the 1840s that the western movement of emigrants from the United States became sufficiently popular to become noticeable. But even this western movement had little if any influence on the Black Hills. Most of these people were headed for Oregon Territory or California, and they chose a course up the Platte River where there was grass and water for their livestock and draught animals. Their route took them 120 miles south of the Black Hills.

Euro-Americans traveling through the Missouri and Platte river valleys in the 1830s and 1840s often viewed the Black Hills from a distance. This was true for trappers and traders making their way, in the early 1830s, to a trading post near the junction of the North and South Fork of the Cheyenne River. In 1849, and again in 1853, John Evans, representing the

[2] Palais, "Survey of Early Black Hills History," 4.

David Owen Geological Survey, produced the first map of the Black Hills, based on distant views of the Hills.[3]

The 1850s ushered in a period of federal exploration of the Black Hills (and the West generally). In 1855, W. S. Harney and Gouverneur K. Warren led the "Sioux Expedition" into the Black Hills, where they made preliminary measurements of geological features. The first exploration of the Black Hills organized by the United States government occurred in 1857. A government-sponsored exploration led by Lieutenant Gouverneur Warren and accompanied by Ferdinand Hayden, along with a large U.S. Army detachment, skirted the Black Hills. After passing the southern foothills, the party then turned north to follow the eastern edge of the Hills. Smaller groups were detached from the Warren party to enter and explore the farther reaches of the Black Hills.[4] The future of the Black Hills was foreshadowed when the Warren group reported finding gold.[5]

Two years later, in 1859, a group of scientists led by Captain William Raynolds and Ferdinand Hayden, accompanied by a military escort, explored the Yellowstone River and its tributaries, a trip which took them along the northern edge of the Hills. They too reported finding gold.[6]

The Lure of Gold

The rumors of gold in the Black Hills had been quietly echoing within the United States since the early 1800s. It is speculated that Euro-Americans may have come to the Black Hills as early as 1833 in search of the precious gold mineral. This unsubstantiated story is based on the discovery of a message etched into a stone, discovered by a stonemason named Thoen in 1887, noting the discovery of gold by DeLacompt, Ezra Kind, G. W. Wood, T. Brown, Wm. King, and a so-called "Crow guide." A grave marked "J.M. 1846," sluice boxes, and an old cabin were found near

[3] Cleophas O'Harra, "A History of Early Explorations and the Progress of Geological Investigations in the Black Hills Region," *Bulletin No. 4 of the South Dakota School of Mines* (April 1900), 13.

[4] For in-depth histories of army exploration in the West, see William H. Goetzmann, *Army Exploration in the American West* (Norman, OK: University of Oklahoma Press, 1962); Richard A. Bartlett, *Great Surveys of the American West* (Norman, OK: University of Oklahoma Press, 1962); and Carl Irving Wheat, *Mapping the Transmissisippi West*, *Volume 14* (San Francisco: Institute of Historical Cartography, 1960).

[5] G. K. Warren, "A Preliminary Report of Exploration in Nebraska and Dakota in 1855-57," *South Dakota Historical Collections* 11 (1922): 158-59.

[6] United States War Department, "Report of Brevet Brigadier General W. F. Raymonds on the Exploration of the Yellowstone and Country Drained by that River," 40 Cong., 1 Sess. Senate Executive Doc. No. 77. .

French Creek in 1875. In 1852, rumors of gold in the Black Hills attracted a small group of sixteen miners traveling to the California gold fields. Lakota Indians reportedly killed all in this party except its leader Thomas Renshaw, who was away from camp at the time. That same year, a group of twenty-two California gold seekers traveling from Iowa with a much larger party changed their course to the Black Hills once they heard rumors of the precious metal while at Fort Laramie. These men vanished, never to be heard from again. In 1854, the party of Irishman Sir St. George Gore, led by guide Jeremiah Proteau, diverted their exploration of reported gold in the Black Hills after it encountered the Lakotas, who took their clothes and possessions. In 1863, heavy snowfall forced a party of prospectors to leave the Black Hills before they could complete their prospecting mission. Thirteen years later, one member of this party, G. T. Lee, returned to the Black Hills but could not locate the site of his party's original gold discovery. Gold reportedly discovered in 1864 on French Creek or Amphibious Creek in Custer County by Tousaint Kensler also remained a mystery. In 1866, a fantastic rumor circulated about the discovery of $70,000 worth of gold in the Bear Lodge range in the Black Hills of present-day Wyoming by a Nebraska party led by Hank Joplin.[7]

These and other rumors resonated loudly amid lingering, poignant memories of earlier gold strikes in California, Colorado, Nevada, and Montana. During America's gold rush era, from the 1848-1849 California gold strike to the 1897-1898 discovery of gold in Alaska's and Canada's Yukon Territory's Yukon River region, the West's mineral regions provided many opportunities for restless, romantic individuals to take a gamble on immediate wealth. Economic depressions that occurred during this fifty-year period (in 1857, 1872-1875, and 1893-95) fueled many Euro-Americans' hopes that relief could be found and riches could be made in newly opened mining regions. Beyond the magnetic lure of mineral prospects, gold and silver rushes thrived on hopes as much as they did on reality. The peak of rushes instigated by either true reports or rumors of mineral finds typically lasted for only a brief period—sometimes only a few months. Nonetheless, great expectations and speculation about striking it rich continued for half a century.[8]

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[7] Jessie Sundstrom and Linea Sundstrom, "Exploration and Settlement," *Black Hills National Forest: Cultural Resources Overview* (Custer, SD: US Forest Service, 1996), 4a-5.

[8] This and the following few paragraphs are based on the excellent, authoritative summary of "gold and silver rush" history in the American West presented in Howard R. Lamar, editor, *The New Encyclopedia of the American West* (New Haven, CT: Yale University Press, 1998), 433-37. Also see Rodman W. Paul, *Mining Frontiers of the Far West, 1848-1880* (1963); and Paula Mitchell Marks, *Precious Dust: The American Gold Rush Era, 1848-1900* (1994).

In California gold placer deposits (fragments of gold in rock debris, often lining stream banks and bottoms) were first discovered in 1849 on land owned by John A. Sutter near his mill at Coloma on the south fork of the American River. Newspapers, letters, and ocean-going vessels quickly spread the word of gold discovery and instigated a stampede of young, male prospectors from all over the world to the new El Dorado. "California fever" afflicted hundreds of thousands of adventurers who crossed North America on the California Trail or arrived by ship in the early 1850s. This rush was soon followed by other reported or rumored discoveries of placer and vein-embedded gold and silver. In 1858, gold discovered on British Columbia's Fraser River ignited a stampede of prospectors there. Just one year later, there was another rush, largely made up of disillusioned California prospectors, to the silver-veined Comstock Lode and areas in Nevada.

Also in 1859, a mineral rush began to the Pikes Peak region of Colorado's Rocky Mountains. Located only 700 miles from the Missouri River and farming communities just east of the Great Plains (between the Missouri and Mississippi rivers), the Pikes Peak rush attracted many people from the then economically depressed Mississippi River Valley and eastern North America who were ready for a speculative opportunity farther west. Roughly 100,000 gold-seekers took part in this stampede, making it second in size only to the California gold rush. The Pikes Peak boom continued into the mid-1860s. By that time, Euro-American travelers had found abundant placer deposits in Idaho (1860-1862) and Montana (1862-1864), which prompted yet another rush of gold-seekers.

Prospectors with little capital or training mining and processing mineral ore in veins (as opposed to loose, collectable placer deposits) had many opportunities to speculate in shares of claims, while making a minimum effort to actually extract ore. The majority of the gold and silver rush crowd limited its activities to speculation, to serving or fleecing those caught up in the hysteria of instant wealth.

The gold and silver rushes in North America also drew thousands of foreign-born gold-seekers to the West. As many as 25,000 came from distant China through the port of San Francisco in 1852 alone; others arrived from nearby Latin America. The Pikes Peak gold rush, which began only one year after the boom and bust of mines on British Columbia's Fraser River, drew many people from Canada. Although some prospectors returned to their native country or earlier residences, many remained in the West, moving from one mineral rush to the next for several years. Eventually some married, had families, and set down roots as farmers, ranchers, freighters, or business owners who served the needs of prospectors.

Gold Attracts Euro-Americans to Sioux Land

In August 1866, Ferdinand Hayden led a second expedition into the Black Hills. Although this was a private venture, Hayden was escorted by a detachment of army troops from Fort Randall. Hayden also reportedly found gold while exploring near Bear Butte. During Hayden's address to the Dakota Historical Society on October 6, 1866, he reported:

> Intermingled with these rocks and in the layers above, are found the gold bearing formations which are developed in the Black Hills. Little particles or grains of gold can be found in almost any little stream in the vicinity of these hills. But gold is not always found in paying quantities where "color" is raised. While there is every indication of rich gold deposits in these hills, my explorations have been more for the purpose of collecting old fossil remains than glittering dust.[9]

These repeated government reports of gold in the Black Hills increased the interest in Black Hills exploration by larger civilian groups. When Hayden's report of gold, for example, reached the town of Yankton, Dakota Territory, it attracted the attention of a recently formed group called the "Black Hills Exploring and Mining Association." The group immediately prepared to enter the Black Hills and prospect for gold. In addition to their own rifles and pistols, they were armed with two howitzers provided by Brevet Major General Dyer, U.S. Army.[10]

Like many others who came before and after, they apparently decided to ignore the fact that their entry into the Black Hills violated the provisions of the 1851 Laramie Treaty, prohibiting non-Indians from entering the Hills except on government business. The group never made it to the Black Hills, however. General William Sherman, the newly appointed commander of the Military Department of the Missouri (which included the Black Hills), learned of the association's plans, and ordered them to stay out of the Hills.[11] On several occasions, the army intercepted other groups headed for the Black Hills and turned them back, or persuaded them not to go. Three hundred residents of Yankton, Dakota Territory, led by P. B. Davy of Minnesota in 1867, decided not to go, after

[9] George W. Kingsbury, *History of Dakota Territory,* V*olume. I* (Chicago: S. J. Clarke Co., 1915), 983.
[10] O'Harra, "A History," 18-22.
[11] Kingsbury, *History of Dakota Territory,* 864.

the army threatened them with force. Just one year later, the federal government and the Sioux nation agreed in a treaty signed that year that the Black Hills belonged to the Indians as part of the Great Sioux Reservation.

Creation of the Great Sioux Reservation

The road leading to the 1868 treaty between the Sioux Nation and the U.S. government had been long and circuitous. Beginning in the early 1800s, when the first treaty between the two entities was signed in 1805, the diplomatic relationship between the Sioux and the federal government had been marked by contradictions and of repeated cycles of treaty creations and breaches. In the summer of 1815, for example, members of the Sioux Nation and the United States government signed a treaty acknowledging that the Sioux Nation was subject to the jurisdiction of the federal government. On one hand the United States recognized, on paper, Native Americans as sovereign entities. In those same papers, however, the U.S. government appeared to consider members of those Indian Nations child-like individuals.[12]

In 1825, General Henry Atkinson and Indian Agent Benjamin O'Fallon journeyed up the Missouri River and prevailed upon members of the Sioux Nation to sign another treaty in which the Sioux purportedly acknowledged living within the sovereign boundaries of the United States. This treaty not only included a recitation that the United States had jurisdiction over the Sioux Nation; it also appears to have intended to grant the federal government the right to regulate Sioux commerce. In 1830, yet another treaty was signed. This one conveyed two, twenty-mile-wide strips of land to the federal government in exchange for annuities to the Sioux for ten years in money or goods. This was the first in a long line of treaties promising annuities. The federal government continued to deal with the Sioux and other Native American nations in this duplicitous way for several decades.[13]

The treaties between the Sioux and the United States were destined for failure. To begin with, the United States negotiators had little knowledge of Sioux culture. The negotiators assumed that the Sioux Nation was a unified nation-state functioning in a manner similar to the nation states of Western Europe of the time. The United States negotiators failed to appreciate the essential autonomy of the individual in Sioux culture. A group leader ("chief") was a respected person whose counsel was sought, but who had no authority to issue orders. Treaty formation procedures required within the federal government also frustrated hopes of

[12] DeMallie, "Sioux Until 1850," 733.
[13] DeMallie, "Sioux Until 1850," 733-34.

a negotiated resolution of future cultural conflicts. After U.S. negotiators and members of an Indian nation agreed to treaty provisions, they would often be changed by Congress during the senate ratification procedures.[14]

This happened to the 1851 treaty with the Sioux. The treaty, as presented to the Sioux at Fort Laramie in 1851 and signed by some of its leaders, was not the same treaty later ratified by the senate. Thousands of Indians responded to invitations to gather at Fort Laramie; Sioux, Cheyenne, Crow, Arikara, and Shoshone were among the attendees. Some characterized the gathering as the largest group of Native Americans ever assembled to meet with representatives of the United States government.[15]

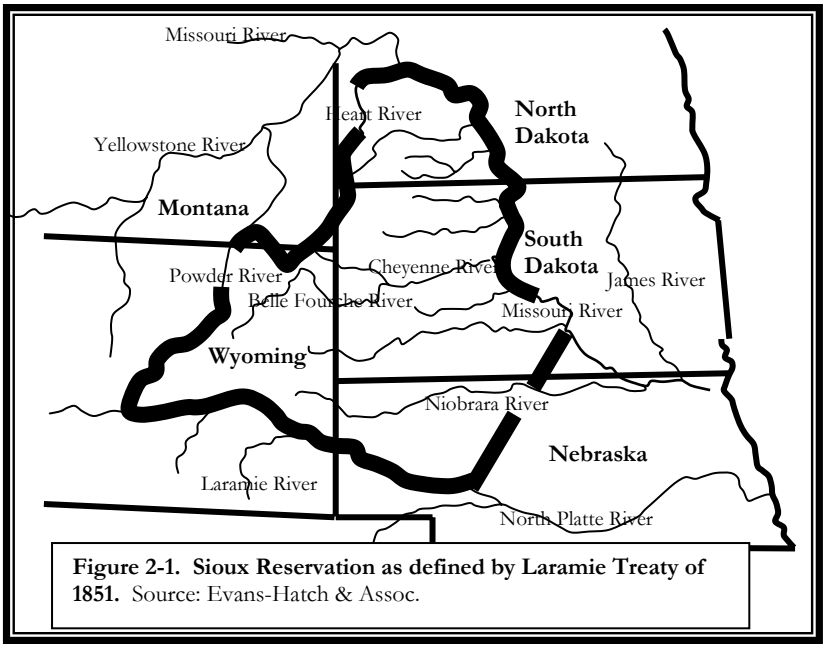

Figure 2-1. Sioux Reservation as defined by Laramie Treaty of 1851. Source: Evans-Hatch & Assoc.

They spent eighteen days conferring with Thomas Fitzpatrick and Davis Dawson Mitchell, former traders hired by the federal government to represent federal interests. The treaty provided for the United States to pay $50,000 each year to Indian groups represented at Fort Laramie for a period of fifty years. These payments could be made in the form of livestock, agricultural implements, and/or seed. The treaty also delineated the boundaries of "Indian Country"—all of the western portion of what would become South Dakota, and a large portion of the northwest corner of what would become Nebraska, northeast Wyoming, and a piece of southwestern

[14] Edward Lazarus, *Black Hills/White Justice: The Sioux Nation Versus the United States, 1775 to the Present* (New York: Harper Collins, 1991), 18.
[15] Lazarus, *Black Hills/White Justice*, 16.

North Dakota. The federal government agreed to protect Native Americans from trespass by Euro-Americans. In exchange, the Indians agreed to:

1. Provide safe passage to United States emigrants moving across their land to Oregon and California;
2. Respect the separate geographical domains presented in the treaty for each Native American and to recognize the sovereignty of other Native American over their identified separate, individual domains;
3. Grant the United States government a license (right-of-way) to construct roads across "Indian Country," and establish military forts to protect travelers using those roads;[16] and
4. Make restitution to the United States government for all wrongs committed against citizens of the United States by Native Americans members.[17]

Many of these treaty provisions, however, changed substantially soon after the Fort Laramie gathering. Upon reaching the senate, the annuity provision was changed from fifty years to ten years, plus an additional five years at the discretion of the president. The Sioux were not advised of the pre-ratification change the senate made to the treaty, nor did they transform themselves into docile farmers as was hoped. They continued hunting and raiding, and they discarded the annual shipments of farm tools unless they could serve a purpose perceived as important to the members of a hunting and raiding culture. In short, the 1851 Laramie Treaty was unilaterally changed by one party and ignored by the other. It did provide two benefits: first, American emigrants enjoyed relatively safe transit for a time through Sioux territory. Second, it would strongly bolster the legal arguments made by the Sioux to the United States Supreme Court 125 years later.[18]

The intermittent peace created by the treaty lasted for three years. In August 1854, a wagon train moving west along the Platte River was approached by a group of Sioux. During negotiations for coffee, sugar, and other amenities, one of the Sioux noticed a lame ox trailing behind the wagons. He shot it for dinner. Members of the wagon train, including the

[16] The United States Supreme Court, in 1830, in an opinion written by Chief Justice John Marshall, concluded that these treaty provisions constituted an acknowledgement by the federal government that Indians possessed limited sovereignty rights as well as property rights in both real property and personal property. This particular provision was one of the more important provisions focused on by the court. *Worcester v. Georgia*, 18 US 334, 1830.

[17] It is important to note that the treaty obligated the Native Americans to pay damages for wrongs committed by members of their communities. The treaty did not permit the United States government to enter Indian sovereign territory and arrest and punish perpetrators.

[18] Lazarus, *Black Hills/White Justice*, 18-20.

owner of the dead ox, proceeded to Fort Laramie, where they demanded the wrong be righted. While members of the wagon train were arguing for equity, the leader of the Sioux group that claimed the ox-shooter as a member, rode into the fort and offered the aggrieved traveler $10 or a horse of the ox-owner's choice from the Sioux stables. The owner counter-offered, asking for $25. The Sioux considered $25 an unreasonably inflated price since the ox would probably not have survived the journey west. Negotiations broke down and the Sioux returned home. Army Lieutenant John Gratton headed for the ox-eater's camp, supported by twenty-nine mounted soldiers. Lieutenant Gratton demanded that the ox-slayer be surrendered. Since the 1851 treaty provided only for compensation for wrongs and did not establish army criminal jurisdiction over Native Americans wrongdoers, the Sioux refused to turn the man over. At day's end, the bodies of twenty-nine U.S. Army enlisted men and one West Point graduate were strewn among cannon-ball-perforated tepees.[19]

In August 1855, Colonel William Harney led 1300 troops west to re-secure the Platte Road, and to "discipline" the Sioux. Harney found a group of Sioux, primarily women and children, residing in Ash Hollow in what is now Nebraska. Apparently misconstruing the Sioux surrender as a threatening act, Harney's men killed them. Harney would later report sixty-eight Sioux bodies. "Some were warriors, most were not."[20]

An uneasy, unofficial truce accented by sporadic violence prevailed between the Sioux and the United States for a number of months. In the summer of 1857, the largest gathering of Sioux groups ever recorded occurred on the Belle Fourche River at the base of Bear Butte in the northeast end of the Black Hills. Some estimated that as many as 7000 Sioux attended the conference. Those gathered pledged to stop permitting the encroachment of others onto Sioux land. Unfortunately, two years later, gold was discovered in Colorado, and the flow of emigrants across Sioux land became a torrential flood.[21]

To fully appreciate the profound adverse effects caused by this flood of migrating farmers, gold-seekers, and merchants, one must recall that much of the Sioux economy was based upon buffalo. During summers, the Sioux pursued, surrounded, and harvested herds of buffalo. Needing water, these herds frequented areas adjacent to the Platte River. This was the exact terrain through which the emigrant wagon trains traveled to ensure their livestock had access to the water of the Platte and the nearby grasses. Wagon traffic occurred precisely during the Sioux buffalo-hunting season—the summer months. The massive wagon traffic caused severe damage to the buffalo's grazing grounds. The westward-bound emigrants

[19] *Ibid.,* 21-23.
[20] *Ibid.*, 101.
[21] Lazarus, *Black Hills/White Justice,* 23-25.

encountered no fences or evidence of crop cultivation, and therefore had no appreciation for the fact that they were threatening numerous Indian communities.

As the mid-1800s wore on, the federal government purchased much of the land originally designated as permanent Indian Country from various Indian groups. The larger Sioux population, however, failed to recognize these sales as lawful transactions. The Sioux believed that the various small, isolated groups who sold the land lacked the right or authority to convey it since they didn't own it. All members of the nation owned it in common, the broader Sioux community argued. The various land acquisitions were a perpetuation of the tendency by Euro-Americans to apply models of their social-political culture upon a very different culture based much more on individual autonomy. Late in 1858, the federal government acquired fifteen million acres of permanent Indian Country. In 1861, gold was discovered in Montana, drawing much of the Platte River traffic north through the Powder River area, along a route that became known as the "Bozeman Trail."[22]

Native Americans of the Great Plains, including the Sioux, were initially affected only by Euro-American migrants moving across the plains bound for Oregon or California. At first, these Euro-Americans did not settle the plains; most were merely passing through. However, with gold discoveries in Montana, then Colorado, along with rumors of gold in the Black Hills and railroad construction, traffic increased. Growing numbers of Euro-Americans arrived on the Great Plains to stay.

Violence between Euro-Americans and Native Americans escalated through the 1860s. In December 1866, Colonel William Fetterman, stationed at Fort Phillip Kearny assigned to protect the Bozeman Trail to Montana, pursued a group of Sioux horsemen. Fetterman and the eighty men under his command were killed. When news of the death of Fetterman and his men reached Fort Laramie, then commanded by General William Sherman, of Civil War fame, the reaction was immediate and harsh. "We must act with vindictive earnestness against the Sioux even to their extermination, men, women, and children," Sherman wrote in his report of the incident.[23] Other non-Indians shared his sentiments. The Kansas *Daily Tribune* editorialized: "There can be no permanent lasting peace on the frontier till these devils are exterminated."[24]

A different sentiment predominated on the Eastern Seaboard. Humanitarianism had bloomed in response to the horrors of the Civil War, and a widespread distrust of the military resulted in strong political pressure

[22] Lazarus, *Black Hills/White Justice,* 25-27.
[23] As quoted in Lazarus, *Black Hills/White Justice*, 39.
[24] *Kansas Daily Tribune*, January 12, 1867, as quoted in Lazarus, *Black Hills/White Justice,* 39 and 41-42.

to minimize its size. Additionally, a political struggle between the army and the Department of the Interior regarding jurisdiction over Native Americas was escalating. Lewis Bogy, Commissioner of Indian Affairs, argued that the death of Fetterman and his men was at least in part caused by conduct of Euro-Americans, including the United States Army. In opposition to the army's advocacy of an armed response, the Department of the Interior argued for protective custody. The department wanted the Indians confined to clearly defined reservations that would be off-limits to all but Native Americans and government employees conducting official business.[25]

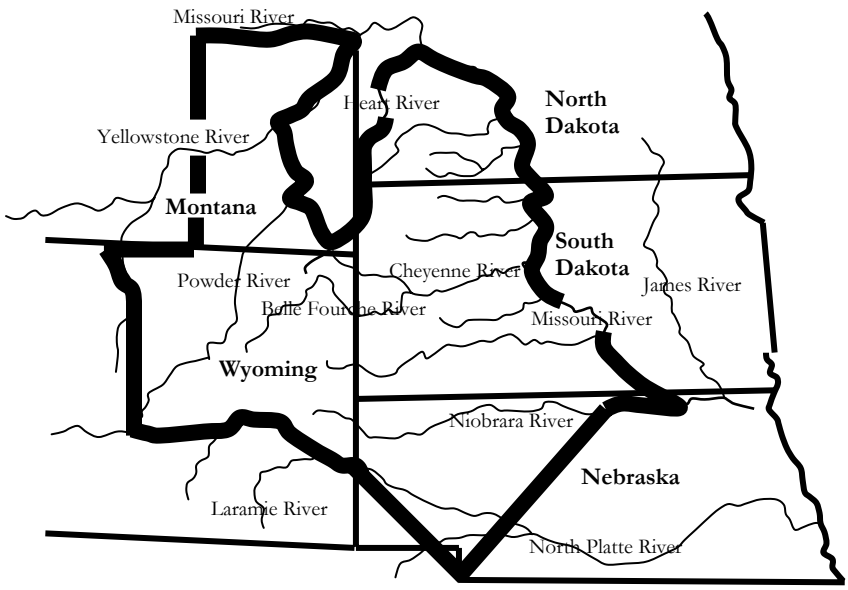

Figure 2-2. Sioux Reservation as defined by the Laramie Treaty of 1868.
Source: Evans-Hatch & Assoc.

The United States Congress argued the issue through the winter of 1866-67. The political lines were drawn between the West and the East. Western senators and representatives argued for Sherman's advocacy of "disciplining" the Indian. Eastern members of Congress argued for confinement on reservations.

In July 1867, Congress dispatched negotiators to enter into a treaty with the Native Americans on the Great Plains. The negotiators were to reach an agreement that would safeguard settlers as well as emigrants and

[25] Lazarus, *Black Hills/White Justice,* 40-43.

railroads. Congress directed the commission to establish reservations on land arable enough to enable the Indians to become self-sufficient farmers. Negotiators representing the Native Americans accepted nothing less than being left alone to live their lives, which included the United States abandoning the Bozeman Road and other encroachments on Indian Country that violated the 1851 treaty. Negotiations broke down, and the commission steamed east on its new railroad.[26]

A year later in April 1868, United States negotiators were back. This time, however, they arrived with a proposed draft treaty that met the earlier demands of the Indian negotiators. These 1868 treaty provisions closely paralleled the provisions of the 1851 treaty. The 1868 treaty set aside all of the land in the future state of South Dakota west of the Missouri River (including the Black Hills) for the absolute and undisturbed use and occupancy of the Sioux (Article 2). Land northwest of this permanent reservation was identified in Article 16 of the treaty as being "unceded" Indian land, and all persons were barred from entering unless they were members of an Indian nation or had permission from an Indian nation to enter. This included the Powder River region. The treaty also recognized Native American hunting rights along both the Republican and Platte rivers in Nebraska and Wyoming, areas that had already been settled by Euro-Americans when the treaty was signed.[27]

The 1868 treaty was one of 370 Indian treaties formally ratified by the United States Senate up to 1871, when treaty-making with Indians ceased. Ninety-six of the treaties dealt at least in part with the establishment or reaffirmation of peace and a recital of the supremacy of the United States government; 230 of the treaties concerned land conveyances; seventy-six dealt with Indian relocations; fifteen established "perpetual annuities," and nineteen required the payment of debt.[28] The 1868 treaty with the Sioux and its ratification in 1871 provided the basis for the federal government's opposition to Euro-American entry into the Black Hills

[26] Lazarus, *Black Hills/White Justice,* 48-49.
[27] *Papers Relating to Talks and Councils Held with Indians in Dakota and Montana Territories in the Years 1866-1869* (Washington, DC: US Government Printing Office, 1910).
[28] William C. Sturtevant, editor. *Handbook of North American Indians*, V*ol. 4* (Washington, DC: Smithsonian Institution, 1988).

Pressure Mounts for Euro-American Entry

Despite mounting political pressure to allow Euro-American entry onto the Great Sioux Reservation, the U.S. Army opposed it into the early 1870s. On March 16, 1872, Moses K. Armstrong, the territorial delegate to Congress, reported a conversation he had had with the Secretary of the Interior and the Commissioner of Indian Affairs:

> The secretary of [the] interior and commissioner of Indian Affairs do not take so favorable a view of the matter, but declare that the government must stand by its faith with the Indians, for whom that region has been set apart as a reserve, and that no formidable expedition of white men will be sustained by the United States government in any invasion of this home of the red men, for the purposes of mining operations or the manufacture of lumber, unless the Indians will first consent to alienate their claim or remove to some other locality.[29]

The federal government's continuing opposition to Euro-American entry into the Black Hills also manifested itself in a press release to local newspapers published in areas around the Black Hills. In a March 26, 1872, release, Major General W. S. Hancock, United States Army, said

> Letters are being received at these headquarters from various parts of the United States, making inquiries in regard to the reputed gold discoveries in the section of the country west of the Missouri River known as the Black Hills of Dakota, and asking if expeditions, presumed to be now in process of organization, will be permitted to penetrate that region.
>
> The section of country referred to is set apart as an Indian reservation, by treaty with the Sioux, and the faith of the Government is understood to be pledged to protect it from the encroachments of, or occupation by, the whites. Accordingly any parties or expeditions which may organize for the purpose of visiting or

[29] Moses K. Armstrong, *The Early Empire Builders of the Great West,* St Paul: E. W. Porter, 1901. 235.

> "prospecting" the region in question, will be engaging in an unlawful enterprise, the consummation of which it will be my duty, under the law and my instructions, to prevent, by the use, if necessary, of the troops at my disposal. In this connection I may mention that I am just in receipt of an official letter from General Stanley, in command, subordinate to me, on the Missouri River, in which he refers incidentally to the Black Hills gold reports, in which he says no gold has been found there.
>
> If you will give publicity in your columns to the statements herein contained, I do not doubt it will be the means of saving many worthy people from incurring useless expense.[30]

Pressure to open the Black Hills to general resource exploration by Euro-Americans continued to mount. Miners wanted to explore for gold, lumbermen wanted to look for timber resources, and ranchers were interested in grazing land. Freighters, merchants, outfitters, and assorted other local businesses in areas proximate to the Hills also lobbied in support of the miners, lumbermen, and ranchers.

Slowly, the federal government's position began to shift. The changing policy was foreshadowed in a March 28, 1872, letter written by the Secretary of the Interior to Charles Collins, owner and publisher of the *Sioux City Times*, who had been actively lobbying in Washington, D.C., for Euro-American mining in the Black Hills:

> I am unable to express an intelligent opinion, now as to the propriety of immediate efforts to extinguish the Indian title in the pine forests of the Black Hills. I am inclined to think that the occupation of this region of country is not necessary to the happiness and prosperity of the Indians, and as it is supposed to be rich in minerals and lumber it is deemed important to have it freed as early as possible from Indian occupancy.
>
> I shall, therefore, not oppose any policy, which looks, first, to a careful examination of the subject upon the basis indicated in this letter. If such examination leads to the conclusion that

[30] Quoted in Kingsbury, *History of Dakota Territory,* 874.

> the country is not necessary or useful to the Indians, I should then deem it advisable that steps be taken to extinguish the claim of the Indians and open the territory to the occupation of the whites.[31]

On several occasions, the army had to remove groups of armed Euro-American gold explorers who had managed to avoid army patrols and enter the Hills. In those instances when the army apprehended Euro-American trespassers in the Black Hills and turned them over to civilian law enforcement authorities, the trespassers would simply be released. Euro-Americans residing near the Black Hills in communities like Cheyenne, Laramie, and Yankton, simply believed they had a right to be in the Black Hills and that their rights superceded the rights of the Sioux. And their local governments supported them. In 1873, the legislature of the Territory of Dakota petitioned Congress to open the Black Hills to Euro-Americans exploration and mining. The territorial legislature fallaciously argued that the only use made of the Hills by the Sioux was as a refuge after attacking and robbing Euro-American travelers headed west along the Platte River.[32]

Economic Depression Heightens Clamor for Gold

The skepticism expressed in the Hinman, Winchell, and Jenney reports went unheard over the clamor of gold frenzy. Importantly, the public wanted to believe in abundant Black Hills gold; the public needed some good news, some hope. A nationwide economic depression had severely gripped the United States, creating an environment where any dangling thread of hope would be grasped. In late 1873, the eastern benevolence toward Indians began to be eroded by the initial waves of this economic depression emanating from Western Europe and making inroads on the United States economy. In September 1873, the Philadelphia investment house of Jay Cook failed. The investment house had been financing railroad construction, including the Northern Pacific Railroad, and had played a substantial role in financing the Union Army during the Civil War. Since the railroads had become the nation's single largest employer, their failure resulted in the collapse of the entire economic structure. Banks demanded immediate repayment of loans, investors rushed to sell stock before business failures caused a sudden reduction in stock value, and businessmen and farmers who had borrowed heavily to

[31] As quoted in Armstrong, *The Early Empire Builders of the Great West,* 239.
[32] Legislative Assembly of Dakota Territory, "Memorial asking for a Scientific Exploration of that Territory," 42 Cong., 3 Sess., Senate Misc. Doc. No. 45 and 65.

finance expansion after the Civil War were unable to pay their notes. The New York Stock Exchange closed for ten days. Foreclosures became common, banks failed, factories went out of business, and most major railroads failed. Unemployment across the country may have reached 25 percent; suffering was widespread. In the Midwest a four-year infestation of grasshoppers had caused enormous damage to crops. According to one report, grasshoppers hung over Fort Sully, Dakota, "like coal smoke from a steamer." [33] Governors from six Midwestern states and Dakota appealed to Congress to provide aid to suppress this scourge and to offer relief to settlers who had abandoned their claims. All this contributed to a heightened sensitivity to reports of gold in the Black Hills.

Custer's 1874 Expedition

In response to the federal government's shifting position on Euro-Americans' illegal entry in the Black Hills, an army expedition comprised of more than 1000 soldiers and assorted scientists and civilians conducted a survey of the Black Hills in July and August 1874. This expedition was not tasked with merely circumventing the foothills, or making short sorties into peripheral canyons, but was ordered to enter the heart of the Black Hills and investigate the area from south to north. The group was led by Lieutenant Colonel George Custer who was later killed by Indians in a battle along the banks of the Little Big Horn River. The lieutenant colonel added to the public clamor by reporting that he'd "discovered" gold during his ride through the Hills.[34] On August 2, 1874, Custer dispatched his news of gold discovery:

> Gold has been found at several places [along French Creek] and it is the belief of those who are giving their attention to this subject that it will be found in paying quantities. I have upon my table 40 or 50 small particles of pure gold, in

[33] Quote from Watson Parker, *Gold in the Black Hills* (Pierre: South Dakota State Historical Society, 2003), 39.

[34] Literature on Custer's 1874 expedition into the Black Hills is voluminous. Among the more authoritative and interesting sources are: Donald Jackson, *Custer's Gold: The United States Cavalry Expedition of 1874* (New Haven: Yale University Press, 1966); Cleophas O'Harra, "Custer's Black Hills Expedition of 1874," *Black Hills Engineer* 17: 4 (November 1929), 221-87; Ernest Grafe and Paul Horsted, *Exploring with Custer* (Custer, SD: Golden Valley Press, 2002). Also see several published journals of the men traveling with the expedition, including Fred Power, James Calhoun, and Theodore Ewert.

> size averaging that of a small pin head, and most of it obtained today (August 2nd) from one panful of earth. As we have never remained longer at our camp than one day, it will be readily understood that there is no opportunity to make a satisfactory examination in regard to deposits. . . . Veins of what the geologists term gold-bearing quartz crop out on almost every hillside.[35]

Again, on August 15, Custer reported:

> [I]n one place, and the only one within my knowledge where so great a depth was reached, a hole was dug 8 feet in depth. The miners report that they found gold among the roots of the grass, and from that point to the lowest point reached, gold was found in paying quantities. It has not required an expert to find gold in the Black Hills, as men without former experience in mining have discovered it at an expense of but little time or labor.[36]

The reported "discovery" was repeated in a number of newspapers and periodicals and with each telling the probable magnitude of gold to be found in the Black Hills was exaggerated.[37] A reporter from a Chicago newspaper, who accompanied the expedition, wrote an article that was published on August 27, 1874:

> In previous dispatches and letters I have told of the discovery, but the place then hadn't reached the dignified name of a "diggin's," and only a few little yellow particles had been washed out of a panful of sand. This is the first opportunity our miners have had to make a really fair test of the "color," and it has yielded them abundantly. .

[35] "Report of General Custer to the Department of Dakota, St. Paul, Minnesota, August 2, 1874, via Fort Laramie." Senate Exec Doc. No. 32, 43rd Cong. 2nd Sess (1875).
[36] *Ibid.*
[37] *New York Daily Tribune*, August 11, 1874; Bismarck, *Dakota Territory Tribune*, August 12, 1874; *Chicago Daily Tribune*, August 26, 1874; *Harper's Weekly*, September 12, 1874.

> . . From the grass roots down it was "pay dirt," and after a dozen pans or more had been washed out, the two persevering men who will be the pioneers of a new golden State came into camp with a little yellow dust wrapped carefully up in the leaf of an old account book. . . . At daybreak there was a crowd around the "diggins," with every conceivable accoutrement. Shovels and spades, picks, axes, tent-pins, pot hooks, bowie knives, mess pans, kettle, plates, platters, tin cups, and everything within reach that could either lift dirt or hold it was put into service by the worshippers of That God, Gold.[38]

Harper's Weekly added to the popularity of the Black Hills when it published an article on September 12, 1874, reporting Custer's expedition: "On the 31st of July, gold was discovered along the banks of a creek on which the expedition was encamped, the best pan yielding from five to ten cents worth of gold, equivalent to fifty dollars a day to the man."[39]

Not all reports from the Hills about extravagant gold discoveries were so grandiose. There was skepticism regarding rich gold fields in the Black Hills within Custer's rank. Newton Winchell, Custer's chief geologist, testified before a congressional committee that he had no personal knowledge of the alleged gold discovery. Frederic Grant, the son of the current president, had also traveled with the expedition and echoed the geologist's doubts. Additionally, others with personal knowledge of the geology of the Black Hills questioned Custer's reports before Congress.[40]

Just a few weeks after the Custer group had departed for the Black Hills, a Methodist-Episcopal missionary, Samuel D. Hinman, who had lived in the Black Hills and had publicly opposed Euro-American entry, departed for the Hills in search of an appropriate location for the Spotted Tail Indian Agency. The army provided his group with an escort of two cavalry companies and several miners who had gold mining experience in California also accompanied the group. Hinman's group reported that they found no gold.[41]

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[38] William E. Curtis, "Gold," Chicago *Inter Ocean*, August 27, 1874, 1.
[39] "The Black Hills Expedition," *Harper's Weekly,* September 12, 1874, 753.
[40] *Annual Report of the Commissioner of Indian Affairs, 1874.* November 10, 1874, 90-97.
[41] *Ibid.,* 90-97. Also see Watson Parker, "Report of the Reverend Samuel D. Hinman, *Bits and Pieces* 5 (November 1969), 5-9.

Walter P. Jenney and Henry Newton, appointed by the secretary of war to explore the Hills and investigate the claims of gold, arrived with 15 assistants and an escort of 400 soldiers on French Creek in June 1875. Jenney found the placers on French Creek unpromising. Jenney also noted that the gentle slope of French Creek and the failing water supply made placer mining for gold more difficult and not profitable. Further north, along Rapid Creek and its tributaries, Jenney found increasing amounts of gold. Jenney's reports of meager gold finds failed to discourage hopeful and eager prospectors.[42]

Gordon Party & Gold-Seekers Arrive in Black Hills

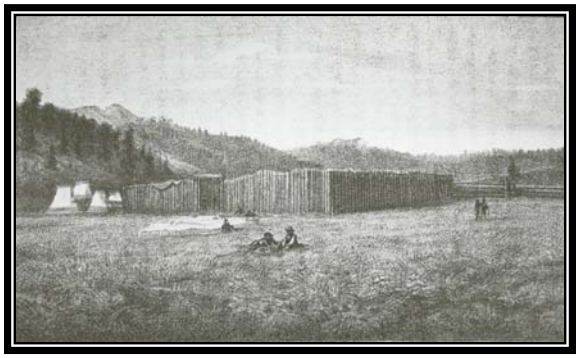

Figure 2-3. Gordon stockade. *Courtesy of Devereaux Library Archives, South Dakota School of Mines and Technology, Rapid City, SD (GLS-1190.*

Despite conflicting reports of gold in the southern Black Hills, a frenzied rush, characteristic of the 1850s and 1860s mineral strikes elsewhere in the West, began in late 1874 and early 1875. On December 23, 1874, one small gold exploration group led by John Gordon, picked up Custer's trail into the center of the Hills and was able to successfully reach French Creek, just three miles below present-day Custer (and about sixteen miles east of Jewel Cave). Gordon had been paid $1000 by this group for his services as guide. After proving to be an inadequate leader, Gordon returned to Sioux City, leaving his group on French Creek. The Gordon party consisted of twenty-six men, one woman, and a nine-year-old child.

Although they conducted limited explorations in the immediate area, they dedicated most of their time to the construction of six or seven cabins, spaced about six feet apart, inside an encircling vertical-log fortification wall. This square stockade measured some eighty feet across. By mid-January 1875, the Gordon party had dug a shallow well and laid in a huge supply of firewood for emergencies, eventually platting a townsite named Harney City near the stockade. The stockade structures and other

[42] Watson Parker, *Gold in the Black Hills* (Pierre, SD: South Dakota Historical Society Press, 2003), 63-65.

landscape modifications along French Creek represented the earliest harbingers of the more permanent presence of Euro-Americans in the southern Black Hills.[43]

After finding gold on French Creek, the Gordon party decided to adopt a Euro-American approach to protecting its mining rights by forming a so-called "mining district." On March 6, 1875, Gordon party members organized the "Custar [*sic*] Mining District" and drafted articles, or rules, that established the size and dimensions of mining claims, prohibited the damming or other interferences with another person's access to creek water abutting a claim, required a claim be worked no less than one day a week between May 15 and October 1 each year (except claims on ledges), required the posting and recording of claims, and provided for the election of a recorder who would keep accurate records of all claims.

Figure 2-4. A photographer with the Newton Jenney Survey of 1875 captured the interior of the Gordon Stockade, near present-day Custer, just as miners began to flood to the reported site of gold on French Creek.
Courtesy of the Devereaux Library Archives, South Dakota School of Mines and Technology, Rapid City (GLS-1171).

The Custer Mining District focused exclusively on land adjacent to or within the drainage of French Creek. On March 15, 1875, Angus McDonald filed the first claim under these articles. No sooner had Gordon party members attempted to create Euro-American rules representing the permanency of their venture than the group was ushered out of the Black Hills, in April 1875, by a military unit commanded by Captain John Mix.[44]

[43] Parker, *Gold in the Black Hills*, 30-33. Also see John S. McClintock, *Pioneer Days in the Black Hills: Accurate History and Facts Related by One of the Early Day Pioneers* (Deadwood, SD: John S. McClintock, no date), 23-34; Sundstrom and Sundstrom, "Exploration and Settlement," 4a-7.

[44] Hyman Palais, "A Survey of Black Hills History," *Black Hills Engineer* 27: 1, 25-31. C. C. O'Harra, "Early Placer Gold Mining in the Black Hills," *The Black Hills*

In June 1875, however, about fifteen miners had returned and were working prospects claimed in the French Creek area. This group of miners had organized the "Cheyenne Mining District" that month at Bear Rock, about one mile from the future site of Custer. This mining district began at the Gordon party stockade and extended to the headwaters of French Creek. According to the laws of this mining district, the mining season remained open from May 1 to November 15, the end of the claims were to be marked with stakes four feet tall, and a claim needed to be recorded no more than five days after prospecting began or it would be considered vacant ground.

In an effort to evict these miners from the area, General George Crook stationed Captain Edwin Pollock on French Creek at a post known as Camp Collins (near the future site of Custer). Pollock's small fort, along with the miners' activities, provided more very visible evidence on the land of Euro-American presence in the southern Black Hills.[45]

When Captain Pollock was unable to remove all the trespassing miners, General Crook traveled to French Creek in the summer of 1875. Attempting to cajole these French Creek miners into submission, General Crook composed the following notice:

> The undersigned [General Crook] hereby requires every miner or unauthorized citizen to leave the territory known as the Black Hills, the Powder River, and the Big Horn country by or before the 15th day of August, next [1875].
>
> He [Crook] hopes that the good sense and law abiding disposition of the miners will prompt them to obey this order without compelling a resort to force. It is suggested that the miners now in the hills assemble at the military post about to be established at Camp Harney, near the stockade on French Creek, on or about the 10th day of August.[46]

Many miners in the southern Black Hills obediently assembled near the Gordon stockade and left the Hills on August 15, 1875. Army soldiers

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Engineer, 19: 4, 348. It is worth noting that Jenney's group encountered miners at French Creek on June 16, 1875, and observed that even at this early date the miners had been working on their various "claims" for several weeks.

[45] Palais, "Survey of Early Black Hills History," 36-38; Parker, *Gold in the Black Hills*, 70.

[46] George Crook, "Proclamation," handwritten and signed. Special Collections, South Dakota School of Mines and Technology.

escorted the trespassers to Camp Robinson, Camp Sheridan, and Fort Laramie. Captain Pollock, however, was unable to find and remove all prospectors. General Crook allowed a handful of miners to stay behind and guard existing mining claims until, he promised, the Black Hills could be officially opened for Euro-American settlement. Additionally, numerous gold seekers evaded army patrols and continued to enter the Black Hills in search of rich placer deposits.[47]

Even when the army succeeded in removing miners from the Hills, the government's legal authority to keep Euro-Americans out of the Black Hills treaty lands became increasingly ambiguous and tenuous during 1875. That summer, an army lieutenant apprehended a group of more than one hundred individuals who had illegally entered the Black Hills. After being transported to Fort Randall, the miners were released only if they signed an agreement stating they would not reenter the Black Hills.

One arrested miner, Charles E. Solis, refused to sign the agreement. He argued that the United States government had no legal right to exclude him from the Black Hills. The local federal prosecutor requested a formal legal opinion from Attorney General Edward Pierrepont, who examined the statute carefully. According to this statute:

> Section 2134. Every foreigner who shall go into the Indian country without a passport from the Department of the Interior, superintendent, agent, or subagent of Indian affairs, or officer commanding the nearest military post on the frontiers or who shall remain intentionally thereon after the expiration of such passport, shall be liable to a penalty of $1,000.
>
> Section 5440. If two or more persons conspire either to commit any offense against the United States, or to defraud the United States in any manner or for any purpose, and one or more of such parties do any act to effect the object of such conspiracy, all parties to such conspiracy shall be liable to a penalty of not less than $1,000, and not more than $10,000, and to imprisonment not more than two years.[48]

[47] Palais, "Survey of Black Hills History," 39-41; Sundstrom and Sundstrom, " Exploration and Settlement," 4a-8.

[48] Revised Statues, Sec. 2134 and 5440. These provisions were later codified at Title 18, United States Code, and substantially changed; however, subsequent developments of these particular statutory sections are not relevant to this inquiry.

Surprisingly, Pierrepont's interpretation of the statue favored Solis's position. The attorney general opined that Section 2134 applied only to "foreigners" and not to citizens of the United States; therefore, citizens of the United States were not prohibited from entering the Black Hills. Additionally, since Section 2134 did not apply to U.S. citizens, U.S. citizens could not be prosecuted for a violation of section 5440 when the alleged violation was premised upon a violation of Section 2134. Following Pierrepont's formal opinion, Chief Justice Shannon dismissed the criminal case against miner Charles Solis.[49]

This legal opinion had a profound effect on the army's vigilance in barring Euro-American entry to the Black Hills. It removed any justification behind the army's insistence that civilian authorities prosecute individuals they apprehended trespassing in the Black Hills. The opinion also diminished the president's determination to keep out trespassers on Indian treaty land.

On November 3, 1875, President Ulysses S. Grant met with generals Crook and Sheridan along with advisors from the Indian Bureau and directed the army to disregard Euro-American trespasses into the Black Hills. General Sherman reportedly wrote to one of his subordinate officers that if miners wanted to invade the Black Hills, "I understand that the President and the Interior Department will wink at it."[50] The occupation and possession of the Black Hills by Euro-Americans now seemed inevitable.

[49] Procedurally, Charles Solis filed a petition of *habeas corpus* against the United States, arguing that the government had no right to keep him from entering the Black Hills. Later, the Pierrepont opinion was criticized as being based on unsound jurisprudential reasoning. Traditionally, a person was (and still is) a "foreigner" if they are a resident of some state in the United States other than the state in which they are present. For example, a Missouri resident traveling through Ohio would be a "foreigner" in Ohio. A person who is a citizen of some other country, such as England, France, German, or Canada, is know as an "alien."
[50] Quoted in Lazarus, *Black Hills/White Justice,* 83.

Chapter 3

Euro-Americans Come To Stay;
Indians Dispossessed

1875-1880s

Introduction
Prospector Felix Michaud Arrives in the Black Hills
Birth of Custer and Other Mining Camps
Negotiating a New Treaty with the Sioux
Gold Rush Bust
Social & Cultural Landscape of Custer City & County
Geographic Patterns of Early Mining Settlements
Roads into the Black Hills

Introduction

The federal government's decision to no longer bar the entry of Euro-Americans into the Black Hills, along with the creation of two mining districts and the army's small Camp Harney (at present-day Custer), suggested the beginning of the permanent presence of Euro-Americans. These were clear signals that newcomers intended not just to visit the Black Hills but to stay. Felix Michaud was among the hundreds of prospectors who arrived in the southern Black Hills and eventually settled and made it their home.

Within little more than two years after the Gordon party first arrived in the Hills, the popular public pressure on Congress to disregard the 1851 and 1868 treaties with the Sioux, remove the Black Hills from the Great Sioux Reservation, and lawfully permit Euro-American entry resulted in the permanent removal of the Sioux from the Black Hills in 1877. Between 1870 and 1780, the stampede of prospectors and miners caused a great surge in population in southwestern Dakota Territory, from 10,000 to 81,781.[1]

The physical manifestations of mining and military culture on the landscape also suggested a transition in Euro-Americans' perception of the Black Hills. The region began to be viewed not as a forbidden place but as one where construction, settlement, and making money were permitted and possible. The arrival of miners was quickly followed by businesses catering to the miners' needs. Loggers came to supply timber for mines and houses; retailers came to supply bread and sides of beef; freighters came to haul the timber, bread, and beef; and farmers came to grow the beans and cattle.

The early arrival of gold-seekers and settlers encouraged the formation of stage companies and brought about new and improved roads and eventually railroads to and through the Black Hills. In the twenty-five-year period after the rumors of gold had sparked a rush to the Black Hills, Euro-American settlers transformed the landscape leaving an indelible cultural imprint far different than that of the Native Americans who had previously occupied the region.

[1] D. Jerome Tweton, "Dakota Territory," *The New Encyclopedia of the American West,* edited by Howard R. Lamar (New Haven: Yale University Press, 1998), 282.

Prospector Felix Michaud Arrives in the Black Hills

Felix Michaud was among the thousands drawn to the Black Hills for its purported mineral wealth, most notably gold. In the early summer of 1875, only one year after Custer declared that abundant gold existed in the Black Hills and six months after the initial arrival of the Gordon prospecting party on French Creek in December 1874, more than one thousand gold-seekers left Cheyenne for Fort Laramie, on wagons, on horseback, or on foot. The traffic didn't diminish as the traveling season wore on. In June, groups of from five to twenty headed north out of Cheyenne each day. Many other miners elected to travel to French Creek from Spotted Tail (in southwestern Dakota Territory) or Red Cloud (in northern Nebraska) Indian agencies, south of the Black Hills.[2] Felix Michaud was only one of hundreds who left Fort Laramie bound for the Black Hills after restrictions on Euro-American entry to Indian treaty lands had been abandoned in mid-1875.

Born around 1836, Felix Michaud was one of four Michaud brothers, all of who left the town of Isle Verte, on the south shore of the St. Lawrence River in Quebec Province, Canada, at a young age. Like many emigrants, Felix may have stopped to work and earn money in different locations as he moved west up the St. Lawrence River and through the Great Lakes region at the Canadian-U.S. border. Felix Michaud married Margaret Jane Blundell in Wisconsin in 1864. The new couple moved west to the Colorado Rockies, where gold had been discovered near Pikes Peak five years earlier. The Michauds lived for a short time in Brighton, north of the bustling mining supply town of Denver. Here, their first child, Eduard Felix (more commonly spelled "Edward" in English), was born in 1864.[3] By this time, the gold rush to the Pikes Peak mining district had ended. With his wife and child, Felix and three of his brothers settled in a French-Canadian community in the Cache la Poudre River Valley, in the vicinity of present-day Fort Collins, Colorado.[4]

Felix and Margaret Jane Michaud made their home in this French settlement for most of the next ten years. Four more children were born to

[2] Agnes Wright Spring, *The Cheyenne and Black Hills Stage and Express Routes* (Glendale, CA: Arthur H. Clark Co., 1949), 65.
[3] Edward Felix Michaud (microfilm # B13135/GSU # 1952635, "Vital Events," British Columbia Archives web page; "Former Custer County Resident Passes Away," *Custer Weekly Chronicle*, July 12, 1928.
[4] Nettie Michaud, e-mail communication with Gail Evans-Hatch, April 9, 2004; Jesse Sundstrom," Jewel Cave/The Michaud Family," chronology, February 2004, corrected September 2004, to Gail Evans-Hatch and Michael Evans-Hatch, February and September 2004.

them during that time: Annie Laurie, in 1866; James Alfred, in 1870 (or 1871); Francis (known as "Frank") Wesley, on July 13, 1871[5]; and Albert (known as "Bert"), in 1875. [6]

Felix Michaud's wife died at the time of Albert's birth. Undoubtedly devastated by the death of his wife, overwhelmed by the daunting task of raising five young children alone, and probably struggling to survive the economic depression of the mid-1870s, Felix Michaud, then in his late thirties, left his children with family and friends in Colorado and traveled northeast in search of a more lucrative income. In the summer of 1875, he headed north to Fort Laramie, Wyoming Territory, where he joined a company of thirty-four other gold-seekers bound for the Black Hills. The group included old miners from California and Colorado, buffalo hunters, a Spaniard from Mexico City, and others. Although diverse in background, the group shared the common desire to strike it rich in the newly publicized gold diggings along French Creek in the southern Black Hills.[7] Michaud may have speculated he could make enough money from prospecting to provide for his family in Fort Collins.

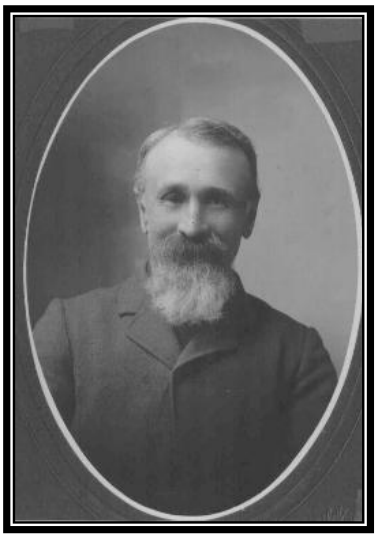

Figure 3-1. Felix Michaud, native of Quebec Province, Canada, arrived in the southern Black Hills in the mid-1870s, along with the first Euro-American gold miners. For thirty years, he mined, ranched, and engaged in at least one business in the Custer area. Courtesy of Mrs. Ira Michaud, Billings, Montana.

Not long after leaving Fort Laramie, Felix Michaud assumed a leadership position in the wagon company. According to the descendent of a wagon company member, "a French-Canadian, an old plainsman named [Felix] Michaud, who talked plain English, was chosen captain" just as the wagon company approached Indian treaty lands north of the North Platte River. Over the next few

[5] One source, the 1905 South Dakota census, noted that Frank Michaud was born in Denver, Colorado. South Dakota Census, South Dakota State Archives, Pierre, South Dakota.
[6] Frank Michaud obituary, *Custer Weekly* Chronicle, March 12, 1927; Nettie Michaud, e-mail communication with Gail Evans-Hatch, April 9, 2004.
[7] Monica Michaud Weldon, e-mail communication to Gail Evans-Hatch and others, July 26, 2004; "In the Sioux Country in '75," *Old West*, Summer 1967, 83; Michauds, Rileys 'Come Home' for Family Reunion," *Custer County Chronicle*, September

days, Michaud led the wagon company members safely across Indian treaty lands to Camp Custer on French Creek. Less than two weeks later, Michaud and the other French Creek miners were rounded up by a detachment of Colonel Frederick W. Benteen's 7th Cavalry[8] and escorted out of Indian treaty lands across the Missouri River.[9] Many eager gold-seekers slipped quietly back over the border onto Black Hills Indian treaty lands. Felix Michaud, it has been written, did likewise. "He led his party back to the Hills before winter set in; this time they were able to stay."[10]

Felix Michaud remained in the southern Black Hills for the next thirty years. Although he undoubtedly made trips out of the area, especially during the early period of gold-rush fever before 1880, he eventually established substantial roots in the southern Black Hills and pursued diverse activities. The 1880 census for the Dakota Territory listed Felix Michaud, age forty-four and single (on June 17), working as a "livery keeper" in Custer City.[11] As a speculator of presumably moderate means, he filed a number of mining claims. In May 1881, for example, he and E. H. Flynn each purchased one-half interest in both the "North Pole No. 1" and "North Pole No. 2" lodes (about nine miles west of Custer on the "Jenney Stockade cutoff") from J. C. Henault and Fred Russell for $1000.[12] Five years later, in 1886, Felix Michaud purchased one-fourth interest in the "Edith Lode" and one-sixth interest in the "Clarence Lode" (about seven miles west of Custer) from Peter Gagnon for $100.[13] Felix Michaud may have acquired a partial interest in other mines as well.

[8] Veteran of the North in the Civil War as lieutenant of the 10th Missouri Calvary and, briefly, as colonel of an African American regiment, Benteen served in all of the 7th Calvary's Indian campaigns until 1882. He was a senior captain of the 7th regiment at the Battle of Little Bighorn. His decisive actions are generally credited with having saved the regiment from even greater disaster at the Little Bighorn.
[9] "In the Sioux Country in '75," *Old West*, Summer 1967, 85.
[10] "Michauds, Rileys 'Come Home' for Family Reunion," *Custer County Chronicle,* September 8, 2004.
[11] "Schedule 1: Inhabitants of Custer City," Territory of Dakota (Washington, DC: Bureau of Census, June 16, 1880). Viewed on microfilm at the National Archives and Records Administration, Washington, DC.
[12] J. C. Henault and Fred Russell, to E. H. Flynn and F. Michaud, May 31, 1881, Mining Deed Record, Vol. 2, p. 325, Custer County Courthouse.
[13] Peter Gagnon to F. Michaud, January 4, 1886, Mining Deed Record, Vol. 2, p. 126, Custer County Courthouse.

Birth of Custer and Other Mining Camps

In early July 1875, miners laid out a plan for what became the Black Hills' pioneer Euro-American community of social, commercial, and cultural interaction and exchange, just thirteen miles east of Jewel Cave. Thomas Harper platted the townsite, named "Stonewall" after Confederate Army Civil War hero Stonewall Jackson, in a geometrical grid-pattern of right-angle streets and rectangular blocks with 50' x 100' lots. The main thoroughfare, Crook Street, was 200 feet wide to permit a large team with wagons to turn around in the business district. In August, the town was renamed "Custer City" after Lieutenant Colonel George Custer, who explored and found gold in the Black Hills in the summer of 1874 (and was later killed on the Little Bighorn River in June 1876). The town of Custer City grew rapidly after expelled miners, like Felix Michaud, and new arrivals were allowed to return and stay in the fall of 1875.[14]

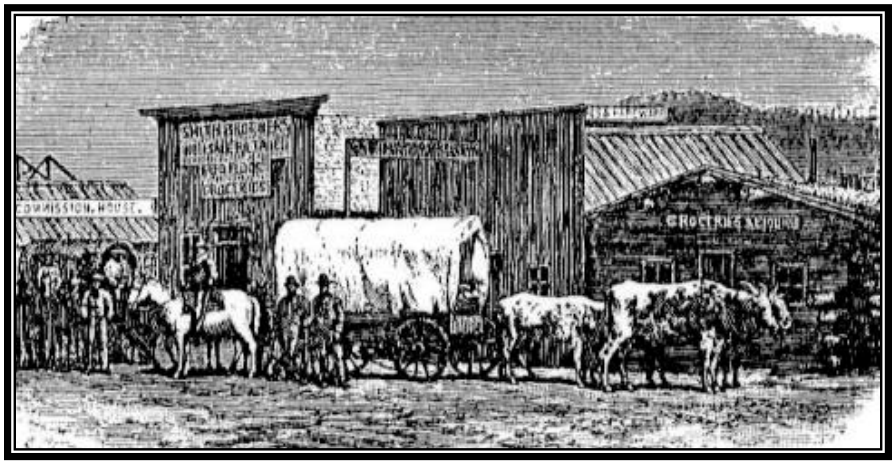

Figure 3-2. An etching of Custer City not long after the rush to French Creek for gold in 1875. From Cleophas O'Harra, *O'Harra's Handbook of the Black Hills* (1913).

