

NATIONAL HISTORIC LANDMARK NOMINATION

NPS Form 10-900

USDI/NPS NRHP Registration Form (Rev. 8-86)

OMB No. 1024-0018

QUARRY VISITOR CENTER

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United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

1. NAME OF PROPERTY

Historic Name: Quarry Visitor Center

Other Name/Site Number: N/A

2. LOCATION

Street & Number: Dinosaur National Monument, US Highway 40

City/Town: Jensen

Not for publication:___

Vicinity:___

State: Utah

County: Uintah

Code: 570

Zip Code: 84035

3. CLASSIFICATION

Ownership of Property

Private: ___

Public-Local: ___

Public-State: ___

Public-Federal: X

Category of Property

Building(s): X

District: ___

Site: ___

Structure: ___

Object: ___

Number of Resources within Property

Contributing

1

1

Noncontributing

___ buildings

___ sites

___ structures

___ objects

___ Total

Number of Contributing Resources Previously Listed in the National Register: 1

Name of Related Multiple Property Listing: Dinosaur National Monument Multiple Resources, 1986

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4. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ___ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ___ meets ___ does not meet the National Register Criteria.

Signature of Certifying Official

Date

State or Federal Agency and Bureau

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of Commenting or Other Official

Date

State or Federal Agency and Bureau

5. NATIONAL PARK SERVICE CERTIFICATION

I hereby certify that this property is:

- ___ Entered in the National Register
- ___ Determined eligible for the National Register
- ___ Determined not eligible for the National Register
- ___ Removed from the National Register
- ___ Other (explain): _____

Signature of Keeper

Date of Action

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6. FUNCTION OR USE

Historic: Government
Recreation & Culture

Sub: Government Office
Museum

Current: Government
Recreation & Culture

Sub: Government Office
Museum

7. DESCRIPTION

Architectural Classification: Modern Movement

Other: Park Service Modern

Materials:

Foundation: Concrete

Walls: Concrete, Concrete block, steel, glass

Roof: Concrete, steel

Other:

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Describe Present and Historic Physical Appearance.

Dinosaur National Monument straddles northwestern Colorado and northeastern Utah. The park comprises about 325 square miles of arid desert and rugged canyons along the Green and Yampa rivers, including the union of these two rivers in a scenic area known as Echo Park. The region is known for awesome scenery and seasonally extreme temperatures. The Quarry Visitor Center (1958, Anshen and Allen, architects) is located at the western (Utah) end of the park, on a spur road that connects to Jensen, Utah, on State Highway 40.

The Visitor Center is essentially a massive concrete block, steel-frame and a glass shed built over and into one of the most spectacular beds of Jurassic Period fossils ever discovered. The shed has a rectangular footprint, roughly 180 feet by 80 feet, oriented lengthwise along the fossil bed (east-west). Directly attached to the southeast corner of the shed is a two-story concrete block cylinder (40-foot diameter by 24-foot height), which houses a lobby, offices, display spaces, visitor services, and other functions. A single-story service and laboratory wing extends behind the cylinder (largely out of public view) along the lowest level of one side of the steel and glass shed. A concrete ramp sweeps up from the parking lot in front of the building and provides the main entrance into the facility at the second-story level. A secondary entrance is at grade level below the ramp into the first floor of the cylinder.

The building's remarkable appearance is due in part to the massive "butterfly" steel-frame construction, which supports the roof and the extensive glazed curtain walls of the main shed. A series of eight exposed steel beams and supports—like the spine and ribs of yet another fantastic antediluvian creature—form the skeleton of the entire building. The uneven "Y" of the steel structures (and roof profile) extends asymmetrically to respond to the steep rock wall (the fossil bed) which serves as the north wall of the shed structure. The ceiling height extends from about 38 feet on the south side to about 70 feet on the north. The extensive glazed, curtain wall construction that forms the walls of the structure emphasizes the continuity between the "in situ" display of the fossils, and the surrounding rock outcrops immediately outside the structure. The design also allows the fossils to be lit primarily by natural light.

Visitors entering on the ramp (the main public entrance) come into a lobby at the second level of the main cylinder. An office and bathrooms are also at this level. From there, visitors proceed onto an elevated viewing terrace (at the same level) in the main shed. The terrace is directly opposite the rock wall of embedded fossils and offers a view of the fossils from an elevated perspective. Visitors can then walk down the stairs at the other (west) end of the terrace to view the fossils from the ground level. At this level, visitors have access to the first level of the cylinder, with offices, display areas, and ground level exit back to the parking lot. Park staff also has access at this level to the single-story service wing that extends west, along the length of the main shed, behind the cylinder structure.

