

Chapter 7

Opening Jewel Cave to Visitors

**1928-1930s,
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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

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Highway Association, and the Park-to-Park Highway Association) expanded touring across the country and in the southern Black Hills.

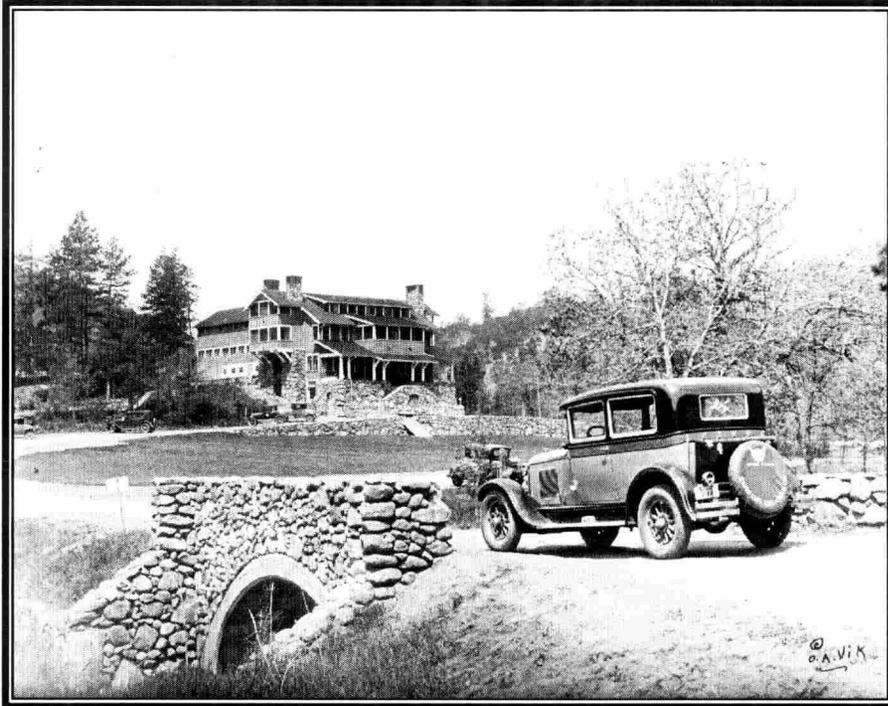


Figure 7-1. This Red Flying Cloud car at the entrance of the State Game Lodge in Custer State Park (northeast of Custer), represented the growing popularity of outdoor recreation and Black Hills tourism in the late 1920s that was facilitated by the automobile. Courtesy of the South Dakota State Archives, 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 A Utah Camp to Mt. Mt., 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 America* (Lincoln: University of Nebraska Press, 1985); Hal K. Rothman, *Devil's Bayou: 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).

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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 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.

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“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.

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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. Lonsign, 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 Kitchwell, 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.

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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

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



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)

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, Vd. 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, Vd. 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").

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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.

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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

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 Lienau, "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."

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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.

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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.

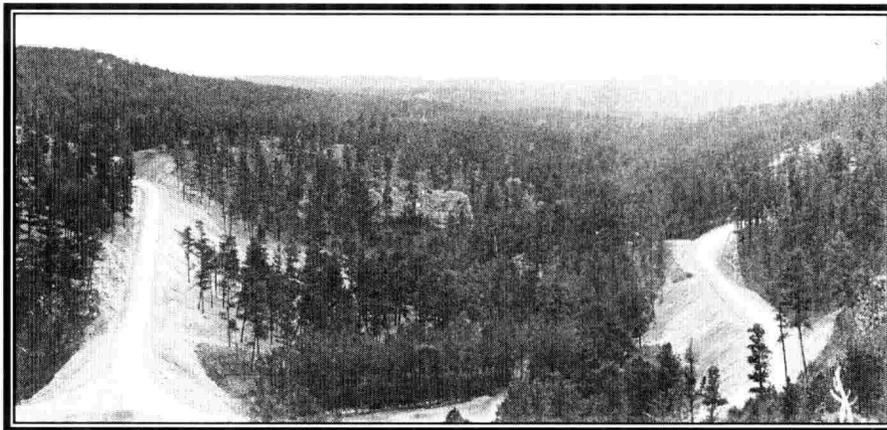


Figure 7-3. Construction of the new road that passed the Jewel Cave National Monument cave opening, completed in the mid-1930s. Courtesy of the Mount Rushmore National Memorial (JECA 2896).

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.

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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, *Presenting Nature in the National Parks: A History* (New Haven, CT: Yale University Press, 1997).

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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.

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[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 barbecue 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),

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.

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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

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,

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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. (Two

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.

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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.