By January 1876, about 1,000 people lived in Custer City; the physical emergence of this bustling camp town was well underway. In February, the first hotel, a general store, and several other shops opened for business. A sawmill was built to provide boards for the construction of buildings and mining sluices. Two lawyers and a private postmaster opened their doors later in the spring. By March 1, 1876, Custer City consisted of an estimated 400 buildings lining and extending out from the main

[14] Parker, *Gold in the Black* Hills, 72-74; Sundstrom and Sundstrom, "Exploration and Settlement," 4a-8; Palais, "Survey of Early Black Hills History," 91-92.

commercial street. Between 6,000 and 10,000 people reportedly resided in and around Custer City, but this is most likely an exaggeration.[15] Residents set up a provisional government consisting of elected officials—a mayor, justice of the peace, and marshal, and later a city clerk, attorney, treasurer, assessor, surveyor, and, more.[16]

Early Black Hills arrival George V. Ayres penned his impressions of Custer City in his diary on March 25, 1876:

> At that time, Custer City was made up of a conglomerate mass of people. . . . There were but few houses completed, but many under construction. The people were camped all around, up and down French creek, in wagons, tents, and temporary brush houses or wickiups. The principal business houses were saloons, gambling houses and dance halls, two or three so-called stores with small stocks of general merchandise and little provisions.[17]

Custer City, the first Black Hills town, seemed destined to become a major metropolis. But like so many other mining towns in the West with booming beginnings, the town's growth experienced an early bust. In February, reports of promising prospects in gulches along Spring Creek in the central Black Hills instigated the hurried establishment of a mining camp at what became Hill City (early on known as "Hilyo"), twelve miles north of Custer City. A conglomeration of tents and rude log cabins soon covered the townsite and blanketed the landscape here and at Sheridan, a few miles down Spring Creek. Gold discovered on Rapid Creek, north of Hill City, also drew people away from Custer City. Additionally, several towns sprang up in 1875 along Battle Creek in the eastern Black Hills. In May 1876, the reports of rich deposits of gold discovered the previous summer in the northern Black Hills reached the southern mining camps and created a thundering stampede of roughly 20,000 gold-seekers to Deadwood Gulch and gulches radiating from it, where a string of bustling mining camps sprang up along the narrow valley (below the junction of

[15] Palais, "Survey of Early Black Hills History," 91.
[16] Palais, "Survey of Early Black Hills History," 91-92; Parker, *Gold in the Black Hills*, 72-76; Sundstrom and Sundstrom, "Exploration and Settlement," 4a-8; Herbert S. Schell, *History of South Dakota* (Lincoln: University of Nebraska Press, 1968), 132, 140.
[17] Quoted in Schell, *History of South Dakota,* 140, and based on the diary of George V. Ayres, in Agnes Wright Spring's *The Cheyenne and Black Hills Stage and Express Routes* (Glendale, CA: Arthur H. Clark Co., 1949), 363.

Deadwood and Whitewood creeks). Prospectors organized several mining districts there and soon claimed every foot of that gulch within an approximate ten-mile radius of the booming camp of Deadwood.[18]

The eagerness and urgency of prospectors rushing to the northern Black Hills in early 1876 was captured in a brief news article that appeared in the February 8, 1876, *Bismarck Tribune:*

> Forty-seven teams, loaded with provisions and passengers, left with the steam sawmill outfit for the Black Hills yesterday and today. Thirty more will leave Wednesday with freight and passengers, among which are several families. . . . Several teams arrived last evening from Standing Rock, and from up the river, to join the party. At least seventy-five teams and 150 persons will leave during the week.[19]

The rush to the northern Hills depopulated Custer City and left embryonic mining camp at later-day Hill City almost totally deserted. The population of Custer City continued to decline in the summer of 1876. Increasing Indian troubles, the expense of hydraulic equipment required to work the French Creek placers, and the lure of reportedly richer gold strikes elsewhere compelled the remaining Custer residents to sell their supplies. As winter approached in late 1876, Custer's population grew slightly to about sixty families. Mining development in Custer grew in 1877, when the Black Hills' population reached its peak and when the federal government opened the Black Hills Indian treaty lands to legal entry and settlement.

Negotiating a New Treaty with the Sioux

President Grant was well aware of the flood of United States citizens trespassing in the Black Hills. He fully appreciated the feelings of dissatisfaction their arrival engendered within the Sioux community. Between 1875 and early 1877, the U.S. government formulated a way to take possession of the Black Hills in a way that had a long-lasting impact on the Sioux and their relationship to the Black Hills.

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[18] Parker, *Gold in the Black Hills,* 75-86; Schell, *History of South Dakota,* 140-41, Sundstrom and Sundstrom, "Exploration and Settlement," 4a-9; Palais, "Survey of Early Black Hills History," 92.

[19] February 8, 1876*, Bismarck Tribune*, quoted in George W. Kingsbury, *History of Dakota Territory. South Dakota: Its History and Its People, Vols. 1-5,* edited by George Martin (Chicago: S. J. Clarke Publishing Company, 1915).

In May 1875, they invited a Sioux delegation to Washington, D.C. to discuss the future of the Black Hills. During an address to a congressional delegation, President Grant reported that the increasing pressure being exerted on the federal government by private citizens attempting to prospect and mine the Black Hills was reaching a point where the government could no longer keep Euro-Americans out of the Hills. The president also advised them, that in view of this growing, perhaps unstoppable pressure, the best position for the Sioux would be to lease or sell the Black Hills:

> By the treaty of 1868, clothing was granted for thirty years, and provisions for only five years. The food and provisions, therefore, which has been given for the last two years have been a gratuity on the part of Congress. These may be taken at any time without any violation of the treaty.
>
> This year we have had great trouble in keeping white people from going to the Black Hills in search of gold, but we have so far prevented them from going. Every year this same difficulty will be encountered until the right of white people to go to that country is granted by the Indians, and may in the end lead to hostilities between the white people and the Indians without any special fault on either side. If such trouble should occur and become general, it would necessarily lead to withholding, for the time being at least, the supplies which the Government has been sending.[20]

Soon, President Grant directed the Commissioner of Indian Affairs Edward P. Smith to appoint a commission to initiate negotiations for the acquisition of the Black Hills. Smith appointed W. B. Allison chairman of the commission. The federal representatives offered to either lease the Hills for $400,000 per year, or purchase fee simple for $6 million, payable in fifteen installments. Negotiators representing the Sioux demanded $70 million. During the many days of negotiations, large groups of Sioux voiced passionate opposition against conveying any interest in the Black Hills, and promised violent resistance to any Euro-American occupancy of the Black Hills. These sentiments appeared to be most widely shared by

[20] Kingsbury, *History of Dakota Territory,* 895-96.

Sioux residing in the Powder River area. Negotiations ended without the parties reaching agreement.[21]

The flow of Euro-Americans into the Black Hills was not diminished by the government's failure to obtain a legal right to the land. In a story that appeared in the February 8, 1876, issue of *Bismarck Tribune,* it was clear that the Black Hills was no longer off limits for Euro-Americans.

> Forty-seven teams, loaded with provisions and passengers, left with the steam sawmill outfit for the Black Hills yesterday and today. Thirty more will leave Wednesday with freight and passengers, among which are several families. . . . Several teams arrived last evening from Standing Rock, and from up the river, to join the party. At least seventy-five teams and 150 persons will leave during the week.[22]

The government continued to pursue the course of purchasing or leasing the Black Hills from the Sioux. Indian Affairs Commissioner Smith then attempted to assess the economic value of the Black Hills and to estimate a reasonable purchase price, in its existing "unused" condition. Smith reported:

> Notwithstanding the stringent prohibitory orders by the military authorities, and in the face of the large military force which has been on duty in and around the Hills during the summer, probably not less than a thousand miners, with the number rapidly increasing, have made their way into the Sioux country. A mining association has been organized, laws and regulations have been adopted for mutual protection, and individual claims staked out, in the right to which they expect hereafter either to be protected by the Government or to protect themselves.
>
> The occupation and possession of the Black Hills by white men seems now inevitable, but no reason exists for making this inevitability an

[21] "Allison Commission Negotiations," *Annual Report, Commissioner of Indian Affairs, 1875.*
[22] *Bismarck Tribune*, February 8, 1876, as quoted in Kingsbury, *History of Dakota Territory*, 923.

> occasion of wrong or lasting injury of the Sioux. If an Indian can be possessed of rights of country, either natural or acquired, this country belongs for occupation to the Sioux; and if they were an independent, self-supporting people, able to claim that hereafter the United States Government should leave them entirely alone, in yearly annuities only as the treaty of 1868 guarantees, they would be in a position to demand to be left in undisturbed possession of their country, and the moral sense of mankind would sustain the demand; but unfortunately the facts are otherwise. They are not now capable of self-support; they are absolute pensioners of the Government in the sum of a million and a quarter of dollars annually above all amounts specified in treaty-stipulations. A failure to receive Government rations for a single season would reduce them to starvation. They cannot, therefore, demand to be left alone, and the Government, granting the large help which the Sioux are obliged to ask, is entitled to ask something of them in return. On this basis of mutual benefit the purchase of the Black Hills should proceed. . . .
>
> The fact that these Indians are making but little if any use of the Black Hills has no bearing upon the question of what is a fair equivalent for the surrender of these rare facilities for farming and grazing. . . . Their ignorance of themselves and of true values makes the stronger appeal to our sense of what is right and fair.
>
> The true equivalent to be offered the Sioux, as helpless wards of the Government, for the Black Hills, will be found by estimating what eight hundred square miles of gold fields are worth to us, and what three thousand square miles of timber, agricultural, and grazing lands are worth to them.[23]

[23] *Annual Report of the Commissioner of Indian Affairs to the Secretary of the Interior for the Year 1875* (Washington, DC: Government Printing Office, 1875), 7-9.

Secretary of the Interior Zachariah Chandler concurred with Smith's assessment and his conclusions. However, his suggested solution was limited to the acquisition of mining rights only rather than seeking ownership of the land itself:

> For two years the Government has been appropriating about one million two hundred and sixty thousand dollars for the subsistence of the Sioux of various tribes, which amount is a gratuity that the Government is under no obligations to give them, and for which it receives no compensating advantage. The amount thus appropriated is 5 percent per annum or $25,000,000, which the Government is giving without an equivalent. This amount must be given them for some years to come, or they will starve. It is submitted, therefore, under these circumstances, for the consideration of Congress, whether it would not be justifiable and proper to make future appropriations for supplies to this people, contingent on the relinquishment of the gold fields in the Black Hills and the right of way thereto.[24]

Around this time, hundreds of Sioux who had been living near the agencies along the Missouri River began moving west to join Sitting Bull and others who were vocal in their determination to stop Euro-American encroachments and to keep the Black Hills for the exclusive use of the Sioux. Many Sioux were convinced that the United States government intended to simply steal the Black Hills, since its attempt to acquire them by purchase or lease had failed.[25]

As if to confirm the Sioux's suspicions, on February 1, 1876, the army declared that any Sioux not living on or near one of the agencies along the Missouri River would be considered a "hostile" and would be subject to military "discipline." This directive included Sioux found in the Black Hills. All jurisdiction over Native Americans in the Powder River, Black Hills, and Yellowstone River areas was transferred from the Department of the Interior to the War Department. As the number of Sioux moving west from the Missouri River into the Powder River area to join the resistance grew exponentially, army patrols followed them to try to relocate them to

[24] Kingsbury, *History of Dakota Territory,* 921-922.
[25] *Annual Report of the Commissioner of Indian Affairs to the Secretary of the Interior for the Year 1876*.

agency facilities. The encounter significantly escalated the existing Sioux-Euro-American violence. The bloodshed would last for two more years, resulting in the deaths of women, children, and other noncombatants, as well as the famous defeat of Custer at the Little Big Horn.

On May 29, 1876, General George Crook from Fort Fetterman, General John Gibbon from Fort Ellis, and Brigadier Alfred Howe Terry from Fort Lincoln were directed to surround the "hostiles." General Terry ordered Lieutenant Colonel Custer to take 850 men and look for the Sioux. Lt. Col. Custer found them on June 22. In fact, he found Oglala, Brule, Teton, Uncpapa, Sioux, Cheyenne, Arapaho, and Gros Ventre. He attacked them on June 25; he died the same day.[26]

Efforts to acquire the Black Hills continued in Washington, D.C. A rider was added to the Indian Appropriation Act of 1876 empowering the president to appoint a commission to negotiate with the Sioux in order to acquire the Black Hills. President Grant's appointees were: George W. Manypenny of Columbus, Ohio, formerly Commissioner of Indian Affairs; Reverent Henry B. Whipple, Episcopal Bishop of Minnesota; Henry C. Bullic of Decorah, Iowa; Dr. Jared W. Daniels of St Peter, Minnesota; Augustine S. Gaylord, assistant U.S. attorney general of Washington, D.C.; Albert G. Boone of Denver, Colorado; retired U.S. Army General H. H. Sibley, of St. Paul, Minnesota (who became ill and was unable to travel to the negotiations); and former Dakota Territory Governor Newton Edmunds of Yankton.[27]

The negotiators were given the following instructions:

> It will be seen from the above that Congress has expressed its determination to appropriate nothing further for the subsistence of the Sioux Indians represented directly or indirectly by the treaty of 1868, unless they shall agree—
>
> 1st. To relinquish all right and claim to any country outside the boundaries of the permanent reservation established by the treaty of 1868.
>
> 2nd. To relinquish all right and claim to so much of their said permanent reservation as lies west of the one hundred and third meridian of longitude. (This includes the Black Hills.)
>
> 3rd. To grant right of way over the permanent reservation to that part thereof which lies west of the one hundred and third meridian

[26] Edward Lazarus, *Black Hills/White Justice: The Sioux Nation Versus the United States, 1775 to the Present* (New York: Harper Collins, 1991), 87-90.
[27] Senate Executive Document 9, 44th Congress, 2nd Session (1876), 3.

> of longitude for wagon and other roads from convenient and accessible points on the Missouri River, not exceeding three in number.
>
> 4th. To receive all such supplies as are provided for by said act and by said treaty of 1868, at such points and places on their reservation, and in the vicinity of the Missouri River, as the President may designate.
>
> 5th. To enter into such agreement or arrangement with the President of the United States as shall be calculated and designed to enable said Indians to become self-supporting.
>
> The subjects of negotiation, with the exception of the last, are so clearly defined by the act as to render further elaboration upon my part unnecessary.[28]

Although there was a great deal of opposition to both the proposed terms as well as the thinly veiled threats throughout the Sioux nation, the government negotiators obtained the signatures of approximately ten percent of the Sioux adult male population. They apparently didn't attempt to obtain agreement of the seventy-five percent as required by the 1868 treaty. The president sent the "agreement"[29] to Congress in late December 1876, and Congress passed it into law on February 28, 1877.[30]

In summary, the legislation (see Appendix II):

1. Removed the Black Hills from the Sioux Reservation (Article 1);
2. Granted easements to the federal government to construct three roads ("wagon and other roads") from points along the

[28] *Ibid.*, 4. Also, for an excellent overview of the federal policy regarding the Sioux and the taking of the Black Hills, see a 1923 collection of the testimony of persons who had been directly involved found in the Ralph Case Papers housed at the Washington, D.C. National Archives facilities (RG 75). Relevant contemporaneous maps are housed at the National Archives facilities in Maryland.

[29] Congress, apparently concluding that it was more expedient to deal with the Sioux as wards rather than a sovereign government, enacted legislation in 1871 forbidding the federal government from entering into any future treaties with First Nations. Congress declared, "no Indian nation or tribe shall be acknowledged or recognized as an independent nation, tribe, or power with whom the United States may contract by treaty." Instead, Congress declared that the federal government was to enter into "agreements" with the Native Americans.

[30] 19 Stat. 254.

Missouri River through the remaining Sioux Reservation (Article 2);
3. Required the Sioux to pick up all subsistence and supplies only from points within the reservation that were near the Missouri River (Article 3);
4. Required the Sioux Nation to appoint five "chiefs" who would travel to Oklahoma to investigate the land. If, with the guidance and concurrence of representatives from the Commissioner of Indian Affairs, they concluded that they would prefer to live there, the entire Nation would relocate to Oklahoma, and each member of the Nation would be required to select an allotment of land and learn to farm (Articles 3 and 6); and
5. Required the Sioux to permit an annual census of all Indians who were parties to the Manypenny agreement (Article 10).

In exchange, the United States promised to:
1. Comply with the requirements of the 1868 Laramie Treaty that dealt with providing farming and mechanical arts instruction (Article 5) [Note: since this was a pre-existing legal duty of the federal government, this article provided no new value, and was therefore an invalid consideration. Agreeing to comply with the law is the duty of all, including the federal government, therefore, making a promise provided nothing that wasn't already there.];
2. Supply subsistence rations to each individual except to: (1) children between six and fourteen who do not attend school regularly, or to (2) adults occupying lands that can be farmed and they don't farm it (also Article 5);
3. Where a member of the Sioux Nation has selected a land allotment and has become engaged in farming, the United States would help them build a house (" . . . the Government shall, with [the member's] aid, erect a comfortable house on such allotment.")(Article 6);
4. To "improve the morals and industrious habits of said Indians" by ensuring that all non-Indians employed by and living on the reservation are lawfully married and residing with their families, and be removed from the reservation if the Commissioner of Indian Affairs believes the person's moral fitness " . . . is not conducive to the said Indians." (Article 7);

Shortly after the Sioux reluctantly signed the proposed agreement, in 1877, the army took from the Sioux all of their firearms and approximately 4,000 horses, just weeks after the federal government agreed

to protect Sioux property rights.[31] This was particularly devastating to the Sioux since most relied on their horses to travel to the hunting fields. The army relocated all members of the Sioux Nation it could find to reservations east of the Black Hills.

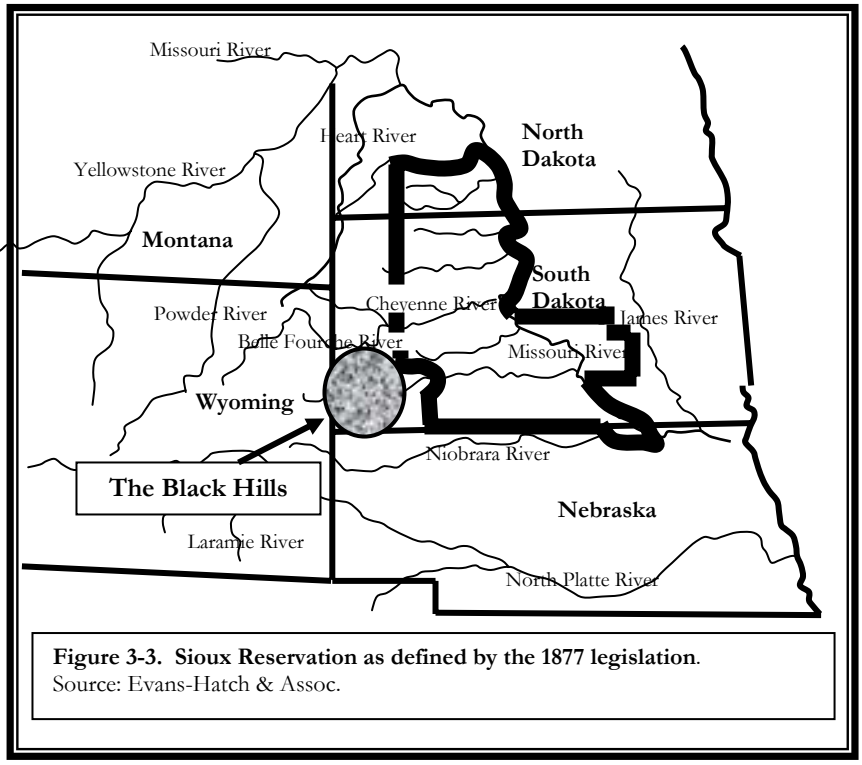

Figure 3-3. Sioux Reservation as defined by the 1877 legislation.
Source: Evans-Hatch & Assoc.

Resistance continued, but in May 1877, Crazy Horse, the last Sioux leader to surrender other than Sitting Bull, turned himself in at Fort Robinson, Nebraska, where he was later bayoneted to death by a tribal police while being restrained during an "arrest." By that fall, the Sioux were being marched east toward the Indian agencies along the Missouri River. The final relocation of the Sioux occurred a year later (1878) when President Rutherford B. Hayes agreed to let the Sioux move back west to their old reservations immediately east of (but still outside) the Black Hills. These reservations were soon renamed. The Red Cloud Reservation was renamed Pine Ridge, and Spotted Tail became Rosebud Reservation. By this time the gold miners had become firmly entrenched in the Black Hills.

(Decades later, a Court of Claims judge, after reviewing this history, concluded that: "a more ripe and rank case of dishonorable dealings will

[31] Lazarus, *Black Hills/Whites Justice.*

never, in all probability, be found in our history."[32] During the next three decades, more and more of the Great Sioux Reservation encompassing the Black Hills would be taken for Euro-American settlement, shrinking the Great Reservation into a much smaller Indian land base. In a 1980 decision, the United States Supreme Court concluded that this 1876-77 legislation was a "taking" without adequate compensation. In that decision, the Supreme Court awarded $17.1 million to the Sioux as principal, plus interest on that principal measured from 1877, as compensation for the unlawful taking.[33])

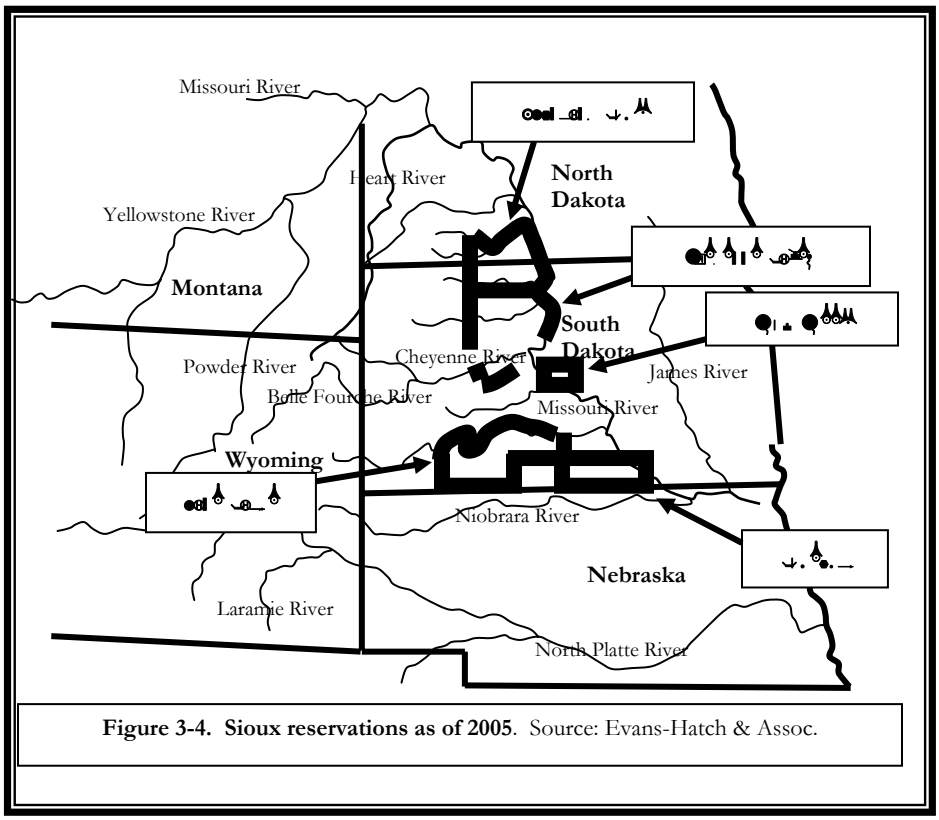

Figure 3-4. Sioux reservations as of 2005. Source: Evans-Hatch & Assoc.

[32] *Sioux v. United States*, 207 Ct. Cl., at 241, 518 F.2d, at 1302.
[33] *Sioux v. United States*, 448 U.S. 371.

Gold Rush Bust

The year 1877 marked not only the dispossession of the Sioux, but also a significant shift in the mining history of the Black Hills. Following a great influx of prospectors in 1877, the Black Hills gold rush reached a peak. Nearly all of the easily accessible placer claims had been taken along the creeks and up the sides of gulches. Prospector Leander Richardson, a young reporter who had been retained by the small Massachusetts *Springfield Republican* newspaper, sent negative reports back to the small Massachusetts town. After arriving in Custer in July 1876, and reported that most of the town's existing cabins had been abandoned by their occupants, who had headed to supposedly richer gold fields in the northern Hills. "Not more than $20 per day has ever been taken out on French Creek, along the banks on which lies this town," Richardson reported.[34] Richardson's general assessment of the Black Hills was dismal.

> Farming [in the Black Hills] is out of the question. Snowstorms did not cease last spring until the eleventh day of June, and heavy frosts begin in September. The Black Hills will eventually prove a failure. The trip there would be a severe trial for most men, even if the danger of being murdered were removed. At present, the journey is exceedingly dangerous, and if by good fortune the gold hunter succeeds in surviving its hardships and getting through alive, his chances of success are few and his expenses will be large.[35]

Most of the gold in the Black Hills was confined within companion rock, often quartz, and was yet to be liberated. Consequently, individual miners who had been sloshing about in streambeds were soon replaced by heavily capitalized corporations using complex and expensive machines and processes that resulted in environmental degradation. The Black Hills gold was buried in the bowels of the earth, requiring that deep shafts be dug several hundred, even thousands of feet deep.[36] Prospectors' gold pans

[34] Leander P. Richardson, "A Trip to the Black Hills," *Scribner's Monthly,* April 1877.
[35] As quoted by James D. McLaird, editor, "I Know . . . Because I Was There: Leander Richardson Reports the Black Hills Gold Rush," *South Dakota History* 31 (Fall/Winter) 2001.
[36] The Homestake Mine at Lead, South Dakota, for example, which opened in the northern Back Hills in 1877 and reportedly became the largest gold mine on earth, has at least one shaft that descends more than 8,000 feet into the ground.

were quickly replaced by amalgamating pans where mercury was used to attract gold particles much like a magnet attracts iron pieces. The gold would later be "retorted" (removed from the mercury). Sluice boxes were replaced by sodium or potassium cyanide leach fields, which precipitated liquefied gold to be captured by activated carbon.[37]

Even so, the influx of miners and merchants to the Black Hills continued in the 1870s. There are several explanations for the continued rush to the Black Hills after the placer deposits were depleted. Many early prospectors wrote of their gold-mining success. Miners' letters filled with glowing reports were often published in newspapers, thus fanning the flames of an already inflated optimism back home.

Recent memoirs of gold strikes elsewhere in the West encouraged local newspapers in communities around the Black Hills to publish any available good news and even embellish it for the benefit of local merchants, mining outfitters, and other business people and speculators. A column of news, entitled "Black Hills Items," which reported the arrival and departure of Black Hills miners, became a regular feature of the *Cheyenne Daily Leader* and other regional newspapers. The April 17 and April 30, 1875 issues of the *Daily Leader* were published to promote reports of gold discoveries in the Black Hills to a wide audience. Other regional newspapers, such as the *Deadwood Black Hills Pioneer* and the *Rapid City Black Hills Journal,* shipped many issues that presented gold-mining news to Chicago and other cities for distribution. Additionally, news stories emanating from towns around the Black Hills waxed eloquent with glowing gold stories. Newspapers published in Bismarck and Yankton, Dakota Territory; Sioux City, Iowa; Sidney, Nebraska; and Cheyenne, Wyoming—they all contributed to the excitement of great expectations. Businesses in each of these towns fully appreciated the profits that would be realized by any town used as a jump-off point by people headed for the Black Hills. Businesses in these communities competed vigorously for attention and money of those lured to the Hills by stories of gold riches. Publications of even wider distribution with stories about Black Hills gold also contributed to the rush there. By 1879 no fewer than twenty books and pamphlets

[37] Gold-bearing rock is removed from the earth and crushed using large, steam-engine-powered mechanical hammers called stamps. The crushed rock is then either treated with mercury, which binds with gold, imparting an even greater density to the mercury-gold mixture, or treated with a cyanide salt, such as potassium cyanide or sodium cyanide, which dissolves the gold and then precipitates out of the rock pile. The words amalgamation and retort are often used in the explanation of these processes. (Amalgamation means nothing more than combining something with mercury; retort is a process whereby heat is added to a substance, usually in an environment of reduced air pressure, essentially separating a mixture into its constituent parts through distillation.)

advertised and promoted the Black Hills and the businesses that could serve and benefit from Black Hills miners.[38]

The Black Hills gold rush, similar to many mineral stampedes in the West, had more to do with perception than reality. The economic climate and the promotional efforts of towns, companies, and individuals eager to benefit in some way from reported Black Hills gold all combined to stimulate the rush for imagined riches. Hopes for some form of economic redemption or deliverance from a troubled national economy overshadowed reasonable assessments of reality. The common perception was that even if the claims of largesse were greatly exaggerated, the mere rumors of a gold discovery in the Black Hills would benefit everyone, especially speculators who flooded to the region.

There was, without a doubt, a significant amount of money to be made in the Black Hills. Some large corporations, such as the Homestead Mining Company in the northern Hills, which remained in business for one hundred years, did make money from mining, although individual miners often failed to profit from their small investment in limited operations. Enterprising businesspeople that provided the miners with goods and services often accumulated more wealth than the miners themselves. Dry goods merchants, hotel and saloon proprietors, and those in the building trades and transportation businesses all stood to benefit from the mining boom.

Social and Cultural Landscape of Custer County

Early on, Custer City, as it was first called, began to emerge as the center of services and supplies for the southern Black Hills miners. Custer City's tempestuous growth mirrored some larger patterns in western gold-mining history as well as some conditions unique to the Black Hills. Typical of most western mining and Black Hills towns, Custer City's early history was marked by a boisterous early beginning, followed by periodic depressions that punctuated the boom periods when miners returned to open new prospects, and merchants and others came to serve the miners' needs.[39] In 1877, Custer City experienced just such a slump in growth and development. One contemporary account wrote of the "log huts and houses, finished or unfinished," along with "some larger and more

[38] Parker, *Gold in the Black Hills,* 38-42; John Leonard Jennewein, *Black Hills Booktrails* (Mitchell, SD: Dakota Territory Centennial Commission, 1962), 46-54. Also see "Dakota Territory," in *The New Encyclopedia of the American West,* edited by Howard Lamar (New Haven, CT: Yale University Press, 1998), 282.
[39] Parker, *Gold in the Black Hills,* 76-78; Palais, "Survey *of Early Black Hills Mining," 65.

pretentious buildings of newly-sawn boards." Amid the nearly 600 buildings, however, inhabitants were few, "for the owners of huts and houses had vanished. What remained was a camp of traders without customers."[40]

Despite its small population, between 100 and 200, and unstable economy, the infant 1877 mining community and its setting were portrayed in romantic prose in Edwin A. Curley's *Guide to the Black Hills.*

> Custer is very prettily situated in the valley of French Creek, with islands of pine-covered rocks springing from the grassy meadow all round it, and beyond these islands on the left, in the direction of Harney, mountains of considerable altitude. The crooked creek lay hidden in the very bottom of its bed sleeping so lazily that it could scarcely glisten in the sunlight.[41]

The April issue of *Scribner's Monthly* also painted a romantic picture of this pioneer mining town. "Custer lies in an open park hemmed in on all sides by gradually rising hills, rock-ribbed and crested with towering pines. The streets are regularly laid out, and the buildings are made of logs or rough boards taken from the hill-side forests."[42] Although the author insisted that mining in Custer City was a delusion, he prophesied that this town would become a leading post for supplies, like Denver became for the Colorado mines, if the mineral excitement in the Black Hills continued.[43] Felix Michaud may have been among those miners who, in the late 1870s, moved from one promising Black Hills prospect to the next, but probably kept returning to Custer for supplies and even for its aesthetically pleasant natural setting.

In 1878, when the first-located placers in the Deadwood area were worked out, Custer City did indeed experience a spurt in growth. Once again, in the summer of 1879, a new rush to the central Hills camps brought additional prosperity to Custer City as a supply town. In 1880, the federal census reported that there were 16,486 people living in the Black Hills, over 10,463 of them inside the twenty-one communities then existing in the Hills, including Custer City.[44] The 1880 federal census listed more than 268

[40] Edwin A. Curley, *Edwin A. Curley's Guide to the Black Hills,* originally published in 1877, facsimile (Mitchell, SD: Dakota Wesleyan University Press, 1973), 48.
[41] Curley, *Curley's Guide to the Black Hills,* 48
[42] "A Trip to the Black Hills," *Scribner's Monthly* April 1877, 754.
[43] *Ibid.,* 754.
[44] *Census of the Population of the United States, 1880*, Wash, DC: US Bureau of Census

Custer City residents. Felix Michaud, working as a "livery keeper," was among them.[45]

The social-cultural makeup of Custer City in 1880 resembled that of other early mining towns in the West in some respects. For instance, many inhabitants were foreign-born, a pattern which also existed in the Dakota Territory as a whole. The1880 census reported that 38 percent of Dakota Territory's, 98,000 residents (living mostly in agricultural areas east of the Missouri River) was foreign-born. This immigrant population was predominantly German, Scandinavian, Dutch, English, Welsh, and Irish. In mining communities, including those in the Black Hills, particularly Deadwood, Chinese immigrants arrived in sizable numbers until Congress passed the restrictive Chinese Exclusion Act in 1882.[46]

In 1880, twenty-four percent of Custer City's 265 residents were born outside the United States, including Felix Michaud. Around twenty of the foreign-born hailed from Canada and the then separate political entities of Nova Scotia and New Brunswick. Another twenty residents identified Germany (including Prussia, Baden, Hanover, and other provinces that later became part of Germany) as their birthplace. The United Kingdom (Ireland, Wales, and England) was represented by about fifteen Custer City residents. Only three or less of the city's foreign-born were natives of France, Norway, Holland, Belgium, Chili, and Peru.[47] In contrast to other regions of Dakota Territory, particularly the eastern Missouri River Valley area, Custer City had a great paucity of immigrants from Russia, Sweden, and Denmark. In 1880, Custer City also had a smaller foreign-born population than the foreign-born population living in Dakota Territory as a whole.[48]

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[45] "Schedule 1: Inhabitants of Custer City," Territory of Dakota (Washington, DC: Bureau of Census, June 16, 1880). Viewed on microfilm at the National Archives and Records Administration, Washington, DC.

[46] Rex C. Myers, "An Immigrant Heritage: South Dakota's Foreign-Born in an Era of Assimilation," *South Dakota History* 19: 2 (Summer 1989): 134-55. Also see John P. Johansen, *Immigrants and Their Children in South Dakota*, South Dakota Agricultural Experiment Station, Bulletin No. 302 (Brookings: South Dakota State College, 1936) and John P. Johansen, *Immigrant Settlement and Social Organization,* South Dakota Agricultural Experiment Station, Bulletin No. 313 (Brookings: South Dakota State College, 1937).

[47] "Schedule 1: Inhabitants of Custer City," Territory of Dakota (Washington, DC: Bureau of Census, June 16, 1880), microfilm at the National Archives and Records Administration, Washington, DC.

[48] Rex Myers, "An Immigrant Heritage," *South Dakota History* 19: 2 (Summer 1989), 134-37; Brad Noisat, "Ethnic Population," Chapter 4, *Black Hills National Forest: Cultural Resources Overview, Volume 1—Synthetic Summery,* edited by Lance Rom, et al (Custer, SD: Black Hills National Forest, 1996): 4b-1—4b-11.

The social character of Custer City mirrored and in some ways differed from the customary social pattern of other emerging western towns. Similar to most other newly settled towns in the West, the residents of Custer City had moved often before arriving in the Black Hills. (The majority of adult residents born in the United States claimed New York, Pennsylvania, Ohio, Indiana, and Illinois as their native states.) Children more than four years old of both foreign-born and U.S.-born residents had been born in various locations in the mid-western United States, particularly Missouri, Iowa, Nebraska, and Kansas. This demographic pattern clearly tells the story of the restless mobility common among those who were part of the great westward migration of humanity in the last half of the nineteenth century.[49]

Unlike some mining communities in the West, including Deadwood, that had a considerable number of Chinese re-working placer gold claims, Custer City had very few non-Caucasian residents. The 1880 U.S. census included racial categories of "white," "black," "mulatto," Chinese," and "Indian," but Custer City listed only three "Black" residents, one "Indian," and no Chinese. Custer City also differed from other mining towns in the West in that, five years after the initial arrival of miners, it had a sizeable number of families compared to young single men.[50] The 1880 census shows that of the 268 Custer City residents, nearly fifty residents (19 percent) were female. Children, age eighteen or younger, also made up a sizable segment—15 percent (or nearly forty people)—of the town's total population.[51]

The occupations of Custer City residents in 1880 shed light on the economic and social character of the town and hint at its emergence as a center of supplies and services and its decline as a mining camp. Although male quartz miners (fifty-five) far outnumbered any other single occupation, more than 10 percent of the town's inhabitants pursued a wide range of other occupations. In mid-June 1880, Custer City had, in addition to "livery keeper" Felix Michaud, a harness maker, blacksmith, shoemaker, stove maker, cabinetmaker, surveyor, telegraph operator and express agent, assayer, jeweler, hardware dealer, restaurant keeper, baker, liquor dealer, beer brewer, and hotel cook and waiter, as well as two dressmakers, two druggists, two physicians, two journalists, five lawyers, and several hotel keepers, grocers, and carpenters. The one teacher in town instructed about ten students. County government was present in the person of a county sheriff and county clerk who lived in Custer City. In mid-1880, nearly

[49] "Schedule 1: Inhabitants of Custer City," Territory of Dakota (Washington, DC: Bureau of Census, June 16, 1880). Viewed on microfilm at the National Archives and Records Administration, Washington, DC.
[50] *Ibid.*
[51] *Ibid.*

twenty "farmers," three "cattle raisers," and one "dairyman" lived in Custer City.

This contrasted sharply with Hayward City (about twelve miles north of Custer and also in Custer County), which had less than forty residents, mostly quartz miners and farmers, and appeared to have a much narrower range of service providers (bricklaying, coopering, blacksmithing, and flour milling).[52] Just five years after the founding of Custer City, it was already taking on the appearance and character of a miniature metropolis. Its role as a supply and service center for the southern Black Hills in 1880, rather than a mining town exclusively, continued for many decades.

The 1880 social and cultural landscape of rural Custer County, including the Jewel Cave area of Hell Canyon, mirrored Custer City in some ways. The foreign-born residents hailed primarily from the Western European countries of Sweden, Norway, Denmark, France, Austria, England, Ireland, and Germany. (In 1890, around 170 Custer County residents were natives of Canada, 164 of Germany, 137 of Ireland, and 133 of Scandinavia.[53]) Unlike Custer City, however, five times as many rural county residents were natives of Canada. Similar also to Custer City, females represented about 18 percent of the total county population. Male farmers were more likely than quartz miners and "laborers" (employed by farmers and miners) to be married and raising a family.[54]

Custer County's rural population differed in significant ways from that of the 268 town residents. In 1880, many of Custer County's 350 rural residents pursued hard-rock quartz mining (around 65) and farming (around 60), worked as laborers for farmers and miners (around 75), or kept house (around 35 females). The range of occupations was far narrower, representing essential services or trades for rural residents engaged in hard-rock quartz mining, farming, and building trades. Carpenters (sixteen), blacksmiths (four), engineers (three), millwrights and dry good merchants (two each), and a single flour miller, cooper, bricklayer, printer, bookmaker, shoemaker, barber, and lumber manufacturer represented the small number of rural residents pursuing trades. The census for rural Custer County also clearly reveals that even as early as 1880, rural Custer County, the locale of Jewel Cave, had as many farmers as miners.

[52] *Ibid.*
[53] Fred W. Whitely, *A History of Custer City, South Dakota, 1874-1900, South Dakota Historical Collection, Volume 37* (Pierre: South Dakota Historical Society, 1975), 334.
[54] "Schedule 1: Inhabitants of Custer City," Territory of Dakota (Washington, DC: Bureau of Census, June 16, 1880).

Geographic Patterns of Early Mining Settlements

The permanent settlement of Euro-Americans created a vastly different physical landscape in the Black Hills than the one that existed before their arrival. The pattern of early mining settlement in the Black Hills took a distinctive form. Typically, a collection of tents and hastily built wood structures were erected near the discovery of placer deposits along creeks. In some instances, early army camps set up at various places along the creeks of the Black Hills creeks also became the site of towns. Within weeks or months of a promising gold discovery, an enterprising mining camp resident predictably drew up a plan for a grid-pattern townsite, comprised of right-angle streets and rectangular blocks. Throughout the Black Hills, geometric townsites were located along creeks and sometimes up the sides of narrow gulches where placer gold had been first discovered. New towns sprang up wherever fresh placer gold discoveries were made.

Townsites often followed the wandering, dendritic drainage pattern that radiated outward but primarily eastward from the center of the Hills. In the mid- to late 1870s, French Creek, Battle Creek, Spring Creek, Rapid Creek, Elk Creek, Bear Butte Creek, Whitewood Creek, and Spearfish Creek—all flowing to the east or northeast from the heart of the Black Hills—became the thin tendrils of early Euro-American settlement in the Black Hills. In the northern Black Hills, in particular, a string of small mining camps and later towns formed a continuous settlement that, over time, either withered and disappeared[55] or grew into a single larger town. The Hell Canyon drainage, which extends southward, never became the site of placer gold discoveries or an early town. Custer City, thirteen miles east of upper Hell Canyon, was the closest sizable settlement to Jewel Cave in the 1870s and 1880s and the Custer County seat.

The pattern of early mining claims, camps, and settlements in the Black Hills was augmented not only by townsite roads and buildings, but also by placer and hard-rock mining tools and technology and the physical imprints they left behind. Mining claims soon covered nearly all the area in and around Custer as well as along tributaries of French Creek. Very visible signs of placer gold mining activity included: mining claim stakes; ditches and small dams for manipulating the flow of creeks; pans, sluice boxes, and

[55] Some of the early mining boom towns in the Black Hills that disappeared include: Welcome, Tinton, Maurice, Savoy, Elmore, Cheyenne Crossing, Hanna, Trojan, Englewood, Roubaix, Brownsville, Merritt, Rochford, Silver City, Johnson Corner, Hisega, Mystic, Deerfield, Rockerville, Tigerville, Moon, Oreville, Harney, Spokane, and Fourmile, as well as many others. Sundstrom and Sundstrom, "Exploration and Settlement," 4a-13.

"rockers" for segregating placer gold from surrounding gravel; and gravel heaps along streambeds. Hydraulic mining techniques, in which miners used water under pressure to dislodge and wash stream gravel, left more noticeable depressions and gravel piles along creek banks.

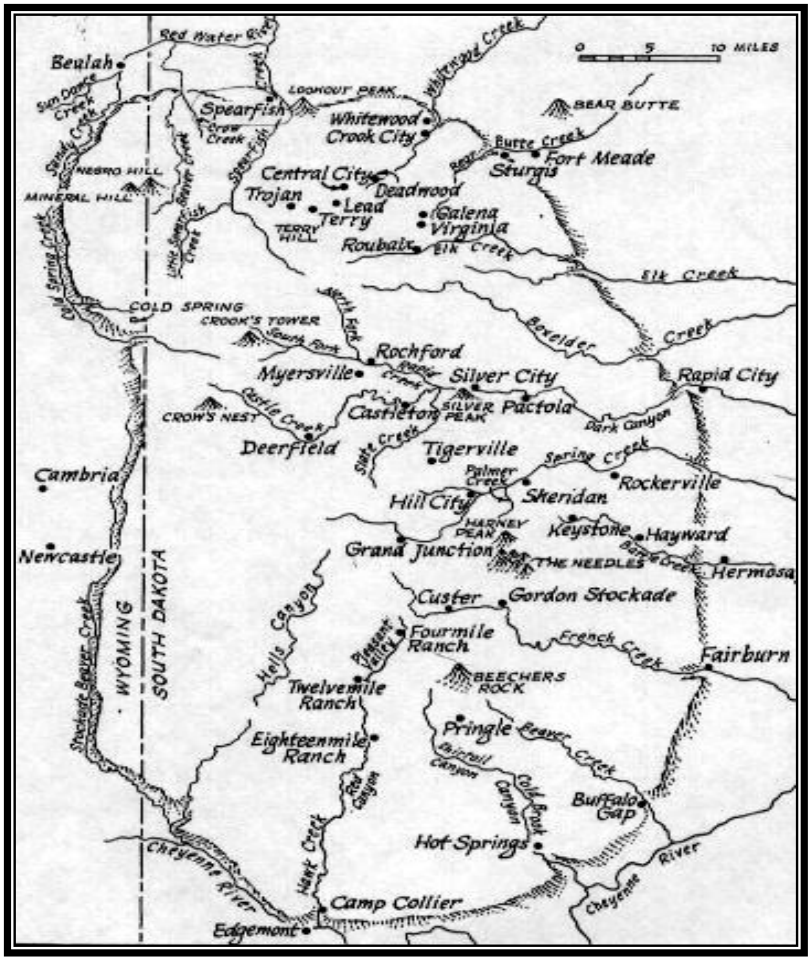

Figure 3-5. Sketch map of early mining towns along creeks draining generally to the east. From Watson Parker, *Gold in the Black Hills* (1965), p. 79.

As miners quickly depleted placers and turned to hard-rocking mining, they used heavier ground-moving tools and machinery that left larger more visible imprints on the landscape. Mining shafts, stamp mills, flumes, large dynamited depressions, and conglomerations of wood-frame mining buildings became recognizable landscape features in the central and northern Black Hills as companies with sizable capital operated their deep, hard-rock mines.

Roads into the Black Hills

Settlers working in various transportation businesses and related trades—freighting and stage companies and liveries—also benefited from rumors of easy placer riches and the heavily capitalized hard-rock mining that followed. As traffic into the Black Hills increased and the logistical needs of the existing miners and eventually mining companies became more complex, entrepreneurial individuals organized transportation companies to move people and goods in and out of the Hills.

Stage lines, freight lines, and mail carrier businesses launched from the various jump-off supply towns around the Black Hills, including: Sioux City, Iowa; Sidney, Nebraska; Yankton, Bismarck, and Fort Pierre in the Dakota Territory; and Cheyenne, Wyoming. (Stage and freight trails became the earliest roads into the Black Hills.)

Early travel routes into the Black Hills developed very quickly after gold discovery and promotion. Arrangements for getting into the Black Hills were being made even before existing treaties made between Indians and the U.S. government made it legal to go into Dakota Territory. On March 8, 1875, the Spotted Tail Express and Stage Company, one of the first companies to offer transportation between Cheyenne and the Red Cloud Agency, left Cheyenne carrying three prospectors.

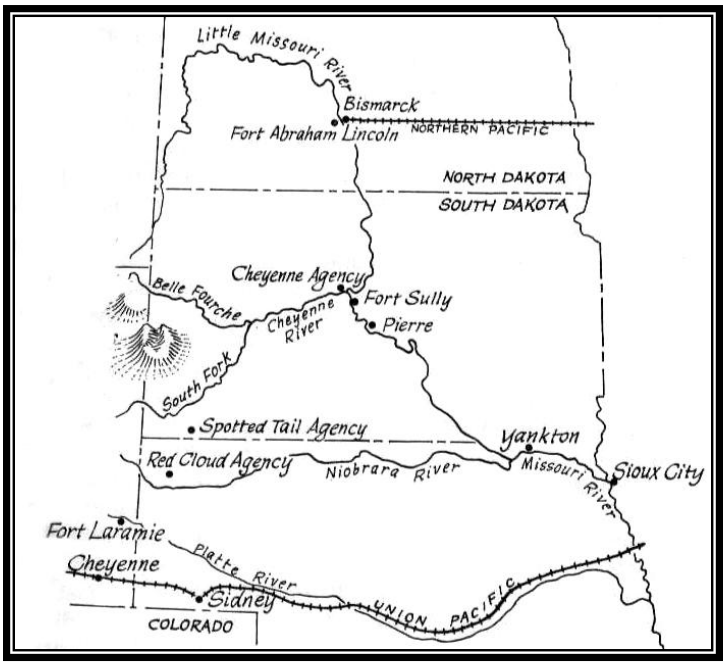

Figure 3-6. Sketch map showing the towns of Sidney, Cheyenne, and Fort Laramie that served as jump-off supply points to the Black Hills in the mid-1870s. From Watson Parker, *Gold in the Black Hills* (1965), p. 43.

When first operating, this stage company offered no transportation beyond the Spotted Tail Agency. Prospectors had to get themselves farther north to French Creek, an early site of reported gold.

In November 1875, a bill was introduced in the Wyoming territorial legislature, "to locate and establish a territorial wagon road from Cheyenne, Wyoming Territory, to the Black Hills of Dakota Territory."[56] The bill, which essentially ordained an existing wagon road between Cheyenne and Fort Laramie as a territorial road, was enacted and became "law" in December of 1875. The legislation read, in relevant part:

> The present traveled wagon road from Cheyenne, by way of Chugwater Creek and Fort Laramie, to Custer City, in the Black Hills [shall be a territorial road]. . . Upon the petition of 100 residents of Laramie County, the County Commissioners shall appoint a Road Commissioner to proceed to locate, or supervise the location of such road, over the nearest and most practical route on the west side of said Black Hills, if a good, practicable route therefore [sic] can be obtained.[57]

The legislation also appropriated $200 to pay for the expenses of a road commissioner.

Road development and the establishment of transportation companies serving the southern Black Hills were intimately intertwined in the 1870s. In 1875, George W. Homan offered to initiate stage service to the western foothills of the Black Hills if the Laramie County commissioners dedicated $5000 to constructing and maintaining a roadway north out of Fort Laramie. The commissioners agreed. The selected route was an old freight road that had just weeks earlier been used by the sixty government wagons attached to the geological expedition of Walter P. Jenney. This route left Fort Laramie and headed north, intersected Raw Hide Creek after twenty miles, and reached the crossing of the Niobrara River twenty-five miles farther north.[58]

By late May 1875, Homan had purchased ten coaches and had begun acquiring horses. Soon Homan announced that he would begin offering transportation between Cheyenne and the Black Hills the following

[56] As quoted in Agnes Wright Spring, *The Cheyenne and Black Hills Stage and Express Routes* (Glendale, CA: Arthur H. Clark Company, 1949), 75.
[57] As quoted in Spring, *Cheyenne and Black Hills Stage and Express Routes*, 75.
[58] Information presented in this and the next four paragraphs is detailed in Parker, *Gold in the Black Hills*, 118.

spring. Homan immediately began making arrangements for the establishment of stage stops or stations along the route from Fort Laramie to Custer City. Homan's plans called for the siting of the first station about fifteen miles north of Fort Laramie, the next approximately thirty miles north on the Niobrara River, a third on the Old Woman's Fork of the Cheyenne River, a fourth on Horse Head Creek, and the last one not far from Custer City.[59]

In late 1875, Frank Yates, a trader at the Red Cloud Agency, formed another transportation company in partnership with his father-in-law, W. H. Brown. The two men negotiated a contract with the federal government to haul mail between the two Indian agencies (Spotted Tail and Red Cloud agencies) near the border of Dakota Territory and Nebraska, and Cheyenne, following the stage route inaugurated by George Homan. The new Black Hills Stage, Mail and Express Line provided passenger and mail service between Cheyenne and Custer City, with stops at Red Cloud and Spotted Tail agencies. The first stage left Cheyenne the morning of January 3, 1876, with seven passengers bound for the Black Hills.

Within a month, the Gilmer, Salisbury and Patrick stage company from Ogden, Utah, bought the Black Hills Stage, Mail and Express Line from Yates and Brown, purchased equipment and stage-stop locations from Homan, and announced that they would not only continue the stage routes into the two Indian agencies, but in the spring, would also offer direct service between Cheyenne and Custer City. Coaches were pulled by teams of two, four, or six horses, depending upon the terrain traversed. A coachman drove the stage between forty and sixty miles before being relieved. At the end of his run, another coach replaced the coach he had driven so that the first coach could be inspected and repaired if necessary. The company dedicated some coaches to carrying blacksmiths who would repair any coaches that might break down along the stage route.

On March 10, 1876, Gilmer, Salisbury, and Patrick described their stage operation in a letter to the president of Union Pacific Railroad:

> We have now on hand and ready for service ten Concord Overland coaches. . . . In addition to this, we have arranged for wagon trains for the transportation of freight, miners' outfits, supplies, and second and third class passengers in large or small numbers. The time for second class will be four days, and for third class, six days. Eating stations between here and Fort Laramie are already established, and from the Fort to Custer City are now being built, and will

[59] Spring, *Cheyenne and Black Hills Stage and Express Routes,* 61.

> be ready to commence operations in about two weeks. . . .
>
> The running time during the spring months will be three days from Cheyenne to Custer. . . . Rates of fare will be as follows: First class, Cheyenne to Custer City, $20; second class, $15; third class, $10. (These rates apply only to through tickets.)[60]

In the summer of 1876, the Sidney & Black Hills Stage and N. L. Witcher & Sons of Sioux City joined the Black Hills Stage, Mail and Express Line in transporting people and goods into the southern Black Hills.[61]

The early trail from Cheyenne to the southern Black Hills headed north from present-day Edgemont to Red Canyon Station (Camp Collier). It then passed through the canyon to Spring-on-the-Hill, continued north to Spring-on-the-Right, and finally went north through Pleasant Valley and on to Custer. Traveling north into the southern Black Hills in the spring of 1877, a passenger reported that the road crossed Red Earth Creek many times and,

> as it was sometimes miry and sometimes steep it gave us some trouble. With this exception, . . . the road was excellent til we turned out of the canon, and ascended a long hill which tried our worn beasts severely. . . . The rest of the day's journey was up hill and down, and through what is called the Pleasant Valley, the buttes and bluffs being banded and spotted with red earth's and white porphritic limestone and sometimes with yellowish and grayish shales, which the corresponding stripes of light green and dark spots of pine.[62]

Early stages and the roads they used to the Black Hills departed from major jump-off towns served by railroads. The railroad towns closest to the Black Hills included: Sidney, Nebraska; Cheyenne, Wyoming; Sioux City, Iowa; and Bismarck and Yankton, South Dakota. Sidney, Nebraska,

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[60] As quoted in Spring, *The Cheyenne and Black Hills Stage and Express Routes,* 93-94.
[61] *Bismarck Tribune,* February 8, 1876.
[62] Curley, *Curley's Guide to the Black Hills,* 45.Note: This route was abandoned in June 1877 when a new 266-mile-long trail leading directly to Deadwood via the Jenney Stockade was opened, bypassing Custer.[62]

and Cheyenne, Wyoming, were both served by the Union Pacific Railroad and well positioned on their lines. In the spring of 1876, the railroads were doing a booming business of transporting miners from the east.[63]

In 1877, the closer proximity, lower fares, and greater number of merchants, warehouses, and hotels made Cheyenne and Sidney the supreme "jumping-off" towns for Black Hills' travelers.[64] An 1878 Union Pacific Railway promotional booklet assured travelers that "all agree that the old established routes to the Union Pacific Railway, via Cheyenne or Sidney, offer the only direct and safe means of exit from the Black Hills. They are the only natural ones and of course the tide of travel and shipments of treasure and produce must always flow over them."[65]

Stage companies operating out of the railroad town of Cheyenne had additional advantages over other railheads—Cheyenne was only about 180 miles southwest of the Black Hills, and the army posted at Fort Laramie, not far away, provided protection from troublesome Indians on the road between Cheyenne and the Red Cloud and Spotted Tail Indian agencies.

Railroad towns in Iowa and the Dakota Territory were slower to develop as jump-off places for routes and stage lines to the southern Black Hills. Sioux City, Iowa, had developed earlier as a jump-off point for overland emigrants heading to the Far West because its upstream location on the Missouri River made accessible by riverboats. But this important river town was more than 400 miles southeast of the Black Hills. Bismarck and Yankton were served by riverboats (Yankton) and the railroad (Bismarck after 1873) coming from the east. Each of these towns, however, was 300 or more miles away from the Black Hills. In the mid-1870s, Fort Pierre, on the Missouri River, was also served by riverboats coming up the Missouri from Yankton. Although the *Big Horn* and the *Black Hills* riverboats each made weekly trips between Yankton and Fort Pierre, Fort Pierre was only about 180 miles away from the Black Hills.

Also, the fact that much of southwestern Dakota Territory was, by treaty, legally off limits to Euro-American settlement before 1877, undoubtedly discouraged the investment of private capital in costly stage company operations. The enactment of the federal statute permitting Euro-American settlement in the Black Hills in 1877 eventually prompted the Dakota territorial legislature to construct roads from Bismarck, Fort Pierre, and Yankton. Railroad access to these towns and the new territorial

[63] Parker, *Gold in the Black Hills,* 106-107; Bob Lee, *Gold Rush: The Black Hills Story* (Pierre: South Dakota Historical Society Press, 2001), 87-88; Curley, *Curley's Guide to the Black Hills,* 131.
[64] Curley, *Curley's Guide to the Black Hills,* 12-13.
[65] Robert E. Strahorn, *To the Rockies and Beyond, or a Summer on the Union Pacific Railway and Branches* (Omaha: Omaha Republican Print, 1878), 27.

roads from them, eventually began to shift the transportation network to the Black Hills from Cheyenne to Dakota towns, east of the Black Hills.

In 1877, the Northwestern Express, Stage and Transportation Company out of Bismarck started runs. During the boom years it carried approximately 5000 passengers a year and hauled over sixteen million pounds of freight. A transportation company owned and operated by Fred T. Evans that connected Yankton and the Black Hills, employed between 1000 and 1500 men, and owned approximately 1500 oxen, 250 mules, and 400 wagons.

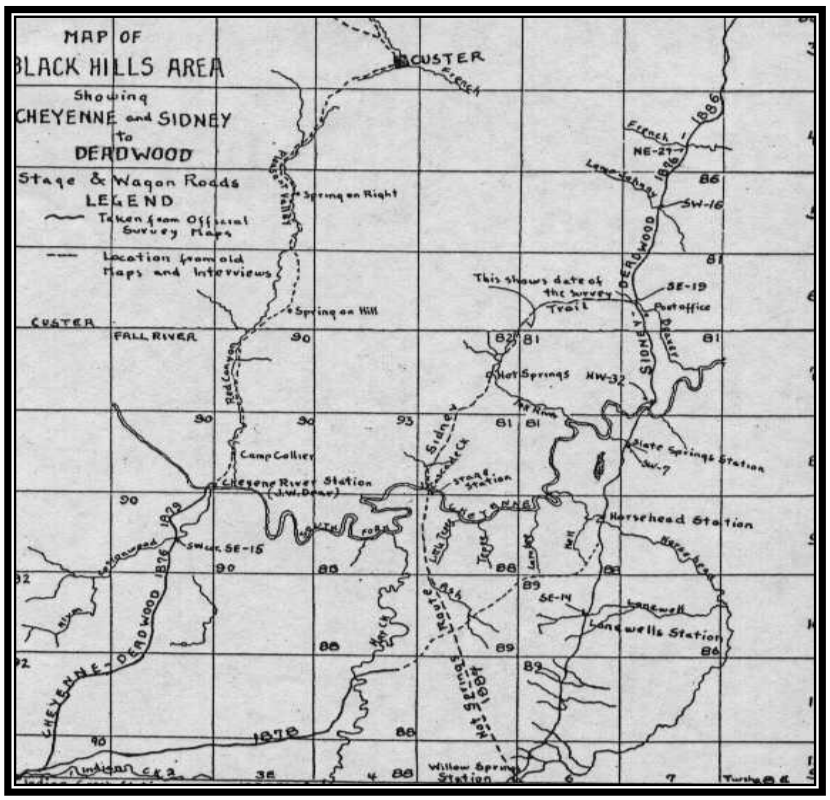

Figure 3-7. Sketch of Stage and Wagon Roads showing route from Cheyenne through the Red Canyon and Pleasant Valley, through Custer, to Deadwood, in 1876. From Hyman Palais, "South Dakota Stage and Wagon Roads," *South Dakota Historical Collection,* 25 (1950), 230.

Other businessmen joined the rush into the freighting business in or near the Black Hills. Emil Faust, H. B. Young, W. H. Cole, and L. D. Waln, all started hauling goods into the mining camps. Some freighters also hauled passengers perched atop their loads, or, at a slightly lower fee, permitted them to walk alongside the wagons. By 1878, four separate stage lines hauled passengers into the Black Hills.

In the early 1880s, Pierre emerged as the most important jump-off point for travelers destined for the Black Hills. On early November 1880, the Chicago & North Western Railroad reached Pierre, thus encouraging the relocation of freighting companies to Pierre. In 1881, the Chicago, Milwaukee and Saint Paul Railroad reached Chamberlain, making it an important jump-off point for travelers to the Black Hills. In the fall of 1881, another trail, originating downriver from Pierre at Chamberlain and promoted by local entrepreneurs, led to the rise of Rapid City in the eastern Black Hills. The trail between Chamberlain and Rapid City soon became a favored route to the Hills.[66]

The earliest stage road near Jewel Cave, running from Cheyenne to Custer, traversed country through Red Canyon and Pleasant Valley, several miles to the east of Hell Canyon. A road to Jenney's Stockade, about thirty-five miles west of Custer, was established by 1884. This route lay just south of the present boundaries of Jewel Cave National Monument. The opening of the Cambria Coal Mine in eastern Wyoming in 1887, which contributed to the founding of nearby Newcastle, Wyoming, in 1889, eventually brought about the further development of a travel route between Newcastle and Custer south of the monument's present boundary.[67]

The development of early roads into the Black Hills, largely by companies founded to transport freight, passengers, and mail contributed to the dynamic emergence of a new cultural landscape in the southern Black Hills. The roads themselves impacted the local topography by cutting into slopes and making exposed soil more vulnerable to erosion. Traffic on the roads trampled vegetation and covered it with a thick, choking veil of dust. The movement of wagons, stages, and people across the landscape also altered the patterns of wildlife. For Native Americans engaged in hunting, a shift in the movement of wildlife also contributed to their own relocation.

Over time, the roads into the Black Hills and the freight wagons and stagecoaches delivered people, cultural beliefs, institutions, and technology that had an enormous and incalculable effect on the existing landscape. Euro-American tools, materials, and ideas about property ownership, law, and government, practices of resource use had an immediate visual impact on the landscape. These new cultural patterns also

[66] Philip S. Hall, "The Ephemeral Chamberlain Road: A Freight Trail to the Black Hills," *South Dakota History* 26: 1 (Spring 1996), 1-23; Bob Lee, *The Black Hills After Custer* (Virginia Beach: Donning Company Publishers, 1998), 29, 53; Bob Lee, "It Started with a (Mining) Boom," in *Gold Rush: The Black Hills Story,* compiled by John D. McDermott (Pierre: South Dakota Historical Society Press, 2001), 87-88.
[67] Barbara Beving Long, "Jewel Cave National Monument, Historic Resource Study: Historic Contexts and National Register Guidelines," report prepared for the United States Department of the Interior, National Park Service, Rocky Mountain Region, 1992, 2/6.

laid the groundwork for profound long-term changes to the environment throughout the Black Hills and at Jewel Cave.

Chapter 4

Establishing Roots;
Harvesting Resources

1850s-1915

Introduction
Milling Lumber for Homes, Mines, and Farms
Farming
Railroads Arrive in the Black Hills
Fluctuating Cycles in Agriculture
Ranching
Rancher Felix Michaud
Harvesting Timber
Fires in the Forest
Landscapes of Diversifying Uses

Introduction

The exodus of most placer miners from the southern Black Hills, where rumors of gold had caused a stampede to French Creek, was followed by an extended period of hesitant but gradual growth in Custer City and Custer County. Custer City evolved from a noisy, boisterous mining camp to a small center providing services, supplies, and agricultural products to productive mines farther north. Many local residents turned from extracting minerals to growing crops, grazing cattle, and harvesting timber. Custer City became a small entrepot, linked by trails, roads, telegraph, and eventually rails to other Black Hills communities with economies based heavily on mining, agricultural, and, eventually, recreational activities. Those Euro-Americans who settled Custer City and County may have mined with one or two partners on a small-scale or simply as a speculative pursuit that required limited capital or improvements. Only a small number of larger company-owned mines emerged in the late 1800s in the Custer area. Most who settled there, however, took up other activities—freighting, milling (lumber and flour), merchandising, and especially, farming, ranching, and logging. Jewel Cave was discovered and brought to the attention of the public during this period of predominant farming, ranching, timber harvesting, and small-scale speculative mining.

While the Black Hills' placer deposits were worked out in the last quarter of the nineteenth century, there was a great surge in agricultural activities in the broad Missouri River Valley to the east and in the Black Hills. During this "Great Dakota Boom," from 1878 to 1887, the overwhelming majority of Dakotans earned their livelihood from the soil. Early settlers in central and eastern Dakota Territory at first raised sod corn, potatoes, and vegetables. Black Hills farmers raised certain grains and vegetables for local consumption. Later, wheat became the principal grain grown on open valley floors in the Hills. The combined effect of a decline in the price of wheat, a prolonged drought, and a long harsh winter caused severe economic hardship for farmers in the Black Hills and throughout the Dakota Territory, thus turning boom into bust by the late 1880s.

Despite the heavy toll taken among Dakota cattle herds by the harsh winter of 1886-1887, more than fifty ranching outfits continued to graze their herds on broad stretches of public land on the Dakota prairies and grassy valleys of the Black Hills, from statehood in 1889 into the early 1900s. By World War I most of the large cattle operations had been sold to small farmers. The population in the cattle areas of western South Dakota tripled between 1910 and 1920, when the onset of declining prices brought an end to the range-cattle industry.

Milling Lumber for Homes, Mines, and Farms

Logs, hewn or not, were used for many decades to construct outbuildings. Milled lumber, none-the-less, made its appearance within a few months after the arrival of the first Euro-American miners. Sawn boards replaced logs for buildings, wagons, furniture, tools, and even small bridges. Sawn timbers also played a crucial role in hard-rock mining, where a geometric system of supports was a requisite part of underground excavation. Eventually, railway companies also looked to the Black Hills for timbers that could be used as railroad ties. The use of Black Hills timber for shelter, agriculture, mining, and, eventually, transportation left an indelible imprint on the landscape, by adding to the built environment and subtracting from the native forests.

Cutting and sawing trees was one of the first pursuits of Euro-American settlers, as logs and, very soon, planed lumber provided the primary material for house construction. Newcomers also depended on wood for heat in the sometimes bitterly cold Black Hills winters. Logs, sawn or whole, were used for outbuildings of all sorts and fencing for farm animals (and eventually livestock). The developing mining industry depended on logs and sawn lumber. Timber was the essential material for building sluice and rocker boxes for placer mining operations and for providing tunnel supports for deep-rock mining. Wood provided the structural members for early bridges and sidewalks, and it was even used to make vehicles. The first steam engines in mills burned wood. Next to food, wood was the most basic resource in the nation's economy, and the Black Hills seemed to offer an inexhaustible supply of this valuable natural resource.

Soon after Euro-Americans came to live in the Black Hills, they began producing lumber by whipsawing logs with a long thick-toothed saw. Within months, this arduous task was replaced by portable mills. Historians disagree about who established the first mill, although all concede that it was early. Some claim that John Murphy set up the first sawmill on the banks of French Creek, near the middle of the present town of Custer, in April 1876. A month later, Murphy moved to Deadwood after the discovery of gold there, leaving his mill behind in Custer. Months later, Murphy moved his portable sawmill from Custer to Rockerville in the east-central Hills. Tom Monahan, Pat Murphy, and Dave Ducent arrived in Custer not long after John Murphy's departure.[1] According to another historical account, John F. Street, who went to the northern Hills with his sawmill in early June 1876, was the first to set up a sawmill in the Black

[1] Martha Linde, *Sawmills of the Black Hills* (Rapid City, South Dakota: Martha Linde, 1984), 2-3.

Hills. A third account claims that E. G. Dudley, from Cheyenne, began operating the first sawmill in Deadwood.[2] In the mid-1870s, a sawmill could cut enough lumber in a day to build a small cabin or house, or approximately 10,000 board feet.

The early portable sawmills had saws and other heavy equipment mounted on skids, which were dragged from site to site. An early milling operation included an excavated sawpit and two individuals, one in the pit and one above, who cut one plank at a time by pulling back and forth on a long saw. The mill would frequently be situated either near or within the stand of timber being harvested, or near the mine purchasing most of the mill's lumber. A tree would be felled and limbed, then attached by harness to a horse or oxen that would drag it to the nearest mill. It wasn't unusual for a well-trained animal to deliver the log to the staging area alone, without the supervision of its handler, who would stay behind felling the next tree for the animal to haul. After having the log removed from its harness, the horse, without human intervention, would navigate its way back to its owner for another log. This method was used from the time the first mills were established in the Hills until the late 1920s.

Since early mills were fairly portable and mill operators, like miners, moved often to take advantage of new demands for sawn lumber, sawmill operations tended to be fairly transitory. Consequently, the number of mills at a specific location, like Custer, fluctuated. In the middle of August 1876, Custer then supported three sawmills (one of which was steam-powered), one planer, and one shingle mill.[3] In the spring of 1880, new arrival John Durst and his sons began operating a sawmill, two miles west of Custer. The mill, freighted from Cheyenne and later moved eight miles south of Custer, produced lumber for many years and contributed to the physical up-building of Custer and other southern Black Hills' communities.[4] The 1880 census indicates that a lumber manufacturer, two millwrights, and one sawyer lived in Custer County.[5] At that time, the mills near Custer reportedly produced more lumber than all other mills in the Black Hills combined. By 1895, twenty mills operated in and around Custer.[6]

In 1897-1898, of the forty-two sawmills in the Black Hills,[7] roughly two-dozen mills operated near Custer.[8] Every timbered gulch in the Hills

[2] Allyson Brooks, Brad Noisat, and Linea Sundstrom, "Development of the Black Hills," *Black Hills National Forest Cultural Resources Overview* (Custer: Black Hills National Forest, 1996), 5b-1.
[3] Linde, *Sawmills of the Black Hills,* 3.
[4] *Ibid.,* 4.
[5] "Schedule No. 1-Population," Custer County, June 1880.
[6] Brooks, Noisat, and Sundstrom, "Development of the Black Hills," 5b-1.
[7] Bob Lee, "It Started with a (Mining) Boom," *South Dakota History* 31: 3 and 4 (Fall/Winter 2001), 283.

with stands of timber had a portable sawmill around the turn of the century, according to Forest Service records.[9] A 1904 map of the southern Black Hills shows a few mills scattered around the countryside. One stood about ten miles of east of Custer; another was about ten miles southeast of Custer toward Buffalo Gap.[10]

Farming

Cultivating crops and raising livestock were other aspects of the Euro-American process of settling a new country. Euro-American pursuit of agricultural activities, like building shelters and sawmills, also left their own visible imprint on the landscape of the southern Black Hills. Among the thousands who rushed into the Black Hills in search of precious gold were many who believed that the soil of the valleys provided a surer source of income than elusive metals. This perception was embraced by many new arrivals, despite the limited rainfall in the southern Black Hills, averaging only sixteen inches annually. According to local Black Hills historian Fred Whitley:

> French Creek became the home of pioneers who saw in a bustling camp a profitable market for the goods and services. Especially significant were the cattlemen and farmers who settled the valleys and foothills near Custer City. They found hungry prospectors and assayers willing to pay high prices for beef, poultry and produce.[11]

Farming and ranching throughout the Black Hills first existed to support mining operations. As early as 1880, the total number of "farmers" in Custer County,[12] around eighty, nearly equaled the number of miners (as

[8] Fred W. Whitely, "A History of Custer City," *South Dakota Historical Collections, Vol. 37* (Pierre: South Dakota State Historical Society, 1975), 335. Also see Carl A. Newport, *A History of Black Hills Forestry* (Pierre: South Dakota Department of Game, Fish, and Parks, 1956).
[9] Brooks, Noisat, and Sundstrom, "Development of the Black Hills," *Black Hills National Forest Cultural Resources Overview,* 5b-2.
[10] "The Black Hills Reached Via the North-Western Line," map (Chicago: Chicago & North-Western Railway, 1904), South Dakota-Black Hills vertical file, American Heritage Center, University of Wyoming, Laramie, Wyoming.
[11] Fred W. Whitley, *A History of Custer City, South Dakota, 1874-1900, South Dakota Historical Collections, Volume 37* (Pierre: South Dakota Historical Society, 1975), 279.
[12] Custer, Lawrence, and Pennington counties were organized in 1877, encompassing much the Black Hills. As additional counties were created in the

noted in the previous chapter). Throughout the Black Hills most of these farms, tucked away in such valleys as Spearfish, Whitewood, Rapid, Bear Butte, Spring, Fall River and French Creek, were limited to a few hundred acres.

Even before Euro-Americans began settling in the southern Black Hills, visitors to the Hills made favorable reports of the agricultural potential and prospects for raising crops and grazing livestock. Government expedition leader Lieutenant Gouvernor K. Warren, who came through the Black Hills in 1857, wrote of the "beautiful flowing streams and small rich valleys covered over with fine grass for hay."[13] In 1874, Lieutenant Colonel George Custer, traveling though the Black Hills, including French Creek east of Hell Canyon, described the valleys as "open and extremely fertile. . . . The soil is that of a rich garden." He found a profusion of wild fruit—raspberries, strawberries, currants, gooseberries, huckleberries, and cherries. "If nature uncultivated does all this," exclaimed Custer's botanist, A. B. Donaldson, "what might not a skilled horticulturist attain."[14] One year later, government expedition leader Walter P. Jenney similarly enthused about the prospects for cultivating the soil. "The soil of the valleys," Jenney wrote, "the broad swales of the parks, and the bottom lands along the creeks is exceedingly rich and deep."[15] Jenney went on to observe that the "luxuriance with which the heavily seeded grasses known commonly as wild rye, cheat, and wild oats grew on the rich bottoms along the eastern slope would indicate that an equally rank growth of the cultivated cereals and grasses to be expected."[16]

Only one year passed before the first known attempt by a Euro-American to actually cultivate the soil of the Black Hills. In 1876, Ed Wolfe reportedly planted corn, potatoes, beans, peas, cucumbers, parsnips, and carrots in the vicinity of Crook City (north of Deadwood). The success and profitability of the first year's experiment encouraged him to plant ten acres in general crops the next year. In 1878, Wolfe planted one hundred acres of crops, which he sold to eager consumers in surrounding towns at high prices (since the lack of railroads into the Black Hills at that time made fresh foodstuffs unavailable to residents). Other newcomers in the northern Hills soon planted other crops—oats and other grains—with similar early success. After congressional approval of the treaty that legally removed Indians from the Black Hills in February 1877, many new settlers

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Black Hills between 1883 and 1889, the Custer County boundary has changed. See Cleophas C. O'Harra,, *O'Harra's Handbook of the Black Hills* (Rapid City, SD: Black Hills Handbook Company, 1927), 41-43.

[13] Quoted in Hyman Palais, "History of Stock Raising and Agriculture in the Black Hills," *Black Hills* Engineer 28 (September 1942), 62.

[14] *Ibid.,* 62 and 63.

[15] *Ibid.,* 63.

[16] *Ibid.,* 65.

to the Hills came not to mine but to farm.[17] Planting and harvesting crops were natural pursuits for many of the earliest Euro-American newcomers to the southern Black Hills, the vast majority of whom had come from the humid east and middle west of the United States (New York, Pennsylvania, Indiana, Illinois, Iowa, and Missouri) from Canada, and from Germany, where they had probably farmed.[18]

Other Black Hills valleys were soon cultivated and began to yield impressive crops of grain and vegetables. The valley of Rapid Creek became especially well known for its abundance of several crops—wheat, oats, rye, and barley, as well as vegetables (potatoes, beans, cabbages, lettuce, radishes, and turnips). Water was required to produce such large quantities of crops. In 1878, the Rapid River Ditch and Improvement Company formed and began constructing a ditch to irrigate 150 square miles, or 96,000 acres of the Rapid Valley. Even without irrigation, bountiful harvests of grain took place in other Black Hills valleys. Seventeen miles northwest of Custer City, for example, farmer Uri Gillett harvested an average of ninety bushels of oats per acre.[19] With the nearest railroad over two hundred miles away in the late 1870s, Black Hills farmers sold their crops to an insatiable local market.

Federal legislation around this time induced Euro-American arrivals to occupy and "improve" arid land throughout the West by building upon and farming it, at little or no cost. Newspapers in and around the Black Hills widely publicized the availability of land at favorable prices. Under so-called "preemption" laws passed in 1841, every head of a household, or widow, or single man or woman over twenty-one who was a U.S. citizen or had filed a declaration of intention to become one, could preempt 160 acres of government land for the purpose of settling and making "improvements" to that land. After six months of occupation, the preempted acreage could be purchased for $2.50 an acre (if it was within ten miles of a railroad) or $1.25 (if more than ten miles away from a railroad). The Preemption Act remained in effect until 1891. The preemption of land considered "worthless" was further encouraged by the 1862 Homestead Act. This law allowed any U.S. citizen or intended citizen to select a surveyed but unclaimed tract of public land, up to 160 acres, and gain title to it after five years' residence and prescribed improvements. The settler paid nothing for the land and only a modest fee for the service of the register and receiver. In 1873, congressional passage of the Timber Culture Act permitted a homesteader to acquire 480 acres of government-owned land, providing that trees were planted on some acreage.

[17] Palais, "History of Stock Raising," 65-67.
[18] See previous chapter for a discussion of the place of origin of the first Euro-American settlers in Custer County.
[19] Palais, "History of Stock Raising, 67-68.

Between 1880 and 1885, Dakota Territory took the lead in the number of acres entered under the Preemption, Homestead, and Timber Culture acts. The land claimed in 1888 alone was almost a fourth of all the public land that was claimed by settlers.[20] The Desert Land Act of 1877 permitted settlers to purchase 640 acres of arid and semi-arid public land if they agreed to irrigate it within three years. Although administration of these laws was notoriously lax, and speculators and dummy entrymen often acquired large areas fraudulently, these public land laws became most important in the initial development of owner-occupied farms in the middle West, including Dakota Territory.[21] As time went by and it became clear that raising crops and livestock in the semi-arid Black Hills required larger parcels of land, the Enlarged Homestead Act of 1909, which permitted homesteaders to claim 320 acres (not just 160 acres) was amended in 1914 to include the state of South Dakota.[22]

Many took advantage of opportunities created by land laws to acquire land and farm it. In the late 1870s, Rapid Valley settlers harvested sizeable crops of grain and vegetables. In 1880, Custer County, then with a population of around 995 people, produced a large quantity of oats—2,758 bushels. Smaller quantities of corn (288 bushels), barley (153 bushels), and wheat (128 bushels) were also grown. Wheat and corn were commonly rotated. Mills for grinding grain into flour for local markets appeared in Custer County's Hayward City as early as 1880. Alfalfa forage for livestock was also grown in certain areas at this time. During a series of wet years in the early 1880s produced impressive crops in Custer County and throughout the Black Hills, and convinced some that the popular belief, "rain follows the plow," was true. In 1885, the quantity of all grains harvested in the county had jumped substantially. County farmers produced 19,150 bushels of oats, 1,500 bushels of corn, 2,136 bushels of barley, and 945 bushels of wheat. In addition, Custer County farmers

[20] Allyson Brooks and Steph Jacon, *Homesteading and Agricultural Development Context* (Vermillion: South Dakota State Historic Preservation Center, 1994), 9.
[21] The homesteader could gain title to the land after six months' residence if he/she commuted the homestead entry to a preemption entry by paying the preemption cost ($2.50 or $1.25 per acre). The Homestead Act was later amended to allow a homesteader to obtain full title and unrestricted ownership of the land after three years of occupancy. Paul W. Gates, "Homestead Act" and "Land Reform Movement," *New Encyclopedia of the American West*, edited by Howard R. Lamar (New Haven: Yale University Press, 1998), 492-93 and 614-16, respectively; Jessie Sundstrom and Linea Sundstrom, "Exploration and Settlement," *Black Hills National Forest Cultural Resource Overview* (Custer: Black Hills National Forest, 1996), 41-15; Palais, "History of Stock Raising, 69-70.
[22] Rebecca Bernstein, "Ranches of Southwester Custer County, South Dakota, National Register of Historic Places Multiple Documentation Form" (Washington, DC: Department of the Interior, National Park Service, 1990), E-3.

harvested 7,245 bushels of potatoes. Custer County crop yields continued to increase and became more diverse. In 1887, oats (65,000 bushels) remained the leading grain grown, but was approached by corn (64,000 bushels). Wheat (24,000 bushels) and barley (6,600 bushels) were joined by quantities of flax and rye.[23]

Railroads Arrive in the Black Hills

The introduction of the railroads in the mid-1880s and 1890s transformed the Black Hills farms into regional competitors. Heavily capitalized hard-rock mining operations at Homestead Mine in the northern Black Hills brought the first railroad to the region, on a twenty-two-inch narrow-gauge track, in 1879. In November 1885, the Fremont, Elkhorn & Missouri Valley Railroad (a subsidiary of the Chicago and North Western) had pushed its standard-gauge tracks northward along the southern rim of the Black Hills from Nebraska to Buffalo Gap, southeast of Custer, thus providing the first standard gauge service to the Black Hills. Early in 1886, an extension of the railroad reached Rapid City, the eastern gateway to the Black Hills. Railroad tracks reached Sturgis and Whitewood (near Deadwood) in the north in 1887. The Deadwood Central Railroad, with a route from Deadwood to Lead and also to Ruby Basin and Bald Mountain, went into service in early 1889. In December 1890, the Fremont, Elkhorn & Missouri Valley Railroad tracks reached Deadwood in the northern Hills as well as Hot Springs in the southern Hills. The first train arrived in Custer in early October 1891.[24]

[23] Brooks and Jacon, "Homesteading and Agricultural Development, 16-18; Palais, "History of Stock Raising," 70-77; "Schedule 1: Inhabitants of Custer County," Territory of Dakota (Washington, DC: Bureau of Census, June 16, 1880), microfilm, National Archives and Records Administration, Washington, DC.
[24] Rick W. Mills, *Making the Grade: A Century of Black Hills Railroading* (Rapid City, SD: R. W. Mills, 1985), 55-56. Also see Mildred Fielder, *Railroads of the Black Hills* (New York: Bonanza Books, 1960).

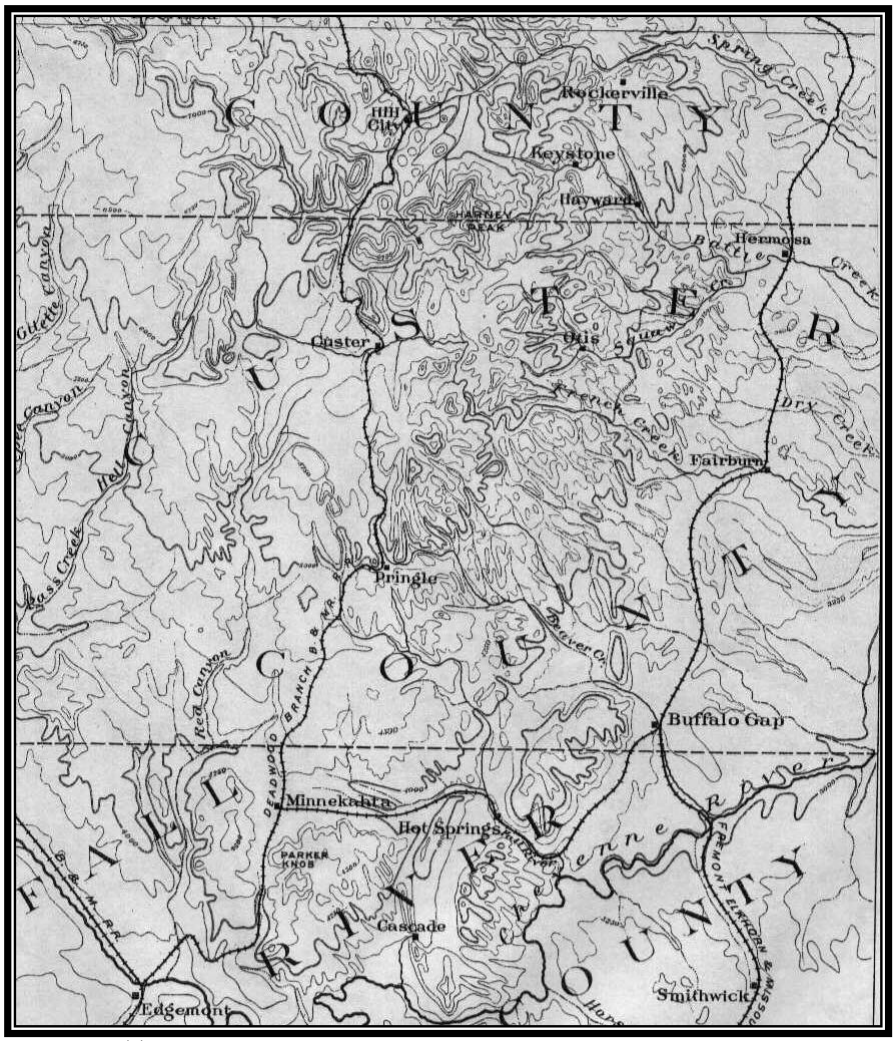

Figure 4-1. This 1899 map of Custer County shows the path of railroads through Custer, twelve miles from Jewel Cave, in the southern Black Hills. From N. H. Darton, "Map of the Southeastern Portion of the Black Hills," *Annual Report of the Department of the Interior for the Fiscal Year Ended June 30, 1900.*

The railroad first reached Custer in 1891. That year, the Burlington and Missouri River Railway arrived in Deadwood from Edgemont. Branches also extended to Hot Springs, Spearfish, and Keystone in the south, north, and east, respectively. Branch lines of the Fremont, Elkhorn & Missouri Valley, as well as the Burlington, were extended to mines near Ruby Basin, Bald Mountain, Portland, Crown Hill, and Spearfish in the northern Hills. By early October 1891, the Burlington and Missouri

Railroad rolled north into Custer from Minnekahta, before continuing further north to Hill City. In 1899, the Burlington constructed a branch line to Keystone from Hill City, in the eastern Black Hills.[25] By this time, stagecoaches and freight wagons had all but disappeared from the Black Hills landscape, with only a few local stage runs continuing until 1913.[26]

The export of farm and ranch products from the Black Hills by railroad resulted in a moderation of agricultural prices within the Hills. It also tended to moderate fluctuations in the general Black Hills economy. Agriculture served in large part to both buoy and ballast what otherwise would have been a Titanic (and, therefore, unstable) economy. Mining was clearly no longer the region's sole revenue generator.

Fluctuating Cycles in Agriculture

The boom in farming in the Black Hills and throughout Dakota Territory continued until 1887. In 1886-1887, a widespread and prolonged drought set in, continuing in some sections until 1897. Deficient rainfall across most of South Dakota caused an almost total failure of crops. Another severe drought in 1893 nearly drove farmers away from the Custer area. The September 16, 1893 issue of the *Custer Weekly Chronicle* painted a dismal picture.

> The past summer season, one of the driest in the history of the country, has made it apparent that unless something is done to increase the water supply the discouraged ranchers and farmers will dissert [*sic*] their lands and homes for some other locality. . . . Irrigation is all right and a grand success as long as there is plenty of running water.[27]

Drought and the national economic panic of 1893 converged to produce the "great Dakota bust." Farm failures were compounded by

[25] Cleophas C. O'Hara, *The Mineral Wealth of the Black Hills* (Rapid City: South Dakota School of Mines, Bulletin No. 6, 1902), 19-20. Also see Bob Lee, "It Started with (Mining) Boom," in *Gold Rush: The Black Hills Story,* compiled by John McDermott (Pierre, South Dakota Historical Society Press, 2001), 91-92; also in *South Dakota History,* vol. 31, Nos 3 & 4, Fall/Winter 2001, 269.
[26] Mills, *Making the Grade,* 55-56; Jessie Sundstrom and Linea Sundstrom, "Transportation and Communication," *Black Hills National Forest Cultural Resources Survey* (Custer: Black Hills National Forest, 1996), 5c-6—5c-10.
[27] "Conquer the Drought," *Custer Weekly Chronicle,* September 16, 1893.

newcomers' unfamiliarity with more drought-resistant crop varieties and tillage techniques adapted to the heavy clay soils west of the Missouri River. During the severe drought, it became abundantly clear that 640-acre homesteads were too small to support a family in the semi-arid Black Hills. A series of wet years beginning in 1898 finally ended the Dakota farming bust.[28] Optimistic claims about the prospects of farming in the Black Hills appeared in the 1904 issue of the *Black Hills Illustrated*.

> Everything needed from the farm is raised in the Hills, and every product finds a ready market at far better prices than the same brings in any other section of the country. The wealth produced by the farms of the Black Hills has equaled them [Black Hills mines]. To be owner of 160 acres of land in any of the valleys of the Black Hills means that its owner is independent for life.[29]

In 1900, the U.S. census of Custer County showed how pervasive farming had become in the county. Nearly 400 individuals were listed as "farmer." Another 125 worked as "farm laborer," according to the 1900 census. That year, those involved in farming far exceeded the number of residents engaged in mining. In all of Custer County, only about 25 individuals were listed as miners (working gold-ore, mica, placer, or silver). "Day laborers" working in company mines probably increased this number of those associated with mining by another 30 or so people. [30]

A second Dakota farming boom began in 1902 and continued until around 1914, the eve of the Great War. During this period, settlement shifted from east of the Mississippi River to lands in western South Dakota that were not included on Indian reservations. An estimated 43,000 bushels of corn, 127,000 bushels of oats, and 25,000 bushels of rye were raised by Black Hills farmers in 1903. The boom was encouraged by passage of the 1902 National (Newlands) Reclamation Act,[31] aimed at opening up new homestead frontier by constructing federal reclamation dams and reservoirs in eleven semi-arid and arid western states. This legislation brought about

[28] Sundstrom and Sundstrom, "Exploration and Settlement," 41-15; Palais, "History of Stock Raising," 78-80.
[29] Baldwin, ed., *The Black Hills Illustrated* (Deadwood, SD: Black Hills Mining Men's Association, 1904), 5.
[30] "Schedule No. 1—Population," Custer County (Washington, DC: Bureau of Census, June 1900.
[31] Lawrence Lee, "Newlands Reclamation Act," *The New Encyclopedia of the American West,* edited by Howard R. Lamar (New Haven, CT: Yale University Press, 1998), 784.

the construction of the Orman Dam in 1908 across the Belle Fourche River in the northern Hills and the resulting irrigation in the north boosted farm production dramatically. In the southern Hills, a dry farming movement based on new experimental scientific methods of cultivation, gave a new wave of homesteaders hope that the periodic problem of drought could be overcome.

Despite the promise of success that science held out, the small number of drought resistant crop varieties, the inadequate size of homesteads in the semi-arid Black Hills, and limited availability of good farmland in 1910 remained persistent unsolved problems in non-irrigated areas of the Black Hills. Neither was irrigation a reliable answer. Notions and early practices of irrigation were often abandoned because of their failure to improve crop production and because of the enormous cost of constructing and maintaining irrigation systems. Passage of federal relief legislation to aid farmers, attempts to create state-owned grain elevators and mills, a rural credit law that gave state loans to farmers, and the organization of local farmers' cooperatives to market farm products in the 1910s all failed to remedy difficulties inherent in dry-land farming without adequate water.

The 1920s and 1930s proved to be the worst years ever for Black Hills farmers. Post-World War I farm prices for produce plummeted, high land prices, and the high cost of operating machinery created a farm depression in the Black Hills and nationwide. Farm foreclosures, bank failures, hunger, and population decline throughout the Midwest became symptomatic of the widespread farm failures. The nationwide economic depression, grasshopper infestations, drought, and severe winters in the early 1930s compounded problems for farmers in the Black Hills and across rural South Dakota. By the end of 1934, thirty-nine percent of the state's residents received some form of public assistance, the highest percentage of any state at any time in U.S. history. In 1935, crops throughout Custer County suffered grave reductions due to severe drought conditions. Wheat production dropped from 137,000 bushels in 1930 to 12,000 bushels in 1935; corn production dropped from 92,966 bushels in 1930 to 2,100 bushels in 1935. That same year, the public domain in South Dakota was closed to homesteading, thus wiping out legislative inducements to settle and farm in the state. Some of Franklin Roosevelt's New Deal relief programs—the Agricultural Adjustment Act (1933) and the Soil Conservation Service (1935)[32]—were available to South Dakota farmers, but by the mid-1930s it was clear that experimental dry-land farming in the

[32] The Agricultural Adjustment Act was designed to help raise farm prices to pre-World War I levels; the Soil Conservation Service was founded to help prevent erosion through the reseeding of native grasses, among other practices.

Black Hills and elsewhere was bowing to cattle ranching.[33] Although "cattle raisers" in Custer County were small in number in the 1880 census, over the next two decades they had assumed a visible presence on the landscape and in the agricultural scene in the southern Black Hills.[34]

Ranching

Early observations of the potential for cattle ranching, like farming, were often positive. In 1857, Lieutenant G. K. Warren and Ferdinand Hayden, who led a government exploring expedition around the southern and eastern sides of the Black Hills, observed that Indians drove herds of buffalo into one of the Black Hills' open prairies for seasonal fattening on the native grasses before killing them for winter consumption. Lieutenant Colonel George A. Custer, conducting a reconnaissance of the Black Hills in 1874, noted the possibilities of grazing sheep and cattle.[35]

In 1875, Walter P. Jenney, who led a scientific expedition into the Black Hills with Henry Newton, reported that everyone who had visited the Hills recently was enthusiastic about the "luxuriance of the grass, which in the brightest green spreads over the surface of the parks, hillsides, and valleys."[36] Jenney concluded that the Hills were especially well adapted to stock grazing. Of the southern Black Hills he wrote: "The escort of the expedition remained camped on French Creek for six weeks, and grazing for nearly one thousand horses and mules and three hundred head of cattle was found during that time within a mile and a half of the camp, the grass commencing to grow again as soon as it was eaten off by the stock."[37] Jenney asserted that enough hay could be harvested from wild grasses and cultivated timothy to satisfy demand in the Black Hills for twenty years. "The best localities for hay are in the south-eastern part of the Hills, on Amphibious, French, Spring, and Rapid Creeks."[38]

The first actual ranching operation in the French Creek area predated the gold rush stampede. In the early 1870s, Nicholas and Antoine Janis established a cattle ranch in the vicinity of their old fur trading post,

[33] Brooks and Jacon, "Homesteading and Agricultural Development," 27-29; Sundstrom and Sundstrom, "Exploration and Settlement," 41-16; Palais, "History of Stock Raising," 89-91, 100-105.
[34] "Schedule No. 1—Inhabitants of Custer City and County," Territory of Dakota, June 1880.
[35] Palais, "History of Stock Raising ," 3-4.
[36] Quoted in Palais, "History of Stock Raising," 4.
[37] Quoted in Palais, "History of Stock Raising," 5.
[38] Quoted in Palais, "History of Stock Raising," 5.

near the future site of Custer City.[39] This ranch was soon abandoned, and the early cattle ranches of the mid-1870s were stocked with work animals that had freighted gold-seekers' supplies into the Hills. In the spring of 1876, M. V. Boughton "attempted to establish a ranch in the parks on lower French Creek."[40] After the 1877 treaty with the Sioux that legally transferred the Black Hills to Euro-Americans, many stockmen established ranches in the Hills. Beginning in the 1880s, stockmen took up much of the choice land in the southern Black Hills. As early as late 1879, Custer County had 8,629 head of cattle and 325 horses, far more than any other Black Hills country, after several large companies drove their herds into the Hills.[41]

Large cattle companies, financed by capital from England, Scotland, and the eastern United States, dominated cattle ranching in western South Dakota. Cattle were driven into the Black Hills for fattening before being removed for slaughter. Many large cattle outfits were headquartered in Wyoming and Nebraska, with satellite operations near Custer. During 1882, over 100,000 cattle were driven into the Hills from Texas and began to spread over the entire region. The following year, more than 250,000 Texas cattle were driven into western Dakota Territory. By the end of 1883, the Black Hills region provided forage for a total of around 500,000 cattle and that number jumped to 800,000 by November 1884. (The number of cattle constantly fluctuated since cattle were periodically removed for slaughter.) Open ranges throughout the Hills were now completely stocked, if not overstocked.[42]

Young New York State politician Theodore Roosevelt, who arrived in Dakota Territory in the fall of 1883 for a buffalo hunt, became one of many easterners to invest in the Dakota cattle industry in its early years of open-range grazing. Enamored with the vigor and romance of hardy outdoor living, Roosevelt purchased the Chimney Butte Ranch (with the brand name of Maltese Cross Ranch) at Wadsworth and at Hawley on the Dakota Badlands. He soon teamed up with two cowmen, who invested Roosevelt's money in thousands of cattle. They maintained the herd for seven years.[43] Many years later, Roosevelt's played a significant role in bringing the conservation of natural resources to the Black Hills, through

[39] *Ibid.,* 9.
[40] Fred W. Whitley, "History of Custer City, South Dakota, 1874-1900," *South Dakota Historical Collections* (Pierre: South Dakota Historical Society, 1975), 280.
[41] Palais, "History of Stock Raising," 9-12, 17, 24.
[42] Brooks and Jacon, *Homesteading and Agricultural Development*, 9; Bernstein, "Ranches of Southwestern Custer County, South Dakota," E-2; Palais, "History of Stock Raising," 33, 35.
[43] Hazel Adele Pulling, "History of the Range Cattle Industry of Dakota," *South Dakota Historical Collections, Vol. 20* (Pierre, South Dakota State Historical Society, 1940), 480-81.

his advocacy of national forests as well as national monuments, around the turn of the nineteenth century.

The great boom in the early 1880s Black Hills cattle ranching was short-lived. By the mid-1880s, severe overstocking and the consequent disappearance of native grasses that once flourished were looming problems, compounded by other cultural and environmental impacts. The increasing number of settlers in the Black Hills began to encroach on cattlemen's water sources. In 1886, extreme drought throughout the West, including the Black Hills, caused prairie fires, which burned grass not already dried out. Steadily declining cattle prices in the Chicago stockyard market, where Black Hills cattle were taken, persuaded many cattlemen to leave their stock on the range. The severe winter of 1886-1887 proved disastrous for the young Black Hills cattle industry. Cattle unable to paw through snow on the open range to find life-sustaining grass drifted before bitter blizzard winds and died by the thousands. At the 1887 spring cattle roundup, the devastation became clear. Rancher Theodore Roosevelt lost more than half of his herd of cattle and sold the rest. As much as 90 percent of herds belonging to some fifty cattle companies had perished.[44]

The terribly tragic and costly winter of 1886-1887 exploded the cattle boom in the Black Hills and brought swift changes to ranching. The harsh weather and collapse of prices in the Chicago cattle market transformed cattle ranching from an adventure into a business that required more thought, planning, and capital. Wire fences went up everywhere as fenced pastures, either purchased or leased, took the place of open range on the public domain. The production of enough hay to sustain cattle through the winter replaced ranchers' sole dependency on the native grasses of the open range. Mowing machines, hay rakes, and ditching tools became as important as the chuck wagon, lariat, and branding iron. Stockmen also began sinking wells and erecting windmills to collect water into troughs, and they bought tracts of land along streams to insure that herds would not go thirsty. Visible signs of this transformation in the cattle industry took form on the landscape as geometric field patterns of non-native grasses sowed and cut annually, wire fencing, and windmills and watering troughs

Finally, the devastating loss of cattle in the winter of 1886-1887 marked the disappearance of large herds owned by just a few individuals and the appearance of smaller herds and increasing numbers of owners. In place of herds of 10,000 cattle owned by one person were one hundred people who each owned one hundred cattle. This new brand of cattle

[44] It has been argued that the lack of adequate protection for cattle on the open range, not overstocking, was the primary cause of the calamitous winter of 1881-1887. See Pulling, "History of Range Cattle Industry," 499-510. Brooks and Jacon, *Homesteading and Agricultural Development*, 18; Palais, "History of Stock Raising," 24-40.

rancher usually lived on his/her ranch, shipped cattle to outside markets, and bought supplies from local markets, such as Custer City.[45]

The southern Black Hills felt another effect of the killing winter of 1886-1887. Although livestock numbers declined sharply in some Black Hills counties, many stockowners moved their remaining cattle to the more temperate and sheltered areas in the southern Hills. Custer County showed a three-fold jump in the number of cattle, from 5,671 head in 1886 to 16,186 head in 1887. The number of horses also increased to almost 3,000. (The number of cattle in Fall River County, just south of Custer County, also increased slightly.)[46]

The extension of rail lines across the state and into the Black Hills in the mid-1880s and 1890s also contributed to increasing numbers of cattle grazed in Custer County and the Black Hills. In the mid-1880s, Buffalo Gap, southeast of Custer City, and later Belle Fourche, were among the busiest cattle shipping towns in the nation. At the same time, more lands were opened to homesteaders. The population in agricultural areas jumped.

At the end of the 1880s, there were approximately 100,000 head of beef cattle in South Dakota's Black Hills. Over the next few decades, that number grew substantially. At the end of 1903, there were an estimated 300,000 head (in addition to another 100,000 head of sheep, and 9,000 horses) grazing on Black Hills grass. By 1910, the number of cattle in the Black Hills reached around 400,000. The second Dakota agricultural boom of the early 1900s differed from the first boom in the later 1880s. This second boom saw the disappearance of the open range, replaced by fenced pastures. Also, mid-size family ranches became dominant in the Black Hills, replacing the earlier enormous cattle operations overseen by distant owners.[47] The Stock Raising Homestead Act in the early 1900s, which authorized 640-acre homesteads, further encouraged mid-size cattle ranching.

In the early 1900s, Custer County ranked third in the state for the number of cattle (after Mead and Pennington counties) with 27,437 head. The 1900 census listed about sixty "stock" or "cattle raisers" and another forty to fifty working as "ranch rider," "cowboy," or "stock/cattle herder."[48] A 1904 map of the Black Hills published by the Chicago & North-Western Railroad, running from northwest Nebraska through Buffalo Gap, Fairburn, Hermosa, Rapid City, and Sturgis, depicts a proliferation of ranches south and west of Custer in Custer County. A

[45] Palais, "History of Stock Raising," 40-43.
[46] Sundstrom and Sundstrom, "Exploration and Settlement," 4a-14.
[47] Palais, "History of Stock Raising," 48-49; Brooks and Jacon, *Homesteading and Agricultural Development*, 13.
[48] "Schedule No. 1—Population," June 1900.

traveler going west from Custer past the "Fourmile" crossroads and approaching Hell Canyon, passed near the Y 4 Ranch, Smith's Ranch, and Kelly's Ranch.

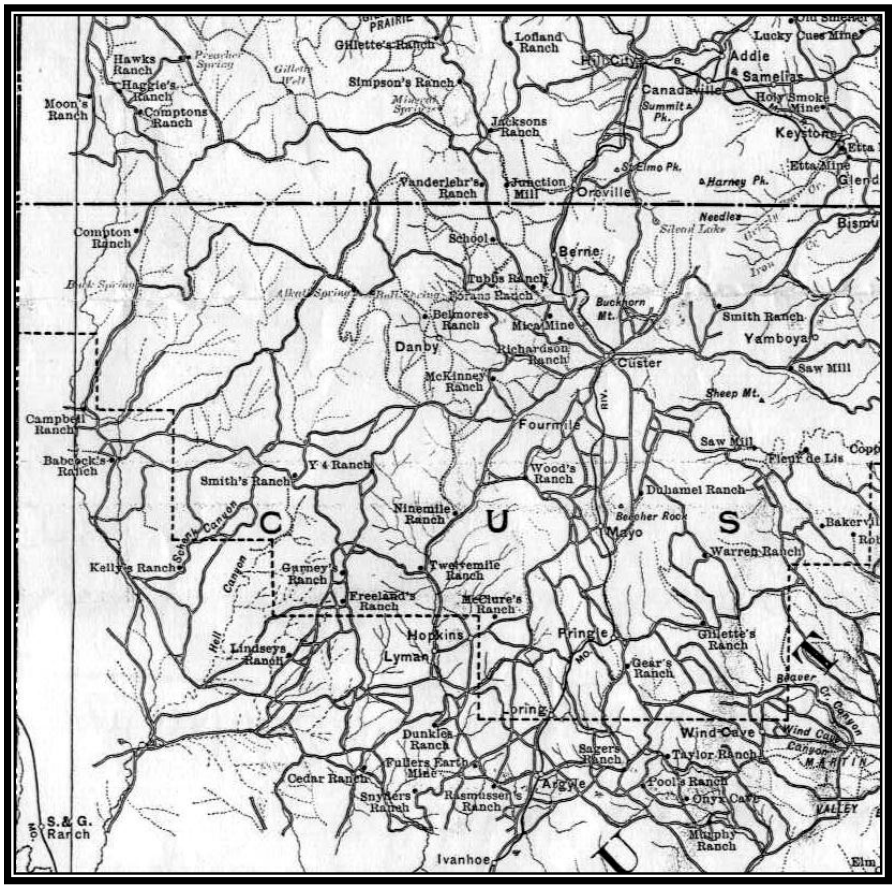

Figure 4-2. Ranches in the Jewel Cave vicinity are shown on this map, published by the Chicago and North Western Railway Company in the early 1900s. "The Black Hills Reached Via the North-Western Line," 1904, South Dakota-Black Hills vertical file, American Heritage Center, University of Wyoming, Laramie.

On roads to the east of Hell Canyon were Ninemile Ranch, Twentymile Ranch, Gurney Ranch, Freeland's Ranch, and Lindsey's Ranch. "Belmores Ranch" was located about five miles northwest of Custer.[49]

[49] Proper names are not always spelled correctly on this map. "The Black Hills Reach via the North-Western Line" map (Chicago: Chicago & North-Western Railway, 1904), "South Dakota-Black Hills" vertical file, American Heritage Center, Laramie, Wyoming.

In the early twentieth century, Custer County ranches in the vicinity of Jewel Cave had a characteristic form and appearance on the landscape. Typically, each ranch had a main residence constructed of one or more of a variety of materials, along with a root cellar, barns and/or sheds used for livestock shelter, a building to store a carriage or wagon, a bunkhouse, privies, cisterns, and sometimes granaries, an ice house, and a tack room. Wooden corrals linked many of the various outbuildings. Electricity often did not reach ranches in rural Custer County until the late 1950s; telephones arrived even later in the 1970s. Poles for these wires were late additions to the ranching cultural landscape.[50]

Cattle ranching continued to expand in Custer County after World War I. In 1920, there were 30,230 cattle, valued at nearly $1,500,000 in Custer County, which then ranked fourth in the state for number of cattle. By 1935, the production of livestock had become the most important agricultural activity in Custer County and four-fifths of all the land in farms and ranches in the county were used for grazing.[51]

Cattle were not the only livestock grazing in Custer County. Sheep ranching, like cattle ranching, had achieved considerable importance in Custer County before the disastrous winter of 1886-1887. In the mid-1880s, Custer County reported nearly 7,000 head of sheep (as compared to around 5,700 cattle in 1886) and ranked second (after Lawrence County) among Black Hills counties in the number of sheep on the range. After the winter of 1886-1887, the number of sheep in Custer County decreased substantially. The Belle Fourche, Rapid City, and Edgemont areas emerged as the greatest sheep and wool centers in South Dakota in the early 1900s. By 1920, Custer County, with 5,200 head of sheep, ranked far below Butte County's (Belle Fourche area) 120,000 sheep. Custer County, at that time, had only one-sixth the number of sheep as cattle. Drought in the mid-1930s reduced the number of sheep in all of South Dakota, including Custer County.[52]

Rancher Felix Michaud

Felix Michaud, who became intimately associated with Jewel Cave, was a rancher in the southern Black Hills. In the 1880s, Michaud worked with local resident Thomas Bellemare, a nearby horse rancher. Bellemare and his wife, a native of St. Anne, Canada, came to a ranch on Lightning Creek ten miles west of Custer in 1882.

[50] Bernstein, "Ranches of Southwestern Custer County," F-3.
[51] Palais, "History of Stock Raising," 51-52, 60.
[52] Palais, "History of Stock Raising," 53-61.

Mrs. Bellemare's chronic lung problems prompted their move (and caused her death in 1901 at age fifty-five).[53]

At that time, Felix Michaud, perhaps in partnership with Thomas Bellemare, owned a livery stable in Custer. Michaud is listed in the 1880 US census as a liveryman in Custer City (as noted in the previous chapter). (Jay D. Hatfield later reported that, in the summer of 1895 when he was twelve, he stayed with Felix Michaud, who let him ride his "good old saddle horse to Custer for mail" and supplies. Jay reported that he rode the horse "to [a] large livery stable," which may have been the one owned by Felix.)[54]

Figure 4-3. Edward Michaud, oldest brother of Frank and Albert Michaud, apparently lived in the southern Black Hills for a brief time in the late 1800s, before moving to Terrace, British Columbia, ninety miles each of Prince Rupert at the mouth of the Skeena River. Courtesy of Mrs. Ira Michaud, Billings, Montana.

As Felix Michaud became settled in the Custer community and his children reached young adulthood back in the Fort Collins, Colorado, area, he may have invited them and other family members to visit and even join him in the southern Black Hills. Jay Hatfield, who camped with his father near Felix's cabin on Lightning Creek in 1895, later recalled meeting a relative of Felix's, purportedly his brother, John, during that summer.[55] (Ira Michaud, Felix

[53] There is disagreement about the location of the Bellemare Ranch. Mrs. Thomas Bellemare's obituary, dated June 8, 1901, notes that the Bellemares lived on a ranch ten miles east of Custer, from their arrival in the southern Black Hills in 1882 until at least Mrs. Bellemare's death in 1901. A 1904 map of the Black Hills shows the "Belmores" Ranch, presumably the Bellemare's Ranch, several miles west and slightly north of Custer. A Michaud family account claims that the Bellemare Ranch was located on Lightning Creek about ten miles west of Custer. "Death of Mrs. Thomas Bellemare," *Custer Weekly Chronicle,* June 8, 1901; "Michauds, Rileys 'Come Home' for Family Reunion," *Custer County Chronicle,* September 8, 2004; "The Black Hills Reached Via the North-Western Line," Chicago, IL: Chicago & North-Western Railway, 1904.

[54] "Michauds, Rileys 'Come Home' for Family Reunion," *Custer County Chronicle*, September 8, 2004; Jay D. Hatfield, letter to Ira Michaud, January 12, 1971, Nettie Michuad and Monica Michaud Weldon Personal Papers.

[55] Alex Mitich, "Jay D. Hatfield—Pioneer," *Bits and Pieces,* March-April 1971, 4.

Michaud's grandson, who later recorded some of the Michaud family history, said he had never known of a John Michaud.[56])
Edward F. Michaud, Felix's oldest son, apparently lived in Custer County for a period before the late 1890s. (Edward's obituary, published in the *Custer Weekly Chronicle* many years later, noted that he had been a "former Custer County resident" and that his death was a shock to "his relatives and friends in the district.")[57] It has been speculated that Felix's sons Frank and, possibly, Albert also came to Custer County sometime in the 1890s.[58] Their initial visit(s) may have been only brief.

Harvesting Timber

Harvesting timber became another activity that made the transition from merely supporting mining to becoming a regional industry with exports out of the Black Hills. Logging, like harvesting crops, was pursued by Euro-American newcomers early on.

Early on, Euro-American visitors recognized the economic value and abundance of timber in Black Hills forests. Ferdinand Hayden, leading a scientific expedition with W. F. Raynolds in the northern Black Hills in 1859-1860, observed "that at least one-third of this area, about 2,000 square miles or 1,280,000 acres, is covered with excellent pine timber. . . . The Black Hills," he predicted, "contain an inexhaustible quantity of the finest timber, mostly pine, which will doubtless remain undisturbed for many years to come."[59] Lieutenant Colonel George Custer, on his expedition through the Black Hills in 1874, also commented on the great abundance

[56] In a letter to Alex Mitich, Ira Michaud wrote: "I have listened to much talk over the years and in recent times have done considerable research regarding the Michaud family tree and no where was there any mention of John Michaud, who was a brother of Felix Michaud." Ira Michaud, letter to Alex Mitich, December 20, 1970, Archives (JECA 1686), Mt. Rushmore National Memorial

[57] "Former Custer County Resident Passes Away," *Custer Weekly Chronicle*, July 12, 1928.

[58] Ira Michaud, transcribed tape-recorded remembrances, August 15, 1989; "Michauds, Rileys 'Come Home' for Family Reunion," *Custer County Chronicle,* September 8, 2004. Ira Michaud, "Jewel Cave: What I Have Heard & Seen," December 1970; Ira Michaud, transcript of tape-recorded remembrances, August 15, 1989; both in Library, Jewel Cave National Monument. Also see "Michauds, Rileys 'Come Home' for Family Reunion," *Custer County Chronicle*, September 8, 2004. These two accounts by Ira Michaud and the one by Nettie Michaud, his wife, and his daughter Monica Michaud Weldon disagree on the date that the Michaud brothers arrived at Jewel Cave.

[59] Quoted in J. H. Triggs, *History of Cheyenne and Northern Wyoming, Embracing the Gold Fields of the Black Hills* (Omaha, NE: J. H. Triggs, 1876), 49, 50.

and the commercial value of timber "The pine is of suitable dimensions for being worked into lumber, and is met with in great abundance on every hill-side."[60]

After the initial influx of gold miners, visitors and promoters continued to note the volume and the economic value of Black Hills forests. "It is not in minerals alone that the region known as the 'Black Hills' is prolific," Charles Collins asserted in his 1878 *History and Directory of the Black Hills*. "Forests of white pine, of a quality far superior to those of Wisconsin, and in quantities sufficient to answer the wants of the people of this country for ages to come, is easy of access."[61] Seventeen years later in 1895, Peter Rosen made similar glowing reports of the quantity and quality of Black Hills timber. "The density of the forests clothing the hill-sides have, from their somber hue when viewed from a distance, given the name to this region, the 'Black Hills.' . . . The pine forest cover so extensive an area and will yield so large a proportion of the timber that all the other trees [black and white spruce, burr oak, white elm, and aspen] combined may be neglected in comparison." Rosen also described the adequate size and distribution of white pine in the Black Hills.[62]

At the turn of the nineteenth century, the U.S. Geological Survey (USGS) reported on the distribution and character of forests in the Black Hills. Large areas are densely timbered, principally with yellow pine (*Pinus ponderosa).* "The large pine timber . . . average[s] not over 80 feet with an average diameter of about 20 inches." This so-called "Class one" timber was found on the divide west of Spearfish Canyon, on Box Elder Creek, the head of Spring Creek, and on Soldier, Cold Springs, and Sand creeks. "Class two" timber, averaging 62 feet high and standing in less dense forests than Class one, covered the greatest portion of the Black Hills, according to the USGS report. "Class three" timber, occupying the ridges and steep slopes of the Hills, was shorter than Class two and only 14 to 17 inches in diameter.[63]

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[60] *Ibid.,* 50.
[61] Charles Collins, *Collins' History and Directory of the Black Hills* (Central City, Dakota Territory: Charles Collins, 1878), 16.
[62] Peter Rosen, *Pa-ha-sa-pah, or the Black Hills of South Dakota: A Complete History* (St. Louis: Nixon-Jones Printing Co., 1895), 607, 608-609.
[63] Nelson Horatio Darton, "Preliminary Description of the Geology and Water Resources of the Southern Half of the Black Hills and Adjoining Regions in South Dakota and Wyoming," *Annual Report of the Interior for the Fiscal Year Ended June 30, 1900, Twenty-First Annual Report of the United States Geological Survey, Part IV* (Washington, DC: Government Printing Office, 597-98.

Fires in the Forest

Although apparently plentiful and inexhaustible, the Black Hills forests, in the late 1800s, began to show signs of damage and depletion by fire. In 1895, Peter Rosen wrote of the absence of forests in certain parklands and valleys in the Hills. Extensive forest fires, he observed, had destroyed timber over considerable areas, leaving them "destitute of trees." Rosen wrote, "Scarcely a living tree is to be seen for miles around Custer's Peak, in the northern Hills, and along the limestone divide and in the central portion of the Hills.[64]

Although disturbing to contemporary observers, the loss of forests to fire was a natural and not uncommon occurrence in the Black Hills before humans suppressed fires. In the southern Hills, fires burned naturally every few years. Various scientific studies conducted to determine the frequency of fires in the Black Hills suggests that fires before 1770 burned a particular stand of timber slightly less often (an average of every twenty-seven years) than fires between 1770 and 1820, when fire occurred every fourteen years. Thus, every century, a particular stand of timber burned five or six times. Most of these frequent surface fires were of low intensity and they primarily burned debris on the forest floor. Since fires have been actually suppressed on public land since the early 1900s, naturally occurring fires have greatly diminished in number and increased in intensity.[65]

Landscapes of Diversifying Uses

As miners, farmers, and ranchers settled and established roots in the southern Black Hills, they left a succession of visible imprints on the landscape. The open park-like valley floors and pine-covered slopes of the southern Black Hills changed from an environment of abundant native grasses and pine forests to grazed, fenced, and cultivated valleys and forests with a dry open floor. Throughout the Black Hills, newcomers at first constructed small rudimentary shelters usually of log, easily harvestable from the pine forests covering much of the Black Hills. Small logs were also used to build furniture and to enclose cultivated fields to keep out foraging animals. More trees were cut and boards hewed to build more substantial houses for the miners, teamsters, and eventually railroaders. Even more trees were cut and more boards hewed to build restaurants for

[64] Rosen, *Pa-ha-sa-pah, or the Black Hills of South Dakota,* 608-609.
[65] Edward Raventon, *Island in the Plains: A Black Hills Natural History* (Boulder: Johnson books, 1994), 119-37.

the settlers, dry good stores to clothe them, saloons to entertain them, and churches to offer them comfort. When the trees ran out in one particular area, the portable sawmill was yoked to oxen and dragged to another tree stand. Earth was also moved in small and large ways. Rock and dirt from small exploration holes was piles up. At deep mine shafts it cascaded down hillsides; the valleys between mines and mills were strung with rail and wagon roads.