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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

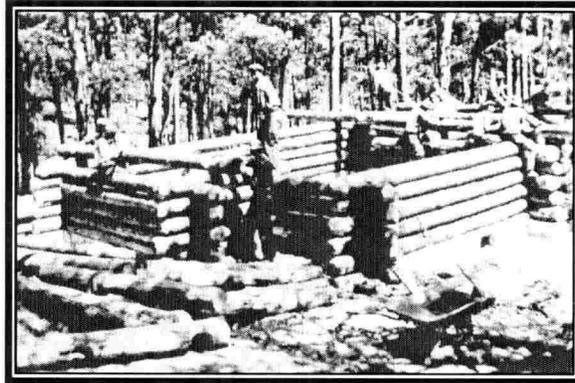


Figure 7-4. The Civilian Conservation Corps constructed the Jewel Cave Ranger Cabin in 1935-1936. Courtesy of Mount Rushmore National Memorial (JECA 841).

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.

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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

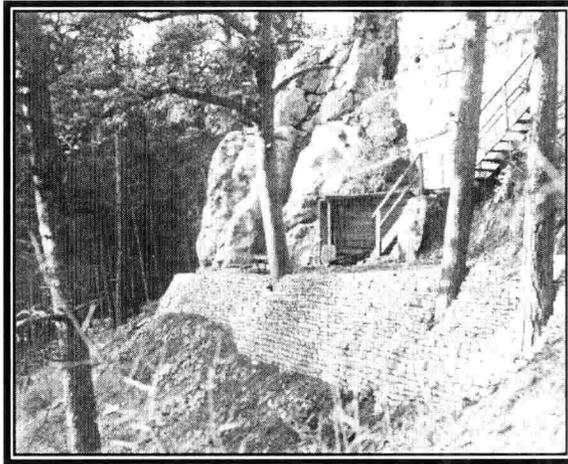


Figure 7-5. The new trail and stone terraced embankment to the Jewel Cave entrance was completed by the Civilian Conservation Corps in 1935 before the earlier wooden steps descending over the rocky ridge above the cave opening (to the right of the entrance) were removed. Courtesy of Mount Rushmore National Memorial (JECA 2797).

the 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

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

The CCC maintained its presence at Jewel Cave until September 1, 1939, when the side camp was abandoned. Only minor jobs were accomplished during

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.

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funds shifted to Cold War activities. During the late 1940s and early 1950s, major building projects in national 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.

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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

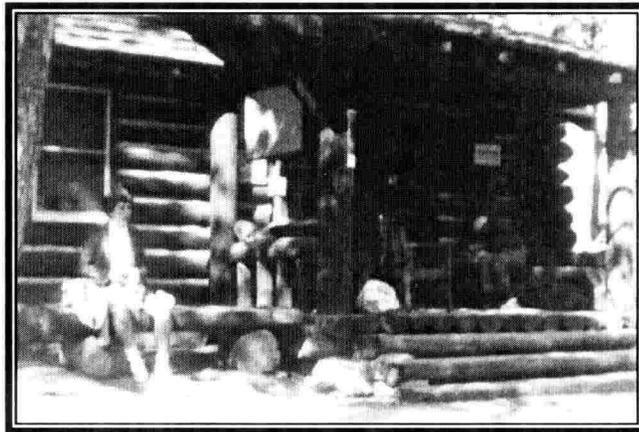


Figure 7-6. Visitor from Iowa relaxing at the Ranger Station in the early 1950s. Courtesy of Ruthanne Bullock Family Papers, Boring, Oregon.

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.

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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

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 66⁷⁶ 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

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, "Mission 66," 2; Foresta, *America's National Parks*, 53.

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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

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

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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