Native vegetation was replaced by non-native plants cultivated to feed the miners, farmers, teamsters, and merchants or to feed the cattle that fed the miners, farmers, teamsters, and merchants. Indigenous fauna competed with domestic cattle for food and water. Streams clouded with mining silt were diverted from flume to flume, altering stream bank micro-ecosystems by killing the native plants and encouraging the alien plants transported by prospector's boots. And over all, a pall of wood smoke hovered.

In some respects, Euro-Americans in the Black Hills continued some of the same endeavors that had been pursued for centuries by Native Americans in the region. The newcomers logged (but for gable-roofed structures rather than tepees); they hunted mammals (also for food); they gathered plants growing naturally or cultivated; and they gathered minerals from the earth (but for gold rather than projectile points). Euro-Americans, however, brought with them an entirely different view of their relationship with the environment—one that embodied concepts of ownership and intensive use of natural materials for agricultural and industrial purposes—tools and technology that greatly impacted the environment over time, and a sedentary non-nomadic life, which as the numbers of people grew, created all kinds of imprints on the landscape. The arrival of Euro-Americans in the Black Hills and their decision to establish roots—agricultural, industrial, commercial, social, political, and religious—began a sequence of endless changes, some easily discernable and others invisible, that altered the biological environment and cultural landscape in new ways.

Chapter 5

Jewel Cave:
Discovery and Development

1890s-1908

Introduction
Conservation Policies Reach the Black Hills
Jewel Cave Discovered
Jewel Cave Development
The Legal Environment
Developing Jewel Cave to Attract Visitors
The Wind Cave Example
Michauds' Continued Struggle

Introduction

As Felix Michaud pursued ranching and speculative mining in the 1890s, concern grew over the diminishing forest stands in the Black Hills as a result of fire and logging. Intense harvesting of timber was observed particularly in the north, where the Homestake Mining Company logged aggressively for timber to use for underground mine shaft supports, bridges and railways, and numerous buildings to house managers and workers at the mine. Portable sawmills were easily moved as the forest receded before the feller's axe. Millers and loggers left behind on the forest floor remnants of timber debris, which were readily ignited by summer lightning strikes. A series of large forest fires in 1893 heightened an awareness of the need to protect the forest so that it was there to harvest in the future.[1] Similar intense logging and forest depletion had occurred in many regions throughout the eastern United States, prompting the federal government to explore ways to perpetuate forests as well as other natural resources.

The discovery of Jewel Cave by Euro-American at the turn of the nineteenth century occurred against a backdrop of federal conservation policies unfolding in the Black Hills. Administrators of the Black Hills Forest Reserve, created in 1897, focused their attention on principles of scientific forestry and the efficient scientific management and use of natural resources—timber, minerals, grass, and water. In this environment the developers of Jewel Cave, located inside the forest reserve, believed that treating the cave as a mineral resource was a logical and acceptable approach to gaining federal approval for Jewel Cave's use.

Although nearby Wind Cave provided an early example of how a cave might be developed as a tourist attraction, circumstances at the two caves differed. Wind Cave benefited from better and closer railroad and road access, the attraction of nearby hot springs that functioned year round, the economic support and promotion of private entrepreneurs with some economic resources, and, beginning in 1903, the publicity and administrative support that came with national park status. Jewel Cave had few of these advantages for several years. The efforts of Frank and Albert Michaud and Charles Bush to attract tourists to Jewel Cave failed, forcing them to seek alternative ways of making a living in the southern Black Hills.

[1] Jack Cannon, "Forest Has Role in History," *Rapid City Daily Journal*, March 12, 1961.

Conservation Policies Reach the Black Hills

In the late 1800s, a growing concern for the possible diminishing long-term productivity of forests throughout the United States found expression in federal policies that profoundly affected the Black Hills of South Dakota. Although most Americans considered the nation's forests to be limitless and inexhaustible, a few individuals voiced warnings about the consequences of rapid deforestation from fire and logging. A most influential observer and reporter of the damaging environmental effects of deforestation, far from the Black Hills, was George Perkins Marsh.

Living in Turkey between 1849 and 1859 as the U.S. ambassador, George Perkins Marsh theorized that the deforestation he observed on the shores of the Mediterranean Sea had contributed to erosion, drained water from the soil, decreased soil fertility, destabilized the natural flow of streams, and generally wreaked havoc with the earth. Marsh presented his theories of environmental degradation in a book entitled *Man and Nature* (1864). Over the next several years, Marsh's book attracted the attention of both scientists and politicians and raised the concerns of an increasing number of Americans about the future of the nation's forests. Marsh's theories, although eventually proven to be overstated or, in some cases, wrong, became the basis of laws aimed at protecting and/or restoring forests. In New York State, concern about the falling levels of water in the commercially important Erie Canal, and possible future water shortages in New York City led to a popular movement and eventually state legislation to protect the heavily logged Adirondack Mountains. The Adirondack Forest Reserve, created by New York State law in 1885, became a model of forest protection for the nation as a whole.

In early March 1891, Congress passed the Forest Reserve Act (or General Reserve Act), which specifically sought to protect watersheds by reserving designated forests from commercial use. Under the authority of this act, several forest reserves were established. On March 30, 1891, President Benjamin Harrison created the first reserve—the Yellowstone Timberland Reserve in Wyoming. During the remainder of Harrison's term, he created a total of fifteen forest reserves covering more than 13 million acres. Between 1892 and 1896, President Grover Cleveland designated an additional five million acres as forest reserves. The 1891 act was administered by the General Land Office (GLO; forerunner of the Bureau of Land Management), in the Department of the Interior, with the aim of protecting water and timber supplies within the nation's forests.[2]

[2] John Ise, *The United States Forest* Policy (New Haven: Yale University Press, 1920), 109-18; Samuel P. Hays, *Conservation and the Gospel of Efficiency* (Cambridge: Harvard University Press, 1959), 36; Hal Rothman, *Preserving Different Pasts: The American*

Over the next few years, Congress created a "forestry commission" charged with examining various forests in the U.S. and determining where the new forest reserves should be established. In July 1896, members of this forestry commission arrived in Custer, where they planned to begin their nationwide forest examination in the Black Hills. The commission consisted of the most elite group of scientists in the nation—Harvard University botanist Charles Sprague Sargent, Arnold Hague of the U.S. Geological Survey, William Brewer of Yale University, retired army engineer General H. L. Abbott, noted California naturalist John Muir, and forester Gifford Pinchot. Congress appropriated $25,000 in June 1896 for the commission. After touring the Black Hills, the group continued west through the Rocky Mountains to the Pacific Coast, visiting possible future forest reserves as they traveled. (Pinchot did not join the group until it reached Montana)[3]

As forest reserves were being created between 1891 and 1896, Gifford Pinchot had risen in stature and become one of the most highly regarded foresters in the country. Born in 1865 and a graduate of Yale University in 1889, Pinchot spent several years in France and Germany studying the principles of "scientific forestry," or sustained-yield management. Upon returning to the U.S. in 1892, he took charge of a private forest on the Biltmore estate in North Carolina, where he put into practice his training in scientific forestry. For the next several years, he worked as a consultant to private forest owners, and wrote and lectured widely on the practicability of scientific sustained-yield forest management.[4]

The work of Pinchot and the other forestry commission members in the summer of 1896, probably influenced President Cleveland's decision to create additional forest reserves just before he left office. On February 22, 1897, amidst a clamor of local opposition from miners and millers, President Cleveland proclaimed the creation of the Black Hills Forest Reserve, composed of 967,680 acres. Upper Hell Canyon and the site of the Jewel Cave opening were included in the Black Hills Forest Reserve. This law also created twelve other reserves in Wyoming, Utah, Montana, Washington, and Idaho, totaling nearly 21 million acres. The law made no mention of utilitarian or commercial use objectives for forest reserves; the protection of timber and water in the forest reserve were the primary focus. Lumber, grazing, and mining interests in the Black Hills and across the country howled in protest. The forest reserve bill appeared in its entirety on the front page of the *Custer Weekly Chronicle.* Repeal of the bill seemed

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National Monuments (Urbana: University of Illinois Press, 1989), 10; Roderick Nash, *Wilderness and the American Mind* (New Haven: Yale University Press, 1982), 133-35.

[3] "Forestry Commission," *Custer Weekly Chronicle*, July 11, 1896; Nash, *Wilderness,* 135.

[4] Hays, *Conservation and the Gospel of Efficiency,* 36-37.

imminent. Instead, the lumber industry received a slight reprieve when Cleveland suspended his proclamation until September 1898.[5]

Loud political protests from western legislators and from foresters like Gifford Pinchot caused cracks to appear in the forest protection approach to managing forest reserves, embodied in the 1891 law and the act creating the Black Hills Forest Reserve. On June 4, 1897, Congress passed the Forest Management Act, which granted the secretary of the Interior power to regulate the occupancy and use of the existing forest reserves. This act, unlike the 1891 act, permitted a broad interpretation of rule-making and regulatory powers. Although it did not expressly allow the commercial use of natural resources, the 1897 act paved the way for federal officials to permit grazing, logging, prospecting, and the diversion of water for mining, milling, irrigation, and even hydroelectric power generation in the forest reserves. (The grazing of sheep in the Black Hills Forest Reserve, however, was not permitted due to excessive damage caused by their foraging.)[6] The language of the act made it clear that the primary purpose of the reserves was "to furnish a continuous supply of timber for the use and necessities of citizens of the United States."[7] The division in the General Land Office that administered this law initiated a fire prevention and suppression program, a timber sales system, a tree-planting program, and a timber management plan. Regulations were also issued for grazing on forest reserves.[8]

The Forest Management Act shifted the management approach of the Black Hills Forest Reserve. In July 1897, a survey corps arrived to determine and map the exact boundaries of the reserve. One party surveyed the topography and mapped contour lines and reserve boundaries. Henry S. Graves, a forestry expert who was interested in making forestry pay for lumbermen and who eventually became the chief forester of the Bureau of Forestry), arrived in Custer from New York City in mid-July to oversee the topographical survey party.[9] A second party came to survey agricultural and mining lands and segregate them from the reserve.[10]

In 1898, less than one year after the Forest Management Act passed and surveyors arrived in the Black Hills, forester Gifford Pinchot became head of the Division of Forestry (renamed the Bureau of Forestry in 1900) in the Department of Agriculture. In this position, Pinchot, at the request of the secretary of the Interior, often made decisions on technical

[5] "Forestry Reserve," *Custer Weekly Chronicle,* June 12, 1897; Linde, *Sawmills of the Black Hills,* 6, 96, 101-102.
[6] "Rules for Forest Reserve," *Custer Weekly Chronicle,* July 10, 1897.
[7] As quoted in Nash, *Wilderness,* 137.
[8] Hays, *Conservation and the Gospel of Efficiency,* 36-37.
[9] *Custer Weekly Chronicle,* July 17, 1897; Hays, *Gospel of Efficiency,* 30.
[10] *Custer Weekly Chronicle,* July 10, 1897.

matters and executed plans for the management of forest reserves according to principles of sustained-yield scientific forestry, even though the forest reserves remained under the purview of the of the GLO in the Department of the Interior for another seven years.[11]

Pinchot's application of scientific forestry became evident in the Black Hills Forest Reserve, in mid-1898, a year after its creation. In June, H. G. Hanamaker arrived in Custer (replacing Government Land Office forest reserve Supervisor R. C. Greene) to take on the responsibilities of managing the reserve.[12] That summer, Forest Supervisor Hanamaker tackled his first request for the sale of timber on the reserve. Homestake Mining Company, perpetually in need of wood for mining shaft timbers and for steam-engine fuel, proposed the purchase of one thousand acres for its large operation in the northern Hills. After examining this sale area near Nemo and a second sale area in the Este Creek drainage, Hanamaker estimated the value of timber at 75 cents per thousand feet. On Christmas Day 1899, eighteen months after Homestake's initial application for timber harvesting, logging began with horse and oxen. This timber sale, known as "Case No. 1 Forest Timber Sale," represented the first commercial logging allowed on forest reserve land in the U.S.[13]

In 1901, Seth Bullock—a Dakota rancher, personal friend of Theodore Roosevelt, and influential in the creation of Yellowstone National Park many years earlier—replaced Hanamaker as Black Hills Forest supervisor and took over administration of the Case No. 1 timber sale. After contract extensions and the removal of 15 million board feet from the Black Hills forest, the sale closed in April 1908.[14] Long before then, Bullock approved and oversaw the harvesting of timber on thousands of acres. In his annual report for fiscal year 1901, Bullock noted that timber sales on the Black Hills Forest Reserve totaled $20,269, four-fifths of the total timber sales on all forest reserves in the nation. That same fiscal year, Forest Supervisor Bullock had issued 303 grazing permits, as compared to 58, the greatest number issued by any other forest reserve.[15]

Pinchot, in addition to applying the principles of scientific forestry to the harvesting of timber, also staunchly supported grazing on forest reserves. As head of the Bureau of Forestry, he often intervened in the early GLO management of forest reserves to open up grassy ranges to livestock grazing. For example, in 1904, he played a crucial role in supporting the continued use of a Wyoming forest reserve for grazing.

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[11] Hays, *Conservation and the Gospel of Efficiency,* 28-30, 38.
[12] Rothman, *Preserving Different Pasts,* 10; Mitch Mahoney, compiler, *Centennial: Mini-Histories of the Black Hills National Forest* (N.p.: U.S. Forest Service, 1998), 14-16.
[13] Linde, *Sawmills of the Black Hills*, 97.
[14] *Ibid.,* 101; Mahoney, *Centennial,* 18-20.
[15] Linde, *Sawmills of the Black Hills,* 102-103.

Pinchot's support of stockmen's grazing interests and his basic view that reserves should be developed for commercial use, led him to oppose the creation of game preserves and parks on forest reserves, an idea proposed by some eastern game organizations such as the venerable New York City-based Boone and Crocket sportsmen's club. "The object of our forest policy," Pinchot declared in March 1903, "is not to preserve the forests because they are beautiful . . . or because they are refuges for wild creatures of the wilderness . . . but . . . the making of prosperous homes."[16]

Convinced that the General Land Office was ill-equipped to administer the reserves effectively, Pinchot argued tenaciously to have the administration of forest reserves moved from the General Land Office to his own Bureau of Forestry in the Department of Agriculture. After Pinchot and others made several efforts to transfer the forest reserves from the GLO to the Bureau of Forestry, Congress finally passed a bill in early 1905 that accomplished this goal. The 1905 act specified that the "rights of way for the construction and maintenance of dams, reservoirs, water plants, ditches, flumes, pipes, tunnels, and canals, within and across the forest reserves . . . are hereby granted to citizens and corporations of the United States." President Theodore Roosevelt signed this bill (HR 8460) into law on February 1, 1905.[17] Pinchot, as head of the bureau, became fully in charge of all forest reserves. In a February 1 letter from Secretary of Agriculture James Wilson to Chief Forester Gifford Pinchot, Wilson reminded Pinchot that "all land [in forest reserves] is to be devoted to its most productive use for the permanent good of the whole people and not for the temporary benefit of individuals or companies. All the resources of forest reserves are for use" (underlined in original).[18] Gifford Pinchot immediately set about exercising all necessary authority within his power to regulate the occupancy and use of forest reserves as well as to expand the forest program and capture revenue for its operation.[19] Forest reserves were soon afterward renamed national forests. "The transfer of forest reserves to the Department of Agriculture in 1905 represented the victory for the development point of view in the Roosevelt administration," according to one environmental historian. "The change of name from 'forest reserves' to 'national forests' symbolized its significance."[20]

[16] Quoted in Hays, *Conservation and the Gospel of Efficiency,* 41-42.
[17] James Wilson, Secretary of Agriculture, to "The Forester" Gifford Pinchot, February 1, 1905, history files, Black Hills National Forest, USDA Forest Service, Custer.
[18] *Ibid.,* 4.
[19] Hays, *Conservation and the Gospel of Efficiency,* 42-46.
[20] *Ibid.,* 191.

Jewel Cave Discovered

The Euro-American discovery of Jewel Cave happened at a time when residents of the Black Hills harbored many concerns about emerging conservation policies. Along with their abiding local interest in surviving sometimes killing winters, frequent droughts, a national economic depression, and devastating fires, turn-of-the-century Black Hills residents now faced uncertainties about the new federal designation of the Black Hills Forest Reserve. People worried about the possible erosion of their ability to use and profit from the timber, minerals, water, and rangeland in the federal forest reserve (even though the reserve did not prohibit most of these activities). At the same time, many welcomed federal measures taken to diminish the occurrence and damage caused by forest fires. A small but growing populace began to look to the federal government to protect and preserve scenic and scientifically significant features in the natural environment. These varied and quixotic currents of public sentiment moved across the Black Hills at a time between 1900 and 1908, when managers of the Black Hills Forest Reserve (National Forest after 1905) worked to understand the mission and carry out the rules and regulations of the new evolving national forest agency. The discovery and development of Jewel Cave on the Black Hills Forest Reserve eventually presented forest managers with slightly different challenges than those they might have encountered in requests to log, graze, or use water resources.

Humans' first encounter with Jewel Cave is not known with absolute certainty. There is no evidence that Native Americans ever entered the cave—no Native American cave art or artifacts has been discovered in Jewel Cave. The absence of prehistoric evidence along with the fact that the only entrance found by Euro-Americans was originally too small to permit human entry argues strongly against the notion that anyone entered the cave before the arrival of Euro-Americans in the Black Hills.

Over the past century, many different stories have been told about the discovery of Jewel Cave by Euro-Americans. Although Frank and Albert Michaud are most often credited with the cave's discovery, other versions of the discovery story should not be dismissed. New information may someday be uncovered during future research adding plausibility to one of these stories. Furthermore, the discovery stories are part of the popular folklore that surrounds Jewel Cave and its history. Various discovery stories are briefly presented here for these reasons. Regardless of when and who discovered Jewel Cave, there is no question that the Michaud brothers, with occasional help from others, were the first to actively promote and develop the cave as a tourist attraction.

One discovery story attributes Burdett Parks, a cowboy working on the nearby Y-4 Ranch, northwest of Jewel Cave, with noticing a blowing hole (a hole in the ground with wind blowing outward) in the spring of 1886. At some unknown later date, Burdett Parks reportedly "enlarged the hole and entered, to remove a wagon load of crystals" that were given to the 1895 World's Fair for display.[21] Ira Michaud refuted this story in 1989, when he was eighty-two years old. He believed that Parks extracted crystals from a different cave, not Jewel Cave. He noted that: "Berdette [sic] Parks, a cowboy from Rifle Ranch had discovered a small cave which was near the [Rifle] ranch. . . . This is evidently a small cave in the head of Layton Canyon, which was near the Rifle Ranch. It was later known as the S & G Cave."[22] The validity of the Burdett Parks story is, therefore, very questionable.[23]

Two other stories date the discovery of Jewel Cave to 1886. Both stories appeared in the local Custer newspaper. An article in the August 14, 1947, issue of the *Custer County Chronicle* newspaper, entitled "When Was Jewel Cave Discovered?," noted that Jewel Cave, in 1886, had been claimed as a mine under the name "Hell Canyon Cave." Around the same time, another short article in the *Custer County Chronicle* reported that a Frank Walsh wrote to the Custer newspaper from Los Angeles that Jewel Cave was discovered in 1886 by John Wells or his brother Dick Wells. "I was there at the time," Frank Walsh wrote. Walsh went on to explain that he later purchased the Ernie Smith Ranch, about two miles down the canyon, and lived there for about ten years.[24] These two versions of discovery may or may not relate to Jewel Cave. Since Hell Canyon has more than one cave entrance, the discoveries described in these stories may refer to caves other than Jewel Cave.

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[21] Herb Con and Jan Conn, letter to Gail Evans-Hatch and Michael Evans-Hatch, June 21, 2004; Archives, National Park Service; Herb and Jan Conn, *The Jewel Cave Adventure* (St. Louis, MO: Cave Books, 1977), 22.

[22] Ira Michaud, transcription of tape recording made by Ira Michaud, August 15, 1989, Library, Jewel Cave National Monument (hereafter cited as JECA).

[23] Further research needs to be conducted on the possible exhibition of Jewel Cave crystals in the 1893 Chicago World's Fair and also on Burdett Park's employment at Y-4 Ranch and Rifle Ranch to explore the validity of this story further. Mike Wiles, Jewel Cave National Monument, "Review Comments-March 21, 2005, Jewel Cave National Monument Historic Resource Study," Midwest Regional Office, National Park Service, Omaha, NE.

[24] Future research might disclose purchase of the Smith Ranch by Frank Walsh and the exact location of the Ernie Smith Ranch in relation to Jewel and other known cave openings in Hell Canyon. "When Was Jewel Cave Discovered?," *Custer County Chronicle,* August 14, 1947; "Says Jewel Cave Discovered in 1886," *Custer County Chronicle*, c. 1947; both articles clipped and affixed to a page in Library, JECA.

In 1893, the August 19 issue of the *Custer Chronicle* reported another encounter with a cave in Hell Canyon, possibly Jewel Cave. According to the article, a party of six (F. A. Towner, his daughter Carrie Towner, D. W. Webster, O. Webster, Mrs. Tamlyn, and Miss Jeneson) "drove to Hell's[25] Canyon, Thursday morning [where] they intended to explore the cave, located in that vicinity, which is said to . . . rival the famous Wind Cave of this county."[26] This local news item suggests that a cave, possibly Jewel Cave, was known in August 1893.

Another Jewel Cave "discovery" story was told by Jay D. Hatfield, a long-time resident of Neligh, Nebraska, and recorded by Alex Mitich in the March-April 1971 issue of *Bits and Pieces*, a small Newcastle, Wyoming, history newsletter. According to this account, Felix Michaud knew of the cave by the mid-1890s. Jay Hatfield distinctly remembered traveling to Custer with his father, John, in 1895, when Jay was twelve years old. At Custer's annual Fourth of July celebration, the two Hatfields met Felix Michaud, who invited them to pitch their tent at his ranch cabin on Lightning Creek for an extended stay.

According to Hatfield, one day that summer Felix took the Hatfields to John Michaud's (Felix's purported brother[27]) ranch a few miles away. Felix then guided young Jay and his father John Hatfield "into many rooms in a beautiful Crystal Cave; it is now the Government Jewel Cave."[28] Seventy-five years later, two Jewel Cave park rangers (Dennis Knuckles and Mike Silbernagle) found what appeared to be the initials "F.M." and the date "1898" carved in the wall in a side passage near the Kittycombs chamber, adding credence to the story that Jewel Cave had been entered before 1900 by Felix Michaud and, possibly by others, including the Hatfields.[29]

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[25] There has been some variation of the spelling of Hell Canyon over the years. In 1931, highway construction drawings spelled Hell Canyon as "Hell's Canyon." Most authorities today refer to this canyon as "Hell Canyon." Mike Wiles, Jewel Cave National Monument, "Review Comments-March 21, 2005, Jewel Cave National Monument Historic Resource Study."

[26] *Custer Weekly Chronicle,* August 19, 1893.

[27] Ira Michaud was mystified by the person named John Michaud. In a letter, dated December 20, 1970 written to Alex Mitich, Ira wrote: "I have listened to much talk over the years and in recent times have done considerable research regarding the Michaud family tree and no where was there any mention of John Michaud, who was a brother of Felix Michaud." Quoted in Alex Mitich, "Jay D. Hatfield—Pioneer," *Bits and Pieces*, March-April 1971, 4. See also Alex Mitich, "Cave Questions—Little Jewels," *Bits and Pieces,* March-April, 1981, 16.

[28] Quoted in Mitich, "Jay D. Hatfield—Pioneer," 4.

[29] Mitich, "Jay D. Hatfield—Pioneer"; Mike Hanson, *1988 Guidebook*. Rapid City, SD: Paha Sapa Grotto, 1988). Typed excerpt, Library, JECA.

Many years later when Jay Hatfield was eighty-seven, he wrote in more detail about his 1895 visit to Jewel Cave in a letter to Ira Michaud. Rather than clarifying uncertainties in the date of discovery, however, Hatfield's latest account added to the confusion about when he had entered Jewel Cave and with whom. "Felix Michaud took us to his horse ranch 8 miles west of Custer on Lightning Creek," Hatfield recalled. He continued:

> Felix Michaud took us about 5 miles southwest to a Michaud Log House near Hell Canyon—and the Michaud Man—or 2 Michaud Men and Felix and my father and I went near the House and Hell Canyon to a Lime Stone Cave—and we went down Pole ladders and Crawled through Holes into Rooms with lanterns and I have crystals now that I got in July 1895—Felix and my Father were Western Men and they were like Brothers—and Felix took us to many Places.[30]

Near the end of his letter, Hatfield noted that he had been to Custer and the Black Hills many times. Hatfield may have been recalling a later visit to the cave, after the construction of the Michaud's two-story log cabin around 1902 and after the insertion of pole ladders in the cave.

A very tenable, but still possible, discovery story appeared in the May 30, 1896 issue of the *Custer Chronicle.* This local newspaper reported that: a "very handsome collection of Cave specimens, similar in character to the rare and beautiful 'box' specimens found in the Wind Cave taken from a subterranean chamber recently discovered while sinking a well on the ranch of H. D. Reynolds, located about 12 miles west of this city, were brought in Tuesday by Mrs. Reynolds and daughter, Mrs. C. Manahan. The chamber was encountered at a depth of 18 feet."[31] Since Jewel Cave is roughly twelve miles west of Custer, the cave described might possibly be Jewel Cave.

One of the most plausible accounts of discovery was told to "LKL" (presumably Lyle Linch), Jewel Cave Park ranger in the 1940s. Long-time Custer resident Joseph Riley claimed in 1947 that Jewel Cave was "discovered" in 1897. The sixty-five-year-old Joe Riley recalled that he was one of six boys who found a small four-inch wide hole with wind blowing out, about thirty feet above what later became the historic cave entrance. Joe Riley, then around fifteen years old, was accompanied by Martin Riley, Clyde Holmes, Mark Holmes, Buck Raver, and Ray Sideley

[30] Jay D. Hatfield, letter to Ira Michaud, January 12, 1971, Michaud Private Collection, Billings, Montana.
[31] *Custer Chronicle*, May 30, 1896.

(spellings uncertain). Joe Riley became the brother-in-law of Frank Michaud (after Frank married Mary Katherine Riley in February 1905) and remained a long-time southern Black Hills resident. Also in 1947, Riley told ranger Linch that brothers Frank and Albert Michaud "discovered" this same hole with blowing wind in September 1900.[32]

Prior to the Michaud brothers' arrival in the Black Hills, the discovery of gold on the Klondike River in 1896 had lured Frank to British Columbia's Yukon Territory as well as Alaska. Frank may have left his boyhood home near Fort Collins, Colorado, with his brothers Edward and Alfred around 1897, and spent the winter of 1897-1898 in Libby, Montana, with their sister Annie and her husband. The summer of 1898, Frank reportedly joined a man named Joseph Devereau and together they made their way north by boat up the coast of British Columbia and Alaska to Skagway. Here they disembarked and, over the next several months, packed mining supplies up over White Pass to Lake Bennett at the headwaters of the Yukon River in the Yukon Territory of Canada. The two men spent the summer of 1899 sluicing gravel in streambeds in search of gold. They left the gold country in the winter of 1899-1900 and headed by boat from Haines south to Seattle. In Seattle, the two men parted; Devereau returned to California and Frank Michaud headed east to his sister's home in Libby, Montana.[33]

At Libby, Frank reportedly met his younger brother Albert, and in the spring of 1900, the two brothers traveled southeast to the southern Black Hills of South Dakota, where they intended to go into the livestock business. A few miles east of Newcastle, Wyoming, (and about twenty-five miles west of Jewel Cave), they were invited to work on the spring cattle roundup on the LAK ranch. This they did for a few weeks, before continuing on their journey eastward across Tepee Canyon and, eventually, into Hell Canyon.[34]

The story of Jewel Cave discovery by Frank and Albert Michaud in 1900 has been repeated often by many sources over the past century. The June 8, 1901, issue of the *Custer Chronicle* reported that Jewel Cave had been "discovered about a year ago." This discovery, the newspaper claimed, was made by Charles Bush (the spelling used by Charles Bush himself, but

[32] Joe Riley, in 1902, became a member of the Michauds' "Jewel Cave Dancing Club." Joe and Mary ("Mamie") Katherine Riley, Frank Michaud's future wife (in 1905), were siblings. Also see: LKL (presumably Lyle Linch), typed and handwritten notes, September 7 1947 and September 14, 1947, taken during a conversation with Joseph Riley. Three-ring binder, Library, JECA.
[33] Ira Michaud, transcribed tape-recorded remembrances, August 15, 1989.
[34] Ira Michaud, "Jewel Cave: What I Have Heard & Seen," December 1970; Ira Michaud, transcript of tape-recorded remembrances, August 15, 1989.

sometimes spelled "Busche").[35] Charles (known as "Charley") Walter Busch was a Michaud family friend from the French settlement in Cache la Poudre River Valley near Fort Collins, Colorado. Bush, a six-foot-tall robust man with a thick shock of dark hair, was the seventh son of eleven children born to Jackson A. and Sarah Bush.[36] Charley Bush had apparently been a friend of Felix Michaud's brother, Francois Michaud, and his family, who lived in the Cache La Poudre River region of northeast Colorado near present-day Fort Collins. According to an old diary in the possession of a Francois Michaud family descendent, Charley Bush was present when the Michaud family in Cache la Poudre received a letter from Frank and Albert Michaud describing the wonders of Jewel Cave in great detail. The excited Bush apparently left for the Black Hills soon afterward. According to the June 8, 1901 *Custer Chronicle* article, Bush explored about one mile of the cave . . .

> the walls of which are covered with the finest and most interesting formations. Stalactites and stalagmites of delicate structure and surpassing beauty, as well as of more massive forms abound in every room or gallery so far penetrated. . . . Through the passages a strong current of air passes outward, thus making the cave another wind cave.[37]

Two other early accounts of Jewel Cave credited the Michaud brothers with its discovery in 1900. John I. Sanford, in 1902, wrote that:

> The discoverers of Jewel Cave are working in the top of a yet unexplored cave of grand proportions, equal probably to Wind Cave in depth and extent. It was discovered in 1900 by the Michaud brothers, who were prospecting in Hell's [*sic*] canon [*sic*], one of the rockiest, most precipitous canons [*sic*] and one of the most beautiful . . . They were letting themselves

[35] Charles Bush and his daughter, Grace Lois Bush Hatfield, both spelled their family name "Bush." Grace Bush Hatfield, letter to Monta Huseby, Jewel National Monument employee in June 1985, Library, JECA. Ira Michaud reported, in 1989, that "Brusque" was the correct spelling of their name, but Charles decided to change the spelling to "Bush" because so many people misspelled it. Ira Michaud, transcript of tape-recorded remembrances, August 15, 1989, Library, Jewel Cave National Monument.

[36] Photograph and inscription, Charles Bush material, Library, Jewel Cave National Monument.

[37] "The Jewell [*sic*] Wind Cave," *Custer Chronicle*, June 8, 1901.

> carefully down a chimney in the rocks and remarking [about] the favorable character of the place for a cave, when one of them noticed a couple of inches in diameter and called his brother's attention to it saying: 'There is the entrance to a cave.' The brother began pulling away the earth with his hand when the strong current of air blew a cloud of dust in his face.[38]

In an April 1909 U.S. Forest Service document, "Report on the Jewel and Four Other Lode Claims," the author F. C. Schrader stated that: Jewel Cave "was discovered on August 18, 1900" by F. W. Michaud and Albert Michaud.[39] Two years later, Frank and Albert Michaud, in a letter to South Dakota U.S. Representative (from 1901 to 1907) Eben Wever Martin[40] asking for reimbursement for their development work at Jewel Cave, stated emphatically that they were "the discoverers and present owners of Jewel."[41]

The elaborate details of discovery presented in these and other early published stories provided the basis for nearly all discovery stories for nearly 100 years. Other publications and Michaud family members repeated and perpetuated the 1900 discovery story again and again. Long after Frank Michaud died in 1927, his widow, Mamie, during a 1959 conversation with Jewel Cave park ranger Walter Lienau, expressed certainty about Frank and Albert Michaud's discovery of Jewel Cave.[42]

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[38] Quote in Hanson, *1988 Guidebook*, typed excerpt.
[39] Schrader, "Report on the Jewel and Four Other Lode Claims," April 15, 1909, Library, JECA.
[40] Eben Wever Martin, born in Iowa in 1855, attended the University of Michigan, was admitted to the bar in 1880, and began practicing law in Deadwood, South Dakota (from 1886 to 1900). Although he ran unsuccessfully for the U.S. Senate in 1906, he filled the vacancy caused by the death of William H. Parker, in 1908,and remained in Congress until 1915. *Biographical Directory of the American Congress, 1774-1949* (Washington, DC: Government Printing Office, 1950), 1508.
[41] Frank Michaud and Albert Michaud, letter to E. W. Martin, March 4, 1911, Library, JECA.
[42] Walter Lienau (seasonal ranger at Jewel Cave National Monument), "Administrative History of Jewel Cave (consisting a compilation of notes taken by Lienau during the summer of 1959 from interviews with persons in Custer and with Mrs. Mamie Michaud. Typed summary of notes. JECA 1692, Archives, Mount Rushmore National Park.

Frank's son, Ira, also believed that his father and uncle were the first to find the cave, although he puzzled over the date of their discovery and wondered if it might have been at least five years earlier than 1900.[43] After learning of Jay Hatfield's reported visit to Jewel Cave in 1895, published around 1909 in an article by Hatfield, Ira wrote to Mitich. "I think this article clearly shows that John Hatfield and son Jay were no doubt in Jewel Cave during 1895." Ira Michaud confessed that he had not "come up with a definite discovery date," but he was certain about the discoverers. "There is no doubt in my mind that my father Frank and Uncle Albert Michaud discovered the cave and were the first to make entry after enlarging a small original opening. . . . I have heard my father tell how they discovered the cave many times but cannot remember a time when he actually mentioned the date."[44]

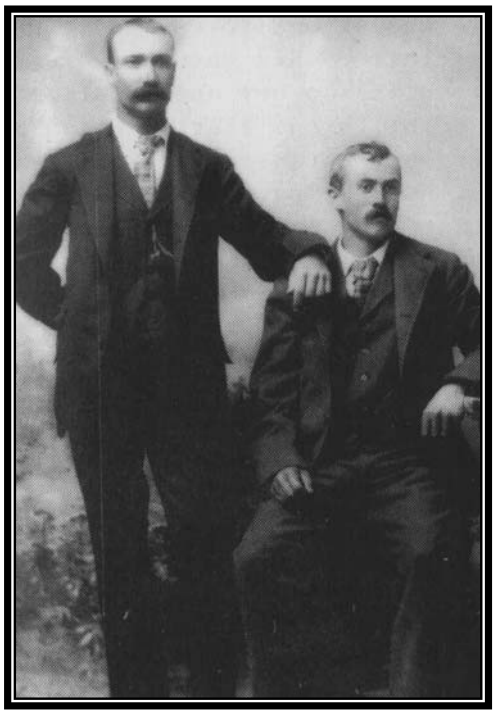

Figure 5-1. Frank Michaud and his younger brother Albert Michaud, taken around 1897 and before they arrived in the Black Hills. The Michaud brothers, along with Charles Bush, developed Jewel Cave as both a mining claim and a tourist attraction. Courtesy of Mrs. Ira Michaud, Billings, Montana.

Ira Michaud elaborated on this discovery story in a twenty-eight-page memoir, handwritten in December 1970 for Alex Mitich, entitled "Jewel Cave: What I Have Heard & Seen." (Alex Mitich, a Jewel Cave ranger, published a heavily edited and abridged version of Ira's memoir in the January-February 1971 issue of *Bits and Pieces*. Under the confusing similar title "Jewel Cave: What I've Seen and Heard.")

Ira wrote that in the early summer of 1900, his father Frank and Uncle Albert,

[43] Ira Michaud, "Jewel Cave: What I Have Heard & Seen," December 1970. Accompanied by letter from Ira Michaud, at Billings, Montana, to Alex Mitich, at Newcastle, Wyoming. Library, JECA.

[44] Ira Michaud, letter to Jay Hatfield, December 20, 1970, Archives (JECA 1686), Mt. Rushmore National Memorial.

> Camped overnight in Hell Canyon, just below the spring . . . known as Prairie Dog Spring. the next morning, they started up Hell Canyon on a prospecting trip, and after a short while they heard a very weird sound coming from the hill side just above the rim rock. On investigation they found a small hole about fourteen inches in diameter through which a strong force of wind was escaping to the outside atmosphere. . . .The next morning . . . they were at the opening and found to their amazement that the force of wind through the opening was very slight and in fact was moving into the cavern instead of outward.[45]

Ira Michaud, in 1989, repeated his earlier assertion that Frank and Albert Michaud discovered Jewel Cave; this time, however, he asserted it was definitely in the early summer of 1900.[46] This 1989 version of the Michaud discovery appears to be supported by the census records of 1915, which report that Frank Michaud first arrived in South Dakota in 1900.[47]

It is certainly understandable how the discovery of Jewel Cave in 1900, or earlier, by Albert and Frank Michaud might have become the official and much-publicized story. The Michaud brothers, along with Felix Michaud and Charles Bush, were the first to claim the legal right to mine the "Jewel Tunnel" claim and to hold title to land encompassing the cave. Entered on the Jewel Lode claim are the words "by right of discovery . . ." along with the date of September 18, 1900. "Discovery" carried with it the right to mine the land; it did not create ownership. The Michaud brothers and, later, Frank Michaud's family, relied on this "discovery" to argue strongly for compensation from the U.S. Forest Service and, later, the National Park Service for the time and expense they incurred to develop Jewel Cave. [48] Their repeated requests for compensation were based on the assertion that the government's assumption of ownership was a "taking" of the land, under the doctrine of eminent domain. Both men were working

[45] Ira Michaud, "Jewel Cave: What I Have Heard & Seen," December 1970, Library, JECA.
[46] Ira Michaud, transcribed tape-recorded remembrances, August 15, 1989, Library, JECA.
[47] "Frank Michaud," 1915 Census Record, South Dakota Census, South Dakota State Archives, Pierre, South Dakota.
[48] Letters from the Michauds to the Forest Service. Also, Herb Conn, letter to Gail Evans-Hatch and Michael Evans-Hatch, June 21, 2004.

hard to make a living and, in Frank's case, to support a growing family. Until the day he died in 1927, Frank hoped that their claim of "discovery" and ownership of Jewel Cave would be recognized and compensated, relieving his family's financial worries at last.[49]

Many discrepancies exist among the various stories of discovery. Nobody knows with absolute certainty when Jewel Cave was "discovered" and by whom, and we may never know. But it matters little in the long history of the Hell Canyon area and Jewel Cave National Monument. Jewel Cave history has been influenced most by those who explored, promoted, and developed it. The credit for first developing and then promoting Jewel Cave surely goes to the Michaud brothers—Albert and Frank—and Frank Michaud's family.

Jewel Cave Development

Frank and Albert Michaud worked tenaciously over many months in the early 1900s to explore Jewel Cave and to develop it by making the cave more accessible to the public. They first endeavored to create a larger opening in the cave and also improve the access between chambers in the cave. According to Ira Michaud, Frank Michaud's son, they used "a few light charges of powder and [did] some chiseling and hammering" to enlarge the opening so that a person could enter the cave and descend on a rope into a cavern near the first fork in the tunnel. They soon discovered another opening and passageway into the cave from under the rim rock, that had been "filled with hard packed clay mixed with rocks." (Joe Riley, Frank Michaud's future brother-in-law, recalled that he and five other boys who encountered Jewel Cave in 1897 found a hole about thirty feet above the Michauds' blasted opening; this may have coincided with the earlier opening.) Near this spot the Michaud brothers reportedly excavated a new entrance, which has since become known as the "historic entrance" to Jewel Cave in the side of Hell Canyon.[50] (This same entrance was later

[49] There is an important distinction between the common understanding of "discovery" and the legal mining law concept of "discovery." A mining claim could be created only after a prospector found evidence of a mineral, and, in the case of a "lode claim," dug a ten-foot-deep "discovery hole" that clearly revealed existence of the mineral. "Discovery" in the legal sense was always followed by filing some public notice, usually called a "location certificate". Therefore, based upon extant public records, there can be no doubt that the Michaud brothers "discovered" Jewel Cave, in the legal sense.

[50] Quote and information from Ira Michaud, "Jewel Cave: What I Have & Seen," December 1970; U.S. Forest Service, "Report on Mining Claim," Jewel, located November 15, 1905, form completed February 19, 1908, Library, JECA.

modified by the Civilian Conservation Corps in the 1930s.) The June 8, 1900, issue of the *Custer Weekly Chronicle* reported that: "Construction work has already been done to enlarge the smaller passages, so that the cavern can be more easily entered."[51]

Figure 5-2. Jewel Cave timbered entrance (center of photo), looking up from Hell Canyon, in 1916. Courtesy of Jewel Cave National Monument (JECA 2645), deposited at Mount Rushmore National Memorial.

The Michaud brothers then timbered the first twenty-four feet of Jewel tunnel from the enlarged entrance. They labored at the opening for several weeks. Every four feet or so, the Michauds placed seven-foot-high vertical pine posts. Heavy timbers were then extended across the tops of the vertical posts as well as along the bottom to stabilize them.

Finally, a flat roof and side walls made of split logs enclosed the twenty-four-foot-long timber-framed entry passageway to keep the friable ceiling and side walls from caving in on visitors.[52] Inside this split-log

[51] "The Jewell [*sic*] Wind Cave," *Custer Weekly Chronicle,* June 8, 1901.

[52] It seems likely that this twenty-four-foot-long timber-frame tunnel may have extended to the outside beyond the actual cave entrance in the side of Hell Canyon, in order to keep loose rocks from falling down the steep canyon sides into the cave opening. Over time, the loose rock and dirt around the cave opening may have

tunnel, the Jewel Cave developers installed rails on hand-hewn timbers for the wheels of an old mining car, which carried a wooden box crafted by the Michauds. About halfway (twelve feet) through the timbered tunnel, the Michauds installed a heavy plank door that could be locked. This door was destroyed many times over the years by vandals and had to be replaced often. After twenty-four feet, the stability of the cave ceiling and walls did not require any timber bracing or enclosed split-log tunnel.[53]

Figure 5-3. Jewel Cave's darkened and recessed opening as it appeared from across Hell Canyon in May 2004. Photo by Gail Evans-Hatch. Courtesy of Jewel Cave National Monument, deposited at Mount Rushmore National Memorial

Frank and Albert Michaud then turned to constructing ladders and steps to safely connect the labyrinth of chambers and tunnels to the right of the fork, a few feet back from the cave entrance. Long timber poles were used to construct ladders. In order to move them around sharp corners in the twisting passageway, the Michauds cut these poles into shorter lengths, when necessary, and assembled the completed ladders at the site where needed. Additionally, "excavations and openings [were] made at different places and levels extending back for ½ mile or more," according to a U.S. Forest Service "Report on Mining Claim" completed in February 1908.

During their early years of developing Jewel Cave, the Michauds followed the main descending wind passage for a distance of one and one-half miles, constructing ladders, platforms, and walkways.[54]

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been removed, thus causing the cave opening to recede into the hillside and reduce the need for the protective timber-framed enclosure.

[53] Ira Michaud, "Jewel Cave: What I Have Heard & Seen," December 1970.

[54] Quote from H. C. Neel and C. W. Fitzgerald, "Report on the Proposed Jewel Cave Game Preserve," September 1907, Archives, Mount Rushmore National Memorial. Also see U. S. Forest Service, "Report on Mining Claim," Jewel, located

As this initial Jewel Cave development work continued, the Michaud brothers were joined by Charles Bush, a family friend from the Cache la Poudre River Valley in northeastern Colorado. Frank and Albert welcomed Bush as a partner in their Jewel Cave exploration and development venture. Arriving in the Black Hills by late July or August 1900, Bush was probably immediately put to work assisting with various cave development projects. Felix Michaud, then around sixty, may have also helped with some of these early development activities; however, his contribution to the venture is undocumented in any literature.

At some point during the fall of 1900, the Michauds and Bush determined that their development efforts and Jewel Cave's potential as a tourist attraction warranted securing a formal claim to Jewel Cave property. Not only did they perceive that the cave offered income potential, but they also believed that adequately preparing the cave for visitors required the acquisition of some legal rights to both the cave and the surface area surrounding to its entrance. The Michaud brothers, along with their father and Charles Bush, rode into Custer and filed a "location certificate" at the Custer County Courthouse on October 31, 1900.[55] This location certificate gave the Michauds the right to mine the cave, an activity allowed on forest reserve land.[56]

November 15, 1905, form completed February 19, 1908; Ira Michaud, "Jewel Cave: What I Have Heard & Seen," December 1970.

[55] Neel and Fitzgerald, "Report on the Proposed Jewel Cave Game Preserve," September 1907.

[56] While living in the Black Hills in the early 1900s, Bush established a horse ranch about ten miles from Custer, South Dakota, where he is said to have constructed one of the largest horse tracks in the West. Bush married Laura Marsh, who gave birth to three children: Holmer Francis, Mable Marie, and Grace Lois Bush Hatfield—the only child to live to adulthood. The Bush family moved to a farm in Orient, Adair County, Iowa, around 1905. The Bush family spent the summer of 1915 camping near Custer, South Dakota, possibly near or on their old ranch. Charles Bush died in early 1916 of typhoid fever. Grace L. (Bush) Hatfield, letter to Monta Huseby, June 1985; Charles Bush, letter to Laura and Grace, June 23, 1916; and hand-written notes about the Bush family, all in Library, Jewel Cave National Monument. Also see Ira Michaud, transcribed tape-recorded remembrances, August 15, 1989.

The Legal Environment

The complexity of the Michauds' struggles to obtain title to the cave can be more fully appreciated with an overview of the mining law of that time.[57] The first federal statute that is relevant to this history is section 22 of Title 30 of the United States Code, enacted in May 1872.

> All valuable mineral deposits in lands belonging to the United States, both surveyed and unsurveyed, are hereby declared to be free and open to exploration and purchase, and the lands in which they are found to occupation and purchase, by citizens of the United States and those who have declared their intention to become such, under regulations prescribed by law, and according to the local customs or rules of miners in the several mining districts, so far as the same are applicable and not inconsistent with the laws of the United States.[58]

Under the statute, if a miner met certain requirements associated with actually "discovering" a mineral of value, including filing the required public notice of the discovery and continuing to perform a certain amount of work developing the mine, the miner acquired a "qualified title,"

[57] C. C. O'Harra, "The Earliest Mining Laws and Mining Organizations in the Black Hills, *The Black Hills Engineer,* November 12, 1924.

[58] 30 U.S.C. 22 [Title 30 of the United States Code, Section 22.] Note on the creation of a statute: A proposed law is referred to as a Bill, if the bill is enacted by Congress, it becomes an Act. An act is initially published in a multi-volume set called *Statutes at Large*, then the Act is dissected and where appropriate, different portions of the Act will be inserted in different portions of the federal code. This last step is essential since almost all acts deal with many issues. As a bill it was subject to many compromises and many "riders." Consequently, a single Act may include both the requirements for obtaining a patent on a mining claim and a portion spelling out the crime for falsifying the application for a patent. The patent application requirements would be inserted in that portion of the United States Code dealing with mining (Title 30), and the portion of the Act dealing with the crime of falsifying patent applications would be inserted in that portion of the United States Code dealing with crimes (Title 18). Consequently, a federal Act can be read in its entirety by reading it in *Statutes at Large*, but seeing precisely how the various portions of the Act affect the law necessitates that its portions be read in the context of other, relevant law, which is found in the *United States Code*.

empowering that person to remain in possession of the mine.[59] The easiest way of appreciating the difference between what the Michauds owned by virtue of a mining claim and other forms of "title" to land can be developed by comparing some aspects of the two:

1. The title to a mining *claim* is acquired by possession, and it may be lost by leaving permanently. Other forms of title, e.g. title in fee simple, cannot be lost by simply leaving.

2. Title to a mining *claim* requires a certain amount of labor be performed on the claim each year, otherwise the title is lost. Fee-simple title does not require annual labor to retain it.

3. Specific, detailed procedures must be followed in order to transform a *claim* into a fee simple title. Those procedures are set forth in mining district rules, territorial statutes, state statutes, federal agency regulations, and federal statutes.[60] These procedures are vastly different from the procedures required to obtain fee-simple title to agricultural, homesteaded land.

The federal statute in force when the Michauds found Jewel Cave required a "discovery" be made before a person had any mining rights[61]

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[59] *Bradford v. Morrison*, 212 U. S. 389, 29 Sup. Ct. 349, 53 L. Ed. 564. [Page 389 of volume 212 of *United States Reports*; page 349 of volume 29 of *Supreme Court Reporter*; and page 564 of volume 53 of *The Lawyer's Edition*.] Note: The fact that the case is reported in *United States Reports* (U.S.) tells the reader that the case is a United States Supreme Court case.

[60] As alluded to above, where there is conflict between statutes and regulations: federal law controls state law; federal statutes take priority over federal regulations; federal court decisions take priority over state court decisions; and decisions of the United States Supreme Court take priority over decisions by other federal courts. Courts at all levels take great pains to find interpretations of various statutes and regulations to avoid conflict, and where such an interpretation is reasonable, that interpretation will be applied. The single most important exception to this general rule of priority is the situation where the federal government delegates powers to the state or even to a mining district. For example, section 28 of the 1872 Mining Law states, in part: "The miners of each mining district may make regulations not in conflict with the laws of the United States, or with the laws of the State or Territory in which the district is situated, governing the location, manner of recording, amount of work necessary to hold possession of a mining claim, subject to the following requirements: The location must be distinctly marked on the ground so that its boundaries can be readily traced . . . ."

[61] 30 U. S. C. 23 [Title 30, section 23 of the *United States Code*] Note: most of the federal mining laws have been substantially amended since the early 1900s, consequently, the law governing the Michaud claim may or may not be the law presently reported in the *United States Code*. Throughout this section, the law discussed is only the law that was in force at the time of the Michaud association with Jewel Cave; present-day mining law is not addressed. For example, federal legislation in 1920 removed some minerals such as oil, gas, oil shale, phosphate and

(there are a couple other requirements, as well, but "discovery" must take place before the other steps are necessary). Discovery did not require actually finding any specific mineral in any specific quantity; rather it merely required finding something on the ground that would lead a reasonable person with mining experience to believe that minerals were present in amounts warranting the expenditure of funds to mine it. "It is sufficient that it [the discovery] disclose such a crevice as a miner would be willing to further open and follow."[62] As stated by the United States Supreme Court, "It [the discovery] must justify a person of ordinary prudence to further expenditure in an effort to develop a paying mine."[63] Almost always, the requirement for discovery under the then-existing federal statute was that a "discovery hole" be dug, or, as in the case of the Michauds, a preexisting tunnel be examined for evidence of the probable existence of valuable minerals.[64]

Once "discovery" is made, the miner must clearly mark the boundaries of his or her claim, and leave some notice in the area alerting others to the existence of the claim – this process of identifying the boundaries and leaving notice on the ground is called "location."

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sodium from the Mining Act Laws and made them subject to the Mineral Leasing Act; congress amended the mining laws in 1955 removing "common varieties" of stone such as sand, gravel, cinders, and pumice from the Mining Acts; in 1976 congress enacted the Federal Land Policy and Management Act (43 U.S.C 1701, *et seq*), which led to federal regulation of mining claim location and mining methods. However, none of these statutes affect any rights the Michauds may have acquired.

[62] *McShane v. Kenkle,* 18 Mont. 208, 44 P. 979 [Page 208 of volume 18 of *Montana Reports*; the same case is also reported at page 979 of volume 44 of *Pacific Reporter*.] When a state court (such as a South Dakota state court) is unable to find a case from that state, it frequently will search for a case in a sister state (such as Montana) dealing with nearly identical facts and law.

[63] *Cameron v. United States,* 252 U. S. 450, 40 Sup. Ct. 410, 64 L. Ed. 659. See also *United States v. Coleman,* 390 U. S. 599 (1966), and Kenneth Hubbard and Scott Hardt, "The General Mining Law and the 'Comparative Values' Test – Old Law, New Law, or Non-Law?" 48 *Rocky Mt. Min. L. Inst.* 16B, Westminster, CO: Rocky Mountain Mineral Law Foundation, 2002.

[64] It is very important to note that when an application for a patent was filed with the Land Office at the time of the Michaud's involvement with Jewel Cave, the Land Office would not enquire into the actual value of the minerals on the claim. It could only become an issue in two instances: 1) where there are two conflicting claims, one an agricultural claim and one a mineral claim under the Mining Acts, and 2) where the issue is raised by the federal government attacking the issuance of a patent. In both instances, a formal objection based upon lack of mineral wealth must be filed with the Land Office. See Morrison, *Mining Rights on the Public Domain,* 194, and 247.

The notice can, and often was, merely a handwritten note left in a tin can placed atop a pile of stones.[65] The miner acquired the right to occupy and mine the land when the location certificate was filed.[66]

As mentioned above, even after completing all these steps, if the miner failed to perform the annual work required by the federal statute ($100 per year) each year, he might lose his claim. Another miner could come onto the land, go through the discovery, location, and filing of the location certificate, and win the claim from the miner who failed to perform the annual labor. However, if the original miner can returned and recommenced work before any newcomer intervenes, he preserved the claim.[67] At the time of the Michauds' involvement with Jewel Cave, Section 28 of the Mining Law mandated the annual labor requirement:

> On each claim located after the 10th day of May 1872, and until a patent has been issued therefore, not less than $100 worth of labor shall be performed or improvements made during each year. . . . and upon a failure to comply with these conditions, the claim or mine upon which such failure occurred shall be open to relocation in the same manner as if no location of the same had ever been made, provided that the original locators, their heirs, assigns, or legal representatives, have not resumed work upon the claim after failure and before such location.[68]

Courts have interpreted this statute as not requiring that annual labor continue after a complete and accurate formal request has been filed for a patent with the Land Office. While the complete and accurate formal request for a patent remains on the Land Office books, the land is withdrawn from the public domain even if the patent application is later found defective.[69] Importantly, while annual labor is required before the application for a patent is filed, there is no requirement that notice be filed each year of labor done.

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[65] Morrison, *Mining Rights on the Public Domain*, 36.
[66] 30 U. S. C. 28. See also Walter G. Miser, "South Dakota Mining Law," in Francis C. Lincoln, Walter G. Miser and Joseph B. Cummings, *The Mining Industry of South Dakota*, Rapid City, SD: South Dakota School of Mines, 1937.
[67] Morrison, *Mining Rights on the Public Domain,* 104 and 122.
[68] 30 U. S. C. 28
[69] Morrison, *Mining Rights on the Public Domain,* 111. Morrison cites seven cases supporting this assertion, including the U. S. Supreme Court case of *Benson Co. v. Alta M. & S. Co.,* 145 U. S. 428, 12 Sup. Ct. 877, 36 L. Ed. 762.

Once a miner has made a "discovery," staked his location on the ground, left written notice somewhere on the claim, filed a location certificate, and performed the requisite annual labor for at least five years, the miner is then eligible to apply for a patent. Before turning to the formal requirements involved in applying for a patent, it is important to note that even though the Michauds' claim became part of a National Forest, that fact had absolutely no bearing on the rights of the Michauds. The Mining Acts permit prospecting, discovery, and location of mining claims on national forests exactly as they would on non-reserved or non-national-forest land. The only difference is that the forest ranger is authorized to examine and report whether it is a *bona fide* claim.[70]

> In the location of a claim upon a National Forest the discovery, staking, and record are perfected with no reference to the fact of its being upon such reserve; nor does the supervision of the forest ranger affect the title or the possessory status, but his suggestions in regard to use of timber must be heeded. If there be no mineral value upon which to locate and the ranger assert such fact, it is not followed by an action on his part to set aside the claim, but when application for patent is made, a protest on this ground may be made on behalf of the parties or department supposed to be looking after the protection of the forests.[71]

The final step taken by many miners was obtaining a patent from the United States. A "patent" is simply a "deed" issued by the United States. By the time the Michauds may have become interested in filing for a patent, the procedures were governed by Land Office Regulations that were originally promulgated in 1901, and remained in effect, with some modifications, at least until 1936. One difficulty in examining these regulations with the Michauds in mind is the difficulty of changing federal agencies. When the regulations were first issued in 1901, there was an Office of the Surveyor General, which no longer exists; similarly, there was the office of Receivers of United States Land Officers, which no longer exists. However, the procedures themselves are clearly presented in the 1901 regulations. To apply for a patent under these regulations, a miner had to comply with the following procedural steps:

[70] *Cameron v. United States,* 252 U. S. 450, 40 Sup. Ct. 410, 64 L. Ed. 659
[71] Morrison, *Mining Right on Public Domain*, 430.

1. Obtain an official survey of the claim made under authority of the surveyor general of the state of South Dakota.
2. Post a copy of the plat in a conspicuous place on the claim along with a notice of his intention to file for a patent.
3. File a copy of the plat and the field notes of the survey with the county register together with an affidavit executed by at least two witnesses attesting to the fact that the claimant posted a copy of the plat together with notice of intent to file for a patent on his claim.
4. File an application for a patent with the Land Office. The application must include:
    a. A statement under oath that the applicant has complied with all federal, state, and local requirements for establishing a claim, and therefore has a possessory right to the claim
    b. brief narration presenting the facts constituting such compliance, the origin of his possession
    c. A full description of the kind and character of the vein or lode and whether ore has been extracted, and if so, in what amount and of what value
5. Publish the application for patent in a local newspaper for sixty days.
6. File with the Land Office a certificate of the surveyor general that at least five hundred dollars worth of labor has been expended or improvements made.

After all six steps have been finished, the Commissioner of the General Land Office will grant a patent.[72]

It is very important to note that although a miner may apply for and obtain a patent if all the requirements are met, it is not an obligatory step. As long as the annual labor is performed and the discovery and location requirements have been met, the miner will retain a possessory title to the claim, and may continue to mine and remove minerals from the claim.[73]

Developing Jewel Cave to Attract Visitors

The Location Certificate identified Jewel Cave (referred to as the "Jewel Tunnel" on the certificate) as being situated thirteen miles west of Custer in an "unorganized mining district." The Jewel Tunnel claim

[72] Morrison, *Mining Rights on Public Domain*, 511.
[73] Randy Hubbard, "The 1872 Mining Law: Past, Present, and Future?" 17 *Natural Resources & Environment*, 149, New York: American Bar Association, 2003.

encompassed a 1,500 by 3,000 square-foot rectangular plot of land[74] with the tunnel opening about 100 feet back from the southern side of the claim. The stated purpose of the location certificate was for "discovering and working veins, lodes, ledges, and deposits" on the claim.[75] Locating the Jewel Tunnel mining claim provided an initially inexpensive way to claim the right to use the cave and the 103 acres encompassing the tunnel opening, even though the stated purpose of the location certificate did not specify that the Michauds had recreational development in mind. Locating and filing for a mining claim was probably the only financial and legal means available to the Michauds, at that time, to obtain the right to occupy the land. Probably believing that this location certificate would help protect the time and money they had already invested to make Jewel Tunnel accessible to the public, the Michauds and Bush continued with their development work on the 103-acre Jewel Tunnel claim site described in the location certificate.

A road that permitted the transport of building materials and, ultimately, visitor access to the cave next captured the attention and energy of the four Jewel Cave partners. Soon after the Michauds had arrived at the cave and begun work on its interior, they had reportedly picked and chiseled a crude road from the bottom of Hell Canyon up to a point slightly below the blasted cave opening and then along the gradually sloping ridge on the northeast side of Hell Canyon above the cave opening. This narrow track may have been used by the Michauds merely for moving felled logs from the sides and ridges of Hell Canyon to the cave opening.[76]

A good road that provided access to Jewel Cave for travelers coming from Custer and Newcastle, Wyoming, was needed. Construction of the Burlington Northern Railroad across Wyoming spawned the founding of Newcastle in 1889. In the 1890s, a rough thirty-seven-mile road between Custer and Newcastle came into being. By 1900, the combined population of Newcastle and Weston County, Wyoming, reached 3,203, slightly more than the 2,728 people who resided in neighboring Custer County, South Dakota.

After the partners had identified a site for a residence near Jewel Cave spring (back from the sloping ridge above Jewel Cave opening), the Michauds and Bush blazed a rough road from the Custer—Newcastle road. Their road ran approximately one and one-half miles from just below Lithograph Spring, westward over a pass and along the bottom of a side draw, down to the spring and the Michaud home site. Their home site was

[74] This equals about 4,500,000 square feet or 103.31 acres. (4,500,000 sq. ft. divided by 43,566 sq. ft., the equivalent of one acre).
[75] "Location certificate of Jewel Tunnel claim," October 31, 1900, Placer Records, Book 2, p. 552, Custer County Courthouse.
[76] Ira Michaud, "Jewel Cave: What I Have Heard & Seen," December 1970.

near and below the present juncture of U.S. Highway 16 and the short north-south road to the historic 1930s Jewel Cave ranger cabin. The partners' one- and one-half-mile road took several months to complete, and cost around $250.[77] The June 8, 1901, issue of the *Custer Weekly Chronicle* reported that according to a Michaud brother, ". . . the road which has been under construction by himself [a Michaud brother] and associates to the Jewell [*sic*] cave in Hell's [*sic*] Canyon, thirteen miles west of Custer, has been completed and is now open for travel to visitors to the cave."[78]

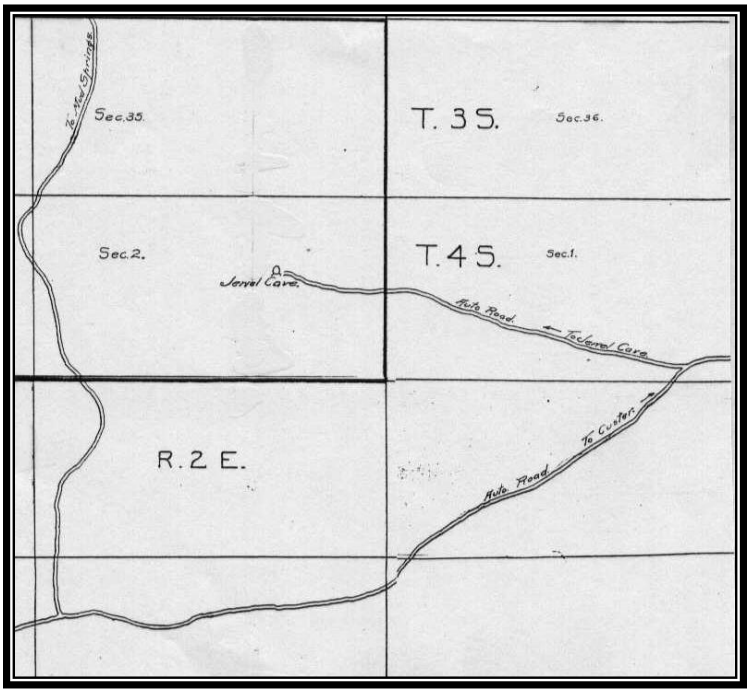

Figure 5-4. This 1908 map of Jewel Cave shows the one- and one-half mile auto road built by the Michaud brothers and Charles Bush to Jewel Cave from the road to Custer. Courtesy of Jewel Cave National Monument.

Construction of a residence and associated outbuildings on the 103-acre Jewel Tunnel claim site consumed the Michauds attention in 1901 and 1902. "As soon as the road was made passable," Ira Michaud later

[77] U.S. Forest Service, "Report on Mining Claim," Jewel, located November 15, 1905, form completed February 19, 1908; Ira Michaud, "Jewel Cave: What I Have Heard & Seen," December 1970.
[78] "The Jewell Wind Cave," *Custer Weekly Chronicle*, June 8, 1901; Walter Lienau (seasonal ranger at Jewel Cave National Monument), "Administrative History of Jewel Cave," (transcribed notes from interviews with Mamie Michaud, August 4, 1959, JECA 1692, Archives, Mount Rushmore National Memorial.

wrote, "a spot was leveled off near the spring for a large log building to be erected for a home as well as a place where visitors to the cave might stay overnight, as it was a long trip with team and buggy from Custer in those days."[79] This new large log building, measuring thirty by eighteen feet, replaced a much smaller log cabin built by the Michaud brothers in their first year there. The Michauds and probably Bush felled nearby yellow pine (commonly known as Ponderosa pine) and hauled it to the site near the spring on gently sloping ground above Hell Canyon and about one-eighth mile north of the cave entrance. Here, they constructed a two-story log cabin with a porch across the front and rustic log details under the eaves.

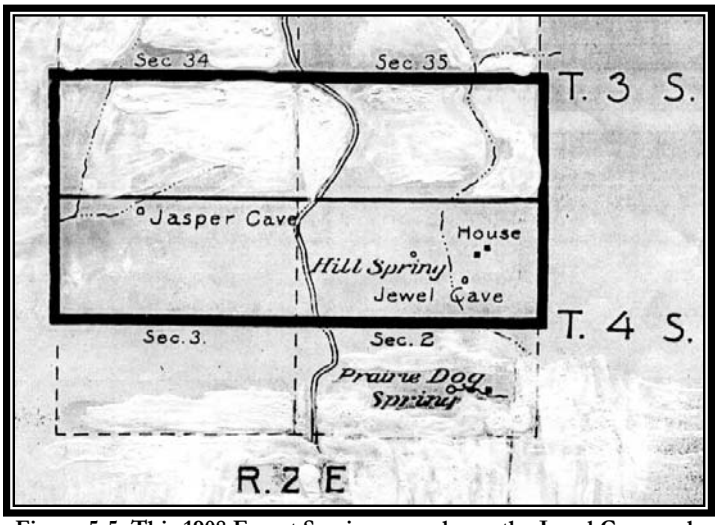

Figure 5-5. This 1908 Forest Service map shows the Jewel Cave and Jasper Cave openings (circles) along with the Michauds' two-story log house and the log barn/stable (black squares), located to the east of Hill Spring. To the south was Prairie Dog Spring and probably the nearby "old Kirk cabin," usd in the late 1920s by Ira Michaud and other Jewel Cave guides. Courtesy of Jewel Cave National Monument.

Custer resident John I. Sanford described the log structure in 1902 as "a commodious log hotel of two stories [. . . providing hospitable shelter for the visitors, who will ever cherish the memory of a visit to the romantic place."[80] A log food-storage cache—a ten-square-foot building with three and one-half feet of clay insulation between it and an outer fourteen-square-foot building—was constructed near the large log house. A small log cabin, used as the Michauds' shelter the first winter, later became a chicken coop.

[79] Ira Michaud, "Jewel Cave: What I Have Heard & Seen," December 1970.
[80] John I. Sanford, *The Black Hills Souvenir* (Denver, CO: Williamson-Haffner Engraving Co., 1902), 218.

The Michauds also built a sixteen-by-eighteen-foot log barn and a small shed or spring house, measuring twelve by fourteen feet, near the spring. All the logs used were probably local yellow pine (Ponderosa pine); the estimated cost to construct the buildings was $400.[81]

Between 1900 and 1903, the "Michaud brothers spent almost their entire time developing the cave," according to a 1907 U.S. Forest Service report. In November 1905, the Michauds estimated that they had spent around $1,650 to develop the cave, road, and nearby buildings. By September 1907, the Michauds reported that they had spent $6,000 for labor and materials to develop the Jewel Cave claim.[82]

The Michauds had another reason to develop Jewel Cave. Not only did this work help them achieve ownership according to existing mining laws. Development of Jewel Cave made it more accessible to visitors.

The Wind Cave Example

The Jewel Cave claimants only needed to look toward Wind Cave, around twenty-five miles to the east, to see how another cave in the region had been developed as a tourist attraction. Interest in Wind Cave first began to grow after 1881, when Tom and Jesse Bingham encountered the cave's strong wind blowing through a small hole and enlarged the cave opening to permit entrance. In 1890, Jesse McDonald and his family began developing Wind Cave as a tourist attraction. They built a small log cabin over the enlarged cave entrance, explored and named tunnels and rooms in the cave, and collected rock specimens that McDonald took to the towns of Hot Springs and Custer to arouse interest in Wind Cave. The McDonalds soon began guiding curious visitors through the cave. After Jesse McDonald sold half his interest in Wind Cave to John Stabler, manager of a Hot Springs hotel, the partners worked together to publicize the cave. A building near the entrance was constructed in 1893 to accommodate and serve meals to visitors and a daily stage began operating between Hot Springs and Wind Cave. In May 1893, "the proprietors of Wind Cave have planned an excursion for the [newspaper] editors of the Black Hills. . . .

[81] U.S. Forest Service, "Report on Mining Claim," "Jewel" lode, November 17, 1905, form completed February 19, 1908; Ira Michaud, "Jewel Cave: What I Have Heard & Seen," December 1970; Lyle Linch, typed notes of conversation with Mamie Michaud, Francis Michaud and family, and Joe Riley, September 14, 1947, Library, JECA.

[82] U.S. Forest Service, "Report on Mining Claim," Jewel, located November 15, 1905, form completed February 19, 1908; Neel and Fitzgerald, "Report on the Proposed Jewel Cave Game Preserve," September 1907.

The newspaper men and their ladies will meet at Hot Springs . . . and will leave for the cave in coaches. Dinner [mid-day meal] will be served there, and in the afternoon . . . the party will explore the cave."[83] That same year, Wind Cave attracted national recognition when Jesse McDonald and his son, Alvin, displayed cave specimens and a ten-foot-square map of the cave in the Worlds' Columbian Exposition in Chicago, attended by thousands from all over the world.[84] That summer, over 900 people visited the cave.[85]

In 1898, extensive work had been completed to open up small passages and connect them with numerous ladders. Two U.S. Geological Survey geologists came to investigate the reported wonders of Wind Cave that year. In the summer of 1899, Wind Cave attracted around 1,000 visitors. An average of 1,800 people visited the cave annually around the turn of the twentieth century. The McDonalds and one or two other families made their living, at least in part, from the $1-per-person entrance fee and from the sale of rock specimens taken from the cave.[86]

Similar to the Wind Cave promoters in the 1890s, the Michaud brothers, at first attempted to draw attention to Jewel Cave through the local media. The June 8, 1900, issue of the *Custer Weekly Chronicle* printed an excited account of the geologic wonders of Jewel Cave, given to the newspaper by one of the Michaud brothers. "Stalactites and stalagmites of delicate structure and surpassing beauty, as well as more massive forms, abound in every room or gallery thus far penetrated." Jewel Cave is "now open for visitors," the newspaper proclaimed.[87] A year later, in 1901, the *Chronicle* reported that "one of the most interesting exhibits of the Mineral Palace [a place for exhibiting minerals, located in Deadwood] is the collection of crystals from Jewel Cave, 12 miles west of Custer. . . . . Several hundred pounds of the crystals are on exhibition, and they are almost identical with those coming from the crystal cave of Lawrence county."[88] Albert Michaud served on Deadwood's Quatro-Centennial committee that selected minerals for this exhibit.[89] The Jewel Cave developers probably

[83] *Custer Weekly Chronicle,* May 6, 1893.
[84] *Custer Weekly Chronicle,* May 13, 1893.
[85] *Custer Weekly Chronicle,* August 26, 1893.
[86] Kathy Mason, "Adapting to Endure: The Early History of Wind Cave national Park, 1903-1916," *South Dakota History* 32: 2 (Summer 2002), 150-52. Also see John W. Bohi, "Seventy-five Years at Wind Cave: A History of the National Park," *South Dakota Historical Collection* 31 (1962), 365-420 and Luella Agnes Owen, *Cave Regions of the Ozarks and Black Hills* (Cincinnati: The Editors Publishing Company, 1898), 118-61.
[87] "The Jewell [*sic*] Wind Cave," *Custer Weekly Chronicle* June 8, 1900.
[88] The Mineral Palace in Deadwood was torn down in 1902 to make way for a new hotel. "Custer County's Exhibit," *Custer Weekly Chronicle,* July 13, 1901; *Custer Weekly Chronicle,* March 8, 1902.
[89] "Quatro-Centennial Meeting," *Custer Weekly Chronicle*, June 8, 1901.

learned that the exhibition of specimens from nearby Wind Cave at the 1893 World's Columbian Exposition in Chicago had generated substantial national publicity for that cave, and hoped their exhibit in the Mineral Palace would do the same for Jewel Cave.[90]

In 1902, the promotional book *The Black Hills Souvenir* expounded on the "great wonders" of Jewel Cave, along with those of Wind and Crystal caves.

> The three great caves of the Black Hills . . . are the greatest and most wonderful caves known to exist anywhere. . . . Judging from the evidences of both Wind and Crystal Caves, the discoverers of Jewel Cave are working in the top of a yet unexplored cave of grand proportions, equal probably to Wind Cave in depth and extent.

The author claimed, probably erroneously, that since discovery of Jewel Cave by the Michaud brothers in 1900, "subsequent exploration opened thirteen miles of passageways and 270 chambers, some among the grandest to be seen in any cave." Photographs of "Onyx Hall" and a close-up view of "frost work" accompanied the article.[91] The Michauds and Bush could not have hoped for a more laudatory promotional description of Jewel Cave. In early April 1903, the local *Custer Chronicle* presented another short piece on Jewel Cave. "Jewell [*sic*] Cave . . . has proven under the development and investigation of its discoverers," the newspaper asserted, "to be one of the most wonderful and beautiful of all the grand subterranean vaults which have yet been explored by man."[92]

The Michauds also organized a dance club to help advertise and promote Jewel Cave. The Jewel Cave Dance Club first gathered at the newly completed log building near the cave in the fall of 1902. The dance club probably met at the two-story "Dance Hall" only in the colder months of the year, when mining and ranching activities slackened, and it may have existed for only two or three years.

The Jewel Cave Dance Club, which probably helped keep news of Jewel Cave in the minds of locals, included young single men from the surrounding countryside. In addition to Frank and Albert Michaud, the six young men who reportedly found the cave in 1897 (Joe Riley, Martin Riley, Mark Holmes, Clyde Holmes, Buck Raver, and Ray Sideley) were also members. The other early dance club members included: Charles Aikin,

[90] Kathy S. Mason, "Adapting to Endure: The Early History of Wind Cave National Park, 1903-1916, *South Dakota History* 32: 2 (Summer 2002), 152.
[91] Sanford, *Black Hills Souvenir,* 218.
[92] "The Jewell Cave," *Custer Chronicle,* April 4, 1903.

Eugene Aiken, Fred Babcock, George Babcock, Will Babcock, Fred Beck, Vance Coe, Andy Cook, Horace Fowler, Mel Hight, Guy Holmes, John Holiday, Eugene LaRue, Frank LaRue, Albia (or Albian) Lindstrom, Gus McKenna, Tommy Pope, Will Precuniar, Slim Richmond, Jim Riley, and George Small. (Interestingly, Charles Bush and Felix Michaud were not listed as members of the dance club, and the club apparently had no women members.)[93]

Several of the dance club members were listed in the June 1900 census for Custer County. In June 1900, George, William, and Fred Babcock were ages nineteen, seventeen, and fourteen, respectively; their

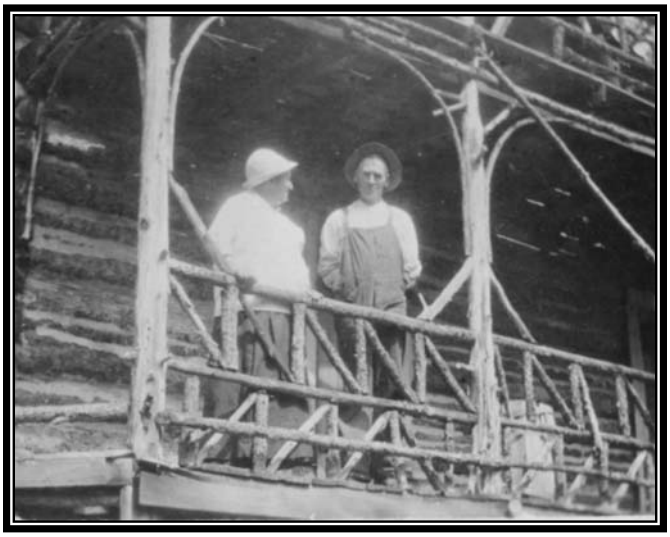

Figure 5-6. Two visitors on the front porch of the rustic two-story 18' x 30' house, completed around 1902. Photograph dates from around 1916, eight years after the creation of the Jewel Cave National Monument. Courtesy of Jewel Cave National Monument (JECA 1805), deposited at Mount Rushmore National Memorial.

father worked as a "stockman." Vance Coe, whose family lived near the Babcocks, was eighteen in 1900; his father farmed. Andy Cook, a "cowboy," was age twenty-one in June 1900. Albia Lindstrom, age eighteen and son of a farmer, worked as a "day laborer."[94]

The Jewel Tunnel claimants succeeded to some degree in attracting attention and bringing tourists to Jewel Cave. Members of a national

[93] Lyle Linch, typed notes from interview with Mamie Michaud, Francis Michaud and family, and Joe Riley, September 14, 1947.
[94] "Twelfth Census of the United States, Schedule No. 1—Population," Custer County, South Dakota, June 1900.

outdoor organization, possibly either the Audubon Society or National Geographic, came to Jewel Cave around 1902.[95] A prominent geologist also visited the cave in the early years of the Michauds' venture. But the trickle of visitors to Jewel Cave in the early years never became a torrent. [96]

The Michauds were only able to advertise Jewel Cave locally. Additionally, Jewel Cave was competing for attention with other attractions in the southern Black Hills, such as the more accessible Wind Cave National Park, which benefited from promotion by the Chicago & North-Western Railway (earlier known as the Fremont, Elkhorn, and Missouri Valley Railroad). After 1902, tourist literature on the Black Hills often did not even mention Jewel Cave.

Figure 5-7. Stone foundation of Michaud log house, May 2004. Photo by Gail Evans-Hatch, Courtesy of Jewel Cave National Monument, deposited at Mount Rushmore National Memorial.

A 1903-1904 tourist publication promoting the Black Hills devoted most of its attention to Wind Cave, which had been recently set aside as a national park (in early 1903), and, importantly, was accessible from the town of Hot Springs, a community served by the Chicago & North-Western Railway since 1886. Records of visitors to the cave, which were first kept in 1905, showed that Wind Cave received 2,887 people in 1906, 2,751 in 1907, and 3,171 in 1908. Jewel Cave, in contrast, had no one present after around 1905 to give regular cave tours and systematically

[95] Ira Michaud, transcribed tape-recorded remembrances, August 15, 1989.
[96] Neel and Fitzgerald, "Report on the Proposed Jewel Cave Game Preserve," September 1907.

record the number of cave visitors. The Michaud brothers were mostly occupied making a living away from the cave.[97]

Additionally, at Hot Springs, several stage lines ran round trip from the railroad depot daily to Wind Cave, less than ten miles to the north, in six to eight hours "at reasonable rates." This same booklet barely mentioned Crystal Cave (about twelve miles south of Deadwood) and Onyx Cave, "a point of interest near Hot Springs [four miles southwest of Wind Cave . . . but] not as large as Wind Cave." Jewel Cave was neither mentioned nor shown on the accompanying detailed map of the Black Hills.[98]

The absence of any mention of Jewel Cave in this 1903-1904 publication may be an indication of the Michauds' diminishing energy to promote Jewel Cave, as they struggled to overcome the challenges of poor road access, competition from Wind Cave's ascending status and publicity as a national park, and limited funding. They may also have been hampered by the fact that they had the legal right only to mine Jewel Cave and not own it. In addition to only charging a moderate fee for their services as guides in the caves, the Michaud family believed, later on, that local Custer businessmen discredited Jewel Cave to visitors, describing it as little more than a "rat hole in the ground."[99] The Michauds' limited funds apparently kept them from making continued extensive improvements to Jewel Cave and from promoting the cave more widely.[100] Jewel Cave, in short, had neither the economic or human support nor the regional and local transportation access to attract tourists in the early 1900s.

The Michauds' shortage of finances mandated that at least one of the three active partners work elsewhere for wages, while the other two worked to improve Jewel Cave at least initially. The Michauds and Bush probably adopted this plan nearly from the outset of their involvement with Jewel Cave. "One partner would go out and work, sometimes in the mines and other times in the timber and sawmills to replenish the grubstake and buy supplies," Ira Michaud later recounted.[101] Beginning around 1903, the two Michaud brothers as well as Bush spent only three or four months a year working on Jewel Cave and giving tours to visitors. At other times, they took seasonal jobs on nearby ranches or in local mines.[102]

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[97] O'Harra, *O'Harra's Handbook of the Black Hills*, 129, 165.
[98] *The Black Hills: A Description of a Wonderful and Picturesque Mining Region and Natural Sanitarium* (Chicago: Passenger Department, Chicago & North-Western Railway, 1903, 21-22.
[99] Michaud, transcribed tape-recorded remembrances, August 15, 1989.
[100] Neel Fitzgerald, "Report on the Proposed Jewel Cave Game Preserve," September 1907.
[101] Ira Michaud," Jewel Cave: What I Have Heard and Seen," December 1970.
[102] Neel and Fitzgerald, "Report on the Proposed Jewel Cave Game Preserve," September 1907.

The Michauds and Bush, around 1904, reportedly decided to apply for a patent to "Jewel Tunnel" claim. According to the Michaud family, the Michauds waited for months for word about their request for a patent from the Department of the Interior. Finally, after apparent protracted deliberations regarding Jewel Cave, the Michauds were reportedly denied a patent request for reasons that are still unclear. The Michauds and Bush may not have spent the required time or money to improve Jewel Tunnel as a mining claim and, thus, gain ownership. Perhaps the Jewel Tunnel claim partners had failed to make a convincing argument that the cave was a legitimate mineral claim.[103]

Wind Cave developers had recently encountered a similar difficulty. In 1900, after protracted litigation between different parties claiming separate mining and agricultural rights to Wind Cave, the federal government determined that the parties vying for control of Wind Cave had no legitimate claims, since there was insufficient evidence that the cave had mineral or agricultural value. (The absence of legitimate claims reportedly facilitated the creation of the Wind Cave National Park three years later.)[104] Whatever the reason(s), the Department of the Interior denied the Michaud brothers and Charles Bush the coveted patent for Jewel Cave.

Michauds' Continued Struggle

With hopes of obtaining fee-simple title to Jewel Cave and the ground above it now dashed, the original group of four Jewel Tunnel claimants began to go their separate ways beginning in late 1904. Albert Michaud turned away from Jewel Cave to other pursuits to make a living. In late December 1904, he filed a claim on mining property he intended to work (for which he was granted a patent in March 1909).[105] Around 1905, Albert settled on a homestead on Ruby Gulch, a small tributary of French Creek near Custer, where an early gold-mining district had recently regained prominence after the discovery of a rich gold ledge in the area.[106] In 1905, Charles Bush became seriously involved in horse ranching, about ten miles from Custer. In February that year, he borrowed $100 from the Custer County Bank to purchase four gelding horses. Grace Lois Bush Hatfield, Charles Bush's daughter, recalled many years later that her father probably

[103] Ira Michaud, "Jewel Cave: What I Have Heard and Seen," December 1970; Mike Hanson, editor, "Jewel Cave National Monument," Paha Sapa Grotto's *1988 Guidebook,* 1988.
[104] Mason, "Adapting to Endure," 154-155.
[105] United States to Albert Michaud, NW ¼ of Section 25, T2S, R6E, BNW, December 31, 1904, Vol. 3, p. 109, Custer County Courthouse.
[106] Ira Michaud, "Jewel Cave: What I Have Heard & Seen," December 1970.

built a log cabin for himself on his horse ranch. Like so many early Euro-American settlers, "he was a natural born carpenter," Grace Hatfield observed.[107]

On November 11, 1905, Frank and Albert Michaud sold part of an interest in the Jewel Tunnel claim for $600 to Bertha Cain of St. Louis, Missouri. On November 15, Frank and Albert Michaud and Bertha Cain filed a new Location Certificate on the "Jewel" lode, "discovered about the year 1900."[108] This claim, which encompassed twenty acres, was entered on November 17. According to a U.S. Forest Service "Report on Mining Claim" for Jewel Lode, completed in February 1908, the claim had not yet been surveyed.[109] On November 28, 1905, Frank Michaud purchased one-fourth interest in Jewel Tunnel claim from Charles W. Bush for $300. By this time, Bush had already moved to Orient, Adair County, Iowa, where he took up farming.[110] Finally, little more than a month later on January 3, 1906, Frank Michaud and Albert Michaud sold another one-sixth interest in Jewel Cave for $300 to Bertha Cain.[111]

Felix Michaud, who appears to have been excluded from the Jewel Cave patent process and was not included in the 1905 legal transactions involving Jewel Cave, decided to leave the Custer area as winter approached in 1905. After thirty years residence there, Felix Michaud, then in his mid-sixties, left his cabin on Lightning Creek and traveled 1,800 miles to the home of his three other children (Edward, Annie, and Alfred) in Terrace, British Columbia. In February 1906, Felix Michaud died near Terrace and was buried on the banks of the Skeena River.[112]

Frank's life also took a turn in 1905. On February 12, 1905, Frank married Mary ("Mamie") Katherine Riley, the sister of Joseph and Martin Riley, two of the six boys who claimed to have "discovered" Jewel Cave in 1897 and, later, became members of the Jewel Cave Dance Club. Frank

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[107] Charles Bush, payable to Custer County Bank, $100, Chattel Mortgage, February 7, 1905, Custer County Courthouse; Grace Lois Hatfield, letter to Monta Huseby, July 31, 1984, Library, JECA.

[108] When a claim was abandoned (not worked for a period of time -- usually one year) a new location certificate could be filed resurrecting the original claim, provided no one else in the interim filed a certificate of their own.

[109] An official survey as one of the first steps required to qualify for a patent.

[110] Photographs of Charley Bush and other members of the Disciples of Christ Church Bible Study class, including his wife Laura Bush, Library, JECA.

[111] Frank Michaud and Albert Michaud to Bertha Cain, November 11, 1905, "Mining Deed Record," Vol. 5, p. 124; Charles W. Bush to Frank W. Michaud, November 28, 1905, "Mining Deed Record," Vol. 5, p. 120; and Frank W. Michaud and Albert Michaud to Bertha Cain, January 3, 1906, "Mining Deed Record," Vol. 5, p. 122, all at Custer County Courthouse.

[112] Monica Michaud Weldon, e-mail communication with Yvonne Moen, Terrace, British Columbia, July 19, 2004, forwarded to Gail Evans-Hatch, July 26, 2004.

Michaud may have gotten to know Mamie Riley at the "Dance Hall" at Jewel Cave.

Mary Katherine Riley was born to Matthew Riley and Sarah Jane McKenna Riley in Dubuque, Iowa, on May 1, 1883. After moving to the Fort Robinson, Nebraska, area in the mid-1880s, the Riley family, which included two boys younger than Mary Katherine, relocated to the Black Hills around 1892 and settled on a branch of Lightning Creek in the vicinity of Four Mile, about four miles west of Custer on the old Cheyenne Trail.[113]

Figure 5-8. Thirty-three-year-old Frank Michaud and twenty-one-year-old Mary Katherine Riley Michaud in their wedding portrait, February 22, 1905. The Michaud couple raised five children between 1905 and 1913. Courtesy of Mrs. Ira Michaud, Billings, Montana.

Like Felix Michaud, the Riley family took up horse ranching. The marriage in 1905 of thirty-three-year-old Frank and twenty-one-year-old Mamie merged the Michaud and Riley families.[114]

The couple first lived in the two-story log "Dance Hall" at Jewel Cave while Frank probably continued to make some improvements to the cave and occasionally guided tourists through the cave. During the first

[113] The 1915 South Dakota census notes that Mamie Riley had arrived in South Dakota twenty-six years earlier, or in 1892. Census record, "Mame [*sic*] Michaud," 1915, South Dakota State Census, South Dakota State Archives, Pierre, South Dakota. Also see Ira Michaud, "Jewel Cave: What I Have Heard & Seen," December 1989.

[114] "Services Held for Mamie Michaud," *Custer County Chronicle,* March 18, 1965; Birth records of Michaud children (James Francis, Ira, Joseph, Marie Jane, Mary Anna), Custer County Courthouse; James Francis Michaud, "Certificate of Death," May 22, 1986, Department of Health, State of South Dakota; "Michauds, Rileys 'Come Home' for Family Reunion," *Custer County Chronicle,* September 8, 2004.

three years of their marriage, Mamie Michaud gave birth to her first two children: James Francis (born December 3, 1905) and Ira (born March 2, 1907). Frank's occupation was listed as "farmer" (also "ranch man") when James Francis was born in 1905. He most likely worked on a ranch near Jewel Cave. By the early spring of 1907, the Michaud couple and their two children had moved to Myron O'Connor's sawmill, where Frank was employed as a "laborer."[115] O'Connor, a resident of the Custer area since 1888, had operated sawmills successfully in several different locations in the Black Hills. When Michaud worked at O'Connor's in the early 1900s, the mill was moved often to remain close to timber stands. (The O'Connor Mill remained in business, operating at different locations, for around a century.)[116]

In 1905 and early 1906, Frank and Albert Michaud tried one last time to obtain ownership of Jewel Cave by meeting the requirements of mining law. The failure to obtain a patent for Jewel Cave, the disappointing financial return from the Michauds' promotional efforts, and Frank's marriage to Mamie in 1905 put increasing pressure on Frank to bolster his income. In late 1905 and early 1906, Frank Michaud, Albert Michaud, and Bertha Cain located five mining claims in the Black Hills Forest Reserve about twelve and one-half to thirteen miles west of Custer in Hell Canyon. "Jewel" Lode claim, encompassing Jewel Cave, was located on November 15, 1905. Four other adjoining claims were located between January 22 and February 24, 1906: "Golden Rod," "Cleveland" (both on January 22, 1906), "Denver" (on January 23), and "Gem" (on February 24).

All five claims adjoined each other, could be reached from the two-mile-long road to Jewel Cave built by the Michauds in 1900, and encompassed twenty acres each, or a total of 100 acres. The five claims, which together nearly equaled the 103-acre "Jewel Tunnel" claim located by the Michauds and Bush in 1900, covered much of the same land included in the 1900 Jewel Tunnel claim. The U.S. Forest Service reports on the five mining claims, completed in February 1908, noted that none of these claims had been surveyed or patented at the time the report was completed[117]

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[115] Birth records for James Francis, Ira, Marie Jane, and Mary Anna Michaud, give Frank's occupation. Birth records, Custer County Courthouse; South Dakota census records, F. W. Michaud, 1905 and 1915, South Dakota State Archives, Pierre, South Dakota; Ira Michaud, "Jewel Cave: What I Have Heard & Seen," December 1970; Ira Michaud, transcribed tape-recorded remembrances, August 15, 1989; Jessie Sundstrom, editor, *Custer County History to 1976* (Custer, South Dakota: Custer County Historical Society, 1977), 75 (photo of New York Mica Mine workers with Frank Michaud in the group).

[116] Martha Linde, *Sawmills of the Black Hills* (Rapid City, South Dakota: Martha Linde, 1984), 13.

[117] U.S. Forest Service, "Report on Mining Claim," (Jewel, Golden Rod, Cleveland, Denver, and Gem claims), located November 15, 1095, January 22, 1906, January

The Michaud brothers' and Bertha Cain's location of the five mining claims above Jewel Cave was just one more attempt b the Michauds since their arrival in the Black Hills to find a way to make a living from the unique natural attributes of Jewel Cave, both as a miner resource and as a tourist attraction. Between 1900 and 1908, their dual approaches to developing the resources of Jewel Cave proved only marginally successful.

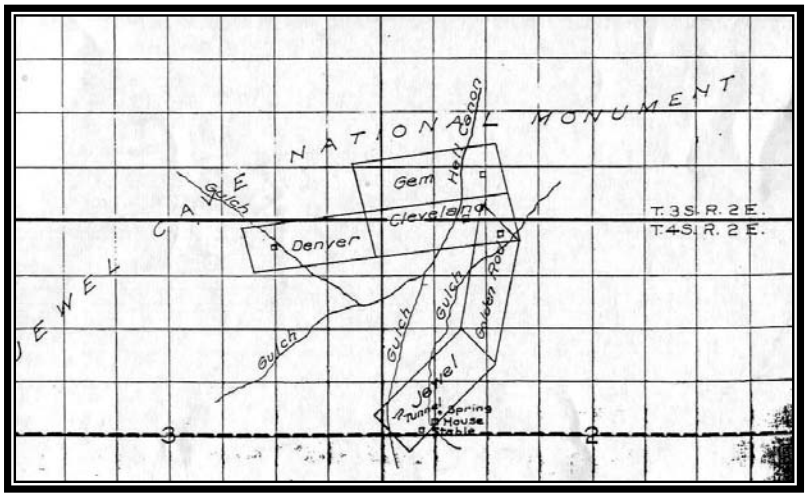

Figure 5-9. This sketch map shows the five mining claims located by the Michaud brothers and bertha Cain in late 1905 and early 1906, which fell nearly in the boundary of Jewel Cave National Monument when it was created in February 1908. The entrance to Jewel Cave and the Michaud log house and stable are located inside the Jewel mining claim. From "Report on the Jewel et al Lode Mining Claims and the Jewel Cave," June 1911. Courtesy of Jewel Cave National Monument (JECA 1655/126), deposited at Mount Rushmore National Memorial.

23, 1906, February 24, 1906, respectively, forms completed February 19, 1908, Library, JECA.

Chapter 6

Jewel Cave Under the U.S. Forest Service,

1905 - 1927

Introduction
Outdoor Recreation and Nature Preservation
New Approach to Promoting Jewel Cave
Antiquities Act of 1906 and Emerging Preservation
Creation of Jewel Cave National Monument
Conservation Versus Preservation
Jewel Cave Landscape under the Forest Service

Introduction

The Michaud brothers encountered Jewel Cave just as outdoor recreation in the United States was becoming an increasingly popular pursuit of middle-class Americans. Undoubtedly, they had become aware of the private efforts made to develop and promote various scenic spectacles to the general public, and the resulting great public interest in places such as Wind Cave, southeast of Custer, and Crystal Cave, about twelve miles south of Deadwood in the northern Black Hills. The two brothers may have come to the Black Hills intending to ranch or to mine, but they also saw the potential of Jewel Cave as a source of income. In order to legitimize their possessory claim of ownership to Jewel Cave and in hopes of making a living, at least in part, they used Jewel Cave as a mineral resource. As the Black Hills and its caves attracted an increasing number of the new middle-class outdoor recreationists, Frank and Albert Michaud devoted great effort to bringing Jewel Cave to the attention of the public. They supported designation of Jewel Cave as a game preserve, hoping that it would help draw people to the cave, just as national park status had for Wind Cave.

The emergence of a new environmental ethic in the early 1900s—protection of natural resources for public enjoyment—seemed to offer some possibilities to the Michauds in their desire to make Jewel Cave a tourist destination. Less than two years after the passage of the 1906 Antiquities Act, designed to protect features of scientific and scenic interest, U.S. Forest Service personnel and President Theodore Roosevelt applied the provisions of this act to create Jewel Cave National Monument in February 1908. The diminutive Jewel Cave, the first cave declared a national mounument, thus became an island representing the new preservation policy approach to natural features, inside a national forest devoted to the scientific management (then known as "wise use") of resources.

For the next two decades, Forest Service administrators, as well as the Michauds, struggled to harmonize these two approaches to managing Jewel Cave, but no money had been budgeted for this purpose. Without direction or funding from any federal agency, Frank and Albert Michaud attempted to both mine the cave and protect it for visitors. Countless letters, investigations, and reports on the subject of managing Jewel Cave, written by the Michauds, heads of the Departments of Agriculture and the Interior, and Forest Service personnel between 1908 and 1927, failed to bring clarity to the conundrum of Jewel Cave National Monument's primary importance and purpose. Although tourists came in increasing

numbers to experience the panoply of outdoor recreational delights of the Black Hills, Jewel Cave received only passing mention in tourist literature. The cave's heavy wooden door remained closed and locked for many years as all associated with Jewel Cave considered whether it was a mine, a protected tourist attraction, or both.

The death of Frank Michaud in 1927 and the sale soon afterward of the Michaud investment in the cave's development as a mine and tourist attraction finally broke the stalemate over management of the cave. The path suddenly cleared for a local group of politically influential entrepreneurs from nearby Custer and Newcastle, Wyoming, to convince the Forest Service of the worthiness of their plan to develop Jewel Cave as a tourist attraction. By the late 1920s, the regional and national context had dramatically changed. The concept of nature preservation had been embraced and institutionalized in the formation of many state and national parks, preserves, and monuments. Outdoor recreation and tourist ventures to natural places had become an increasingly popular pursuit for middle-class Americans. And the growing affordability of the automobile and the improvement of roadways for auto traffic made Jewel Cave, along with many other attractions in the Black Hills, accessible to an eager public.

Outdoor Recreation and Nature Preservation

Frank and Albert Michaud relentlessly pursued the development of Jewel Cave during an era of growing public and government interest in outdoor recreation and nature preservation. Beginning in the last quarter of the 1800s, a small but growing number of Americans began to appreciate nature not only as a source of raw material for manufactured products and commodities, but also for its cerebral and emotional benefits. The public watched with a sense of unease as areas of unsettled land diminished in the American West and living conditions in burgeoning industrial urban centers worsened. The nation felt the loss of, and nostalgia for a simpler, quieter association with nature.[1] This discontent with the emerging industrialized urban "civilization," along with a growing appreciation of the aesthetic and ethical value of nature, remote and wild as well as manicured, found expression in a large number of popular objects, organizations, and social movements. Art and architecture, in its subjects and design, showed

[1] Numerous books have been written on the subject of Americans' changing attitudes toward nature and their growing reverence for nature in the late 1800s and early 1900s. Classic books on the subject include: Hans Huth, *Nature and the American: Three Centuries of Changing Attitudes* Lincoln: University of Nebraska Press, 1990; Peter J. Schmitt, *Back to Nature: The Arcadian Myth in Urban America* Baltimore: The Johns Hopkins University Press, 1990.

evidence of this new veneration of nature. Art nouveau designs often took their inspiration from organic forms found in nature. The Arts and Crafts movement in art, interior design, and architecture emphasized handmade objects and buildings. Landscape architecture adopted the theme of naturalistic, seemingly untouched garden designs.

Numerous outdoor clubs formed for enthusiasts of hiking, mountaineering, hunting, fishing,, and camping. The 1876 formation of the Appalachian Mountain Club in the East was soon followed by the founding of the California-based Sierra Club (1892), Portland, Oregon's Mazamas (1894), and Seattle's Mountaineers (1896). The Campfire Club of America formed in 1897.[2]

The Boone and Crockett Club, named after famous frontiersmen Daniel Boone and Davy Crockett, became one of the nation's leading, politically influential hunting clubs. Theodore Roosevelt, soon after his two years spent ranching and hunting in the Dakota Badlands, helped organize, in 1888, the all-male Boone and Crockett Club, whose primary objective was to promote scientific inquiry, travel, and exploration regarding game animals and their habitats, and to preserve and perpetuate large game so that good hunting would last for generations. Roosevelt, sportsman and long-time *Forest and Stream* editor George Bird Grinnell, and, later, forester Gifford Pinchot (who joined the club in 1897), were among the club's most active members and leaders.

The Boone and Crockett Club was one of many sportsmen's clubs that followed the British example of creating animal preserves for wealthier English sportsmen in order to maintain the ecosystems of large areas where game roamed. The desire to perpetuate game and its habitat heightened in the late 1800s, as settlement of new lands increasingly encroached on game ranges. In 1871, the Blooming Grove Park Association established the first large game preserve, consisting of 12,000 acres in Pike County, Pennsylvania. Along with protecting deer in a park, the preserve aimed to protect and propagate game animals, birds, and fish for the club members to hunt, shoot, and catch. Shortly after creation of Yellowstone National Park in 1871, a few sportsmen recommended that the park could serve as a game preserve for bison, which were facing extinction. In the early 1890s, a new sportsmen's club established a game preserve in a section of the Adirondack Mountains in New York.[3]

The game preserve idea reached the Black Hills at least as early as 1900. F. C. Crocker authored an article in *Outing Magazine* about his adventure hunting black-tailed deer in the Black Hills. Although he acknowledged that there were still a good number of Black-tail deer in the

[2] Nash, *Wilderness and the American Mind,* 143-54.
[3] John F. Reiger, *American Sportsmen and the Origins of Conservation* (Norman: University of Oklahoma, 1986), 97-100.

Hills, he bemoaned the eradication of bison, elk, and mountain sheep and the diminishing number of bear. "The Black Hills," Crocker exclaimed, "could be made one of the finest game preserves in the country if it were stocked with elk and buffalo and protected, as is the Yellowstone Park."[4] Thirteen years later, a game preserve encompassing ninety-six square miles was set aside (and eventually enclosed by a high fence) as a game preserve for deer and transplanted elk and buffalo, inside the newly created Custer State Park, northeast of Custer.[5]

Boone and Crockett Club members' interest in protecting big game and their habitat naturally turned toward protecting game from poachers and railroad developers at Yellowstone National Park in northwestern Wyoming. In January 1891, the Boone and Crockett Club leaders formulated a series of resolutions urging the federal government to protect and maintain the wildlife resources of Yellowstone National Park. Leaders of the Boone and Crockett Club fully believed that "the large game of the Continent would be practically exterminated except in such preserves as the Yellowstone Park."[6] It may have been no accident that acting under the authority of the 1891 Forest Reserve Act, which emphasized preservation over commercial use, President Benjamin Harrison proclaimed, on March 30, 1891, the creation of the nation's first forest reserve—Yellowstone Park Forest Reserve, adjacent to Yellowstone National Park.[7]

The growing appreciation of nature in the late 1800s also found expression in a movement to protect natural areas of special scientific interest or aesthetic beauty. Unlike the notion of protecting natural resources for future use, which became the philosophical foundation of the forest reserves, a different intellectual current gave birth to the preservation of natural resources for public enjoyment and enlightenment. Cemeteries, city parks, and medicinal hot springs were landscaped to resemble manicured natural parklands. Concern for the loss of a wilder nature led to the creation of large natural areas that were to be protected from private development and damage. In 1864, a small group of Californians persuaded a U.S. senator to present legislation that would protect the Yosemite Valley and a grove of Giant Sequoias from private use and abuse and reserve it for public outdoor recreation. Congress and President Abraham Lincoln received the congressional bill favorably; the Yosemite Valley and the Mariposa Grove became the first federally legislated parks

[4] F. C. Crocker, "Hunting Black-Tail Deer: The Black Hills as a Game Preserve," *Outing Magazine,* November 1900, 145-46.
[5] George W. Roskie, "State Game Preserve," *Pahasapa Quarterly* 4: 3 (April 1915), 9-14.
[6] Grinnell, quoted in Nash, *Wilderness and the American Mind,* 126.
[7] John F. Reiger, *American Sportsmen and the Origins of Conservation* (Norman: University of Oklahoma Press, 114-41, 56-59.

set aside for their aesthetic and scientific value. (California administered these parks until 1890 when the federal government assumed responsibility for their administration.) Eight years later in 1872, the federal government set aside a huge 3,300 square-mile area in northwest Wyoming as Yellowstone National Park. Preservation of nature and placing the public good above private commercial gain were principles underlying the creation of Yellowstone National Park and seven more national parks established by Congress between 1875 and 1903, when Wind Cave became a national park.[8] These parks, encompassing thousands of acres, were to be the "Nation's pleasuregrounds and the Nation's restoring places, recreation grounds," according to staunch national park advocate J. Horace McFarland, writing in 1916.[9]

The Black Hills offered many possibilities for outdoor recreation. In the early 1890s, less than two decades after gold brought Euro-Americans to the Hills, visitors from hot, humid Midwestern cities such as Lincoln, Nebraska, began spending their summers in the Custer area.[10] In 1891, Sylvan Lake was created six miles north of Custer and became "an important adjunct to Custer's numerous advantages as a summer resort." The construction of the three-story, sixty-room luxury Sylvan Lake Hotel, between 1893 and 1895, added an "unrivaled home of comfort" alongside the lake's "sun-kissed surface reflecting a medley of scenic attractions which formed a picture of rarest panoramic beauty" amid stately cliffs.[11] Visitors came from larger towns and cities all over the

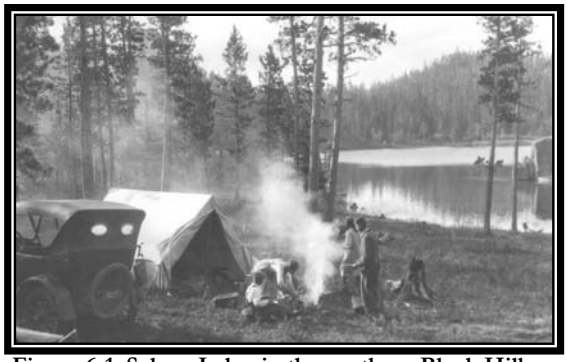

Figure 6-1. Sylvan Lake, in the southern Black Hills, became a popular site for camping, fishing, and hiking in the early twentieth century, especially after the automobile made it accessible to middle-class Americans. Courtesy of the Devereaux Library, Archives (GLS-1131), South Dakota School of Mines and Technology, Rapid City.

[8] Alfred Runte, *National Parks: The American Experience* (Lincoln: University of Nebraska Press, 1987), 28-47; Reiger, *American Sportsmen,* 93-113. The literature on the history of national parks is exhaustive.
[9] Quote in Barry MacIntonsh, *The National Park: Shaping the System* (Washington, DC: Department of the Interior, 1984), 12.
[10] *Custer Weekly Chronicle,* June 17, 1893.
[11] "Sylvan Lake Hotel," *Custer Weekly Chronicle,* June 15, 1895. Also see: "A Crowning Attraction," *Custer Weekly Chronicle,* July 18, 1891; "Sylvan Lake," *Custer*

Midwest to enjoy Sylvan Lake and its hotel, which, at an elevation of about 6,100 feet, was always "cool on the hottest day" and "surrounded by a matchless museum of nature's rarest and most attractive scenic features."[12] In the late 1890s, Sylvan Lake joined Hot Springs and Wind Cave as prominent points in the southern Black Hills that attracted summer vacationists.

In 1908, South Dakota promoter and politician Doane Robinson, in an article touting the Black Hills as a "paradise for campers," claimed that "many localities in the Hills already have acquired National prominence, as Summering resorts, as the Hot Springs and Sylvan Lake, . . . [and] "Spearfish Canyon, a Yosemite in miniature. . . . Everywhere in the mountains where creeks flow and pine trees grow, the rest hunter may pitch his camp and enjoy native beauties and climatic conditions which afford enjoyment, rest, and invigoration."[13] Stark pinnacle rock formations, pine-rimmed lakes, fishing and hunting throughout the Hills, and the gentling hot springs in the southern Black Hills were among the area's attractions. The rapid growth of outdoor recreation, including hunting, fishing, hiking, camping, and rock climbing, made the Black Hills an easy sell. The railroads joined with merchants in Bismarck, Sioux City, Pierre, Laramie, Cheyenne, and Custer to sing the praises of Wind Cave, Crystal Cave, and other caves. It wasn't unreasonable for the Michaud brothers to envision tourists queued up to wander through the crystalline passages of Jewel Cave.

New Approach to Promoting Jewel Cave

As early as 1903, the Jewel Cave partners' need for more substantial income probably prompted the Michauds and Bush to think differently about how they might promote the cave and, hopefully, benefit financially from the time and money they had invested in Jewel Cave. The establishment of Wind Cave National Park in 1903 provided a local example of a similar resource that had achieved renown and promised to bring some financial benefits to that cave's owners and promoters.

In early 1900, before the Michaud brothers arrived in Hell Canyon, Wind Cave had attracted enough national attention to prompt Secretary of

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Weekly Chronicle, April 29, 1893; *Custer Weekly Chronicle,* June 3 and August 12, 1893; "Sylvan Lake," *Custer Weekly Chronicle,* June 20, 1895.

[12] "Sylvan Lake Hotel," *Custer Weekly Chronicle,* September 14, 1895; "The Sylvan Lake Hotel," *Custer Weekly Chronicle,* June 27, 1895. Also see *Custer Weekly Chronicle,* August 21, 1897.

[13] Doane Robinson, "The Picturesque Black Hills a Paradise for Campres," *Dagotah Magazine,* October 1908, unnumbered page.

the Interior E. A. Hitchcock to recommend that certain Wind Cave lands be temporarily withdrawn from settlement, entry, or sale while consideration was given to setting it aside as a national park. Additional lands surrounding Wind Cave were withdrawn from settlement over the next two years. During that time, government officials and scientists visited and studied the cave. In a May 24, 1902 report, General Land Office special agent M. A. Meyendorff (then overseeing the area of Wind Cave that had been withdrawn from settlement) noted that Wind Cave might contain as many as 3,000 chambers and 100 miles of passages. "To uncover its wonders and beauty," Meyendorff wrote, "to open the door to scientific research, the work of exploration should be carried on systematically. . . . The only manner in which work can be prosecuted would be by annual appropriations of from $2,500 to $10,000."[14] Meyendorff and some other scientists speculated that Wind Cave might be the largest cave in the United States. Meyendorff reported that he could offer it "a second place to the Yellowstone . . . and declare the Wind Cave superior, in the point of attractiveness, to Mammoth Cave," the cave against which all others were then compared.[15] Wind Cave and Yellowstone National Park were also analogous in that they shared, it was thought, similar geothermal origins. Geologists believed Wind Cave was an extinct geyser.[16]

In June 1902, a bill to create Wind Cave National Park passed the U.S. Senate. Speaking before the House two days later, staunch national park supporter Representative William Lacey of Iowa pronounced to his colleagues that the Wind Cave area "is substantially what Yellowstone country would be if the geysers should die. . . . The active forces are no longer in operation . . . but a series of wonderful caverns remain."[17] Early in the next session of Congress, the Wind Cave legislation passed the House. On January 9, 1903, President Theodore Roosevelt signed the bill into law, thus establishing Wind Cave National Park, the eighth national

[14] Quoted in John Bohi, "Seventy-Five Years at Wind Cave: A History of the National Park," *South Dakota Department of History: Report and Historical Collections* 31 (1976
2), 417-18.
[15] Quoted in Kathy S. Mason, "Adapting to Endure: The Early History of Wind Cave National Park, 1903-1916," *South Dakota History* 32: 2 (Summer 2002), 156.
[16] H. M. Riseley, "Wind Cave National Park," *South Dakotan* 6 (July 1903), 23-25. For another contemporary statement about the similar geothermal natural conditions that created the Yellowstone geysers and the Black Hills' caves, see Luella Agnes Owen, *Cave Regions of the Ozarks and Black Hills* (Cincinnati: The Editor Publishing Company, 1908), 211.
[17] Quoted in Mason, "Adapting to Endure," 157.

park created to that date.[18] Roosevelt, around the same time, appointed his old ranching friend and Black Hills Forest Reserve Supervisor Seth Bullock as custodian of Wind Cave National Park until the selection of the park's first superintendent in August 1903. That same month, Seth Bullock recommended that the regulations in force at Yellowstone and Yosemite national parks be adopted for Wind Cave.[19]

News of the designation of Wind Cave National Park reverberated around the Black Hills. Only two months after the park was created, the *Custer Chronicle*, on April 4, 1903, reported that Jewel Cave might be considered for a similar status. "We have heard it whispered," the *Chronicle* divulged to its readers, "that the government is about to appropriate this cave and make it a national resort." The article continued, about the acquisition of the cave:

> This the government has a right to do under the law and it also has the right to be just if it cannot be generous, and to renumerate [*sic*] the boys who found it, and who have spent two years of time and labor upon it. A great nation like the United States cannot afford to be mean and it is presumable that . . . [the government] will do what is right with the boys who at present own it. The property is at present claimed by Mr. Frank W. Michaud, Albert Michaud and Chas. Bush.[20]

The author of the *Chronicle* expressed clear empathy for the Jewel Cave claimants and their desire to sell it to the federal government at a reasonable price.

[18] National Parks created before Wind Cave include: Yellowstone (1872), Mackinac Island (1875; later ceded to Michigan), Sequoia (1890), General Grant (1890), Yosemite (1890), Mount Rainier (1899), and Crater Lake (1902). Barry MacKintosh, *The National Parks: Shaping the System* (Washington, DC: U.S. Department of the Interior, 1985), 16.
[19] Bohi, "Seventy-Five Years at Wind Cave," 418-22; Mason, "Adapting to Endure," 157; Risely, "Wind Cave National Park," 23-25.
[20] *Custer Chronicle,* April 4, 1903.

One can only speculate about the reasons the idea of a Jewel Cave National Park apparently never left the Black Hills. Jewel Cave, unlike Wind Cave, was on forest reserve land, managed under the purview of Forest Bureau head Gifford Pinchot for the scientific management, not the preservation, of resources. The Michauds, in fact, had attempted to demonstrate Jewel Cave's value as a mining site by filing mining claims for Jewel Cave. Additionally, ranches in the vicinity of Jewel Cave used considerable land around Hell Canyon for grazing, a permitted and valued use on the Black Hills Forest Reserve. Thirdly, Wind Cave, since 1893, had achieved national recognition as a place of great scientific interest and natural beauty. Jewel Cave had not gained the same reputation in the three short years since the Michauds began developing the cave. Finally, Wind Cave had been able to develop as a tourist attraction largely due to the reasonably good road access to it, regular stages from Hot Springs, and the promotional efforts of a Hot Springs hotel manager who owned an interest in Wind Cave. In the brief five-year span between 1903 and 1908, the national context for nature preservation policy-making would alter in significant ways, thus opening up new avenues for the protection of Jewel Cave while closing the possibility of national park status.

Figure 6-2. In 1906, William H. Parker, a lawyer and politician from the Black Hills, supported the local campaign to set aside Jewel Cave as a game preserve. Courtesy of the South Dakota State Historical Society-State Archives (Box P129).

Although Jewel Cave would never achieve national park status, the media attention given to the process and consummation of creating Wind Cave National Park undoubtedly raised the awareness of Black Hills residents, including the Michauds, of nature protection and even preservation as a possible public land management option. Not long after the creation of Wind Cave National Park, the Michauds pursued another approach to promoting and protecting Jewel Cave, an approach that embraced the new current of nature preservation. Frank, either alone or with Albert and new Jewel Cave partner Bertha Cain, determined that Jewel Cave might stimulate more interest and draw more tourists if there was an additional attraction—big game animals. (Wind Cave National Park took this approach also, in 1912.) C. E. Smith, an attorney and judge in Custer, may have been involved in organizing the

local movement to set Jewel Cave aside for preservation.[21] The Michauds, in concert with others, crafted the idea of establishing a federally administered "Jewel Cave Game Preserve." Beginning in 1906, a petition circulated among local Black Hills residents to create such a game preserve encompassing an area of sixty square miles[22] in the Black Hills National Forest, that included Jewel Cave.

William H. Parker was one of several prominent residents that championed creation of the game preserve.[23] Parker, a native of New Hampshire, a veteran of the Civil War, and a graduate of the Columbian College (George Washington University) Law School in 1868, served as U.S. attorney of Colorado in the mid-1870s and moved to Deadwood, Dakota Territory, in 1877. He soon became prominent in state politics; he served in the territory's constitutional convention, which created the constitution of the new state of South Dakota, and was later elected a representative in the state's first legislature. He gained a reputation for his generous nature and desire to help others. Parker was a prosecuting attorney for Lawrence County (Deadwood) when he first began supporting the Jewel Cave Game Preserve proposal. In early March 1907, he began serving his first term as a South Dakota representative in the U.S. Congress.[24] Parker's popularity and his political prominence undoubtedly pushed the game preserve idea forward for serious consideration.

Sometime in mid-1907, Congressman Parker had forwarded the petition to establish the sixty-square-mile Jewel Cave Game Preserve to Chief Forester Gifford Pinchot in Washington, D.C.[25] Pinchot, trained in managing forests as a renewable resource at Yale University and at the French Forest School in Nancy, France, took credit that same year for coining the term "conservation" to denote the concept of managing the

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[21] Bertha Cain, in a May 29, 1908 letter to President Howard Taft, "one of the citizens of Custer, a lawyer, [later named Mr. Smith, who since moved to Omaha] came to my father and partners [the Michauds] to take charge of the matter [getting game preserve status for Jewel Cave]. Bertha Cain, letter to President Howard Taft, May 29, 1908, Library, Jewel Cave National Monument.

[22] The proposed Jewel Cave Game Preserve included: T4S, R2E, Sections 1-12; all of T3S, R2E; and T2S, R2E, Sections 25-36, Black Hills Meridian, equaling a tract six miles wide and ten miles long.

[23] Neel and Fitzgerald, "Report on the Proposed Jewel Cave Game Preserve," September 1907.

[24] *Biographical Directory of the American Congress, 1774-1949* (Washington, DC: Government Printing Office, 1950), 1652; Doane Robinson, *History of South Dakota, Vol. II* (no city: B. F. Bowen & Co., Publishers, 1904), 1354; *William H. Parker, Memorial Addresses*, 60th Cong. 2nd Sess. (Washington, DC: 1909), 12.

[25] Overton Price, associate forester, US Forest Service, letter to Smith Riley, chief inspector, District #2, U.S. Forest Service, July 13, 1907, Library, Mount Rushmore National Memorial.

whole environment "efficiently" for the long-term use. In July 1907, Chief Forester Pinchot instructed Smith Riley, Forest Service chief inspector for District # 2, to examine the proposed Jewel Cave Game Preserve.[26] Also, in late July, Black Hills National Forest Supervisor J. F. Smith asked Harry Campbell Neel to examine and report on the proposed Jewel Cave Game Preserve.[27]

Harry Campbell Neel came to the Black Hills as a young man with a thorough training in forest management principles, as understood, taught, and practiced in the early 1900s in the federal conservation movement. Born in Dravosburg, Pennsylvania, in 1882, Neel received his bachelor's of science degree from Pennsylvania State College (now University) and a master's of science degree from Yale University in 1905. Since the 1870s, Yale's Sheffield Scientific School had grown in stature as the leading American university with a curriculum in forest management, influenced by professor William Henry Brewer's teaching on forest conservation principles. Chief Forester Pinchot had been introduced to some of these concepts fifteen years before Neel arrived at Yale. Quite naturally, Harry Neel joined the U.S. Forest Service in late 1905. After working briefly for the Forest Service in New England and Colorado, Neel went to the Black Hills National Forest as a forest assistant, around early 1907.[28]

Figure 6-3. USDA Forest Service employee Harry C. Neel, along with C. W. Fitzgerald, discouraged the creation of a Jewel Cave game preserve and recommended the establishment of Jewel Cave National Monument in 1907.