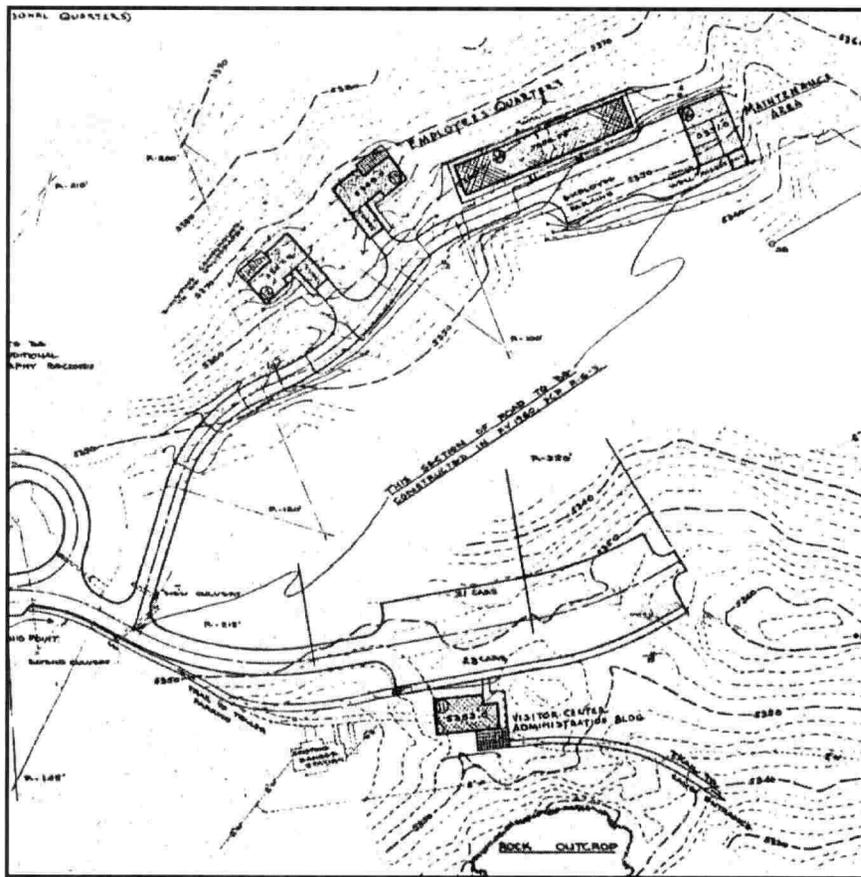


Figure 7-7. This site plan, dated February 19, 1959, shows the proposed new Mission 66 development above the historic cave opening and near the CCC log ranger station. Courtesy of Maintenance Division, Jewel Cave National Monument.

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.

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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

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.

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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.

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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

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



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.

⁹³ Conn and Conn, *Jewel Cave Adventure*, 81-93.

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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

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

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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

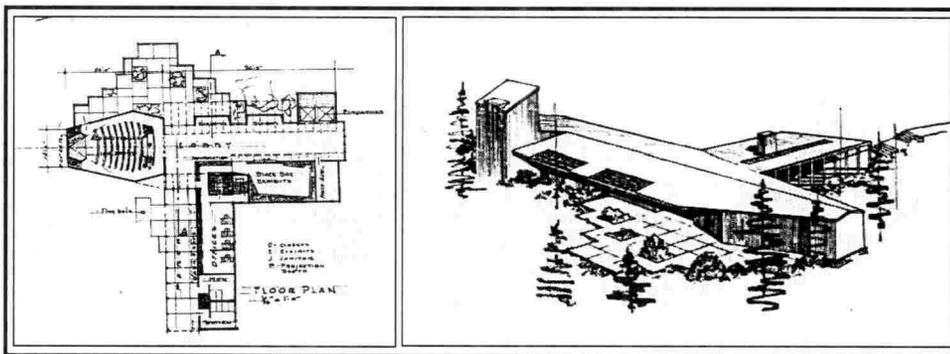


Figure 7-9. Architect Cecil Doty's plan and site sketch for the Jewel Cave Visitor Center in the new headquarters area, as it appeared in May 1966. From Cecil Doty, "Visitor Center, Headquarters," May 26, 1966, Technical Information Center, Denver Service Center, NPS.

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.

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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

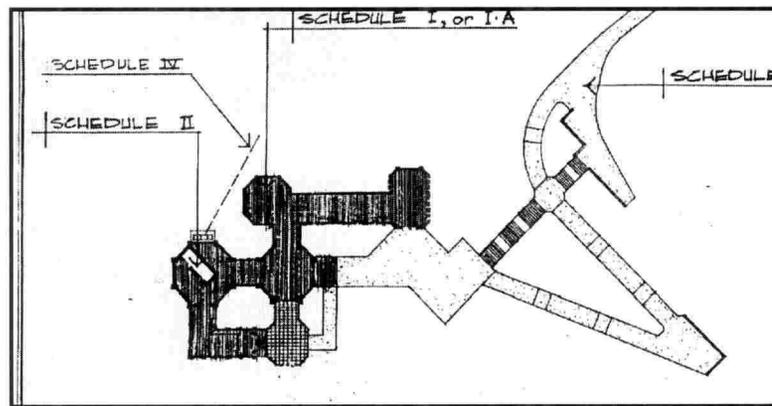


Figure 7-10. In the fall of 1969, the plan for the visitor center took on a form that resembles the present-day visitor center. From Maintenance files, JECA.

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.

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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

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

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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.

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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 fascia 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.

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.

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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 fascia. Leon R. Thygesen, letter to Corner Construction Company, May 1, 1973, Maintenance Division files, JECA.

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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.

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