In August and early September 1907, Harry C. Neel and surveyor C. W. Fitzgerald conducted their investigation of the proposed sixty-square-mile Jewel Cave Game Preserve. In early November 1907, they submitted their report, which included several photos of the proposed preserve,

[26] Smith Riley, chief inspector, District # 2, U.S. Forest Service, letter to C. W. Fitzgerald, surveyor, U.S. Forest Service, July 26, 1907; Smith Riley, letter to J. F. Smith, Black Hills National Forest, forest supervisor, August 1, 1907, both at Library, Jewel Cave National Memorial.
[27] Smith Riley, letter to C.W. Fitzgerald, July 30, 1907, Library, Mount Rushmore National Memorial.
[28] "Neel, Harry Campbell," *National Cyclopedia of American Biography*, 539.

to Chief Forester Gifford Pinchot. Neel and Fitzgerald presented a detailed description of the topography, hydrology, and vegetation of the proposed game reserve. Of particular note was the existence of permanent springs used by grazing stock in the area, merchantable "bull" (yellow or Ponderosa) pine and young saplings bearing seeds, as well as sites suitable for homesteads. "In short," the authors observed, "the whole area of the proposed reserve is capable of producing good timber . . . [and] that good reproduction is taking place." The authors continued:

> This area contains at present approximately 16,400 acres of merchantable timber, averaging approximately three thousand board feet measure per acre, which with the balance of this area under scientific management is capable of producing an increasing and permanent crop of wood. If this area is withdrawn from the care of the Forest Service and therefore from proper forest management it cannot produce to its fullest capacity. The influence of grazing animals in limited numbers is beneficial to reproduction in the Black Hills National Forest. Cattle and horses are as beneficial however as wild game animals would be and if owned by settlers residing within or near this area, they would be of far more benefit to the community at large than game animals in a state of captivity.[29]

In short, Neel and Fitzgerald brought the conservation theory and not the nature preservation rationale to their assessment of a Jewel Cave game preserve. In their view, the value of the merchantable timber and grazing land in the sizeable proposed game preserve far outweighed the value of preserving captive game animals. Considering their training and the location of the proposed game preserve on national forest land, Neel and Fitzgerald's conclusion seemed only natural. Neel and Fitzgerald upheld the essence of the forest conservation principle of efficient scientific management embraced and implemented by the infant U.S. Forest Service and Chief Forester Gifford Pinchot.

[29] Neel and Fitzgerald, "Report on the Proposed Jewel Cave Game Preserve," September 1907.

Neel and Fitzgerald also commented on the size of the proposed preserve, noting that it was both too large and too small. "Very few of the settlers in the vicinity of the proposed game reserve or towns nearby," the

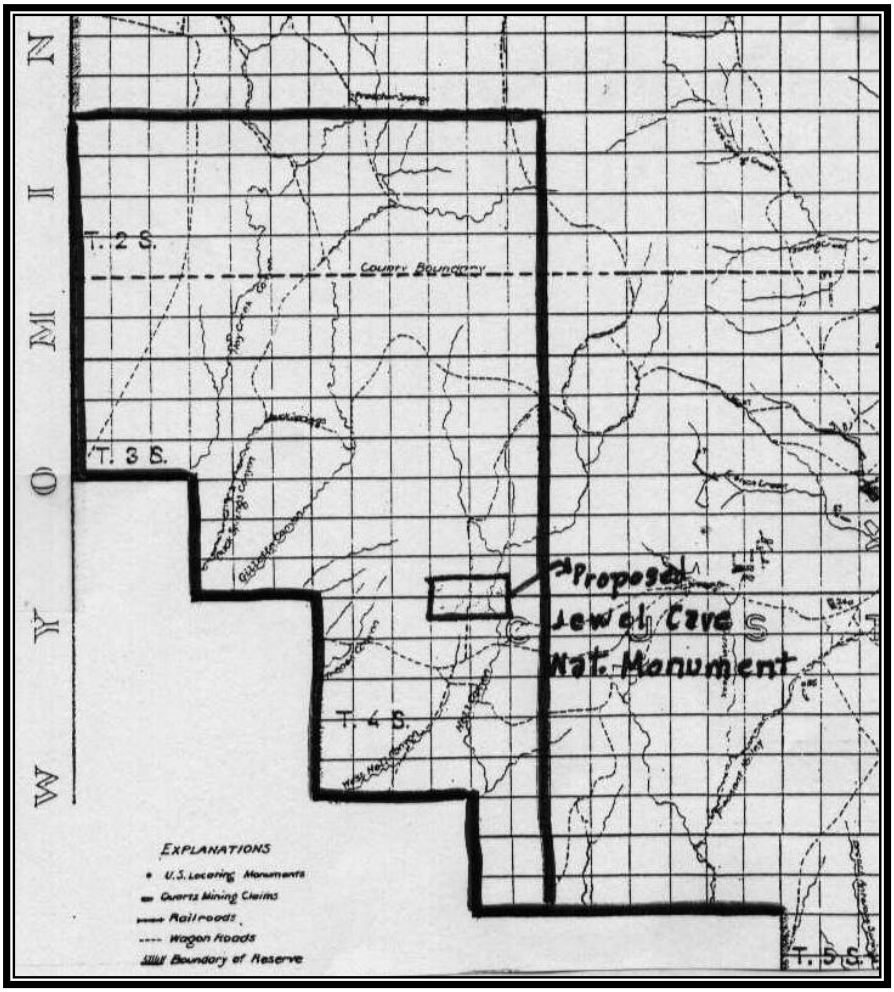

Figure 6-4. This September 1907 map shows the boundary encompassing the very large proposed Jewel Cave Game Preserve and the much smaller proposed Jewel Cave National Monument. The map also indicates the location of the existing road south of the national monument boundaries. From H. C. Neel and C. W. Fitzgerald, "Report on the Proposed Jewel Cave Game Preserve," September 1907. Courtesy of Jewel Cave National Monument, deposited in Mount Rushmore National Memorial.

authors wrote, "are in favor of setting aside such a large area for a game preserve, because the exclusion from Custer County of this area . . . would retard . . . the development and prospective revenue of the county." Also,

Fitzgerald and Neel claimed there was no need for a game preserve that held animals indigenous to the Black Hills, since they could be found in abundance in Yellowstone National Park and elsewhere in the Rockies. Finally, the authors noted that even if the need for a game preserve existed, the proposed sixty-square-mile Jewel Cave Game Preserve was far too small to sustain and protect big game.[30]

For all these reasons, Harry Neel and C. W. Fitzgerald rejected the idea of establishing Jewel Cave Game Preserve. Instead, they proposed the creation of a national monument of approximately 1,280 acres, to be withdrawn from settlement and called "Jewel Cave National Monument."[31] Jewel Cave, Jasper Cave, and the nearby wind passages reported by the Michauds were "objects of scientific interest," Neel and Fitzgerald believed. "The owners of Jewel Cave have expended considerable time and money [$6,000, the Michauds claimed] in developing it and demonstrating this fact . . . and should be partially reimbursed" for it after a "thorough investigation and appraisement of this work be made."[32]

Antiquities Act of 1906 and Emerging Preservation

The origin of national monument designations clearly represented the nature—preservation consciousness emerging in the early twentieth-century as a public land management strategy. But there was another conservation ethic that came into play.

Since the 1890s, preserving the prehistory of the nation had been an interest of the federal government. There were no formal mechanisms, however, to prevent visitors from removing artifacts from the public domain. Keeping archaeological artifacts was technically illegal, but no statute existed to seize and arrest the violator. Government officials and scientists worried that, with the increasing numbers of settlers and visitors in the West, tangible evidence and knowledge of Indian heritage might become lost. Archaeologists were especially concerned about the loss of

[30] *Ibid.*

[31] The proposed 1,280-acre monument would include the: N ½ of Sections 2 and 3, T43S, R2W and the S ½ of Sections 34 and 35, T3S, R2E, in the Black Hills Meridian. *Ibid.*

[32] *Ibid.* Forty-one years later, Harry Neel, who left the Forest Service in 1908 and entered private business for Jewel Cave National Monument appeared at the cave entrance and introduced himself as one of two Forest Service officers who recommended the creation of Jewel Cave National Monument in 1907. "Memorandum for the Director," August monthly narrative report for Jewel Cave National Monument, September 8, 1948 (JECA 1688), Archives, Mount Rushmore National Memorial.

artifacts at Indian ruins in the Southwest. In the early twentieth century, archaeologists and anthropologists took the lead in creating a political climate favorable to the passage of legislation aimed at the preservation of antiquities of scientific and historic interest and value.[33]

In 1900, the Reverend Henry Mason Baum, an amateur archaeologist who excavated biblical sites in the Middle East, founded the Records of the Past Exploration Society, headquartered in Washington, DC. Baum and his society soon attracted the attention of credentialed academics, institutional professionals, and church leaders. Records of the Past, whose members actively worked for preservation, began promoting the protection of prehistoric ruins in the Southwest in the society journal, *Records of the Past.* In 1903-1904, he initiated preservation legislation by drafting a bill to protect antiquities on public land. After Baum created insurmountable obstacles that stalled the legislative process, Edgar L. Hewett, a westerner with close ties to the Department of the Interior, took up the cause of antiquities legislation and soon galvanized support for it. In late December 1905, he presented a draft bill, "An Act for the Preservation of American Antiquities," at a joint meeting of the American Anthropological Association and the Archaeological Institute. Hewitt's heartily endorsed bill was soon championed by Representative John Lacey and Thomas Patterson, who introduced it in the House and Senate. The bill passed both the House and Senate in the spring of 1906.[34]

On June 8, 1906, conservationist President Theodore Roosevelt signed the bill into law. According to the act, the president was authorized to declare by public proclamation:

> historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest. . . . When such objects are situated upon a tract covered by a bona fide unperfected claim or held in private ownership, the tract, or so much thereof as may be necessary for the proper care and management of the object, may be relinquished to the Government.[35]

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[33] Hal Rothman, *Preserving Different Pasts: The American National Monuments* (Urbana: University of Illinois Press, 1989), 1-33. Also see Ronald F. Lee, *Antiquities Act of 1906* (Washington, DC: National Park Service, 1971), also in 2001 electronic edition; John Ise, *Our National Park Policy: A Critical History* (Baltimore: The Johns Hopkins Press, 1961), 143-61.

[34] Rothman, *Preserving Different Pasts,* 34-47.

[35][35] "The Act for the Preservation of American Antiquities," U.S. Statute at Large 34 (1906): 225, codified at U.S. Code 16 $$ 431, et. seq.

The Antiquities Act allowed for the creation of national monuments by presidential proclamation that were to be administered by that government agency overseeing the public land on which the monument was created.[36] The category of national monuments "helped broaden the federal vision of preservation," according to historian Hal Rothman, and the Antiquities Act "became the cornerstone of preservation in the federal system." The Antiquities Act and "the national monuments are the basis of the modern [national] park system," Rothman wrote.[37]

Passage of the Antiquities Act marked a movement to preserve human history and prehistory in the United States, and paralleled the federal legislation aimed at conserving other natural resources in the 1890s. Like the 1891 Forest Reserve Act that had given birth to the Black Hills National Forest, the 1906 Antiquities Act gave the president unlimited power to create national monuments for the preservation of the places and objects of historic and scientific interest. Creation of the Antiquities Act made it possible to set aside areas for the purpose of preservation without the approval of Congress but only by presidential proclamation. A challenging shortcoming of the act, however, was that there was no provision for funding national monuments. The act also gave no direction for the day-to-day management of national monuments.

Creation of Jewel Cave National Monument

Less than one year before Harry Neel and C. W. Fitzgerald surveyed Jewel Cave, President Roosevelt exercised his authority, under the Antiquities Act, to declare Devil's Tower, in northeast Wyoming and just 100 miles northwest of the Black Hills, the nation's first national monument. As an extraordinary example of erosion in the high mountains, Devil's Tower achieved national monument status for both its historic and scientific value. The number of national monuments grew rapidly. Between December 1906 and early 1908, President Roosevelt proclaimed eleven more sites as national monuments.[38] Theodore Roosevelt early established a precedent of broadly interpreting the Antiquities Act clause about "objects of scientific interest." By the end of Roosevelt's administration in 1908, the eighteen national monuments he had

[36] Rothman, *Preserving Different Pasts,* 47-51.
[37] Rothman, *Preserving Different Pasts,* xvi, xi, and xvii.
[38] These monuments included: El Morro (NM); Montezuma Castle (AZ); Petrified Forest (AZ); Chaco Canyon (NM); Cinder Cone (CA); Lassen Peak (CA); Gila Cliff Dwellings (NM); Tonto (AZ); Muir Woods (CA); Grand Canyon (AZ); and Pinnacles (CA). Rothman, *Preserving Different Pasts,* 55-56, 233-34.

proclaimed represented a diverse collection of natural resources, both large and small, that defied categorization.[39]

The Neel and Fitzgerald report and recommendation of a Jewel Cave national monument moved quickly through government channels. In early November 1907, the report went to Chief Forester Gifford Pinchot's office and, from there, was circulated to the offices of Lands, Boundaries, and Inspection in the Forest Service for consideration. On December 10, 1907, Forest Service Chief Inspector Smith Riley, in a letter to Chief Forester Gifford Pinchot, approved the Neel and Fitzgerald report, but opined that it might be advisable to establish a smaller game preserve in the western portion of the Black Hills National Forest of not less than three or four townships (108 to 144 square miles) that prohibited hunting but allowed settlement (under the existing land laws).[40] Riley's advice was rejected. Associate Forester Overton Price explained to Riley, in a January 6, 1908, letter, "I talked over your plan of a Game Refuge with Mr. Pinchot and we decided that it was not necessary or desirable to set aside such a Refuge in the Black Hills National Forest."[41] The designation and management of a game preserve that focused on protecting game animals apparently conflicted with the utilitarian management strategies practiced on national forests. On the same day, Overton Price also wrote to Representative William Parker, informing him of the non-advisability of creating a "Jewel Cave Game Preserve that would prohibit settlement under the land laws that are applicable upon National Forest lands."[42] Price informed Parker that action would be taken at once to create a Jewel Cave National Monument.

On February 7, 1908, President Theodore Roosevelt signed a proclamation that established the 1,280-acre Jewel Cave National Monument. Jewel Cave was the thirteenth monument created under the authority of the 1906 Antiquities Act. The proclamation asserted that Jewel Cave was a natural formation of scientific interest. (Public notification accompanying the proclamation noted that a prominent geologist who visited Jewel Cave believed it was an extinct geyser channel.) The proclamation attested that the monument lands were "hereby reserved from settlement, entry, and all forms of appropriation under the public land laws, subject to all prior valid adverse claims." The creation of the Jewel Cave National Monument, according to the proclamation, was not intended to prevent the use of lands for "forest purposes under the proclamation

[39] Rothman, *Preserving Different Pasts,* 71, 233-34.
[40] Smith Riley, chief inspector, letter to Forester Gifford Pinchot, December 10, 1907, Library, Jewel Cave National Monument (hereafter cited as JECA).
[41] Smith Rile, chief inspector, letter to Associate Forester Overton Price, January 6, 1908, Library, JECA.
[42] Price, letter to William H. Parker, January 6, 1908, Library, JECA.

establishing the Black Hills National Forest, . . . but the National Monument hereby established shall be the dominant reservation."[43]

Conservation Versus Preservation

The designation of Jewel Cave National Monument immediately called into question the validity of the mining claims filed by Frank W. and Albert Michaud and Bertha Cain in late 1905 and early 1906. The Jewel, Cleveland, Denver, Gem, and Golden Rod mining claims, each 20 acres, encompassed a total adjoining area of over 100 acres that included the Michauds 18' x 30' two-story log house, barn, chicken house, shed, and spring house. Geologist C. C. O'Hara at the state school of mines in Rapid City had examined these five claims in 1903, but his report had not been made available to the Black Hills National Forest. At the request of Associate Forester Overton Price, Black Hills National Forest rangers W. F. Hill and Louis Knowles examined these five Jewel Cave claims to determine if sufficient quantities of claimed minerals existed to warrant exploitation. If mineral deposits were in non-paying quantities, Price had written, the Michauds' claims could be proven invalid.[44]

On February 19, 1908, Forest Ranger W. F. Hill reported that all five claims would "undoubtedly be considered a valid claim under the mining laws, it being located along a well defined . . . mineral bearing vein [with varying amounts of manganese, jasper, iron, gold, and silver]. In view of the facts stated above, and from the fact that the cave has been created a National Monument," Hill concluded, "it is recommended that this claim be given a thorough examination by a competent geologist."[45] The Michauds, it was observed by Hill, had done a considerable amount of work to validate their mining claims, particularly at the Jewel claim.

The 1908 creation of the Jewel Cave National Monument had done nothing to resolve the divergent public land management approaches—conservation, which advocated wise and efficient use of natural resources (such as minerals on claims at Jewel Cave), and preservation of natural features of scientific interest and aesthetic beauty (such as the formations in the caverns and passageways in Jewel Cave). The Michauds appeared to be

[43] "Jewel Cave National Monument, South Dakota, by the President of the United States of America, A Proclamation," Box 1, Jewel Cave National Monument, Archives, Mount Rushmore National Memorial.
[44] Overton Price, letter to E. M. Hamilton, Black Hills National Forest Supervisor, February 4, 1908, Library, JECA.
[45] W. F. Hill, "United States Department of Agriculture, Forest Service, Report on Mining Claim," for Jewel, Cleveland, Denver, Gem, and Golden Rod claims, February 19, 1908, Library, JECA.

caught squarely in the middle of two different evolving aboutmanaging the public domain.

During this time, fierce political battles over the meaning and implementation of conservation and preservation swirled around Chief Forester Gifford Pinchot and were spotlighted in the national press. In early 1910, President Howard Taft fired Pinchot after the chief forester claimed that the secretary of the Interior (Richard Ballinger) had violated principles of both conservation and democracy by acquiring an interest in Alaska coal lands. In 1913, nature preservationists represented by John Muir lost a long-term battle with Pinchot and the government over construction of a dam and municipal reservoir for the City of San Francisco in Yosemite National Park's Hetch Hetchy Valley. Amid this national uncertainty about conservation and preservation policy, personnel changes in the Black Hills National Forest likewise disrupted the continuity of previous decision-making about the management of Jewel Cave. The Michauds waited for years to learn what they could do with Jewel Cave and if they might be compensated for previous work completed.

The validity of the Michauds' five mining claims at Jewel Cave, filed prior to the creation of the monument, became the central focus of protracted investigations and discussions for the next several years. Following Forest Ranger Hill's February 1908 recommendation, the Forest Service secured the services of U.S. Geological Survey geologist F. C. Schrader to examine the Michaud-Cain mining claims and determine if they were valid under existing mining laws. More than one year later, on April 15, 1909, Schrader submitted his "Report on the Jewel and Four Other Lode Claims." Schrader described the ownership, topography, and character of the minerals at the five claims, as well as the surface improvements, consisting of a "commodious two-story five-room log house, a substantial surface cellar enclosed in a roomy yard by a substantial fence of stone rail and natural pine pole lattice work, a 16-foot by 18-foot log barn, spring house, hen house, sheds and other out-buildings" Schrader also mentioned a "half-mile wagon road along the hillside on the east" and "some trail" as an approach to the cave.[46] Schrader confirmed the accuracy of the Michaud-Cain estimate of roughly $6,500 expended in labor in materials at the five claims. "A large part of this work," Schrader observed, "was done with the view of attracting to the cave the patronage of tourists, from whom a moderate fee for board and lodging and underground guide was collected." Schrader concluded that the mineral deposits at the five claims were "undoubtedly worthy of further exploitation, but owing to their

[46] F. C. Schrader, "Report of the Jewel and Four Other Lode Claims," April 15, 1909, Library, JECA.

character and low grade they are regarded as of only moderate value as mineral deposits."[47]

For years after the director of the U.S. Geological Survey had submitted Schrader's report, confusion and uncertainty prevailed in the Forest Service and in upper levels of the Department of the Interior about the validity of the Michaud-Cain claims and what action if any had been taken regarding them. For more than one year, the Black Hills National Forest supervisor, then the acting supervisor, claimed they had not received a copy of Schrader's report.[48] It apparently had gone only to the Department of the Interior. Finally, in mid-1910, the secretary of the Interior received a letter asking what action had been taken after the submittal of Schrader's report.[49] The Interior Department never responded to this query (or if it did, the Black Hills forest supervisor never received it). A February 27, 1911 letter from acting Black Hills District Forester Fred W. Morrell to the U.S. chief forester in Washington, D.C., commented on the absence of a reply from the Department of the Interior. Morrell went on to say that "it was impossible to tell from Schrader's report whether or not he considers them [the five Jewel Cave claims] valid, but there seems to be a pretty fair indication that they are. . . ." Morrell continued:

> I have taken the view that it should be determined whether their claims are valid, and if they are, patent should pass to them. . . . If the suggestion meets with your approval, a further examination of their claims will be made by a mineral expert and definite recommendations regarding their validity made.[50]

Morrell's suggestion that yet another examination of the Michaud-Cain claims be made to determine their validity was repeated over the next few months by other Forest Service personnel.[51] Finally, a Forest Service employee examined the Jewel Cave claims in the late spring of 1911.

In July 1911, H. M. Booth, identified as an "expert miner," reported on the five claims at Jewel Cave in a brief one and one-half-page

[47] *Ibid.*
[48] J. F. Lawson, acting Forest Service district law officer, letter to Black Hills forest supervisor, September 15, 1909, Library, JECA.
[49] Willis L. Moore, acting secretary, letter to the "Honorable Secretary of the Interior, June 10, 1910, Library, JECA.
[50] Fred W. Morrell, acting district forester, letter to the Forester, Washington, DC, February 27, 1911, Library, JECA.
[51] Secretary of the Department of Agriculture, letter to F. W. Michaud, March 9, 1911; Acting Forest Supervisor, letter to Michaud brothers, March 22, 1911; both at Library, JECA.

report amended to Schrader's 1909 report. Booth observed that only a portion of the total estimated expenditure of $5,000 on Jewel and the other four claims could apply to the actual development of mineral resources. "It is apparent from surface and underground occurrences . . . that the claimants had in view the mineral possibilities of the ground as well as the development of the cave for scenic purposes. . . . It appears, however," Booth concluded, "that the greater portion of the development work has been directed toward the improvement of the cave for scenic exploration."[52] Acting Agriculture Secretary W. M. Hays immediately informed Eben Wever Martin, U.S. representative from South Dakota, of the Forest Service's findings. Hays reported that it was still unclear whether only the Interior Department could decide the question of issuing a patent on the showing. "If the claim should be declared invalid," Hays stated, "the Proclamation of February 7, 1908, creating the Jewel Cave National Monument would, it is believed, immediately become effective as that Proclamation excepted only valid claims." Hays wrote that no determination could be made about the validity of the five claims until the Michauds and Cain applied for a patent. In closing, Hays expressed his belief that "the Government will be slow in holding that these facts give the mineral claimants sufficient equities to justify reimbursing them for work performed."[53]

Bertha Cain and the Michaud brothers struggled to obtain information about their rights and responsibilities as mining claimants in the new Jewel Cave National Monument and, importantly, if they might receive compensation in some form for their investment of money and time working the Jewel claim. In late May 1908, just three months after the creation of the monument, Bertha Cain, then living in Fyan, Missouri, wrote to President Howard Taft asking for some compensation for the work done at the cave. Perhaps the government might like to buy the cave, Cain suggested. At least, Cain went on, "it would help us a great deal if father [an 'old soldier' and 'railroad man for a number of years'] could receive the appointment of superintendent of the [Jewel Cave] reservation." Cain claimed that her father was a mining partner of the Michauds and was thoroughly familiar with the interior of the cave.[54] Associate Forester Overton Price assured Cain that valid mining claims at Jewel Cave would remain intact in the Jewel Cave National Monument, but that the government could not purchase the cave claims or hire Cain's father as superintendent of the monument since it was inside the Black Hills

[52] H. M. Booth, "Supplemental Report on the Jewel et al Claims and the Jewel Cave," July 1911, attached to Schrader report, Library, JECA.
[53] Hays, letter to Representative E. W. Martin, August 5, 1911, Library, JECA.
[54] Bertha Cain, letter to President Howard Taft, May 29 [probably May 9], 1908, Library, JECA.

National Forest.[55] Cain wrote back to Overton two months later to let him known that the two Michaud brothers and she would accept just $4,000 for the five claims inside the monument. "Kindly tell if it will be right and safe to stop the assessment work during the time that the Government is investigating our claims," Cain inquired.[56] Such an examination of the claims, Price wrote, "will in no way release you from the assessment work which is required by law." Again Price insisted that the government could not purchase the mining claims.[57] Frank and Albert Michaud received a similar message in response to letters they wrote, in 1911, to Secretary of Agriculture James Wilson and South Dakota congressman Eben Wever Martin.

The government's refusal to pay the Michauds anything for their investment in Jewel Cave probably convinced Albert Michaud to leave the Black Hills and join his siblings, Edward, Alfred, and Annie Laurie, in Terrace, British Columbia, on the Skeena River. Albert left the Black Hills in 1911, never to return. At first, he joined his brother Alfred in prospecting during the summer and trapping in the winters. Albert and Alfred eventually opened a nursery in Terrace; Crescent Hill Ranch specialized in nursery stock, small fruits, and vegetables. The Michaud brothers became well known for their development of the "Skeena Wonder" strawberry, sold in eastern Canadian provinces, and a blue variety of rose. In 1933, Albert drowned in the Copper River; brother and business partner Alfred died in 1945 in Terrace.[58]

The need for additional income along with the assertion by Associate Forester Overton Price that continued assessment work at Jewel Cave was required by mining laws to validate the Michauds claim, probably persuaded Frank Michaud to sell some of the resources of Jewel Cave. In the fall of 1913, Frank Michaud removed about five tons of material that had been blasted out earlier to open up some of the main passages and piled along the walls. Michaud shipped this five tons of rock specimens to Father Dobberstein in West Bend, Iowa, "to be used in the construction of a Catholic church at that place," called the Grotto of Redemption.[59] Large pieces of calcite crystals were taken from side passages and along the main passages where blasting had been done to enlarge the walkway. (Again in

[55] Overton Price, letter to Bertha Cain, May 12, 1908, Library, JECA.
[56] Bertha Cain, letter to Overton Price, July 16, 1908, Library, JECA.
[57] Price, letter to Cain, July 29, 1908, Library, JECA.
[58] Nettie Michaud (wife of Ira Michaud and daughter-in-law of Frank W. Michaud), e-mail to Gail Evans-Hatch, April 9, 2004; Yvonne Moen (Terrace Historical Society), e-mail message to Nettie Michaud and Monica Weldon (and forwarded to Gail Evans-Hatch), July 20, 2004.
[59] Harney National Forest Supervisor, letter to District Forester (in Denver), October 25, 1913, and Acting District Forester C. J. Stahl, letter to Chief Forester, Washington, DC, December 18, 1913, both in Library, JECA.

February 1916, another sizeable quantity of specimens were reportedly taken from Jewel Cave by Frank Michaud and also shipped to West Bend, Iowa, for additional construction at the Catholic Church.[60] Once again in June 1919, Michaud reportedly removed another railroad carload of specimens from the cave.[61]) Since calcite was considered a mineral, Frank Michaud believed that he was acting within the mining law by simply developing Jewel Cave as a mine, which the Forest Service had earlier deduced was a valid claim. Some in the Forest Service wondered if the extraction of calcite crystals might be considered an injury to or trespass against Jewel Cave under the 1908 act establishing the monument, punishable by a maximum penalty of $500 and 90 days imprisonment.[62]

The forest supervisor and district forester in Denver once again discussed the validity of the Michauds' five claims under existing mining laws and the protection of Jewel Cave under the presidential proclamation creating the national monument. Frank Michaud had still not applied for a mining patent. In a lengthy evaluation of the entire subject, Acting District Forester C. J. Stahl noted a conflict between the lode claims at Jewel Cave and the national monument designation. He concluded that although another complete mineral examination might now "justify cancellation of the [Michauds'] claims, in which event the National Monument withdrawal will take effect automatically," Frank Michaud appeared to be a good custodian of Jewel Cave. "Messrs. Michaud value the cave very highly as a natural wonder and for its natural beauty as a cave," Stahl observed. [63] Based on Stahl's explanation of the situation, Assistant U.S. Forester James B. Adams determined that no action should be taken against the Michauds or regarding the mining claims at Jewel Cave.

Over the next decade, the conflicting land management approaches of mineral use versus scenic/scientific preservation continued to confound the Forest Service. Forest Service administration also questioned which government agency had ultimate authority to manage the cave. Year after year, beginning in 1911, the Department of the Interior in its annual reports

[60] Acting Harney National Forest Supervisor J. F. Conner, letter to District Forester (in Denver), February 26, 1916, and Harney Forest Supervisor J. F. Conner, letter to District Forester (in Denver), May 9, 1919, both in Archives, MORU.
[61] Harney National Forest Supervisor J. F. Conner, letter to District Forester (in Denver), June 18, 1919, Library, JECE.
[62] Harney National Forest Supervisor, letter to District Forester (in Denver), October 15, 1913; Acting Forest Supervisor Fred W. Morrell, letter to Forest Supervisor, October 18, 1913; Forest Supervisor, letter to Fred W. Morrell, letter to Forest Supervisor, October 18, 1913; Forest Supervisor, letter to District Forester, October 25, 1913, all letters at Library, JECA.
[63] Acting District Forester C. J. Stahl, letter to the U.S. Forester, December 18, 1913; Assistant U.S. Forester James B. Adams, letter to District Forester, December 22, 1913; Library, JECA.

briefly described Jewel Cave, along with the other national monuments created by presidential proclamation. No mention was made of its use or management.[64] In 1916, and again in 1919, Harney National Forest[65] Supervisor James F. Conner reported to the district forester in Denver that Frank Michaud had removed and shipped specimens from Jewel Cave, according to settlers in the vicinity.[66]

At the suggestion of Assistant District Forester C. J. Stahl, Jewel Cave was once again examined in 1916. W. C. Danielson, surveyor-draftsman, arrived in the summer of 1916 to inspect, photograph, and describe Jewel Cave. Danielson described the two main routes inside the cave; he made no mention of any destruction of the rock specimens. Danielson noted access to the cave by a one and one-half-mile-long road veering off the Custer-Newcastle Road, which was passable by automobiles practically all seasons of the year. Surface improvements near the cave entrance, Danielson wrote, consisted of a "two-story rustic log house in fair condition, a spring-house, and a barn now quite dilapidated." The greater portion of the development work at the cave had been "directed toward the improvement of the Cave for scenic exploration." Danielson saw "no reason why Jewel Cave could not be made as big an attraction as Wind Cave." The site, however, needed various improvements: the cave should be protected against vandalism by a guard; the road to the cave developed into a first-class auto road; the Michaud log house needed to be purchased and repaired; the barn replaced; the water supply from Spring Hill developed; and the wooden ladders in the cave replaced. Danielson estimated the total cost of work needed to open Jewel Cave to tourists amounted to about $700.[67] Danielson concluded that, "at present, very few people visited this cave, due, no doubt to the fact that they have never heard of it."

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[64] *Reports of the Department of the Interior for the Fiscal Year Ended June 30, 1911* [and *1912, 1913,* and *1914 [Annual] Report on Platt and Wind Cave National Parks, Sullys Hill Park, Casa Grande Ruin, Muir Woods, Petrified Forest, and Other National Monuments, Including List of Bird Reserves* (Washington, DC: Government Printing Office, 1911, 1912, 1913, 1914.

[65] On May 16, 1910, President Howard Taft had created Harney National Forest from lands in the southern half of the Black Hills National Forest. Custer became the headquarters for Harney National Forest; Deadwood served as the headquarters for the Black Hills National Forest. Some lands were deleted from Harney National Forest by executive order on April 29, 1911. Noisat and Sundstrom, "The Black Hills National Forest," *Black Hills National Forest: Cultural Resources Overview* (Custer: US Forest Service, Black Hills National Forest, 1996), 5e-3.

[66] J. F. Conner, letter to District Forester, February 26, 1916, Library, JECA.

[67] W. C. Danielson, "Report on Jewel Cave National Monument," 1916, JECA 1655 (70 a-f), Archives, Mount Rushmore National Memorial.

Jewel Cave probably received few visitors throughout the 1910s. Neither the Forest Service nor the Michauds apparently did much to promote the cave; no funds existed to develop the cave. For many years after the creation of national monuments, the Forest Service, General Land Office (later the Bureau of Land Management), and the War Department, on whose land monuments existed, had little money, personnel, and understanding of monuments' purpose to project them. Often they were victimized, neglected, or totally ignored. The Forest Service's limited management of Jewel Cave was not atypical of most early monument oversight.[68] Also, the Forest Service was very preoccupied with answering questions about the legality of Michauds' mining claims. A fifty-page promotional booklet on the Black Hills, published by the Chicago and North Western Railway around 1916, described Wind Cave at length, as well as Onyx Cave (near Hot Springs) and Crystal Cave (twelve miles south of Deadwood). No mention, however, was made of Jewel Cave.[69] In 1920, A. I. Johnson briefly described Jewel Cave at the end of his twenty-five-page article about touring the Black Hills. "At present it [Jewel Cave] is very much run down and practically closed to tourists, as the ladderways, etc. were permitted to get out of repair until unfit for travel. Formerly, under private management, it was slightly developed and visited by quite a number of people. It is now a National monument under government control."

Forest Supervisor James Conner remained concerned about possible vandalism and about developing the cave for tourists. In early May 1919, Conner wrote again to the district forester in Denver, stating more forcefully that a "great many of the best specimens have been taken from Jewel Cave by the owners," and insisting that: "some action should be taken to finally decide the ownership of the cave." In closing, Conner added:

> This is one of the chief attractions of the region and if the ownership could be definitely determined so that the place could be further developed and opened to the public, it would be an important factor in increasing the attractiveness of this Forest for recreational purposes.[70]

[68] For a discussion of the early history of national monuments see Hal Rothman, *America's National Monuments* (Lawrence: University Press of Kansas), 74-77.
[69] *Black Hills* (N.p.: Chicago & North Western Railway, c. 1916).
[70] Conner, letter to District Forester, May 9, 1919, JRCA 1655 (79), Archives, Mount Rushmore National Memorial.

In June 1919, after foresters in Denver and Custer briefly considered the possibility of arresting Frank Michaud for violating the 1908 proclamation creating Jewel Cave, Harney Forest Supervisor J. F. Conner decided to defer all action, it was discovered, after an examination of the cave, that Michaud had not defaced any passages or galleries in Jewel Cave.[71]

After returning from his 1919 seasonal employment at the Forest Service's Bear Mountain Lookout, Frank Michaud sent a letter to District Forester Smith Riley in Denver that summarized his view of the current situation at Jewel Cave. Michaud affirmed that the assessment work required by law to validate the mining claims at Jewel Cave had been done every year. Michaud also insisted that he had "preserved the cave the best I could." But, he continued, "people are breaking in and will soon destroy the place if it isn't garded [*sic*] closer. Michaud concluded his letter:

> we have waited eleven years for a settlement. I think it [is] time some thing is done about it. All we ask is to be reimbursed for it [work done on the cave]. I have a large Family to suport [*sic*] and I am in poor health. . . . I have been asked to quit selling specimens. I am willing to stop if the government will do something soon.[72]

The Forest Service, once again, denied Michaud his request for reimbursement of work completed or to protect the cave with a more substantial door and/or ladders inside the cave. Assistant District Forester Stahl did note that official notices warning people of the penalties of trespass might be posted near the cave entrance.[73]

Increasingly, Black Hills Forest Service personnel felt the need to develop Jewel Cave for the growing number of tourists coming to the region during summers. "A recent inquiry concerning Jewel Cave," Assistant District Forester C. J. Stahl wrote in late 1923, "has again raised the question of whether we ought to do something to develop this National Monument."[74] Although there is no known record of tourist visitation in Jewel Cave during the 1910s and early 1920s, it is most likely that there were few. At least since 1911 (and perhaps earlier), the Michauds had placed a locked door across the entrance of Jewel Cave, which prevented all

[71] Custer S. Dak, letter to R. P. Stewart, US. Attorney in Deadwood, July 2, 1919, Library, JECA.
[72] Frank Michaud, letter to District Forester Smith Riley, October 26, 1919, Library, JECA.
[73] Stahl, letter to Frank Michaud, January 6, 1920, Library, JECA.
[74] Stahl, letter to Forest Supervisor, November 5, 1923, Library, JECA.

but the Michauds from entering and showing the cave to visitors. In the fall of 1923, the Forest Service placed their own padlock on the cave door, thus prohibiting all but certain official visitors from entering the cave.[75]

Stahl, however concluded that the Forest Service may as well postpone its development at Jewel Cave as long as Michaud asserted his mining claim to the cave. Also, Wind Cave, only twenty-five miles away, offered a very similar attraction to the touring public.[76] Furthermore, Harney National Forest had no funding for the protection or the development of Jewel Cave National Monument.

C. J. Stahl did, however, encourage Forest Supervisor Conner to contact the local Custer Commercial Club and urge its members to appeal to Senator Norbeck to introduce a Jewel Cave appropriation bill in Congress. In January 1924, attorney and President of the Commercial Club H. R. Hanley telegrammed and wrote to conservationist and Peter Norbeck, U.S. Senator from South Dakota, asking that Norbeck attempt to secure an appropriation for Jewel Cave development.[77] Forest Supervisor Conner likewise wrote to Norbeck, claiming that the Michauds had removed large quantities of valuable specimens from Jewel Cave and asking Norbeck to request a congressional appropriation for the protection and development of the cave.[78] Conner also contacted South Dakota Representative William Williamson with the same request, Conner suggesting that the money secured could be used to reimburse the Michauds for their work and to develop the cave in a minor way by installing new ladders and a sturdy door on the front of the cave.[79] (Conner later conceded to District Forester Peck that "the letter received by Congressman Williamson regarding this destruction [at Jewel Cave] is through our encouragement since it was thought that this might tend to hasten [congressional] action."[80])

Williamson approached the National Park Service to learn if they would be willing to lend support to a bill requesting funding for Jewel Cave. In late January, he reported to Norbeck that "I doubt that we could secure their backing for such an appropriation in view of the fact that the Park

[75] Harney National Forest Supervisor J. F. Conner, memorandum for the District Forester (Denver), December 30, 1926, Archives, MORU.
[76] *Ibid.,* November 5, 1923, Library, JECA.
[77] Hanley, letter to Senator Peter Norbeck, January 19, 1924, Peter Norbeck Papers, University of South Dakota.
[78] J. F. Conner, letter to Peter Norbeck, January 14, 1924, Norbeck Papers.
[79] Connor, letter to District Forester, November 7, 1923 and January 14, 1924; Assistant District Forester C. J. Stahl, November 13, 1923; Senator Peter Norbeck, letter to J. F. Conner, January 18, 1924; and District Forester A. S. Peck, letter to Forester, Washington, D.C., January 21, 1924; all at JECA 1655, Archives, Mount Rushmore National Memorial.
[80] Connor, letter to District Forester Peck, February 2, 1924, JECA 1655 (94), Archives, Mount Rushmore National Memorial.

Service now has in its custody some very fine caves for which the Service has not been able to get sufficient appropriations to open."[81] Both Senator Norbeck and Representative Williamson tried but failed to secure a congressional appropriation to develop or protect the cave in 1924.

Forest Service efforts to manage Jewel Cave National Monument focused on securing the cave against vandals. Beginning in the fall of 1923, a heavy padlock was placed on the existing door. In early 1924, Harney National Forest Supervisor Conner directed Ranger McGill to build a stout door across the cave entrance.[82] The Michauds objected to this action immediately. Maimie Michaud, who lived with her children in Custer, complained to Forest Supervisor Conner, then wrote to the U.S. Forester in Washington, D.C., and to Senator Peter Norbeck. Michaud claimed that she and her family had done the necessary mineral assessment work each year in order to retain the five claims, and that the few specimens they had removed came from the side passages and had caused no damage to the beauty of the cave.[83]

In late March 1924, Albert Michaud, in Terrace, British Columbia, wrote to Stephen Mather, director of the National Park Service (created just eight years earlier in 1916). After presenting a brief background on the Michauds' discovery and development of Jewel Cave, Albert expressed his strong objection to the Forest Service's locked door, preventing Albert's nephews from completing the annual mining assessment work. "Now I ask you, Sir, to put this matter up to the Proper officials, [and] that we be reimbersed [*sic*]for our years of hard work. We . . . feel that if the government takes over this Property that we at least get payed [*sic*] for our work."[84] Albert Michaud received no response from the National Park Service. His letter was referred to Assistant District Forester C. J. Stahl in Denver, who reiterated that the Forest Service could pay the Michauds no money for their development work at Jewel Cave.[85]

One year later, in March 1925, Frank Michaud wrote from the X Ranch in Young, Arizona (where he had gone in 1921 to seek relief from severe asthma) to Harney National Forest Supervisor Conner, repeating the Michauds' objection to the locked door at the cave entrance.[86] The Forest

[81] Williamson, letter to Peter Norbeck, January 25, 1924, Norbeck Papers.
[82] District Forester A. S. Peck, letter to U.S. Forester, Washington, D.C., February 4, 1924; Assistant Forester Kneipp, letter to District Forester Peck, February 8, 1924.
[83] Mrs. Frank Michaud, letter to U.S. Forester, February 15, 1924; Mrs. Frank Michaud, letter to Senator Peter Norbeck, March 28, 1924, Norbeck Papers.
[84] Albert Michaud, Crescent Hill Ranch, Terrace, B.C., letter to "Dear Sir," National Park Service, March 26, 1924, Library, JECA.
[85] Stahl, letter to Albert Michaud, April 10, 1924, Library, JECA.
[86] Frank Michaud, X Ranch, Young, Arizona, letter to "Dear Friend" Conner, February 17?, 1925.

Service repeated that it had no legal authority to purchase any rights under the mining law and had no money to purchase any improvements made by the Michauds.[87] The Forest Service took no action and paid the Michauds no money.

Silence prevailed between the Michauds and the Forest Service for another year and a half. Then, in late December 1926, Harney National Forest Supervisor James Conner, in a memorandum to the District Forester in Denver, complained about the lack of tourist development at Jewel Cave. "The Commercial Club," Conner reported, has advertised this Cave and a great many tourists . . . make the trip up there only to be disappointed since the cave has been locked. . . . In view of the increasing number of tourists to the Black Hills, some action should . . . be taken to arrange for developing the cave and making it available to tourists. In its present status," Conner exclaimed, "the government is doing nothing with it but keeping it locked and preventing the Michauds from developing it."[88] Assistant Forester E. W. Tinker wrote back in early January 1927 with a solution to the quandary. According to Tinker:

> There is only one satisfactory way in which to clear up this case. That is to reach an agreement with the Michauds as to the value of the work they have done in this cave and have local organizations get in back of a bill providing for a compensation to them for the work and make a provision for the administration of the monument, as such.[89]

On February 10, 1927, Forest Supervisor James Conner approached Mamie Michaud and asked what amount she would be willing to accept in full settlement of the Michaud equity in Jewel Cave. She reportedly agreed to surrender all rights to the Jewel Cave property for $1,000. "Mrs. Michaud," Conner wrote, "felt that this was rather small but stated she would be willing to take this figure."[90]

Frank Michaud could not be consulted on this matter. He had recently traveled to Terrace, British Columbia from the Southwest to be

[87] Assistant District Forester E. W. Tinker, letter to Frank Michaud, X Ranch in Young, Arizona, March 26, 1925, Library, JECA.
[88] Conner, memorandum for District Forester, December 30, 1926, JECA 1655 (103), Archives, Mount Rushmore National Memorial.
[89] Tinker, memorandum for the Harney Forest Supervisor, January 4, 1927, Library, JECA.
[90] Conner by W. C. Robert, acting forest supervisor, memorandum for district forester, February 19, 1927

with his siblings, and there he died on February 16, 1927. Frank was put to rest in the Terrace cemetery.[91] The Michaud family's twenty-seven-year history with Jewel Cave had nearly ended.

Jewel Cave Landscape under the Forest Service

During the first twenty years of Jewel Cave National Monument administration by the Forest Service, very few changes were made to the landscape inside and outside the cave. Rock specimens taken from the cave by the Michauds had come either from the floor of the cave, where they had fallen after blasting had opened up the main passage many years earlier, or from less conspicuous side passages. Wood ladders inside the cave had disintegrated. The buildings constructed by the Michaud family near the Jewel Cave entrance had likewise deteriorated. Although the two-story log house remained in good condition, the barn was crumbling into the ground by the mid-1920s.

The access road built by the Michauds from the Custer-Newcastle road to the cave had also probably not changed substantially. Only the Custer-Newcastle road, at least in part, had been improved in the early 1920s.[92] Although a landscape of tourism had arisen elsewhere in the southern Black Hills, most notably at Sylvan Lake, Custer State Park, Wind Cave, Hot Springs, and in the town of Custer itself, no major construction of buildings or roads had taken place in the vicinity of Jewel Cave. As Government Land Office maps dating from 1918 and 1931 show, only the short Michaud-built road and one other minor road came within a mile or two of the cave opening. All this would begin to change in the late 1920s and 1930s, when the Michauds relinquished their interest and involvement in Jewel Cave, new players began to influence its development, and the Great Depression infused the region (and the nation) with labor and capital aimed at developing Jewel Cave's recreational potential.

[91] *Custer Weekly Chronicle,* March 12, 1927.
[92] District Forester A. S. Peck, letter to Forester, Washington, D.C., February 4, 1925, Library, JECA.

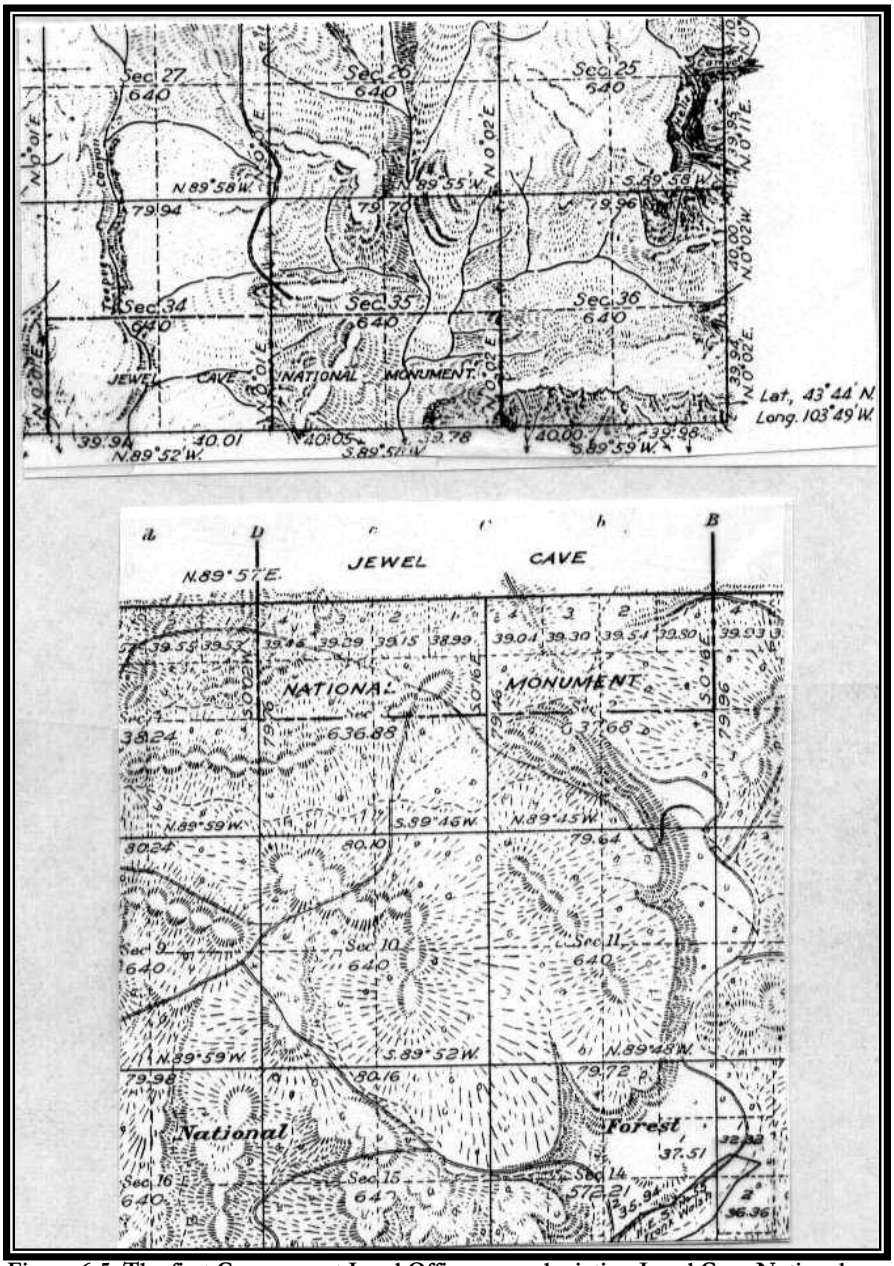

Figure 6-5. The first Government Land Office maps depicting Jewel Cave National Monument show the road to the cave built by the Michauds in the early 1900s as well as the early road between Custer and Newcastle, extending from east to west south of the monument. Courtesy of Bureau of Land Management, Billings, Montana.

Chapter 7

Opening Jewel Cave to Visitors

1928-1930s, 1960s

Introduction
Rise of Auto Touring After World War I
Jewel Cave Corporation Organizes
National Park Service Becomes Jewel Cave Guardian
Civilian Conservation Corps at Jewel Cave
War Years at Jewel Cave
Increased Visitation Spurs Development in 1950s
Mission 66 Comprehensive Park Program
The Conns' Discoveries Expand Park Support
Mission 66 Development Moves Slowly Ahead

Introduction

For nearly twenty-five years, the absence of funding, challenging vehicle access, and minimal Forest Service administrative interest stalled nearly all activity at Jewel Cave. While visitation at Jewel Cave languished, the Black Hills' reputation as a restful haven for outdoor enthusiasts and those seeking relief from the heat and tension of urbanizing centers throughout the Midwest grew stronger through the 1910s and 1920s. Tourist literature produced by railroad companies and published by commercial clubs spotlighted the scenic beauty of Sylvan Lake and Custer State Park Cathedral Spires, the soothing relaxation of Hot Springs, and the intrigue of Wind Cave. As the affordability of the automobile brought Black Hills recreational activities within reach of many more middle-class Americans, the absence of Jewel Cave in tourist literature became increasingly conspicuous, especially to Custer and Newcastle, Wyoming, business and political leaders who envisioned the commercial potential of Jewel Cave as a tourist attraction.

Finally, in the late 1920s, when American automobile ownership soared, a sustained concerted effort was made to open and promote Jewel Cave to visitors. In 1928, a commercial club in Custer and one in Newcastle joined to form the Jewel Cave Corporation. It persuaded Forest Service administrators to permit the corporation to pay for and oversee the development of Jewel Cave for visitors. Additionally, the corporation used its political clout to encourage the construction of a greatly improved road between Custer and Newcastle that ran passed Jewel Cave. Financial and human resources spent on cave development expanded tremendously in the mid-1930s, after the National Park Service acquired authority over Jewel Cave in 1933-34 along with an infusion of New Deal funding between 1935 and 1939, primarily through the Civilian Conservation Corps, which aimed at developing the park. As a consequence the cultural landscape at and near the Jewel Cave entrance underwent a visible transformation.

Rise of Auto Touring After World War I

Following World War I and the return to "normalcy" in the late 1910s and early 1920s, the Forest Service became aware of the growing attraction of the Black Hills to tourists.

Middle-class Americans' ownership of the automobile, access to new and improved roads during the Good Roads movement in the 1910s and 1920s, and the founding of automobile associations (such as the American Automobile Association, See America First League, Lincoln

Highway Association, and the Park-to-Park Highway Association) expanded touring across the country and in the southern Black Hills.

Figure 7-1. This Red Flying Cloud car at the entrance of the State Game Lodge in Custer State Park (northeast of Custer), represented the growing popularity of outdoor recreation and Black Hills tourism in the late 1920s that was facilitated by the automobile. Courtesy of the South Dakota State Archives, Pierre, SD (Box P76).

Between 1900 and 1930, automobile ownership jumped from 8,000 to nearly 26,000,000, making travel more possible out of increasingly congested and industrialized urban areas into quiet sublime nature retreats.[1] In South Dakota the City of Aberdeen and private citizens organized to

[1] The literature on the history of tourism and the influence of the automobile on it is enormous. See: Earl Pomeroy, *In Search of the Golden West: The Tourist in Western America* (Lincoln: University of Nebraska Press, 1957/1990); Warren James Belasco, *Americans on the Road: From Autocamp to Motel, 1910-1945* (Baltimore: The Johns Hopkins University Press, 1979); John F. Sears, *Sacred Places: American Tourist Attractions in the Nineteenth Century* (New York: Oxford University Press, 1989); John A. Jakle, *The Tourist: Travel in Twentieth-Century North American* (Lincoln: University of Nebraska Press, 1985); Hal K. Rothman, *Devil's Bargains: Tourism in the Twentieth-Century American West* (Lawrence: University Press of Kansas, 1998); Marquerite S. Shaffer, *See America First: Tourism and National Identity, 1880-1940* (Washington, DC: Smithsonian Institution Press, 2001).

form the Yellowstone Park Trail Association in 1912, intended to provide good automobile roads across South Dakota to Yellowstone National Park in northwestern Wyoming.

The automobile and improved roads similarly encouraged tourism in the southern Black Hills. Beginning in 1908, "touring cars" (small buses) began transporting visitors arriving at Hot Springs by train to Wind Cave.[2]

In an attempt to attract the greatly enlarged base of potential tourists to the southern Black Hills, Governor Peter Norbeck (later U.S. senator from South Dakota) urged the creation of Custer State Park, a few miles northeast of Custer. When created in 1919, it became the largest state park in the country. Beginning in 1926, President Calvin Coolidge enjoyed vacationing at the State Game Lodge in the newly created Custer State Park. His well-publicized Black Hills vacations increased with the establishment of Mount Rushmore National Memorial in 1925. The president's visits and the new parks helped transform the Black Hills into a nationally known destination for auto tourists and outdoor enthusiasts.[3] Tourist brochures promoting the Black Hills to auto tourists, filled with abundant photographs of rugged and pastoral scenes alike, lured middle-class recreationists to the Black Hills throughout the 1920s and early 1930s.

Jewel Cave Corporation Organizes

The demise of Frank Michaud in February 1927 encouraged the Custer Commercial Club to once again move ahead with its earlier plans to plans to develop the cave for tourists. The club intended to raise money to pay Mamie Michaud for the development work completed by the Michauds at Jewel Cave and to make repairs and additional improvements to the cave. In late February 1927, Custer Commercial Club member William A. Nevin, a prominent grocery dealer in Custer and later involved in Custer County and South Dakota government, wrote to South Dakota Senator Peter Norbeck and asked, just as Commercial Club President H. R. Hanley had in 1924, if Norbeck would introduce legislation appropriating $2,000 for Jewel Cave. Half the amount would be given to Mamie Michaud for the mining claim development work done by the Michaud family since 1900; the other $1,000 would be used to refurbish the Michaud buildings near the cave, tap the spring water near these buildings, repair and construct ladders in the cave, and employ a guide and custodian for a few months in the summer.

[2] Lee, "Traveling the Sunshine State," 194-223.
[3] Suzanne Barta Julin, "Public Enterprise: Politics, Policy, and Tourism Development in the Black Hills Through 1941" (Ph.D. dissertation, Washington State University, 2001), 119-61; C. C. O'Harra, "President Coolidge in the Black Hills," *Black Hills Engineer* 15: 4 (November 1927), 205-48.

"An excellent camp ground could be established right at the property," Nevin asserted. "Lots of wood and good limestone spring water would be available and the scenery of Hells Canyon . . . is right at hand." Nevin also speculated that a good highway could be constructed for tourists enroute to and from Yellowstone National Park.[4] Norbeck responded to Nevin pessimistically. He explained that he had had little success in the past in getting money appropriated by Congress. Furthermore, Norbeck pointed out that "the Government has never bought any land for Park purposes." Norbeck noted that money for parks had been recently raised by "popular subscription."[5]

Only three months later, A. F. Lesley, secretary-treasurer and general manager of the U.S. Oil and Refining Company in Osage, Wyoming, also wrote to Senator Norbeck about opening Jewel Cave to tourists. "The time is right," Lesley declared, "to start a movement toward opening up this cave to the public. . . . I am president of the Lions Club at Newcastle and desire to bring the matter to the attention of the Lions Club and put the club back of the movement."[6] No immediate action was taken.

In January 1928, another plea to open Jewel Cave to the public came from the Newcastle, Wyoming, Lions Club. New Lions Club President O. C. Kerney wrote to both senators Peter Norbeck and F. E. Warren, as well as Senator John B. Kendrick and Representative Charles E. Winter. Kerney asserted that many more people than usual visited the Black Hills after President Calvin Coolidge and his wife Grace stayed at the Game Lodge in the summer of 1927.

Custer and Newcastle residents seemed confident that Jewel Cave could attract tourists to the pine-covered hills between Custer and Newcastle. Jewel Cave was a "wonderful cavern at least equal to the famous Wind Cave," O. C. Kerney asserted. Newcastle, Wyoming, served as a western gateway to Custer over the Newcastle-Custer highway, passing Jewel Cave enroute. "It seems to us that there is no justifiable reason for continuing to withhold this National Monument from the people."[7] Norbeck, once again, noted his previous unsuccessful attempts to do anything to open up Jewel Cave to tourists. "The Secretary of the Interior has, in fact, recommended that the Wind Cave be discontinued as a National Park," Norbeck wrote. Even existing public parks have little

[4] W. A. Nevin, letter to Peter Norbeck, February 28, 1927, Peter Norbeck Papers, University of South Dakota (hereafter cited as "Norbeck Papers").
[5] Norbeck, letter to Nevin, March 7, 1927, Norbeck Papers.
[6] A. S. Lesley, letter to Norbeck, June 6, 1927, Norbeck Papers.
[7] O. C. Kerney, letter to F. E. Warren, January 19, 1928; Kerney, letter to Peter Norbeck, January 19, 1928; both in Norbeck Papers.

support, Norbeck pointed out. Only through private enterprise might Jewel Cave be opened up successfully, Norbeck insisted.[8]

Despite Norbeck's pessimism about getting congressional funding, over the next several months, the Newcastle Lions Club and the Custer Commercial Club, joined in an effort to open Jewel Cave to visitors. In April 1928, the Custer Commercial Club hosted a meeting in Custer for twenty-two members of the Newcastle Lions Club. A post-luncheon discussion among members of the two clubs focused on the poor condition of Jewel Cave and how it might be improved and opened.[9] Three weeks later, about forty members of the Custer Commercial Club traveled to Newcastle to discuss further the opening of Jewel Cave and the improvement of the Custer-Newcastle road "through Hell's Canyon." The two groups decided to organize and incorporate a company that would obtain permission from the U.S. Forest Service to open Jewel Cave to the public. Additionally, the two groups created a committee to look into having improvements made on the Hell Canyon road that led directly to the cave entrance.[10]

In mid-June 1928, members of the Newcastle Lions Club and the Custer Commercial Club (W. A. Nevin, C. E. Perrin, Samuel U. Coe, A. F. Lesley, and E. E. Wakeman) incorporated as the "Jewel Cave Corporation."[11] Not long afterward, capital stock of $25,000 was sold at $25 per share to raise money to pay Mamie Michaud, to begin repairs, cleaning, and excavating of Jewel Cave, and to purchase gas lanterns for use

[8] Norbeck, letter to Kerney, January 24, 1928, Norbeck Papers.
[9] Newcastle Lions Club members who visited Custer included: O. C. Kerney, Valdemar Jessen, R. Huitt, E. J. Londsign, George Curly, J. J. Holsworth, F. T. Varsey, T. E. Shoemaker, J. E. Oliver, E. E. Wakeman, W. H. Allen, G. H. Gadger, O. G. Frazine, Dan Reid, F. W. Stine, E. H. Waddle, H. A. Bettis, A. F. Lesley, Martin Churchfield, R. V. Hale, Rus Andersen, and I. R. Meris. "Lions Club of Newcastle Visit Commercial Club," *Custer Weekly Chronicle,* April 5, 1928.
[10] Those attending the meeting in Newcastle from the Custer Commercial Club included: W. A. Nevin, Joseph Kidwell, James Conner, Irving Fox, Norris Anderson, W. E. Davis, E. V. Matejka, Stephen E. Ainslie, Web Weir, M. A. Willis, Eric Heidepriem, Will Wiehe, Samuel U. Coe, Glen Coe, W. A. Herron, R. H. McCullagh, C. E. Perrin, J. E. Kurka, H. R. McLaughlin, T. W. Delicate, Mark Henderson, M. E. Nystrom, Paul Neavil, William Sager, Pat Dudley, Laurel Peters, George Havens, Dr. Woodworth, Gus Niles, E. B. Wixson, H. A. Miller, R. K. Lane, Bert Korthaus, William Carter, D. W. Davis, M. J. Bailey, John Fox, and Arthur Paschal. "Custer Com. Club Visits Newcastle," *Custer Weekly Chronicle,* April 26, 1928.
[11] "Certificate of Incorporation, Jewel Cave Corporation," State of South Dakota, June 18, 1928. Copy obtained at South Dakota Historical Society, Pierre, South Dakota.

by cave visitors.[12] Many of those who bought stock in the corporation represented some of the most successful businessmen, government leaders, and politicians living in Custer and Newcastle.

William A. Nevin, resident of Custer since 1897, had engaged in mining and ranching with his father, before becoming totally immersed in Custer County government, first as the county auditor and later as the county treasurer. Beginning in 1917, he served two terms on the South Dakota State Legislature and worked for a year as the state forester (1917). In 1920, he was appointed to the state securities commission. Samuel U. Coe, another corporation stockholder, raised cattle on a 160-acre ranch about thirty miles west of Custer. He, like Nevin, held several county government positions, including county assessor, deputy assessor, county auditor, and register of deeds. Corporation stockholder Thomas W. Delicate helped organize and later became president of the Custer County Bank. Delicate also served as an officer of a privately owned electric light company and a telephone company, and as Custer County treasurer. James Conner, supervisor of the Harney National Forest from 1918 to 1935, was also a stockholder in the Jewel Cave Corporation. Stephen Ainslie, another stockholder, served as South Dakota State Senator beginning in 1927.[13]

Figure 7-2. W. A. Nevin, of Custer, became a leader of the Jewel Cave Corporation, which attempted to develop and promote Jewel Cave to tourists between 1929 and the mid-1930s. Courtesy of the South Dakota State Archives (Box P135)

The corporation determined to pay Mamie Michaud $300 for nearly thirty years of development work completed at Jewel Cave if she agreed to quit claim her interest (convey any rights she *might* have) in the five mining claims (Jewel, Cleveland, Denver, Gem, and Golden Rod) at Jewel Cave to the

[12] "Articles of Incorporation, Jewel Cave Corporation," June 18, 1928, Secretary of State, Volume 119, p. 399, Record, Domestic Corporation.
[13] George Kingsbury, *History of Dakota Territory, Biographical, Vol. V* (Chicago: S. J. Clarke Publishing Company, 1915), 171-72, 208-209; Doane Robinson, *Doane Robinson's Encyclopedia of South Dakota* (Pierre: Doane Robinson, 1925), 548; Lawrence K. Fox, editor, *Fox's Who's Who Among South Dakotans, Vol. I, 1924-1925* (Pierre: Statewide Service Company Publishers, 1924), 54, 146. Also see Walter Lienau, "Administrative History of Jewel Cave," 1959, Jewel Cave National Monument (JECA 1692), deposited at Mount Rushmore National Memorial (hereafter cited as "MORU").

United States.[14] This she agreed to do. In 1959, seasonal ranger Walter Lienau interviewed Mamie Michaud. "Mrs. Michaud said the reason she sold the cave title was to get money to help support her family and pay mounting doctor bills from her husband's illness and others in the family."[15] Ten years later, son Ira Michaud gave a similar explanation for his mother's decision to accept the offer of the Jewel Cave Corporation. "A widow with children yet to raise had no chance in a legal battle with the U.S. government." Later, the corporation paid her an additional $200.[16] The Forest Service then issued a permit to the Jewel Cave Corporation, for an indefinite period, to open and operate Jewel Cave for tourists.[17]

In late June 1928, the Jewel Cave Corporation began preparing the cave for tourists. It hired three men, Will E. Davis, Dave Peterson, and Ira Michaud, the son of Frank and Mamie Michaud, to clear debris from the passages, make other passageways larger, and install stairways in place of deteriorating wooden ladders. (Doy Curas was another early guide hired by the corporation.[18]) In one place, the men constructed a stairway with seventy-eight steps. According to a report written by Yellowstone Superintendent Roger Toll, who inspected the cave in late 1929, a passageway about five miles long (undoubtedly greatly exaggerated) was opened up during the summer. They also renovated the one- and one-half-mile-long road leading from the bottom of Hell Canyon to the cave so that an automobile could be driven to within one hundred yards of the cave entrance.[19] "A space [was] cleaned off for a parking lot at the bottom of the hillside below the entrance to Jewel Cave, with a foot trail between them." Davis, who was in charge of the improvement activities, and Michaud set up living quarters in the "old Kirk cabin, located below Prairie Dog Spring" and about one-half mile south of the Jewel Cave entrance. (Ira Michaud later recalled that they could not live in the Michaud's big old log house because it was impossible to drive an automobile to it.[20]

[14] A quit claim deed conveys any legal rights a person might have in a property, whereas a warranty deed conveys both a person's rights and warrants that the person/conveyor has this rights.
[15] Lienau, "Administrative History of Jewel Cave."
[16] Ira Michaud, "Jewel Cave: What I Have Heard & Seen," 1970; Ira Michaud, typed transcript of taped oral history, August 15, 1989; both at Library, Jewel Cave National Monument (hereafter cited as JECA).
[17] In 1929, Harney National Forest Supervisor James Conner reported that Mamie had been paid $500 in 1928 and an additional $250 in 1929. Roger W. Toll, "Report to the Director, National Park Service on Jewel Cave National Monument," November 18, 1929, at MORU.
[18] Lienau, interview with Jim Connor, "Jewel Cave Administrative History."
[19] Toll, "Report to the Director, National Park Service," November 18, 1929.
[20] Quoted in Michaud, "Jewel Cave: What I Have Heard & Seen," 25; "Stockholders Visit Jewel Cave," *Custer Weekly Chronicle,* September 13, 1928.

On July 15, 1928, Jewel Cave was informally opened to the tourists and local residents for the summer tourist season. Mrs. Leo Tehon from Urbana, Illinois, was the first visitor to register at the cave. "One of the party who made the first visit to the cave," reported the *Custer Weekly Chronicle,* "remarked that it was well worth the thirty years of waiting. . . . The walls and ceiling are solid crystals forming passageways and rooms of various sizes. . . . Stout stairways and railings are being built," the article reported.[21] The July 26, 1928 Newcastle *Newsletter* also described the cave in a lengthy article entitled "Jewel Cave Open to Visitors." In addition to the beautiful crystalline formations inside Jewel Cave, the article noted that the surrounding area was ideal for camping, at no charge.[22]

During the summer, Ira Michaud and Will Davis gave tours of Jewel Cave at 10 a.m. and 2 p.m. each day for $.25 per person.[23] (Harney Forest Supervisor Conner later recalled that the entrance fee was $.50 per person.) Fees collected were used to build new steps and ladders, buy lanterns, and pay the seasonal cave guides. Some of the fees and donations also went toward repurchasing shares sold by the corporation to its original stockholders.[24] The local Custer and Newcastle newspapers reported that visitors were taken about 2¼ miles into the cave (undoubtedly an exaggerated length). Jewel Cave remained open into September. By the end of the 1928 tourist season, when the Jewel Cave Corporation stockholders assessed the work completed at Jewel Cave, there had been 834 visitors register for tours of the cave.[25] One year later in 1929, about 2,200 people reportedly were guided through the cave.[26]

Additional improvements in and around the cave continued to be made. Will Davis, who remained in charge of Jewel Cave Corporation's tourist activities, and Ira Michaud were kept busy giving guided tours of the cave. The two men apparently continued to use the small "Kirk cabin," below Prairie Dog Spring for their sleeping quarters. Ira Michaud stopped working for Jewel Cave Corporation after the 1930 summer season.[27] Other cave guides hired in the 1930s included Ford Smith and Glen Heiderpriem.[28]

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[21] "Jewel Cave," *Custer Weekly Chronicle,* July 19, 1928.
[22] "Stockholders Visit Jewel Cave," *Custer Weekly Chronicle,* September 30, 1928; "Jewel Cave Open to Visitors," Newcastle *Newsletter,* July 26, 1928.
[23] "Jewel Cave Opens to Visitors," Newcastle *Newsletter*, July 26, 1928. Doy Curas (spelling uncertain) was the first or an early guide hired by the corporation, according to Lieneau, "Administrative History of Jewel Cave."
[24] Lienau, interview with Jim Conner, "Jewel Cave Administrative History,"
[25] "Stockholders Visit Jewel Cave," *Custer Weekly Chronicle,* September 30, 1928; "Jewel Cave Open to Visitors," Newcastle *Newsletter,* July 26, 1928.
[26] Toll, "Report to the Director, National Park Service," November 18, 1929.
[27] Michaud, "Jewel Cave: What I Have Heard & Seen."
[28] Lienau, interview with Fred O'Connor, "Jewel Cave Administrative History."

The Jewel Cave Corporation continued to make improvements at Jewel Cave. Additional passages were enlarged with dynamite to permit improved visitor access, and more crystals were removed to clear passageways for tourists. Two rail carloads of crystals were reportedly again shipped to the Catholic Church in West Bend, Iowa.[29] Steps leading up to the cave entrance from the floor of Hell Canyon, and a gable-roof shed, extending outward from the cave entrance, were improved.[30]

The Jewel Cave Corporation also paid for and encouraged road improvements in the area. After Davis, Michaud, and Dave Peterson "renovated a road up the bottom of Hell Canyon" during the summer of 1928,[31] the Jewel Cave Corporation urged the construction of part of the Custer-Newcastle road. The front page of the June 18, 1931 issue of the *Custer County Chronicle* announced that part of the Custer-Newcastle Highway would be built soon.[32] This highway (now U.S. 16), which passed just north of the cave, was completed within the next couple of years. In early July 1933, the Newcastle *Newsletter* announced that the "new highway by Jewel Cave will be opened to travel by the middle of July." The article reported the details of the road project.

> Ten miles of the road from Custer going west has been built within the last two years. The first four miles of the road from Custer to the Four Mile junction has been graveled. The 20 miles now under construction to the Wyoming line in three different contracts will be finished during the next few months. The Western Bridge and Construction Co. . . . is finishing a three and a half mile project today, with the exception of guard rails. By the middle of July it will be open to the public. . . . This project, started last October, is known as route 6, Section B. It runs west from the road built last year by the Pioneer Construction Co. of Denver, to the 8.6 miles on the west end, now under construction by the S. J. Groves. The east end of the Groves job is being finished as rapidly as possible. By the middle of July [1933], it will be

[29] "Jewel Cave," *Custer County Chronicle,* June 11, 1931.
[30] Alex Mitich, "Cave Questions—Little Jewels," *Bits and Pieces* 7: 2.
[31] Michaud, "Jewel Cave: What I Have Heard & Seen," 25; "Stockholders Visit Jewel Cave," *Custer Weekly Chronicle,* September 30, 1928.
[32] "Part of Custer-Newcastle Highway to Be Built Soon," *Custer County Chronicle,* June 18, 1931.

> finished so that it can be accepted at a point west of Hell's canyon. The old road from the top of the Bellemare hill to a point west of the canyon will be eliminated, and traffic can be directed over the new road.[33]

This road between Custer and Newcastle provided a major transportation link between the southern Black Hills and Yellowstone National Park 300 miles to the west.[34] The one- and one-half-mile-long road built many years earlier by the Michauds up the Hell Canyon floor was eventually abandoned.

Figure 7-3. Construction of the new road that passed the Jewel Cave National Monument cave opening, completed in the mid-1930s. Courtesy of the Mount Rushmore National Memorial (JECA 2896).

National Park Service Becomes Jewel Cave Guardian

The year 1933 became a watershed in the history of Jewel Cave National Monument. In addition to improved highway access that encouraged more visitation, Jewel Cave management moved from the Forest Service to the National Park Service in the Department of the Interior. Between 1908 and 1933, Forest Service officials and managers had paid scant sustained attention to Jewel Cave and the Michauds' problems.

[33] "New Highway By Jewel Cave Will Be Opened for Travel by Middle of July," *News Letter,* July 6, 1933, Library, JECA.
[34] Mike Hanson, "Jewel Cave National Monument," *1988 Guidebook,* typed version, Library, JECA.

The Forest Service generally followed a strategy of limited management of other national monuments under its oversight. The agency had not developed any standards or regulations governing the monuments it managed (beyond those devised jointly by the secretaries of Agriculture, War, and Interior after passage of the 1906 Antiquities Act). There was no single office in Washington, D.C. charged with administering the national monuments. Jewel Cave, like all the other monuments, had been managed separately on the local level as part of the larger Harney National Forest unit. There had been no separate appropriations for Jewel Cave since its creation twenty-five years earlier.[35] Only private donations from stockholders had enabled the cave to stay open seasonally to visitors since 1928.

Increasingly, a growing number of individuals concerned about the preservation of national monuments believed that the fragmented administration of the monuments and the existing national parks failed to provide the necessary protection of the scientific, scenic, or historical features set aside in monuments and parks. Such fragmentation in the administration of national parks had been addressed in 1916 with the creation of a single federal bureau—the National Park Service—to coordinate policies and plans for national park areas. The National Park Service (NPS) was created to promote and regulate the use of national parks, reservations, and monuments (those located on Department of the Interior public lands)

> [B]y such means and measures as to conform to the fundamental purpose of said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same . . . by such means as will leave them unimpaired for the enjoyment of future generations.[36]

[35] Harlan D. Unrau and G. Frank Williss, *Administrative History: Expansion of the National Park Service in the 1930s* (Denver: Denver Service Center, National Park Service, 1983).

[36] Quoted in Barry Mackintosh, *The National Parks: Shaping the System* (Washington, DC: National Park Service, 1984), 18. The literature on the history of the National Park Service is large and includes: Alfred Runte, *National Parks: The American Experience* (Lincoln: University of Nebraska Press, 1982); Horace M. Albright, as told to Robert Cahn, *The Birth of the National Park Service* (Salt Lake City: Howe Brothers, 1985); Dwight F. Rettie, *Our National Park System* (Urbana: University of Illinois Press, 1995); William C. Everhart, *The National Park Service* (Boulder: Westview Press, 1983); Richard West Sellars, *Preserving Nature in the National Parks: A History* (New Haven, CT: Yale University Press, 1997).

In 1916, the National Park Service became responsible for thirty-seven diverse areas (fourteen national parks, twenty-one national monuments, Hot Springs Reservation, and Casa Grande Ruin). Over the next several years, NPS Director Stephen Mather and his assistant Horace Albright established many of the Park Service's policies and programs that helped unify the disparate areas administered by the NPS. Between 1916 and the height of the Great Depression in 1933, the total area administered by the National Park Service almost doubled in size. Significantly, several new areas added to the system were east of the Mississippi River and were of cultural (prehistoric and historic) significance, not just natural or scientific importance.[37]

In the late 1920s, the National Park Service took notice of Jewel Cave, possibly with the thought of evaluating its worthiness as a unit in the National Park system. The Michaud family may have played a role in bringing Jewel Cave to the attention of NPS Director Horace Albright. In August 1929, Albert Michaud wrote from his home in Terrace, British Columbia, to Stephen Mather, NPS director from 1916 to January 1929. Albert Michaud briefly described the mining claim filed and the development work completed by himself and Frank, Frank's death in 1927, and the poor circumstances of Frank's family (whose two youngest twin daughters were sixteen at the time). "We have written oh so many letters and always the same result," Albert bemoaned. "Turned over to some Forest Reserve official who knows nothing and cares less about it." In hopes of reaching "the right man to put my case before," Albert asked Mather to consider paying some money to Frank's family for the Jewel Cave property.[38]

Horace Albright, long-time assistant to Mather recently promoted to director of the National Park Service, apparently took notice of Jewel Cave upon receiving Michaud's letter. Albright may have directed Roger W. Toll, superintendent of Yellowstone National Park at the time, to visit Jewel Cave, Fossil Cycad National Monument, and Wind Cave National Park and report his observations. On October 20, 1929, just one month after Albert Michaud had written his letter, Roger Toll visited Jewel Cave. In his "Report on Jewel Cave National Monument, South Dakota" sent to NPS Director Albright in mid-November 1929, Toll reported the cave's location and automobile access, its history (as relayed to him by Harney National Forest Supervisor J. F. Conner), and its current operation by the Jewel Cave Corporation. Toll then described the interior of the cave—its passageways, chambers, and formations. Toll concluded his report by observing that:

[37] Mackintosh, *National Parks,* 19-20.
[38] Albert Michaud, letter to Stephen Mather, August 20, 1929, (Mike Wiles papers) Jewel Cave National Monument.

> [T]he cave has much beauty, but crystals, unless extraordinary in variety, can hardly hold the continued interest of visitors, to the same extent as 'drip formations.' It would seem that the cave is of local and state-wide importance rather than of national interest.[39]

Despite the Park Service's disinterest in Jewel Cave, by the early 1930s, the National Park Service seemed like the logical and best-suited federal agency to administer all federal parks and monuments set aside for the protection of remarkable scientific, historical, or scenic features. The campaign to consolidate the administration of all parks and monuments that began in the early 1900s finally succeeded on June 10, 1933. Newly elected President Franklin Roosevelt signed Executive Order 6166, which "combined functions of public buildings, national monuments, and national cemeteries" in an Office of National Parks, Buildings, and Reservations (the briefly renamed National Park Service). Executive Order 6166 went into effect on August 10, 1933. The number of National Park Service units quickly jumped from 67 to 137. This far-reaching action brought Jewel Cave National Monument into the national park system with the single stroke of a pen.[40]

The Forest Service moved reluctantly and slowly to transfer its administration of the national monuments to the National Park Service. Jewel Cave and the fourteen other monuments administered by the Forest Service in 1933, after testy discussions between the secretaries of Agriculture and the Interior, were finally transferred to the National Park Service in mid-January 1934. At that time, Secretary of the Interior Harold Ickes reported that the Forest Service was in full compliance with Executive Order 6166. (Subtle resistance, largely from field managers in the Forest Service, to the transfer of monuments to the NPS continued for many years.) Executive Order 6166, which doubled the size and added even more diversity to the Park Service, made 1933 a watershed year for the National Park Service as well as Jewel Cave National Monument.

An impressive dedication ceremony and wild meat barbeque near the entrance of the cave, orchestrated largely by Jewel Cave Corporation members marked the arrival of the National Park Service at Jewel Cave. Francis Case, editor and publisher of the *Custer Chronicle* beginning in 1931 (and later U.S. representative from South Dakota from 1937 to 1949),

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[39] Roger W. Toll, "Report to the Director, National Park Service on Jewel Cave National Monument," November 18, 1929, Library, JECA

[40] Unrau and Williss, *Administrative History,* 43-73; Mackintosh, *National Parks,* 34-35.

spoke at the dedication. Case introduced Mamie Michaud as widow of Frank Michaud and one of the founders of the Jewel Cave.[41] Jewel Cave was opened to the public under National Park Service management in June 1934.

The presence of the National Park Service at Jewel Cave was subtle at first. William Nevin, influential founder of the Jewel Cave Corporation, helped facilitate the transfer of management responsibilities from the Forest Service to the National Park Service.[42] The Jewel Cave Corporation continued to hire local men to greet and guide visitors through the cave. An arrangement between the National Park Service and the corporation guaranteed that "all fees shall revert to the corporation in return for guide service furnished until an investment of $1,925 has been paid to the stockholders."[43] The cave was opened to the public for only three months, beginning June 1, 1934. According to the Wind Cave National Park superintendent, who oversaw the operations at Jewel Cave for the Park Service, only one ranger was stationed at Jewel Cave to help guide visitors through the cave.[44] Jewel Cave Corporation personnel furnished the other guides. Tours of the cave were conducted from a small building moved to the side of the road, near the junction of Lithograph and Hell canyons. Steps, partially of log, leading to the cave and the gable-roof shed extending from the cave entrance were improved.[45] In the summer of 1939, three guides took visitors through the cave after which the Jewel Cave Corporation ceased to operate at Jewel Cave.[46]

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[41] Lienau, interview with Mamie Michaud, "Jewel Cave Administrative History.
[42] Alex Mitich, "Cave Questions—Little Jewels," *Bits and Pieces* March-April 1971, 16; Lienau, interview with Carl Sundstrom, "Jewel Cave Administrative History."
[43] Edward D. Freeland, "Superintendent's Annual Reports, Wind Cave National Park," for the 1938-1939 season, Library, hereafter cited as WICA.
[44] Freeland "Superintendent's Annual Reports, Wind Cave National Park," for 1934, Library, WICA.
[45] Lienau, interview with Carl Sundstrom, "Jewel Cave Administrative History"; Mike Hanson, "Jewel Cave National Monument" excerpt from Paha Sapa Grotto *1988 Guidebook,* Library, JECA; Mitich, "Cave Questions," 16; Kenneth W. Karsmizki, "Jewel Cave National Monument Multiple Property Submission," National Register of Historic Places, National Park Service, Department of the Interior, 1995.
[46] Freeland, "Superintendent's Annual Reports, Wind Cave National Park," for the 1938-1939 season, WICA.

Civilian Conservation Corps at Jewel Cave

The year 1933 proved to be a watershed in the development of the National Park Service and, ultimately, Jewel Cave for another reason. The arrival of Franklin Roosevelt in the White House in the spring of 1933 marked the beginning of a massive infusion of federal dollars into a sweeping constellation of policies and projects aimed at lifting the country from the depths of the Great Depression. Among many so-called "New Deal" programs proposed by Roosevelt and approved by Congress in 1933 to relieve the enormous unemployment and encourage economic recovery was a plan to employ young men in a wide variety of projects in public parks and forests, aimed at perpetuating the nation's natural resources and expanding outdoor recreation opportunities for the American public.

The Civilian Conservation Corps (CCC) was one of the most popular and visible New Deal programs that contributed to a massive expansion of Park Service personnel, activities, and development. Between 1933 and 1937, the Park Service received emergency relief appropriations amounting to $82,250,700 through the CCC (more than half the total it received for all relief project work done by the Public Works Administration, Works Progress Administration, and the Civil Works Administration). At its peak in 1935, the National Park Service operated 118 CCC camps on NPS units (and 482 on state park lands) and employed 120,000 young men and 6,000 professionally trained supervisors (such as landscape architects, engineers, foresters, biologists, historians, and archaeologists). CCC enrollees undertook a wide variety of development projects in national and state parks. They constructed fire breaks, trails, roads, and lookout towers; suppressed fires and planted trees; completed insect control work; built bridle and foot trails; constructed water supply, sanitary, and waste disposal facilities; strung telephone lines; accomplished landscaping, erosion, and highway beautification projects; constructed bridges and roads; and built picnic ground shelters, toilets, bath houses, and custodian and ranger cabins. The massive infusion of federal funds and personnel through the CCC and other New Deal relief programs made it possible for the National Park Service to accomplish hundreds of long-term development projects, large and small, in parks and monuments, many of which had been transferred to the NPS in 1933 by Executive Order 6166.[47]

[47] Unrau and Williss, *Administrative History*, 75-93; Mackintosh, *National Parks,* 42. For general background on the CCC and the National Park Service, see John A. Salmond, *The Civilian Conservation Corps, 1933-1942: A New Deal Case Study* (Durham, NC: Duke University Press, 1967); John C. Paige, *The Civilian Conservation Corps and the National Park Service, 1933-1944: An Administrative History* (N.p.: National Park Service, Department of the Interior, 1985), 1-37; Stan Cohen,

South Dakota became home to dozens of CCC camps, each with about 200 enrollees. The crumbling of the South Dakota economy, which had begun immediately after World War I when plummeting prices for agricultural products had caused farmers to default on debt payments, along with a severe drought from 1926 to 1936, demanded immediate help. Initially, South Dakota received thirteen CCC camps intended to house a total of around 3,600 enrollees; this was the largest per capita quota of any state in the nation.[48] Sixty percent of the enrollees were assigned to CCC camps in the Black Hills. The first Black Hills camp was established on May 18, 1933 at the old logging camp on Este Creek, where, in the late 1890s, the first timber sale on forest reserve land had been made in the nation. Enrollees at the CCC Este Camp, F-3, focused on improving the timber stand in the area. By the end of June 1933, six camps had been established in the Black Hills National Forest and five camps in Harney National Forest. A total of fifteen camps existed in both forests by the end of 1933.[49]

The years between 1937 and 1941 marked the heyday of the CCC program in South Dakota. One of the most spectacular projects undertaken was the construction of Lake of the Pines Dam in the Black Hills. This 850-foot-long 400-acre recreational lake became the largest construction project ever completed by the Corps. By the end of 1941, the CCC had employed more than 26,500 men in South Dakota and paid their families more than $6,200,000. The CCC disbanded in South Dakota and throughout the nation in 1942.[50]

Jewel Cave benefited greatly from the funding and manpower provided by the CCC. On May 20, 1935, a small group of CCC enrollees arrived at Jewel Cave from a CCC camp at Wind Cave National Park. Wind Cave Camp NP-1, home to Corps Company 2754, had been originally organized July 9, 1934, at Custer; a portion of it became the nucleus of the Wind Cave CCC camp.[51] Less than a year later, a small contingent of Corps men arrived at Jewel Cave to establish a spur, or "side camp," near the site of the current parking lot close to the ranger cabin. The men lived in a tent camp before barracks and a mess hall were begun and two small buildings were moved from Wind Cave to Jewel Cave in November 1935.

The Tree Army: A Pictorial History of the Civilian Conservation Corps, 1933-1942 (Missoula, MT: Pictorial Histories Publishing Company, 1980).

[48] Kenneth E. Hendrickson, Jr., "The Civilian Conservation Corps in South Dakota," *South Dakota History* 11: 1 (Winter 1980), 4.

[49] Theodore Krueger, "The CCC in the Black Hills and Harney National Forests," *Black Hills Engineer* 24 (December 1937), 14-25.

[50] Hendrickson, "Civilian Conservation Corps in South Dakota, 17-18.

[51] C. A. Alleger, compiler, "History of Camp NP-1, Wind Cave, Company 2754," *Civilian Conservation Corps, South Dakota District History* (Rapid City, South Dakota: Johnston & Bordewyk, Inc., 1936), 46.

(Two barracks buildings and a garage at Jewel Cave were moved, in July 1938, to Camp Crook in northwestern South Dakota, where one building became a school.)[52]

Corps men began several discrete projects at Jewel Cave in 1935. Work immediately began on a small, irregularly shaped, three-room ranger cabin, sited at the top of the ridge above the cave entrance. Enrollees began constructing the cabin foundation in the early summer, as well as cutting and peeling logs for the cabin and the small cave entrance building. Continuing through the summer and into the fall, CCC enrollees raised the cabin walls and constructed the gable roof. In February 1936, CCC men resumed work on the ranger cabin. "Only a few days' work remains to be done, Wind Cave Superintendent Edward Freeland reported on February 7, 1936, "consisting of installing cupboards and placing door and window casings."[53] Shrubbery was transported to and planted around the cabin in the early summer of 1936. The log portion of the building was allowed to cure and dry for several more months, according to CCC men who worked on the project and were interviewed many years later. The log chinking may not have been completed until the summer/fall of 1936. Interior finishes were probably not completed until 1938.[54]

CCC enrollees began working on another important project soon after they arrived at Jewel Cave in May 1935. They began constructing a water system, consisting of a two-inch pipeline from the spring to the site of the reservoir (to be built east-northeast of the historic cave entrance), with a branch line to the Corps' side camp. In late 1935 and early 1936, the Corps men had completed the excavation for the 3,000-gallon reservoir, built forms and poured the reinforced concrete liner, applied a finish coat inside the reservoir, and back-filled around the reservoir. As this project neared completion in January 1936, several CCC men built forms, poured

[52] Edward Freeland, "Report to the Director, National Park Service, from the Superintendent of Wind Cave National Park," June 5, 1935, November 6, 1935, and July 9, 1938, Wind Cave National Park, WICA

[53] Freeland, "Report to the Director, National Park Service," February 7, 1936, WICA.

[54] Freeland, "Report to the Director, National Park Service," July 7, 1936, WICA; "CCC Notebook, Wind Cave," 1935, WICA; E. D. Freeland, "Development of National Park Areas in the Black Hills by the CCC," *Black Hills Engineer* 24 (December 10, 1937), 30; Alan W. O'Bright, "Rugged Charm: Ranger Cabin (HS-1), "Historic Structure Report" (Omaha: Midwest Systems Support Office, National Park Service, 1999); Nancy MacMillan, "Ranger Station Historic Structure Report, Jewel Cave National Monument" (N.p.: National Park Service, 1995), 6; Albert H. Good, *Park and Recreation Structures* (New York: Princeton Architectural Press, 1999), 84.

concrete, and completed the entire cesspool and sewer system at Jewel Cave.[55]

In 1936, CCC men at the Jewel Cave side camp kept very busy. In addition to completing the ranger cabin and water storage reservoir, the twenty-five Corps men turned their attention to trail, road, and boundary work. In February 1936, the CCC engineering foreman and assistant engineer Wohlbrandt spent several days conducting a survey of the trails inside Jewel Cave.[56] Corps men also built and surfaced a new 800-foot-long trail from the parking area to the cave entrance and also between the parking area and the ranger cabin. Stone steps and a hand railing, built across a section of sheer stone face, became a conspicuous feature of part of the new trail from the ranger cabin to the cave entrance. In conjunction with this trail work, the CCC removed the two small existing wood-frame gable-roof buildings at the cave entrance and installed a heavy iron gate across the cave opening.[57]

Figure 7-4. The Civilian Conservation Corps constructed the Jewel Cave Ranger Cabin in 1935-1936. Courtesy of Mount Rushmore National Memorial (JECA 841).

Roadwork consumed the energy and time of all twenty-five CCC corpsmen for several months in 1936 and the next two years. They spent three to four months from March through May completing road sloping at Jewel Cave. In July, they installed a rustic log sign at the junction of the main Custer-Newcastle road and the road into the parking area near the ranger cabin. "Bank sloping" work continued for about a year, from May 1937 to May 1938. In May and June 1938, the CCC men remaining at Jewel Cave focused their

[55] Freeland, "Report to the Director, National Park Service," February 7, 1936; Freeland, "Development of National Park Areas in the Black Hills by the CCC," 30.

[56] Freeland, "Report to the Director, National Park Service," April 6, 1936; O'Bright, "Rugged Charm," 10-11.

[57] Freeland, "Report to the Director, National Park Service," April 6, 1936, July 7, 1936, August 8, 1936; Lyle A. Derscheid, compiler, *The Civilian Conservation Corps in South Dakota (1933-1942)* Brookings, SD: South Dakota State University Foundation Press, 1986), 191.

attention on completing the parking area near the ranger cabin and undertaking work on the campground nearby. "Bank sloping resumed in July and continued through the fall of 1938.[58]

An important project undertaken by the Corps at Jewel Cave was the construction of a twenty-foot-wide fire guard and a stock fence around the entire 1,280-acre park. Boundary survey work was completed by September 1936. In November, the entire crew of twenty-five cleared the boundary lines and dug post holes for the boundary fence. During January, February, and March 1937, work continued and was completed on the boundary fence to keep livestock out of the monument.[59]

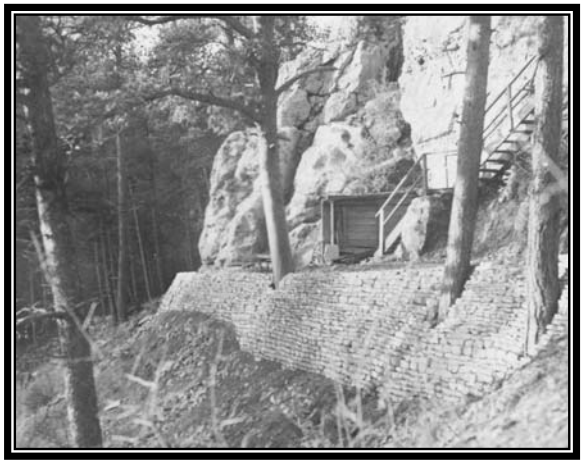

Figure 7-5. The new trail and stone terraced embankment to the Jewel Cave entrance was completed by the Civilian Conservation Corps in 1935 before the earlier wooden steps descending over the rocky ridge above the cave opening (to the right of the entrance) were removed. Courtesy of Mount Rushmore National Memorial (JECA 2797).

The CCC maintained its presence at Jewel Cave until September 1, 1939, when the side camp was abandoned. Only minor jobs were accomplished during the Corps' final months at the monument. The Corps men completed insect control work, bank sloping, and work on the stone steps leading to the cave entrance from the checking station by the end of August, just before leaving Jewel Cave.[60] On October 31, 1939, the main CCC camp at Wind Cave was moved to Badlands National Monument, created in January 1939, leaving only a fifty-man side camp at Wind Cave.[61]

[58] Freeland, "Report to the Director, National Park Service," April 6, 1936, July 7, 1936, April 6, 1936, August 8, 1936, May 1937 to May 1938, June 6, 1938, July 9, 1938, August 8, 1938, November 2, 1938.
[59] Freeland, "Report to the Director, National Park Service," September 7, 1936, December 5, 1936, and January, February, and March 1937; Freeland, "Development of National Park Areas in the Black Hills by the CCC," 30
[60] Freeland, "Superintendent's Annual Reports, Wind Cave National Park," for the 1938-1939 season, WICA.
[61] Freeland, "Report to the Director, National Park Service," September 11, 1939.

War Years at Jewel Cave

In the summer of 1940, the National Park Service, for the first time, had total responsibility for the operation of Jewel Cave National Monument (after the dissolution of the Jewel Cave Corporation at the end of the previous season).[62] In June, July, and August 1940 and 1941, two temporary seasonal rangers worked at Jewel Cave, giving guided tours of the cave, for 50 cents per person. They also performed other interpretation and resource protection tasks. Beginning in September 1941, a permanent ranger was assigned to Jewel Cave, thus, making cave tours possible from the spring into the early winter months. The permanent ranger lived in the ranger cabin at the park headquarters.[63]

The United States' economic support of the European Allies in the late 1930s and U.S. military entrance into World War II in 1941, however, abruptly ended all New Deal building development programs in the parks. Limited funds, materials, and men during the war brought about a tremendous reduction in the number NPS landscape architects, architects, engineers, and planners.

At Jewel Cave no construction projects were completed during the 1940s except for the erection of a rustic entrance sign on Highway 16 at the road to the ranger cabin. Other building development plans went no further than paper. Jewel Cave received its first Master Plan in 1942. This plan proposed the construction of several new facilities, including: a log employee's residence for the permanent ranger, a log storage building, and a fire equipment building, located in the headquarters area (southeast of the 1936 log Ranger Cabin); an enlarged campground with additional picnic tables and benches and pit toilets; new and widened existing roads and trails in the headquarters area; new directional signs in the headquarters area and enlarged signs at the monument boundary; and an extension of the water line to the proposed employee's residence.[64] No money was available, however, to make more than minor proposed improvements to the park for the next several years. The end of World War II in 1945 did not bring a sudden return of money and property to national parks. Instead, federal

[62] Freeland, "Superintendent's Annual Reports, Wind Cave National Park," for the 1938-1939 season, WICA.
[63] "The Master Plan, Jewel Cave National Monument, South Dakota," 1942, pp. D.O. 3002-D-6—D-10, Archives, Mount Rushmore National Memorial (hereafter cited as MORU).
[64] "Master Plan," 1942. Also see Brenda Smith, Quinn Evans/Architects, "Final Draft: Cultural Landscape Report/Environmental Assessment, Jewel Cave Historic Area," March 2005, 52-53.

funds shifted to Cold War activities. During the late 1940s and early 1950s, major building projects in nationally parks generally were rare.

Increased Visitation Spurs Development in 1950s

The National Park Service and Jewel Cave received no significant increase in park development funds until the mid-1950s when a new building program was introduced throughout the National Park Service.[65] This came in response to an enormous increase in visitation, beginning in the late 1930s and especially after World War II, along with limited funding appropriated by Congress to maintain or improve the national parks. Americans, eager to return to pre-war peacetime tranquility, ventured outdoors and into the national parks in record numbers. Visitation in national parks exploded after World War II, from 11,700 visitors in 1946 to 50,000 in 1955. Visitation throughout the national park system increased by 236 percent over this ten-year period.[66]

Jewel Cave National Monument likewise experienced an enormous jump in visitation immediately after World War II. Visitors to the park jumped from 338 in 1945, to 7,358 in 1946, then to 17,161 in 1947 (roughly half of whom toured the cave).[67] The August 21, 1947, issue of the *Custer Chronicle* newspaper announced that: "with a phenomenal 160 per cent gain over July of 1946, Jewel Cave showed the greatest travel increase of the four national park service units in the Black Hills" (even though the total number of visitors to Jewel Cave was the smallest of any of these areas). Most visitors came in June, July, August, and September.[68]

The limited development at Jewel Cave may have interrupted this enormous increase in visitors after 1947. Between 1948 and 1951, visitation plummeted from 17,161 in 1947 to 9,365 in 1948, then to 8,301 in 1949, and finally to 5,943 in 1950. In the early 1950s, a scholar studying the recreation industry of the Black Hills speculated that, "unless higher appropriations are granted for improving the primitive conditions [at Jewel Cave], the number of admissions can be expected to remain low."[69] Jewel Cave at that time had no electricity inside the cave and only the most

[65] Tweed, "Parkitecture," 126-27.
[66] Ronald A. Foresta, *America's National Parks and Their Keepers* (Washington, DC: Resources for the Future, 1984), 47-50.
[67] Joseph G. Bradac, "The Recreation Industry of the Black Hills of South Dakota and Wyoming" (Ph.D. dissertation, University of Michigan, 1954), 75.
[68] "Jewel Cave Travel Shows 160% Increase," *Custer Chronicle,* August 21, 1947, Archives (JECA 1716); "Superintendent's Monthly Narrative, Jewel Cave National Monument," October 3, 1946, (JECA 1688), both at MORU.
[69] Bradac, "Recreation Industry of the Black Hills," 75.

essential steps and ladders. Some Park Service managers questioned whether Jewel Cave should remain a unit in the National Park Service and, instead, be transferred to some other federal agency, like the US Forest Service or to private interests. Wind Cave Superintendent Harry Liek, who oversaw operations at Jewel Cave, admitted in a September 25, 1947, memorandum that more study of Jewel Cave's significance was warranted before any decision could be made about NPS's retention of the cave. For the present time, however, Liek recommended that: "retention of the cave and release or exchange of the mature timber land is the most logical step."[70] No transfer or sale of Jewel Cave land occurred. In the early 1950s, there was a slight increase in visitation at the park, from 5,943 in 1950 to 6,276 in 1951.[71]

Figure 7-6. Visitor from Iowa relaxing at the Ranger Station in the early 1950s. Courtesy of Ruthanne Bullock Family Papers, Boring, Oregon.

By the late 1950s, National Park Service managers acknowledged that Jewel Cave's significance stemmed, in part, from its small size and "primitive" character, which created a more poignant sense of adventure for the visitor and helped preserve the park's resources. (The masses of crystalline calcite forming dogtooth spars and the aesthetic beauty of the unspoiled Ponderosa pine forest blanketing much of Hell and Tepee

[70] Harry J. Liek, "Memorandum for the Regional Director, Region Two," September 25, 1947; Lyle K. Linch, "The Significance of Jewel Cave in Relation to Other Caves in the Black Hills," September 22, 1947 (JECA 1706), MORU.
[71] "Management Inspection Data—Jewel Cave National Monument," April 15, 1969 (JECA 1677), MORU.

canyons were also noted as distinctive features of Jewel Cave National Monument.)[72]

Problems, however, rooted in limited funding and visitor facilities for all the national parks, including Jewel Cave, continued in the early 1950s. Facilities throughout the parks, designed to accommodate pre-war levels of demand were degraded or destroyed. In some parks inadequate facilities created overcrowded campgrounds, broken equipment, and frustrated visitors. Congressional appropriations, minuscule during the war, continued to be totally inadequate once the war ended. Park Service Director Newton Drury, who disliked politics and bureaucratic entrepreneurship, failed to gain congressional appropriations sufficient to maintain and protect the parks. Although the number of visitors to all national parks increased from 33.2 million in 1950 to 56.5 million by 1955, annual appropriations only increased from $30.1 million to $32.9 million during the same period.[73] In a 1953 article appearing in *Harper's* magazine, social critic and historian Bernard DeVoto suggested closing the national parks until they could be adequately funded and properly maintained.[74]

The problem of limited funding began to change with the arrival of new National Park Service leadership in the early 1950s. Conrad Wirth replaced Drury as National Park Service director in January 1951. Wirth, a career National Park Service employee known for his skilled administration of the agency's Civilian Conservation Corps (CCC) program in the 1930s, brought to his new position a deep commitment to improving the national parks, along with the political acumen required to marshal the good will and much-needed appropriations from members of Congress. Funding objectives, Wirth believed, needed to be met while pursuing a strategy to rebuild the National Park Service's independence after a bitter battle it had just fought with the Bureau of Reclamation over the construction of a dam in the Echo Park area of Dinosaur National Monument. Conrad Wirth spent long hours over the next four years developing a strategy that would financially support the park's need to complete long-neglected repairs, restoration, new construction, and protection of park resources. In 1955, Wirth devised just such a plan.[75]

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[72] "Jewel Cave National Monument, Mission 66 Prospectus, "Revised (Department of the Interior, National Park Service, October 1, 1958), 1-2, 7 (JECA), MORU.
[73] Conrad L. Wirth, *Parks, Politics, and the People* (Norman: University of Oklahoma Press, 1980), 234.
[74] Foresta, *America's National Parks and Their Keepers*, 50-51.
[75] *Ibid.,* 52-53; Amanda Zeman, "Mission 66: A Master Plan to Save the National Parks" (Paper presented at joint American Society of Environmental Historians/National Council on Public History meeting, spring 2004, Victoria, British Columbia), 1-2.

Mission 66 Comprehensive Park Program

A program known as Mission 66[76] was a massive decade-long program of improvement, construction, and protection throughout the National Park system. According to Conrad Wirth, the program's core purpose was all-encompassing:

> To make intensive study of the problems of protection, public use, interpretation, development, staffing, legislation, financing, and all other phases of park operation, and to produce a comprehensive and integrated program of use and protection that is in harmony with the obligations of the National Park Service under the [founding] Act of 1916.[77]

The Mission 66 program aimed to increase public support for the system and the NPS by accommodating as wide a range of public tastes as possible. An important goal of Wirth's Mission 66 program was to bring all Park Service units up to a consistently high level of preservation, staffing, and physical development. He also intended to consolidate the parks into one unified national park system. All existing structures, regardless of design and function, were to be integrated into this new development plan. Mission 66's combined emphasis on both development and preservation became a unique aspect of the program.[78]

Although this ambitious plan cost an estimated $786,545,600, Conrad Wirth managed to convince President Dwight Eisenhower of the merits of the plan and win the approval of powerful members of Congress. In 1955, both the Eisenhower administration and the House Appropriations Committee heartily supported requests for Mission 66 program funding. Appropriations for Mission 66 park development increased steadily over the next three years, from $49 million in fiscal year 1956, to $68 million in 1957, to $76 million in 1958, and, finally, to $80 million in 1959. (Expenditures for Mission 66 projects totaled nearly $1 billion.)[79]

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[76] The name "Mission 66" was derived from the targeted completion date of the program, 1966, the fiftieth anniversary of the founding of the National Park Service.
[77] Quoted in Zeman, "Mission 66," 2.
[78] *Ibid.,* 2; Foresta, *America's National Parks,* 53.
[79] Zeman, "Misison 66," 2: Foresta, *America's National Parks,* 53.

Conrad Wirth launched the Mission 66 program by first soliciting input from all park units, then creating a Mission 66 Committee that selected pilot projects in six diverse parks (Yellowstone, Chaco Canyon, Shiloh, Adams Mansion, Fort Laramie, Mount Rainier, and Everglades). After reviewing the results of these six prospectuses, the Mission 66 Committee instructed each park in the entire National Park system to prepare its own prospectus, based on that park's most recent master plan and the goals of the Mission 66 program, outlining the park's infrastructure, personnel, and visitor needs.[80]

Jewel Cave produced its "Mission 66 Prospectus" (revised) on October 1, 1958. This twenty-three-page typed document consisted of four principal sections: "Statement of Significance," "Management and Development Theme," "Park Organization," and "The Program." The plan affirmed that the monument should be managed to protect 1) two small limestone caves, Jewel and Jasper, and 2) one of the largest virgin stands of Ponderosa pine. The prospectus then recommended that the monument be staffed by a permanent superintendent and a maintenance person, plus a seasonal staff of fourteen park rangers, two ranger naturalists, one fire control aid, and one clerk-stenographer.[81]

The Jewel Cave "Mission 66 Prospectus" reflected the program's emphasis on increasing visitor use in parks. Jewel Cave's small campground, the prospectus recommended, should be maintained and improved, more parking should be provided, the foot trails outside and inside the cave should be improved, and, most importantly, the prospectus called for the construction of a visitor center.

> A combination Visitor Center and Administration Building with Superintendent's office, clerk's office, ranger office, naturalists information booth, with double restrooms, waiting lobby or open loggia, and office supplies storage room [should be built.] This building will serve as the focal point for visitor use, management and protection and interpretive activities.[82]

The prospectus went on. "The building design should include features and arrangements so one or two uniformed rangers or naturalists can render maximum service to the public on a year-around basis."[83]

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[80] Zeman, "Mission 66," 2-3.
[81] "Jewel Cave National Monument, Mission 66 Prospectus," 1-6.
[82] "Mission 66 Prospectus," 7, 9, 11.
[83] *Ibid.*, 11

The prospectus also recommended the hiring of additional employees to attend to visitors' needs and the construction of two, three-bedroom residences for the park superintendent and maintenance person, as well as four one-bedroom quarters for seasonal employees. The prospectus stated that all existing (1958) housing (a one-room portable cabin, one trailer house, and bunk space in the 1936 ranger cabin) obsolete and that the existing CCC log cabin office and living quarters was "entirely inadequate for future remodeling and use."[84]

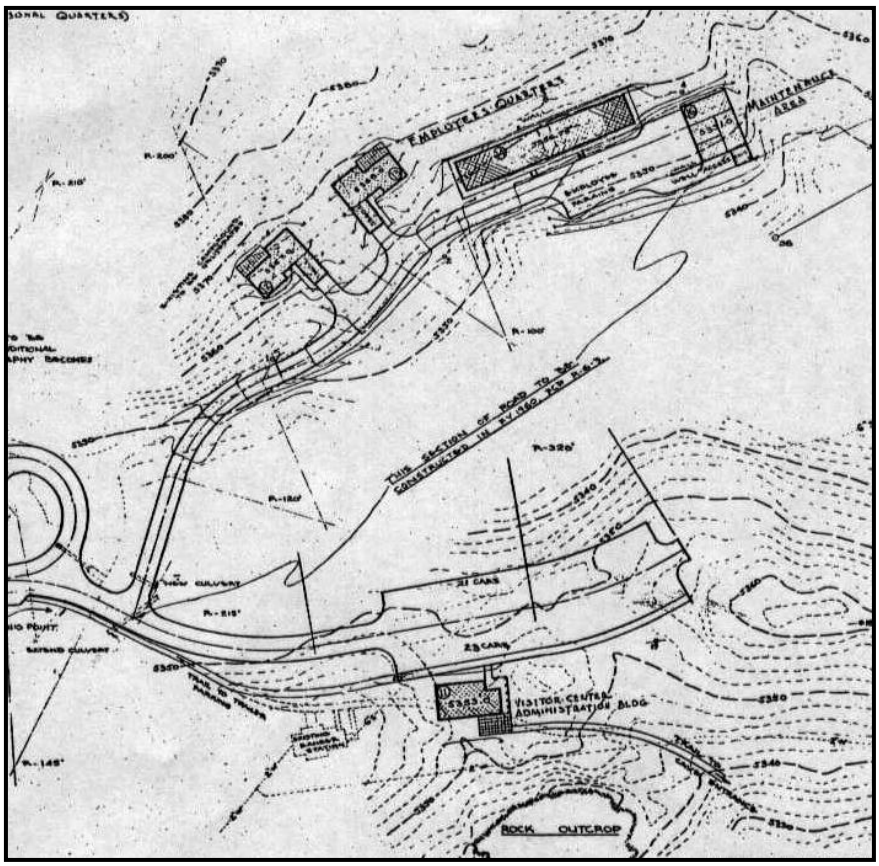

Figure 7-7. This site plan, dated February 19, 1959, shows the proposed new Mission 66 development above the historic cave opening and near the CCC log ranger station. Courtesy of Maintenance Division, Jewel Cave National Monument.

Construction of a combination garage, storage building, and maintenance shop was cited as a first priority development project at the park. The prospectus proposed that all new buildings be constructed in the

[84] *Ibid.*, 11-12.

existing headquarters area. The visitor center/administration building should be placed "near Hell Canyon Rim to provide the best scenic view." The total cost of all recommended development projects came to over $433,000.[85]

Only four months later, in mid-February 1959, the Western Office of the National Park Service produced a preliminary site plan of the proposed "Visitor Center-Administration Building," located less than 100 feet southeast of the CCC-built log ranger cabin and near a rock outcrop at the top of the steep Hell Canyon wall. A parking area for forty-five cars was indicated on the site map just northeast of the proposed visitor center.

Further to the northeast, occupying the small old 1930s campground (to be obliterated), were proposed buildings to be used as employee quarters (two, three-bedroom residences and a two-story, ten-unit seasonal quarters), similar to those at Mount Rushmore National Memorial, along with a maintenance storage building and employee parking area.

According to this site plan, a new campground would be built north of the new headquarters, closer to Highway 16.[86] Few conceptual changes were made in the proposed location of the Mission 66 Visitor Center, employees quarters, and maintenance area over the next three years. A February 1962 site plan of the proposed new headquarters resembled the one drawn in February 1959.[87]

These plans for development, presented in Jewel Cave's Mission 66 Prospectus and on site plans of the existing headquarters, never materialized. In the late 1950s and early 1960s, Jewel Cave apparently had no political champion who could persuade Congress to appropriate funding for the proposed development of a Visitor Center and new headquarters. Many believed that Jewel Cave's passageways, inside the historic entrance, offered visitors an unimpressive experience with lackluster mineral formations and primitive walking conditions. In its existing state, Jewel Cave apparently gave politicians little justification to request hundreds of thousands of dollars for the development of new visitor and administrative facilities. While development stagnated outside the cave, however, many new developments unfolded inside Jewel Cave in the early 1960s.

[85] *Ibid.*, 11, 15-16.
[86] "Site Plan Headquarters Area" (San Francisco: Western Office, National Park Service, February 16, 1959), located in Maintenance Division files, JECA.
[87] "Water System, Headquarters, Jewel Cave National Monument," February 20, 1962, Maintenance Division files, JECA.

The Conns' Discoveries Expand Park Support

Less than one year after the completion of the Jewel Cave "Mission 66 Prospectus," a meeting of individuals occurred that forever changed the history of Jewel Cave and the direction of the Mission 66 program at the park. In the early fall of 1959, young rock climber and geologist Dwight Deal invited veteran husband and wife rock climbers Herb Conn and Jan Conn to accompany him on a short walk into Jewel Cave. Herb, a native of New York, and Jan, born in Virginia, spent time together as young children in the White Mountains of New Hampshire, where their parents vacationed. In the early 1940s, Herb received a degree in engineering from the University of Colorado; Jan majored in music there. During World War II, Herb went to Washington, DC, to work for the federal government. Jan joined him and continued her education at the University of Maryland. She also worked at the Navy Yard in Washington operating precision machine-shop equipment. When not at work for the federal government, the two companions pursued and became increasingly adept at rock climbing in the Washington, DC, area. They became well known among rock climbers in the area for their climbing skills and coordination as a partnership. On Valentine's Day in 1944, Jan and Herb married.[88]

In 1951, the granite Needles in the southern Black Hills drew the Conns to Custer, South Dakota. Over the next eight years, the Conns built a small rustic home and settled into life in the Black Hills. The Conns had only minimal interest in underground rock climbing and no experience spelunking when, in 1959, Dwight Deal invited them to walk with him in Jewel Cave. At that time, only about .8 miles had been surveyed and less than a mile more had been entered but not mapped. A sign at the entrance of Jewel Cave in 1959 alerted visitors that Jewel Cave was "a small cave."[89]

All this changed over the next several years. Jan and Herb soon became fascinated by the challenge of rock climbing underground and the science of describing and measuring the intricate intertwining labyrinth of cave passageways. Between September 1959 and July 1976, the Conns explored and surveyed over fifty-five miles of cave passages and chambers, making Jewel Cave the second largest known cave in length in the United States in 1976. Both Jan and Herb Conn reveled in the thrill of discovering areas of Jewel Cave and the challenge of surveying them.[90]

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[88] Jan Conn and Herb Conn, interview with Gail Evans-Hatch and Michael Evans-Hatch, Custer, South Dakota, May 15, 2004, typed notes at Midwest Regional Office, National Park Service, Omaha, Nebraska.
[89] Herb Conn and Jan Conn, *The Jewel Cave Adventure* (Teaneck, NJ: Zephyrus Press, 1977), 11-14
[90] Conn and Conn, *Jewel Cave Adventure*, 37-43, 230.

The underground discoveries of the Conns played a critically important role in influencing the Mission 66 development of Jewel Cave. In the spring of 1961, after the Conns' explorations had taken them east from the cave opening on the edge of Hell Canyon, the National Park Service expressed its growing concern about the limited appeal and size of the historic portion of the cave toured by visitors. According to Herb Conn:

> The steep stairways and the ducking and scrambling on the two accessible routes were fun for visitors who liked some exercise and the adventure of visiting a cave in its natural state. But there were no vast chambers or spectacular decorations. Jewel Cave, some said, was not up to National Park Service standards . . . with all the new discoveries, there was plenty to show people if there were some way to get them there. . . . If some part of Jewel Cave beyond the Badger Hole [a few hundred feet east of the Hell Canyon entrance] came reasonably close to the surface, an artificial entrance could be dug.[91]

The Park Service's determination to move visitors away from the historic opening to some other presumably more expansive, attractive and dramatic and titillating part of Jewel Cave found expression as early as January 1961, when the National Park Service produced H. P. Benson's "General Development Plan" for Jewel Cave, which proposed the relocation of the park headquarters from its original site above Hell Canyon.[92]

Over the next year and a half, Jan and Herb Conn, accompanied by various others (such as Keith Miller, Pete Robinson, Fred Davenport, Al Denny, Dave Schnute, Al Howard, Pat Ryan, or Dwight Deal) set out to discover a new appealing and manageable tour route, accessed by a new cave entrance. In the spring of 1962, a seemingly vast underground region, producing a stiff breeze (indicating great cave volume) lured the Conns further southeast of the historic cave entrance toward Lithograph Canyon. Along the way, the cavers encountered stunningly beautiful dogtooth crystals (in the Crystal Display Room), sparkling quartz crystals (scintillates), slender stalactites hanging from a huge mound of flowstone (in the Formation Room), dripstone deposits (colorful stone draperies, pools with

[91] Conn and Conn, *Jewel Cave Adventures,* 77.
[92] Williams, "Final Draft, Cultural Landscape Report/Environmental Assessment," 55.

cave pearls), and a sprawling cavernous sphere 100 feet across (in the Target Room). In June 1962, the Conns and others working with them realized they had found numerous cave attractions that could be included in a new appealing and accessible Jewel Cave tour that could be entered through a new excavated opening in the side of Lithograph Canyon. The large Target Room was expansive enough to serve as a target for a discovery hole and, later, an elevator descending, from the ground surface above. In September 1962, the Conns led National Park Service employees (Pete Robinson, Fred Davenport, and Alan Howard) on the proposed new loop tour for visitors, which linked the Target and Formation rooms. In early 1963, NPS personnel in Omaha approved the new tour route recommended it to Washington, DC, Park Service authorities.[93]

Figure 7-8 . Herb and Jan Conn standing near the historical entrance to Jewel Cave, May 17, 2004, preparing to introduce the authors to caving. Photo by Gail Evans-Hatch. Courtesy of Jewel Cave National Monument, deposited at Mount Rushmore National Memorial.

Widespread publicity about the Conns' new discoveries in Jewel Cave, reported in several newspapers in 1964, helped provide Jewel Cave, for the first time, with the political support and funding for development that had eluded it since the monument's 1908 creation. The Conns' discoveries made it possible for Jewel Cave to finally move ahead with its Mission 66 development. In 1964, Senator Karl Mundt, with support from Senator George McGovern, both of South Dakota, proposed and secured congressional funding for Jewel Cave development that would serve the newly discovered portion of the cave above Lithograph Canyon. A House-Senate conference committee authorized the expenditure of $133,000 for the construction of buildings and utilities and $112,500 for the construction of roads and trails in the monument. A parking area, water system, sewer system, and public contact area were also included in the authorized funding package. According to Senator Mundt, the development projects for Jewel Cave would help the monument accommodate the anticipated increase in visitors. The discovery

[93] Conn and Conn, *Jewel Cave Adventure,* 81-93.

of vast new underground passages in Jewel Cave "promises to make Jewel Cave a tremendous tourist attraction," Mundt asserted.[94]

In October 1965, Congress enacted legislation (PL 89-250, 79 Stat. 971) providing for the exchange of a nearly equal amount of land between the National Park Service and the Black Hills National Forest and permitting the redrawing of the monument boundaries to encompass land above the newly discovered cave passages and proposed new cave tour and visitor and administrative facilities above it. South Dakota Senator George McGovern introduced this bill. (Senators Karl Mundt and Representative E. Y. Berry introduced an unsuccessful alternative bill to expand the existing boundaries of the monument to encompass the acreage above the newly discovered cave passages.) With the passage of the McGovern bill, only 11 percent of the original monument remained inside the redrawn monument boundaries.[95]

Mission 66 Development Moves Slowly Ahead

The development work proposed and actually carried out at the new Jewel Cave headquarters above Lithograph Canyon moved forward incrementally between 1964 and 1971 and evolved as it slowly progressed. In October 1964, the Midwest Regional Office of NPS produced a "Boundary Revision & Water Resources Map" depicting the general location of the new visitor center, the service and residential area, the proposed elevator shaft to the new cave tour route, and the proposed tunnel from Lithograph Canyon—all located north of and above Lithograph Canyon.

In April 1965, the NPS Midwest Regional Office presented a more precise location of roads, parking areas, and building outlines on a US Geological Survey quadrangle map. A 100,000-gallon concrete reservoir on the hillside above the proposed new headquarters was also drawn on this map, with water lines extended to both the old and the new headquarters areas (suggesting a shortage of water at the historic headquarters, still very much in use and striving to serve a growing number of visitors).[96]

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[94] "Jewel Cave Development Clears Hurdle in Capital," June 26, 1964, in "Jewel Cave National Monument 75th Anniversary Edition," *Custer Weekly Chronicle,* 1983, Library, JECA.

[95] *Ibid.;* Conn and Conn, *Jewel Cave Adventures*, 93-94; "Bills Introduced to Enlarge Hills' Jewel Cave Area," in "Jewel Cave National Monument 75th Anniversary Edition."

[96] "Boundary Revision & Water Resources" (Omaha: Midwest Region, National Park Service, revised October 21, 1964); Untitled map of new headquarters area

The years 1966 and 1967 proved to be years of catharsis, when the plans for the visitor center and headquarters evolved quickly and came close to reaching their final design configuration. In May 1966, Cecil J. Doty completed drawings for a visitor center. The general T-shape plan of the building consisted of a five-sided audio-visual auditorium with a terrace to the south on one end of the T cross bar and, at the other end, a twin elevator shaft descending to Jewel Cave's subterranean Target Room.

An elongated lobby with exhibit cases and "black box exhibits" along the walls extended between the dual elevator shaft and the audio-visual room. The long stem of the T-shape extended to the north, and consisted of offices and restrooms, adjoined along its entire length by a covered porch. Doty's visitor center was sited on a small knoll.[97] The outline of the Doty-designed visitor center appeared on a full set of plans of two of the proposed residences and the proposed visitor parking area, completed in 1966. [98]

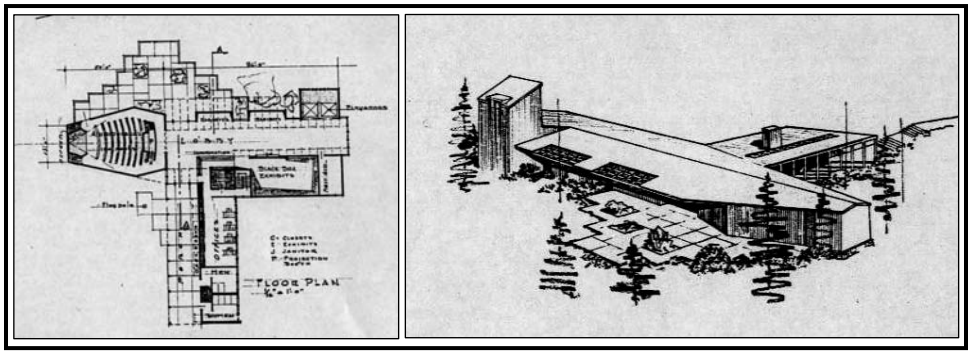

Figure 7-9.Architect Cecil Doty's plan and site sketch for the Jewel Cave Visitor Center in the new headquarters area, as it appeared in May 1956. From Cecil Doty, "Visitor Center, Headquarters," May 26, 1956, Technical Information Center, Denver Service Center, NPS.

Doty's plan of the Jewel Cave Visitor Center changed substantially between May and October 1966. In the fall, a schematic plan produced in NPS's San Francisco Planning and Service Center showed the visitor center, situated on the same small knoll as Doty's original building, along a hexagonal elevator lobby, connected to the main lobby by a hallway.

showing roads and outline of buildings, April 1965; both in Maintenance Division files, JECA.

[97] Cecil Doty, "Visitor Center, Headquarters," Midwest Region, National Park Service, May 26, 1966, Technical Information Center, Denver Service Center, National Park Service (hereafter cited as "TIC, DSC").

[98] Architect "CRS," "Standard Residences [Building Nos. 11 & 14], Headquarters, Jewel Cave National Monument," 1966, TIC, DSC.

At one end of the main lobby stood an audio-visual auditorium, while at the other end as an office wing, both of which had covered exterior walkways encircling an outdoor patio. A small hexagonal comfort station stood just a few feet from the end of the office wing. Funding for the entire headquarters area, including the visitor center, disappeared, however, when it was used for another project.[99]

Over the next year, the visitor center evolved again. By late 1967, when the project received federal funding, the building consisted of five octagonal shapes, each with a discretely separate function, joined by hallways. The main lobby occupied the central octagon. The elevator lobby stood to the west. An audio-visual room to the south occupied

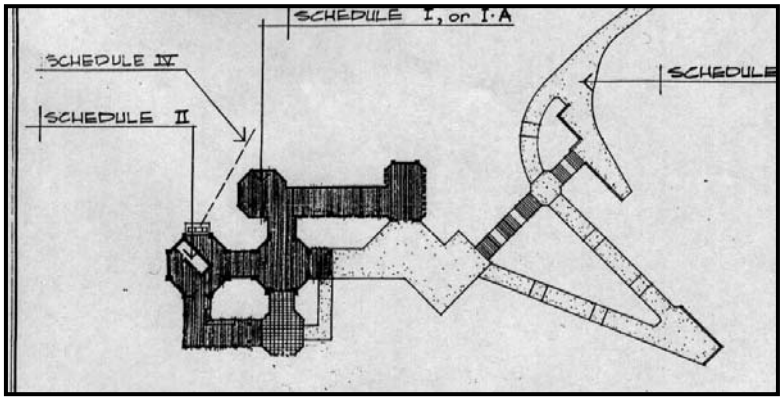

Figure 7-10. In the fall of 1969, the plan for the visitor center took on a form that resembles the present-day visitor center. From Maintenance files, JECA.

another octagon, accessible through a smaller side lobby. Offices stretching between two more octagonal forms stood to the north of the main lobby.

A covered walkway entered the main lobby from the east. And, finally an octagonal outdoor terrace southwest of the main lobby offered visitors grand vistas of Lithograph Canyon and the Black Hills beyond, to the south and west. This visitor center design, with relatively minor changes, eventually became the Jewel Cave Visitor Center that was actually built. By 1969 only the audio-visual room (and a small pool located near the east end of the covered walkway into the main lobby) had disappeared from the plans. The octagonal audio-visual room had by then been substituted by an outdoor octagonal pavilion, connected to the viewing terrace. Architect Cecil Doty is credited with this August 1969 and nearly final visitor center design.[100] Architect "C.R.S" checked the completion of

[99] *Ibid.,* "Visitor Center, Headquarters Area," ("Schematic Only for NPS Reference"), October 1966, Maintenance Division files, JECA.
[100] Allaback, *Mission 66 Visitor Centers,* 164.

the visitor center and the other buildings at headquarters, drawn on sixty-four sheets of plans and elevations.[101]

Although progress made to develop the new Jewel Cave headquarters stalled between 1966 and 1969, there was considerable activity inside the cave. In 1964, the Conns along with many others had drilled a 200-foot-deep hole from the hillside above Lithograph Canyon down to and through the ceiling of the Target Room, nearly 200 feet below. By the end of 1965, a crawlway from Lithograph Canyon, south of the Target Room, had been penetrated by a vertical shaft four feet in diameter, which permitted surveyors and engineers to enter Jewel Cave and plan an elevator shaft into the Target Room and the new tour area. In 1966, workmen built a tunnel from the side of Lithograph Canyon to the target Room, allowing passage of a small truck.[102]

Actual construction of the new tour route inside Jewel Cave commenced in 1966 and continued for the next three years. The process required unexpected creativity, engineering ingenuity, and intense physical labor rarely marshaled by experienced National Park Service above-ground trail blazers. Herb Conn periodically took part in some of the trail building activities. Conn later observed: "With only the tools that could be carried along by hand over difficult terrain, at first without electric power, huge boulders were moved to make way for a trail and stairs."[103] Trail work began in the spring of 1967. A crew of three, "wearing battery powered headlamps and working with hydraulic jacks and chain hoists, attacked the great boulders blocking the way."[104] Electric power and lights arrived in Jewel Cave late in 1967. A heavy high voltage cable was laid along non-tour passageways. Permanent electric lights were concealed along the tour walkways. During 1968 and 1969, more than fifty aluminum stairways and bridges were built in pieces and assembled in position. (Eventually, over 1,500 feet of the tour was over elevated aluminum structures.) Workmen hand-carried tons of cement, bucket by bucket, to various places along the trail. A 280-foot-deep shaft was then excavated and lined with concrete, and tunnels were built connecting the elevator shaft and the Target Room. Finally, in 1971, a small gable-roof protective structure was designed by architect Wendt, in the National Park Service's Western Service Center, and built in the Target Room to keep pieces of rock on the ceiling from falling on visitors.[105]

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[101] "Visitor Center Development, Headquarters," Project: JC-S329, August 1969, TIC, DSC.
[102] Conn and Conn, *Jewel Cave Adventure,* 96.
[103] *Ibid.,* 96.
[104] *Ibid.,* 97.
[105] *Ibid.,* 97; George R. Kyler, Bureau of Mines, Department of the Interior, letter regarding safety inspection of Jewel Cave to District Manager, Western Region, July

While construction on the new Jewel Cave tour proceeded underground, Mission 66/Parkscape building construction moved hesitatingly ahead above ground. National Park Service Director George B. Hartzog, Jr., continued Mission 66 into a successor program called Parkscape that continued through 1972, the centennial of Yellowstone National Park. In 1969, the Strahan Construction Company completed the new Utility Building on a terraced section of the hillside above the visitor center site. A local Hot Springs, South Dakota, contractor completed the necessary repairs, replacements, and adjustments to the utility building left undone by Strahan Construction.[106]

After more than four years of planning the construction of the visitor center, the specifications for this building finally went out for bid in August 1970 (Project No. JC-S329).[107] On November 16, 1970, the selected contractor, Corner Construction Company of Rapid City, South Dakota, moved into the park. Excavation around the elevator shaft and of the visitor center basement began on December 4, 1970, and was completed that week.[108]

Herbert J. Quick, of Corner Construction Company, supervised all work on the visitor center for the next year. He first oversaw the construction of a cutting shed to provide shelter from the weather for building roof trusses. (This "cutting shed" may have become the so-called "Pole Barn No. 1," an elongated shed-roof building near the Utility Building that was later enclosed.) Under Quick's supervision workmen also constructed a small shelter and installed a heating system above the site of the elevator shaft. Construction work during the winter and spring months of 1970 and 1971 focused on, first, grading the site, then continued with drilling holes for piers, setting forms, and pouring concrete into the forms for the elevator shaft. Lastly, workers constructed the roof trusses. On January 18, 1971, architects Herb Wendt and Alan Reynolds from the NPS's Denver Service Center visited the project.[109]

24, 1969, "Protective Structure, Target Room," March 1971, Maintenance Division files, JECA.

[106] Dave Todd, management assistant, "Information and Interpretive Services (NPS I)-2, Jewel Cave National Monument, 1969," no date, JECA.

[107] Planning and Service Center, Design and Construction, NPS, "Specifications for Construction of Visitor Center Development, Jewel Cave National Monument, South Dakota, Project No. JC-S329," August 14, 1970, Maintenance Division files, JECA.

[108] Herbert J. Quick, project supervisor, "Weekly Field Report," December 4, 1970, Maintenance Division files, JECA.

[109] Quick, "Weekly Field Report," for weeks ending December 11, 1970, January 8, January 22, January 29, February 12, February 26, March 12, April 2, 1971, Maintenance Division files, JECA.

In April and May 1971, as the weather warmed, forms were set and concrete poured for piers and grade beams under the main lobby, office wing, and exhibit room of the visitor center. In late May and June and July, workmen erected the structural steel elevator building, framed the walls of several sections of the building, and completed brickwork on the elevator building and the exhibit building. Premium select plain sliced white birch was installed on sections of the interior walls between the brick.[110] Fabrication of the wood roof trusses continued and, by mid-July, the trusses were erected on the exhibit room, office wing, and adjoining comfort station at the end of the office wing. By the end of July, carpenters had nearly finished framing the facia along the outside edge of the roof. At the end of August, workmen completed installing the roof on the exhibit, lobby, office wing, and its adjoining comfort station. Installation of the windows was also completed by the end of the summer 1971.[111]

The contractor, after a slow start-up in the winter and spring, was back on schedule by mid-summer 1971. This soon changed. Delivery of the elevator to the site was delayed nearly a month. Then, in September 1971, the driver of a concrete truck accidentally backed into the north wall of the comfort station end of the office wing. While repairs were made to this section of wall and after the elevator finally arrived in mid-September, most of the construction work moved indoors. Over the next several months, the installation of rails, platform, and frame of elevator one and two continued. By mid-November, Elevator No. 1 platform and frame was in use. (Elevator No. 2 was not installed until several years later.) Elsewhere in the building, workmen installed insulation and sheetrock, completed all the flat concrete work and brickwork, and window and door installation inside. Electricians, plumbers, sheet metal men, and carpenters completed work on the building's various systems, as well as the framework for the barrier doors in the upper and lower subterranean tunnels below ground between November 1971 and early March 1972. By March 10, 1972, the carpentry work and the single elevator (since the second elevator was not installed until several years later) were completed. Howard H. Gordon supervised much of the building's interior work.[112]

In March 1972, cleanup and grading around the building, as well as several other tasks, began, all under the supervision of Lee A. Specht.

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[110] Joseph J. Riss, Riss Brothers Millwork, letter to S. L. Corner, Corner Construction Company, June 4, 1971, Maintenance Division files, JECA.
[111] Quick, "Weekly Field Report," for weeks ending April 2, April 9, April 16, April 30, May 14, May 28, June 11, June 25, July 16, July 30, August 13, and August 27, 1971 Maintenance Division files, JECA.
[112] Quick, "Weekly Field Report," for weeks ending September 17, October 8, October 22, 1971 and March 10, 1972, plus Howard H. Gordon, "Weekly Field Report," for weeks ending November 6, November 13, November 20, and November 27, 1971, Maintenance Division files, JECA.

Workmen graded walkways, constructed forms, and poured concrete for the walkways, and for the V-shaped ramp and the steps leading up to the parking area. They then placed handrails in the center of these steps. The concrete patio was also finished. Wooden benches were stained and positioned around the building in May 1972. Meanwhile, subcontractors from the Black Hills Glass and Mirror Company completed installation of windows, doors, and lock cylinders in the entrance doors; the Bison Telephone Company installed telephone cables and telephones; City Electric Company installed electrical conduit and walk-light fixtures; and Mellgren Plumbing Shop, Inc. set and connected the outdoor drinking fountain. Finally, in late May, Aero Sheet Metal made repairs to the roof around the chimney house of the elevator. Also in May, general cleanup of the entire area was completed, topsoil was hauled and spread by an NPS crew, and the flagpole was set on the patio near the visitor center main entrance. On May 25, 1972, a final inspection of the Mission 66/Parkscape Jewel Cave Visitor Center was conducted.[113]

Completion of the Jewel Cave Visitor Center came none too soon. Only May 28, 1972, only three days after the building's final inspection, the $1.9 million visitor center was dedicated at 2 p.m. on a Sunday afternoon. Ben Reifel, director of Indian Programs for the National Park Service and former South Dakota congressman, served as the master of ceremonies at the dedication. Congressman Jams Aborezk and E. Y. Berry, a noted conservationists and former South Dakota congressman, spoke at the ceremonies. The contribution of Herb and Jan Conn in discovering and surveying the new cave tour nearly 300 feet below the visitor center was acknowledged at the ceremonies. Following the dedication, a ribbon-cutting and tour of the new Mission 66/Parkscape Jewel Cave Visitor Center took place. Within days of the visitor center dedication, park rangers began conducting eight half-mile-long cave tours a day, between 8 a.m. and 5 p.m. After a decade of planning and waiting, Mission 66/Parkscape development had accomplished the objective of encouraging

[113] Quick, "Weekly Field Report," for weeks ending March 10, 1972, and also Lee A. Specht, "Weekly Field Report," for weeks ending April 21, May 5, May 12, May 19, and May 26, 1972. Corner Construction Company had not actually completed all work on the visitor center until several repairs had been made to the building in 1973. Corrections or repairs were made to the: automatic doors that did not move at the upper cave level and at the lower cave level; leaking roof in the upper roof over the elevator machinery room; creosote leaking through the nail holes in several locations around the building; frozen drain pan in the outdoor drinking foundation; peeling paint on the aluminum at the roof facia. Leon R. Thygesen, letter to Corner Construction Company, May 1, 1973, Maintenance Division files, JECA.

and permitting a great increase in visitation to Jewel Cave National Monument.[114]

[114] "Visitor Center Complex to Be Dedicated," for release May 7, 1972; Lyn Gladstone, "Jewel Cave Center, New Section to Open Sunday," *Rapid City Journal,* May 26, 1972; "New Visitor Center and Tour at Jewel Cave," news release, May 30, 1972; all in *Press Releases, Jewel Cave, 1957-1976,* WICA.

Conclusion:

Place of Passages

For millennium, the Jewel Cave area in the southern Black Hills has been a place of passages. Moving water that dissolved limestone, along joint planes in layers of deposited sandstone, over time, created an unknown hundreds (possibly thousands) of miles of underground passages. Above this labyrinth of subterranean passageways, Native Americans who traveled through the southern Black Hills apparently never knew of the intriguing rock formations in Jewel Cave's underground caverns. Yet Native inhabitants of the region passed over the ground above the cave for thousands of years as they gathered food. The passage of Natives undoubtedly occurred with seasonal regularity. With less regularity, one group of Natives in the Black Hills region replaced another group, and that group replaced another, and so on, until finally the Sioux (Teton/Lakota band) arrived in the early 1800s. The imprint of Indians' presence above Jewel Cave was probably negligible compared with natural cycles of freezing and thawing, falling snow and rain and flooding, and births and deaths had completed their course. Periodic naturally occurring fires that swept across the pine-covered grassy and stony landscape over Jewel Cave about every twenty years left far more visible evidence than did Native American travelers passing by.

The passage of small and widely dispersed European trappers and traders, between the mid-1600s and early 1800s, converged with and overlapped the world of Native Americans in the Great Lakes region and upper Mississippi/Missouri river drainages. Their physical imprints were few and quickly eroded and erased. The arrival of foreign pathogens, however, more than the humans that carried them, altered the numbers, flow, and ultimate degree of use of the landscape in the region around Jewel Cave. Large parties of explorers passing through the country, to learn of its natural exploitable treasures, came on horses heavily laden with tools and supplies. In the 1860s and 1870s, the actual passage of Euro-American explorers and wanderers searching for gold began to leave discernable evidence of their movement across the land. The route of Lieutenant Colonel George Custer's summer 1874 party, consisting of 1000 soldiers riding on horseback and setting up numerous camps throughout the Black Hills, and of the Jenney and Newton scientific entourage accompanied by 400 soldiers in June 1875, both left behind a wide swath of disturbed vegetation and game. Their passage, along with the hundreds of gold-seekers who followed in their footsteps, signaled the further displacement of the Lakota Sioux and, soon, their permanent dispossession from the Black Hills.

Beginning in the mid-1870s, the harvesting and commercialization of Black Hills' gold and other natural resources—marked by the permanent arrival of Euro-American placer prospectors, hard-rock miners, freighters and stage company owners, merchants and millers, and farmers and

ranchers—brought the most rapid and dramatic changes to the Black Hills landscape and surrounding environment. Their arrival was accompanied by a new view of owning and ordering the land that found expression in the creation of mining claims and town plats, the construction of log and wood-frame buildings, the arrangement of town lots comprising an orderly grid-pattern of blocks, the small movement and large excavation of earth at mining sites, the construction of mills along with the subsequent diversion of water and felling of logs, the cultivation of the soil, and the grazing of newly introduced cattle.

The development and continuing improvement of roads into the southern Black Hills contributed to the dynamic emergence of a new cultural landscape. The roads themselves impacted the local landscape by cutting into slopes and making exposed soil more vulnerable to erosion. The concentration of human traffic passing over roads trampled vegetation and covered it with a thick veil of dust in the summer and mud in winter and spring. The passage of people and their vehicles across the landscape through the southern Black Hills and not far from the concealed Jewel Cave altered natural unorderly patterns of plants and animals in the late 1800s. It was around this time that the new inroads made by Euro-American settlers into the Hell Canyon area led to the "discovery" of the underground passageways of Jewel Cave by Frank and Albert Michaud.

Decades of using and not replenishing natural resources throughout the eastern United States and even in the Black Hills worried a growing number of Americans who noticed the depletion of wildlife, forests, and soil. The concept of exhaustible nature entered the American public consciousness and federal government policy-making in the late nineteenth and early twentieth centuries. The Black Hills stood at the forefront of experimental conservation legislation, passed by Congress in the 1890s, which gave birth to the designation of "forest reserves" and the creation of a place known as the Black Hills Forest Reserve in 1897. Added to the concept of conserving resources for continued future use, less than a decade later, was the notion of setting aside certain special scientific and cultural features for perpetual protection from use. The 1906 Antiquities Act provided the basis for creation of a new landscape designation—a "monument"—and the establishment of Jewel Cave National Monument in 1908.

For the next twenty years, those responsible for managing the Jewel Cave landscape and its subterranean passageways discussed and debated the meaning of preserving the curious features in Jewel Cave National Monument that happened to be located inside the boundaries of a national forest whose resources were being conserved for continued future use. No federal money existed to adequately answer these questions, to manage Jewel Cave National Monument more than minimally, or to oversee the irregular passage of those who claimed a right to mine the cave

and to show it to curious visitors. Jewel Cave National Monument remained a 1280-acre island of uncertainty inside a larger landscape being logged, grazed, and mined. Between 1908 and 1928, the passage of people to and through the cave was minimal; a stout door across the entrance usually remained locked, even as tourists in new automobiles flooded to Black Hills natural attractions in growing numbers. Those who ventured inside the cave during this time were kept from making ambitious extensive explorations by deteriorating or non-existent ladders and pathways.

The death of the Michaud patriarch in 1927 and the relinquishment of the Michaud family claim of ownership to the cave after nearly thirty years, the founding of the Jewel Cave Corporation in 1928, and, finally, the transfer of Jewel Cave management from the Forest Service to the National Park Service in 1933-34 changed forever the future of Jewel Cave. All three of these events contributed to a sea change in management policies, uses, and public perceptions of Jewel Cave that enveloped the national monument. Recreational use of Jewel Cave, promoted by the Jewel Cave Corporation and the National Park Service, encouraged the arrival and passage of tourists. In the 1930s, Jewel Cave received, for the first time since the creation of the national monument, federal public relief funding to build a ranger cabin, a public campground, develop water facilities, and complete new and improved trails and steps inside the cave. A new section of the U.S. highway between Custer and Newcastle brought travelers closer to the cave; and a new trail brought visitors right to the entrance of the cave in safety and with ease. The natural landscape above Jewel Cave became overlain with an unfamiliar mantle of cultural artifice.

The anxious weary years during World War II saw few additional physical changes in the monument; the total preoccupation and involvement of the American populace in wartime activities along with gas rationing that restricted travel kept most recreational visitors away from Jewel Cave. With the end of war in 1945, however, a great tide of Americans eager to put thoughts of war behind them and return to a normal life headed for outdoor pleasure grounds in the family car. Visitation at parks around the country and at Jewel Cave exploded in the late 1940s. Jewel Cave and hundreds of other National Park Service units around the country underwent momentous physical change as a NPS new building program, planned for completion by 1966, was launched in the mid-1950s to accommodate and to encourage surging visitation in the parks.

Now, for the first time in Jewel Cave National Monument history, discovery and development of new passageways underground inside the cave equaled in importance the construction of new buildings, parking areas, and trails on the land above the cave. In the early 1960s, Jan and Herb Conn explored and recorded many miles of new passageways in Jewel Cave, enabling the Park Service to develop a new underground pathway for

tourists and move the park headquarters to a new location at the edge of Lithograph Canyon. Human efforts to reshape the landscape now shifted away from the natural opening in Jewel Cave in Hell Canyon about a mile to the east to newly excavated openings in the cave at Lithograph Canyon. Between the late 1960s and 1972, the NPS's Mission 66/Parkscape building program transformed the sloping hillside above Lithograph Canyon as a visitor center, parking area, utility building, other small buildings, and connecting roads were completed in the pine forest. Following the dedication of the new visitor center in May 1972, visitors to the national monument focused their wanderings to new pathways above Lithograph Canyon and passageways inside Jewel Cave. The passage of people to unexplored and unsurveyed realms inside the cave continues to this day.

Appendix I

Sites Located by Glenna Sheveland, 1992 - 1995

Appendix I - Sheveland Sites
Historic Resource Study
Jewel Cave National Monument

Table of Sites Located by Glenna Sheveland, 1992 - 1995[1]

This information presented in this table is limited to the fourteen sites Sheveland located within the boundaries of Jewel Cave National Monument.

Site Designation	Quantity and nature of artifacts found	Natural environment of site
39CU1240	Three chert tertiary flakes	Perennial spring and seeps. Thick vegetation obscured ground surface
39CU1241	Three items: bifacially worked flake, bifacially worked tool fragment and a flake of Knife River Flint	Short walk from perennial spring. Site is in a road
39CU1242	More than fifty flakes of chert, quartzite and chalcedony. Also, two bifacially worked tools	Base of a slope that ascends to another site
39CU1263	One red tertiary chert point tip randomly flaked, unable to identify specific style or type	On a fire trail
39CU1264	One red tertiary chert flake	On a very steep slope at the base of a limestone ledge (Nothing found on the ledge)
39CU1265	One milky-white translucent tertiary chalcedony flake	On a heavily used trail
39CU1266	One butterscotch-colored "utilized" quartzite flake	In a fire break
39CU1267	Two flakes: a moss agate and a butterscotch-colored quartzite	Ground surface obscured by plant growth

[1] Source: This table is derived from narrative presented in Glenna J. Sheveland, *An Intensive Cultural Resource Survey of Jewel Cave National Monument* (Custer, SD: Jewel Cave National Monument, 1995). The site designations in this table are codes that were assigned using site designation conventions. Those wishing to identify the specific locations, and authorized to do so under the provisions of 13 USC 431 and the relevant federal regulations implementing that statute, may contact the appropriate South Dakota state agency. The specific locations are not disclosed in this document in order to preserve the physical and archeological integrity of the sites.

39CU1268	One purple tertiary chert flake and a ("possible") flake of tan quartzite	Near an area heavily disturbed by 20th Century construction
30CU1269	One spent bidirectional core	On a ridge containing a large quantity of exposed chert with little top soil
39CU1308	Possible lithic procurement site. Site revealed two pieces of high quality chert with signs of modification	[No description in original except that it was in a canyon]
39CU1309	Tin cans, bed springs, tar paper and ground depressions	[No description in original]
39CU1310	Rock "shelter" containing a pieces of heat treated scatter[2], a butterscotch-colored tertiary chert flake, a red-and-white tertiary chert flake, and a small piece of bone	On the side of a motor vehicle road
39CU	Historic foundation with partial chimney, small excavated hole with collapsed timber supports, 5'x3'cement slab	[No description in original] [1909 USGS shows structure]
39CU843[3]	This site contains both historic and prehistoric artifacts. Historic: spring enclosure Prehistoric: large scatter of lithic debris and tools 1993 finds: two points, a Pelican Lake point with rounded tip and the midsection and a part of the base of a McKean point, also found: a biface knife	[No description in original]
39CU844	Historic: remains of Michaud's residence, limited to stones remaining from foundation and remains of improvements to springs	

[2] The author does not report what she means by "heat treated." There is no indication if they are pieces of silica as is found in the Powder River area resulting from massive natural coal fires over the millenia, or whether it has simply been exposed to a cooking/heating or recreational fire.
[3] Sites 39CU843, 39CU844, and 39CU845 were first discovered by Ann Johnson in 1987. Sheveland revisited these sites in 1992-95.

39CU845	One broken chert biface fragment, chert flakes and "scatter debris" 1995: red chert biface tool, two cores, one red chert and one butterscotch-colored chert	Adjacent to two roads and dirt imported to be used as fill dirt for the roads

Appendix II

Treaties and Federal Legislation

Laramie Treaty of 1851

Articles of a treaty made and concluded at Fort Laramie, in the Indian Territory, between D. D. Mitchell, superintendent of Indian affairs, and Thomas Fitzpatrick, Indian agent, commissioners specially appointed and authorized by the President of the United States, of the first part, and the chiefs, headmen, and braves of the following Indian nations, residing south of the Missouri River, east of the Rocky Mountains, and north of the lines of Texas and New Mexico, viz, the Sioux or Dahcotahs, Cheyennes, Arrapahoes, Crows. Assinaboines, Gros-Ventre Mandans, and Arrickaras, parties of the second part, on the seventeenth day of September, A. D. one thousand eight hundred and fifty-one.[a]

ARTICLE 1.

The aforesaid nations, parties to this treaty. having assembled for the purpose of establishing and confirming peaceful relations amongst themselves, do hereby covenant and agree to abstain in future from all hostilities whatever against each other, to maintain good faith and friendship in all their mutual intercourse, and to make an effective and lasting peace.

ARTICLE 2.

The aforesaid nations do hereby recognize the right of the United States Government to establish roads, military and other posts, within their respective territories.

ARTICLE 3.

In consideration of the rights and privileges acknowledged in the preceding article, the United States bind themselves to protect the aforesaid Indian nations against the commission of all depredations by the people of the said United States, after the ratification of this treaty.

ARTICLE 4.

The aforesaid Indian nations do hereby agree and bind themselves to make restitution or satisfaction for any wrongs committed, after the ratification of this treaty, by any band or individual of their people, on the people of the

United States, whilst lawfully residing in or passing through their respective territories.

ARTICLE 5.

The aforesaid Indian nations do hereby recognize and acknowledge the following tracts of country, included within the metes and boundaries hereinafter designated, as their respective territories, viz:

The territory of the Sioux or Dahcotah Nation, commencing the mouth of the White Earth River, on the Missouri River: thence in a southwesterly direction to the forks of the Platte River: thence up the north fork of the Platte River to a point known as the Red Bute, or where the road leaves the river; thence along the range of mountains known as the Black Hills, to the head-waters of Heart River; thence down Heart River to its mouth; and thence down the Missouri River to the place of beginning.

The territory of the Gros Ventre, Mandans, and Arrickaras Nations, commencing at the mouth of Heart River; thence up the Missouri River to the mouth of the Yellowstone River; thence up the Yellowstone River to the mouth of Powder River in a southeasterly direction, to the head-waters of the Little Missouri River; thence along the Black Hills to the head of Heart River, and thence down Heart River to the place of beginning.

The territory of the Assinaboin Nation, commencing at the mouth of Yellowstone River; thence up the Missouri River to the mouth of the Muscle-shell River; thence from the mouth of the Muscle-shell River in a southeasterly direction until it strikes the head-waters of Big Dry Creek; thence down that creek to where it empties into the Yellowstone River, nearly opposite the mouth of Powder River, and thence down the Yellowstone River to the place of beginning.

The territory of the Blackfoot Nation, commencing at the mouth of Muscle-shell River; thence up the Missouri River to its source; thence along the main range of the Rocky Mountains, in a southerly direction, to the head-waters of the northern source of the Yellowstone River; thence down the Yellowstone River to the mouth of Twenty-five Yard Creek; thence across to the head-waters of the Muscle-shell River, and thence down the Muscle-shell River to the place of beginning.

The territory of the Crow Nation, commencing at the mouth of Powder River on the Yellowstone; thence up Powder River to its source; thence along the main range of the Black Hills and Wind River Mountains to the head-waters of the Yellowstone River; thence down the Yellowstone River to the mouth of Twenty-five Yard Creek; thence to the head waters of the Muscle-shell River; thence down the Muscle-shell River to its mouth; thence to the head-waters of Big Dry Creek, and thence to its mouth.

The territory of the Cheyennes and Arrapahoes, commencing at

the Red Bute, or the place where the road leaves the north fork of the Platte River; thence up the north fork of the Platte River to its source; thence along the main range of the Rocky Mountains to the head-waters of the Arkansas River; thence down the Arkansas River to the crossing of the Santa Fé road; thence in a northwesterly direction to the forks of the Platte River, and thence up the Platte River to the place of beginning.

It is, however, understood that, in making this recognition and acknowledgement, the aforesaid Indian nations do not hereby abandon or prejudice any rights or claims they may have to other lands; and further, that they do not surrender the privilege of hunting, fishing, or passing over any of the tracts of country heretofore described.

ARTICLE 6.

The parties to the second part of this treaty having selected principals or head-chiefs for their respective nations, through whom all national business will hereafter be conducted, do hereby bind themselves to sustain said chiefs and their successors during good behavior.

ARTICLE 7.

In consideration of the treaty stipulations, and for the damages which have or may occur by reason thereof to the Indian nations, parties hereto, and for their maintenance and the improvement of their moral and social customs, the United States bind themselves to deliver to the said Indian nations the sum of fifty thousand dollars per annum for the term of ten years, with the right to continue the same at the discretion of the President of the United States for a period not exceeding five years thereafter, in provisions, merchandise, domestic animals, and agricultural implements, in such proportions as may be deemed best adapted to their condition by the President of the United States, to be distributed in proportion to the population of the aforesaid Indian nations.

ARTICLE 8.

It is understood and agreed that should any of the Indian nations, parties to this treaty, violate any of the provisions thereof, the United States may withhold the whole or aportion of the annuities mentioned in the preceding article from the nation so offending, until, in the opinion of the President of the United States, proper satisfaction shall have been made.

In testimony whereof the said D. D. Mitchell and Thomas Fitzpatrick commissioners as aforesaid, and the chiefs, headmen, and braves, parties

hereto, have set their hands and affixed their marks, on the day and at the place first above written.

Laramie Treaty of 1868

Treaty between the United States of America and different Tribes of Sioux Indians; Concluded April 29 *et seq*, 1868; Ratification advised February 16, 1869; Proclaimed February 24, 1869.

ANDREW JOHNSON,
PRESIDENT OF THE UNITED STATES
TO ALL AND SINGULAR TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

Whereas, a treaty was made and concluded at Fort Laramie, in the Territory of Dakota, [now in the Territory of Wyoming,] on the twenty-ninth day of April, and afterwards, in the year of our Lord one thousand eight hundred and sixty-eight, by and between Nathaniel G. Taylor, William T. Sherman, William S. Harney, John B. Sanborn, S. F. Tappan, C. C. Augur, and Alfred H. Terry, commissioners, on the part of the United States, and Ma-zapon-kaska, Tah-shun-ka-co-qui-pah, Heb-won-ge-chat, Mah-to-non-pah, Little Chief, Makh-pi-ah-lu-tah, Co-cam-i-ya-ya, Ma-ws-tau-ni-hav-ska, He-ne-pin-wa-ni-ca, Wah-pah-shaw, and other chiefs and headmen of different tribes of Sioux Indians, on the part of said Indians, and duly authorized thereto by them, which treaty in the words in figures to wit;

Articles of a treaty made and concluded by and between Lieutenant-General William T. Sherman, General William S. Harney, General Alfred H. Terry, General C. C,. Augur, J. B. Henderson, Nathaniel G. Taylor, John B. Sanborn, and Samuel F. Tappan, duly appointed commissioners on the part of the United States, and the different bands of the Sioux Nation of Indians, by their chiefs and head-men, whose names are hereto subscribed, they being duly authorized to act in the premises.

ARTICLE 1
[Peace between the Parties]

From this day forward all war between the parties to this agreement shall forever cease. The Government of the United States desires peace, and its honor is hereby pledged to keep it. The Indians desire peace, and they now pledge their honor to maintain it. If bad men among the whites, or among other people subject to the authority of the United States, shall commit any wrong upon the person or property of the Indians, the United States will, upon proof made to the agent and forwarded to the Commissioner of

Indian Affairs at Washington City, proceed at once to cause the offender to be arrested and punished according to the laws of the United States, and also re-imburse the injured person for the loss sustained.

If bad men among the Indians shall commit a wrong or depredation upon the person or property of any one, white, black, or Indian, subject to the authority of the United States, and at peace therewith, the Indians herein named solemnly agree that they will, upon proof made to their agent and notice by him, deliver up the wrong-doer to the United States, to be tried and punished according to its laws; and in case they wilfully refuse so to do, the person injured shall be re-imbursed for his loss from the annuities or other moneys due or to become due to them under this or other treaties made with the United States. And the President, on advising with the Commissioner of Indian Affairs, shall prescribe such rules and regulations for ascertaining damages under the provisions of this article as in his judgment may be proper. But no one sustaining loss while violating the provisions of this treaty or the laws of the United States shall be re-imbursed therefor.

ARTICLE 2
[Great Sioux Reservation Defined]

The United States agrees that the following district of country, to wit, viz: commencing on the east bank of the Missouri River where the forty-sixth parallel of north latitude crosses the same, thence along low-water mark down said east bank to a point opposite where the northern line of the State of Nebraska strikes the river, thence west across said river, and along the northern line of Nebraska to the one hundred and fourth degree of longitude west from Greenwich, thence north on said meridian to a point where the forty-sixth parallel of north latitude intercepts the same, thence due east along said parallel to the place of beginning; and in addition thereto, all existing reservations on the east bank of said river shall be, and the same is, set apart for the absolute and undisturbed use and occupation of the Indians herein named, and for such other friendly tribes or individual Indians as from time to time they may be willing, with the consent of the United States, to admit amongst them; and the United States now solemnly agrees that no persons except those herein designated and authorized so to do, and except such officers, agents, and employes of the Government as may be authorized to enter upon Indian reservations in discharge of duties enjoined by law, shall ever be permitted to pass over, settle upon, or reside in the territory described in this article, or in such territory as may be added to this reservation for the use of said Indians, and henceforth they will and do hereby relinquish all claims or right in and to any portion of the United

States or Territories, except such as is embraced within the limits aforesaid, and except as hereinafter provided.

ARTICLE 3
[Right to Adjust Boundaries]

If it should appear from actual survey or other satisfactory examination of said tract of land that it contains less than one hundred and sixty acres of tillable land for each person who, at the time, may be authorized to reside on it under the provisions of this treaty, and a very considerable number of such persons shall be disposed to commence cultivating the soil as farmers, the United States agrees to set apart, for the use of said Indians, as herein provided, such additional quantity of arable land, adjoining to said reservation, or as near to the same as it can be obtained, as may be required to provide the necessary amount.

ARTICLE 4
[Construction of the Agency]

The United States agrees, at its own proper expense, to construct at some place on the Missouri River, near the center of said reservation, where timber and water may be convenient, the following buildings, to wit: a warehouse, a store-room for the use of the agent in storing goods belonging to the Indians, to cost not less than twenty-five hundred dollars; an agency-building for the residence of the agent, to cost not exceeding three thousand dollars; a residence for the physician, to cost not more than three thousand dollars; and five other buildings, for a carpenter, farmer, blacksmith, miller, and engineer, each to cost not exceeding two thousand dollars; also a schoolhouse or mission-building, so soon as a sufficient number of children can be induced by the agent to attend school, which shall not cost exceeding five thousand dollars.

The United States agrees further to cause to be erected on said reservation, near the other buildings herein authorized, a good steam circular-saw mill, with a grist-mill and shingle-machine attached to the same, to cost not exceeding eight thousand dollars.

ARTICLE 5
[Duties of the Agent]

The United States agrees that the agent for said Indians shall in the future make his home at the agency-building; that he shall reside among them, and keep an office open at all times for the purpose of prompt and diligent

inquiry into such matters of complaint by and against the Indians as may be presented for investigation under the provisions of their treaty stipulations, as also for the faithful discharge of other duties enjoined on him by law. In all cases of depredation on person or property he shall cause the evidence to be taken in writing and forwarded, together with his findings, to the Commissioner of Indian Affairs, whose decision, subject to the revision of the Secretary of the Interior, shall be binding on the parties to this treaty.

ARTICLE 6
[Land Allotment for Cultivation]

If any individual belonging to said tribes of Indians, or legally incorporated with them, being the head of a family, shall desire to commence farming, he shall have the privilege to select, in the presence and with the assistance of the agent then in charge, a tract of land within said reservation, not exceeding three hundred and twenty acres in extent, which tract, when so selected, certified, and recorded in the "land-book," as herein directed, shall cease to be held in common, but the same may be occupied and held in the exclusive possession of the person selecting it, and of his family, so long as he or they may continue to cultivate it.

Any person over eighteen years of age, not being the head of a family, may in like manner select and cause to be certified to him or her, for purposes of cultivation, a quantity of land not exceeding eighty acres in extent, and thereupon be entitled to the exclusive possession of the same as above directed.

For each tract of land so selected a certificate, containing a description thereof and the name of the person selecting it, with a certificate endorsed thereon that the same has been recorded, shall be delivered to the party entitled to it, by the agent, after the same shall have been recorded by him in a book to be kept in his office, subject to inspection, which said book shall be known as the "Sioux Land-Book."

The President may, at any time, order a survey of the reservation, and, when so surveyed, Congress shall provide for protecting the rights of said settlers in their improvements, and may fix the character of the title held by each. The United States may pass such laws on the subject of alienation and descent of property between the Indians and their descendants as may be thought proper. And it is further stipulated that any male Indians, over eighteen years of age, of any band or tribe that is or shall hereafter become a party to this treaty, who now is or who shall hereafter become a resident or occupant of any reservation or Territory not included in the tract of

country designated and described in this treaty for the permanent home of the Indians, which is not mineral land, nor reserved by the United States for special purposes other than Indian occupation, and who shall have made improvements thereon of the value of two hundred dollars or more, and continuously occupied the same as a homestead for the term of three years, shall be entitled to receive from the United States a patent for one hundred and sixty acres of land including his said improvemeats, the same to be in the form of the legal subdivisions of the surveys of the public lands. Upon application in writing, sustained by the proof of two disinterested witnesses, made to the register of the local land-office when the land sought to be entered is within a land district, and when the tract sought to be entered is not in any land district, then upon said application and proof being made to the Commissioner of the General Land-Office, and the right of such Indian or Indians to enter such tract or tracts of land shall accrue and be perfect from the date of his first improvements thereon, and shall continue as long as he continues his residence and improvements, and no longer'. And any Indian or Indians receiving a patent for land under the foregoing provisions, shall thereby and from thenceforth become and be a citizen of the United States, and be entitled to all the privileges and immunities of such citizens, and shall, at the same time, retain all his rights to benefits accruing to Indians under this treaty.

ARTICLE 7
[Education of Indian Children]

In order to insure the civilization of the Indians entering into this treaty, the necessity of education is admitted, especially of such of them as are or may be settled on said agricultural reservations, and they therefore pledge themselves to compel their children, male and female, between the ages of six and sixteen years, to attend school; and it is hereby made the duty of the agent for said Indians to see that this stipulation is strictly complied with; and the United States agrees that for every thirty children between said ages who can be induced or compelled to attend school, a house shall be provided and a teacher competent to teach the elementary branches of an English education shall be furnished, who will reside among said Indians, and faithfully discharge his or her duties as a teacher. The provisions of this article to continue for not less than twenty years.

ARTICLE 8
[Provisions to Initiate Farming]

When the head of a family or lodge shall have selected lands and received his certificate as above directed, and the agent shall be satisfied that he intends in good faith to commence cultivating the soil for a living, he shall be entitled to receive seeds and agricultural implements for the first year, not exceeding in value one hundred dollars, and for each succeeding year he shall continue to farm, for a period of three years more, he shall be entitled to receive seeds and implements as aforesaid, not exceeding in value twenty-five dollars.

And it is further stipulated that such persons as commence farming shall receive instruction from the farmer herein provided for, and whenever more than one hundred persons shall enter upon the cultivation of the soil, a second blacksmith shall be provided, with such iron, steel, and other material as may be needed.

ARTICLE 9
[Provisions for Withdrawal of Technical Assistance]

At any time after ten years from the making of this treaty, the United States shall have the privilege of withdrawing the physician, farmer, blacksmith, carpenter, engineer, and miller herein provided for, but in case of such withdrawal, an additional sum thereafter of ten thousand dollars per annum shall be devoted to the education of said Indians, and the Commissioner of Indian Affairs shall, upon careful inquiry into their condition, make such rules and regulations for the expenditure of said sum as will best promote the educational and moral improvement of said tribes.

ARTICLE 10
[Annuities]

In lieu of all sums of money or other annuities provided to be paid to the Indians herein named, under any treaty or treaties heretofore made, the United States agrees to deliver at the agency-house on the reservation herein named, on or before the first day of August of each year, for thirty years, the following articles, to wit: for each male person over fourteen years of age, a suit of good substantial woolen clothing, consisting of coat, pantaloons, flannel shirt, hat, and a pair of home-made socks. For each female over twelve years of age, a flannel skirt, or the goods necessary to make it, a pair of woolen hose, twelve yards of calico, and twelve yards of cotton domestics. For the boys and girls under the ages named, such flannel

and cotton goods as may be needed to make each a suit as aforesaid, together with a pair of woolen hose for each.

And in order that the Commissioner of Indian Affairs may be able to estimate properly for the articles herein named, it shall be the duty of the agent each year to forward to him a full and exact census of the Indians, on which the estimate from year to year can be based.

And in addition to the clothing herein named, the sum of ten dollars for each person entitled to the beneficial effects of this treaty shall be annually appropriated for a period of thirty years, while such persons roam and hunt, and twenty dollars for, each person who engages in farming, to be used by the Secretary of the Interior in the purchase of such articles as from time to time the condition and necessities of the Indians may indicate to be proper. And if within the thirty years, at any time, it shall appear that the amount of money needed for clothing under this article can be appropriated to better uses for the Indians named herein, Congress may, by law, change the appropriation to other purposes; but in no event shall the amount of this appropriation be withdrawn or discontinued for the period named. And the President shall annually detail an officer of the Army to be present and attest the delivery of all the goods herein named to the Indians, and he shall inspect and report on the quantity and quality of the goods and the manner of their delivery. And it is hereby expressly stipulated that each Indian over the age of four years, who shall have removed to and settled permanently upon said reservation and complied with the stipulations of this treaty, shall be entitled to receive from the United States, for the period of four years after he shall have settled upon said reservation, one pound of meat and one pound of flour per day, provided the Indians cannot furnish their own subsistence at an earlier date. And it is further stipulated that the United States will furnish and deliver to each lodge of Indians or family of persons legally incorporated with them, who shall remove to the reservation herein described and commence farming, one good American cow, and one good well-broken pair of American oxen within sixty days after such lodge or family shall have so settled upon said reservation.

ARTICLE 11
[Hunting Rights on Ceded Lands]

In consideration of the advantages and benefits conferred by this treaty, and the many pledges of friendship by the United States, the tribes who are parties to this agreement hereby stipulate that they will relinquish all right to occupy permanently the territory outside their reservation as herein defined, but yet reserve the right to hunt on any lands north of North Platte, and on

the Republican Fork of the Smoky Hill River, so long as the buffalo may range thereon in such numbers as to justify the chase. And they, the said Indians, further expressly agree:

First. That they will withdraw all opposition to the construction of the railroads now being built on the plains.
Second. That they will permit the peaceful construction of any railroad not passing over their reservation as herein defined.
Third. That they will not attack any persons at home, or travelling, nor molest or disturb any wagon-trains, coaches, mules, or cattle belonging to the people of the United States, or to persons friendly therewith.
Fourth. They will never capture, or carry off from the settlements, white women or children.
Fifth. They will never kill or scalp white men, nor attempt to do them harm.
Sixth. They withdraw all pretence of opposition to the construction of the railroad now being built along the Platte River and westward to the Pacific Ocean, and they will not in future subject to the construction of railroads, wagon-roads, mail-stations, or other works of utility or necessity, which may be ordered or permitted by the laws of the United States. But should such roads or other works be constructed on the lands of their reservation, the Government will pay the tribe whatever amount of damage may be assessed by three disinterested commissioners to be appointed by the President for that purpose, one of said commissioners to be a chief or head-man of the tribe.
Seventh. They agree to withdraw all opposition to the military posts or roads now established south of the North Platte River, or that may be established, not in violation of treaties heretofore made or hereafter to be made with any of the Indian tribes.

ARTICLE 12
[Three Fourths Requirement for Future Cessations]

No treaty for the cession of any portion or part of the reservation herein described which may be held in common shall be of any validity or force as against the said Indians, unless executed and signed by at least three-fourths of all the adult male Indians, occupying or interested in the same; and no cession by the tribe shall be understood or construed in such manner as to deprive, without his consent, any individual member of the tribe of his rights to any tract of land selected by him, as provided in article 6 of this treaty.

ARTICLE 13
[Provision for Technical Assistance]

The United States hereby agrees to furnish annually to the Indians the physician, teachers, carpenter, miller, engineer, farmer, and blacksmiths as herein contemplated, and that such appropriations shall be made from time to time, on the estimates of the Secretary of the Interior, as will be sufficient to employ such persons.

ARTICLE 14
[Bonus for Success in Farming]

Ninety days after the conclusion of peace with all the bands of the Sioux Nation, the military posts now established in the territory in this article named shall be abandoned, and that the road leading to them and by them to the settlements in the Territory of Montana shall be closed.

ARTICLE 17
[Nullification and Ratification]

It is hereby expressly understood and agreed by and between the respective parties to this treaty that the execution of this treaty and its ratification by the United States Senate shall have the effect, and shall be construed as abrogating and annulling all treaties and agreements heretofore entered into between the respective parties hereto, so far as such treaties and agreements obligate the United States to furnish and provide money, clothing, or other articles of property to such Indians and bands of Indians as become parties to this treaty, but no further.

In testimony of all which, we, the said commissioners, and we, the chiefs and headmen of the Brule' band of the Sioux nation, have hereunto set our hands and seals at Fort Laramie, Dakota Territory, this twenty-ninth day of April, in the year one thousand eight hundred and sixty-eight.

Acts of 44th Congress, Second Session, 1877
Chapter 72[1]

Indian Affairs, Laws and Treaties
Vol. I, Laws (Compiled to December 1, 1902) Compiled and edited by Charles J. Kappler. Washington : Government Printing Office, 1904.

Feb, 28. 1877.
19 Stat., 254.

CHAP. 72.—An act to ratify an agreement with certain bands of the Sioux Nation of Indians, and also with the Northern Arapaho and Cheyenne Indians.*(b) (b) By the act of July 1, 1898 (30 Stat., 596), the Secretary of the Interior is directed to have an inspector investigate the number of white settlers on the Northern Cheyenne Reservation, Mont., and the inspector is authorized to contract with such settlers for their removal. By the act of May 31, 1900 (31 Stat., 241), an appropriation is made to execute these contracts.*)

By the act of March 3, 1891, chapter 543 (post, p. 415), a subsequent agreement with the Cheyenne and Arapaho in the Indian Territory is ratified.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That a certain agreement made by George W. Manypenny, Henry B. Whipple, Jared W. Daniels, Albert G. Boone, Henry C. Bulis, Newton Edmunds, and Augustine S. Gaylord, commissioners on the part of the United States, with the different bands of the Sioux Nation of Indians, and also the Northern Arapaho and Cheyenne Indians, be, and the same is hereby, ratified and confirmed: Provided, That nothing in this act shall be construed to authorize the removal of the Sioux Indians to the Indian Territory and the President of the United States is hereby directed to prohibit the removal of any portion of the Sioux Indians to the Indian Territory until the same shall be authorized by an act of Congress hereafter enacted, except article four, except also the following portion of article six: "And if said Indians shall remove to said Indian Territory as hereinbefore provided, the Government shall erect for each of the principal chiefs a good and comfortable dwelling-house" said article not having been agreed to by the Sioux Nation; said agreement is in words and figures following, namely: "Articles of agreement made pursuant to the provisions of an act of Congress entitled "An act making appropriations for the current and contingent expenses of the Indian Department, and for

[1] This legislation is commonly (and erroneously) known as the "Treaty" of 1877.

fulfilling treaty stipulations with various Indian tribes, for the year ending June thirtieth, eighteen hundred and seventy-seven, and for other purposes," approved August 15, 1876, by and between George W. Manypenny, Henry B. Whipple, Jared W. Daniels, Albert G. Boone, Henry C. Bulis, Newton Edmunds, and Augustine S. Gaylord, commissioners on the part of the United States, and the different bands of the Sioux Nation of Indians, and also the Northern Arapahoes and Cheyennes, by their chiefs and headmen, whose names are hereto subscribed, they being duly authorized to act in the premises.

ARTICLE 1

The said parties hereby agree that the northern and western boundaries of the reservation defined by article 2 of the treaty between the United States and different tribes of Sioux Indians, concluded April 29, 1868, and proclaimed February 24, 1869, shall be as follows: The western boundaries shall commence at the intersection of the one hundred and third meridian of longitude with the northern boundary of the State of Nebraska; thence north along said meridian to its intersection with the South Fork of the Cheyenne River; thence down said stream to its junction with the North Fork; thence up the North Fork of said Cheyenne River to the said one hundred and third meridian; thence north along said meridian to the South Branch of Cannon Ball River or Cedar Creek; and the northern boundary of their said reservation shall follow the said South Branch to its intersection with the main Cannon Ball River, and thence down the said main Cannon Ball River to the Missouri River; and the said Indians do hereby relinquish and cede to the United States all the territory lying outside the said reservation, as herein modified and described, including all privileges of hunting; and article 16 of said treaty is hereby abrogated.

ARTICLE 2

The said Indians also agree and consent that wagon and other roads, not exceeding three in number, may be constructed and maintained, from convenient and accessible points on the Missouri River, through said reservation, to the country lying immediately west thereof, upon such routes as shall be designated by the President of the United States; and they also consent and agree to the free navigation of the Missouri River.

ARTICLE 3

The said Indians also agree that they will hereafter receive all annuities provided by the said treaty of 1868, and all subsistence and supplies which may be provided for them under the present or any future act of Congress, at such points and places on the said reservation, and in the vicinity of the Missouri River, as the President of the United States shall designate.

ARTICLE 4

[The Government of the United States and the said Indians, being mutually desirous that the latter shall be located in a country where they may eventually become self-supporting and acquire the arts of civilized life, it is therefore agreed that the said Indians shall select a delegation of five or more chiefs and principal men from each band, who shall, without delay, visit the Indian Territory under the guidance and protection of suitable persons, to be appointed for that purpose by the Department of the Interior, with a view to selecting therein a permanent home for the said Indians. If such delegation shall make a selection which shall be satisfactory to themselves, the people whom they represent, and to the United States, then the said Indians agree that they will remove to the country so selected within one year from this date. And the said Indians do further agree in all things to submit themselves to such beneficent plans as the Government may provide for them in the selection of a country suitable for a permanent home, where they may live like white men.]

ARTICLE 5

In consideration of the foregoing cession of territory and rights, and upon full compliance with each and every obligation assumed by the said Indians, the United States does agree to provide all necessary aid to assist the said Indians in the work of civilization; to furnish to them schools and instruction in mechanical and agricultural arts, as provided for by the treaty of 1868. (Also to provide the said Indians with subsistence consisting of a ration for each individual of a pound and a half of beef, (or in lieu thereof, one half pound of bacon,) one-half pound of flour, and one-half pound of corn; and for every one hundred rations, four pounds of coffee, eight pounds of sugar, and three pounds of beans, or in lieu of said articles the equivalent thereof, in the discretion of the Commissioner of Indian Affairs. Such rations, or so much thereof as may be necessary, shall be continued until the Indians are able to support themselves.) Rations shall, in all cases, be issued to the head of each separate family; and whenever schools shall have been provided by the Government for said Indians, no rations shall be issued for children between the ages of six and fourteen years (the sick and

infirm excepted) unless such children shall regularly attend school. Whenever the said Indians shall be located upon lands which are suitable for cultivation, rations shall be issued only to the persons and families of those persons who labor, (the aged, sick, and infirm excepted;) and as an incentive to industrious habits the Commissioner of Indian Affairs may provide that such persons be furnished in payment for their labor such other necessary articles as are requisite for civilized life. The Government will aid said Indians as far as possible in finding a market for their surplus productions, and in finding employment, and will purchase such surplus, as far as may be required, for supplying food to those Indians, parties to this agreement, who are unable to sustain themselves; and will also employ Indians, so far as practicable, in the performance of Government work upon their reservation.

ARTICLE 6

Whenever the head of a family shall, in good faith, select an allotment of said land upon such reservation and engage in the cultivation thereof, the Government shall, with his aid, erect a comfortable house on such allotment; [and if said Indians shall remove to said Indian Territory as hereinbefore provided, the Government shall erect for each of the principal chiefs a good and comfortable dwelling-house.]

ARTICLE 7

To improve the morals and industrious habits of said Indians, it is agreed that the agent, trader, farmer, carpenter, blacksmith, and other artisans employed or permitted to reside within the reservation belonging to the Indians, parties to this agreement, shall be lawfully married and living with their respective families on the reservation; and no person other than an Indian of full blood, whose fitness, morally or otherwise, is not, in the opinion of the Commissioner of Indian Affairs, conducive to the welfare of said Indians, shall receive any benefit from this agreement or former treaties, and may be expelled from the reservation.

ARTICLE 8

The provisions of the said treaty of 1868, except as herein modified, shall continue in full force, and, with the provisions of this agreement, shall apply to any country which may hereafter be occupied by the said Indians as a home; and Congress shall secure to them an orderly government; they shall be subject to the laws of the United States, and each individual shall be protected in his rights of property, person, and life.

ARTICLE 9

The Indians, parties to this agreement, do hereby solemnly pledge themselves, individually and collectively, to observe each and all of the stipulations herein contained, to select allotments of land as soon as possible after their removal to their permanent home, and to use their best efforts to learn to cultivate the same. And they do solemnly pledge themselves that they will at all times maintain peace with the citizens and Government of the United States; that they will observe the laws thereof and loyally endeavor to fulfill all the obligations assumed by them under the treaty of 1868 and the present agreement, and to this end will, whenever requested by the President of the United States, select so many suitable men from each band to co-operate with him in maintaining order and peace on the reservation as the President may deem necessary, who shall receive such compensation for their services as Congress may provide.

ARTICLE 10

In order that the Government may faithfully fulfill the stipulations contained in this agreement, it is mutually agreed that a census of all Indians affected hereby shall be taken in the month of December of each year, and the names of each head of family and adult person registered; said census to be taken in such manner as the Commissioner of Indian Affairs may provide.

ARTICLE 11

It is understood that the term reservation herein contained shall be held to apply to any country which shall be selected under the authority of the United States as the future home of said Indians.

"This agreement shall not be binding upon either party until it shall have received the approval of the President and Congress of the United States.

"Dated and signed at Red Cloud agency, Nebraska, September 26, 1876.

Appendix II - Treaties and Federal Legislation
Historic Resource Study
Jewel Cave National Monument

By the President of the United States of America

A Proclamation

WHEREAS, the natural formation, known as the Jewel Cave, which is situated upon the public land, within the Black Hills National Forest, in the State of South Dakota, is of scientific interest, and it appears that the public interests would be promoted by reserving this formation as a National Monument, with as much land as may be necessary for the proper protection thereof;

Now, therefore, I, THEODORE ROOSEVELT, President of the United States of America, by virtue of the power in me vested by section two of the Act of Congress, approved June eighth, nineteen hundred and six, entitled, "An Act For the preservation of American antiquities," do proclaim that there are hereby reserved from settlement, entry, and all forms of appropriation under the public land laws, subject to all prior valid adverse claims, and set apart as a National Monument, all the tracts of land, in the State of South Dakota, shown as the Jewel Cave National Monument on the diagram forming a part hereof.

The reservation made by this proclamation is not intended to prevent the use of the lands for purposes consistent with the withdrawal made by this proclamation, or for forest purposes under the proclamation establishing the Black Hills National Forest, but the two reservations shall both be effective on the land withdrawn, but the National Monument hereby established shall be the dominant reservation.

Warning is hereby given to all unauthorized persons not to appropriate, injure, or destroy any feature of this National Monument or to locate or settle upon any of the lands reserved by this proclamation.

In Witness Whereof, I have hereunto set my hand and caused the seal of the United States to be affixed.

DONE at the City of Washington this 7th day of February, in the year of our Lord one thousand nine hundred and eight, and of the Independence of the United States the one hundred and thirty-second.

[SEAL.]

THEODORE ROOSEVELT

By the President:
ELIHU ROOT
Secretary of State.

[No. 799.]

Appendix I - Sheveland Sites
Historical Resource Study
Jewel Cave National Monument

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