One of the most striking interpretive features of the building allowed visitors to view scientists excavating the fossils in situ. From the first level, under the viewing terrace, visitors could also see through a window into a preparation laboratory and storage area (in the single-story service wing), and see the next stage of work on the fossils being performed as well. Although the main fossil bed has, today, been fully excavated (leaving many of the fossils in their native rock), visitors can still see scientists at work in the laboratory area through the window on the ground level.

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Although it remains strikingly modern and futuristic in its appearance, the Quarry Visitor Center comprises relatively simple and inexpensive materials, such as glass, steel, concrete, and concrete block. This was a requirement of the Mission 66 program, which emphasized efficiency in all aspects of planning and construction, and which sought to exploit the availability of less costly materials and labor-saving construction techniques. The ramp entry, for example, is poured concrete, an economical material that also allows the ramp to float in space as an “S” curve suspended in front of the concrete cylinder. The cylinder itself is built of rough, finished concrete block articulated by vertical bands in the masonry, with tall narrow windows inset in vertical recesses. Probably the most elaborate part of the structure is the massive steel framing of the shed, which was ordered in prefabricated parts. Interiors, as well, are clean and somewhat minimalist, although birch paneling and built-in features provide a warmth in some of the public areas.

Overall, the appearance of the building exudes technological proficiency and daring. The modernist aesthetic is complemented by advanced construction technology and structural engineering. Relatively economical materials helped maximize the efficiency of construction, but they were employed in such a creative way that they in no way compromise the vision of an ultramodern, efficient facility. The emphasis on technology is further reinforced by the presence of working scientists in the preparation laboratory and, originally, on the in situ fossil display.

The striking appearance of the Quarry Visitor Center—and its enthusiastic public and critical acceptance—made the building an affirmation of the entire design and planning direction of the Mission 66 program. Modern aesthetic blended perfectly with functional efficiency, advanced construction technology, and the scientific atmosphere of a working paleontological dig. In addition, the futuristic appearance of the building “harmonized,” in a sense, with the somewhat lunar landscape of desert, rock outcrops, and vast, remote canyons of Dinosaur National Monument. In this setting, the space-age character of the Quarry Visitor Center seems entirely appropriate.

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8. STATEMENT OF SIGNIFICANCE

Certifying official has considered the significance of this property in relation to other properties:

Nationally: X Statewide: Locally:

Applicable National

Register Criteria: A X B C X D

Criteria Considerations

(Exceptions): A B C D E F G X

NHL Criteria: 1 and 4

NHL Exception: 8

NHL Themes: III. Expressing Cultural Values
 5. Architecture, Landscape Architecture, and Urban DesignAreas of Significance: Architecture
 Politics/Government

Period(s) of Significance: 1957-1958

Significant Dates:

Significant Person(s): N/A

Cultural Affiliation: N/A

Architect/Builder: S. Robert Anshen and William Stephen Allen, San Francisco, architects
 R. K. McCullough Construction Company, Salt Lake City, contractorHistoric Context: Sarah Allaback, Ph.D., *Mission 66 Visitor Centers: The History of a Building Type* (Washington, DC: GPO, 2000)

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State Significance of Property, and Justify Criteria, Criteria Considerations, and Areas and Periods of Significance Noted Above.**SUMMARY**

The Quarry Visitor Center (Dinosaur National Monument) is of extraordinary national importance under NHL Criteria 1 and 4.¹ The property falls under the NHL Theme III (Expressing Cultural Values), Subtheme 5 (Architecture, Landscape Architecture, and Urban Design). The property is less than 50 years old, but qualifies under Criteria Exception 8 because of its extraordinary national importance.

Under NHL Criterion 1, the property is associated with events that have made significant contributions to the broad national patterns of American history. Specifically the property is associated with the Park Service's "Mission 66" program, which transformed the American national park system to meet postwar conditions. The park "visitor center" was the central planning and design element of the Mission 66 program. The visitor center was the most significant architectural expression of national park development in the postwar period and subsequently became the centerpiece of park planning of all types both nationally and abroad. Quarry Visitor Center was one of the earliest and most successful examples of the new building type. The building established new standards for visitor center design, and became a unique example of "in situ" interpretation of park resources. The Dinosaur Quarry Visitor Center was a very high profile project (in part because of the contemporary Echo Park dam controversy), and the new building was bound to be scrutinized and take on great significance as a symbol of Park Service stewardship in the postwar era. The critical and popular acclaim granted the building—despite and because of its extraordinary futuristic design—became an affirmation of the entire modern design direction of the Mission 66 program.

The Quarry Visitor Center is one of the four most significant visitor centers produced by the Mission 66 program. Because of its significance within the Mission 66 program, and therefore within the history of American parks, the property possesses extraordinary national importance under NHL Criterion 1.

Under NHL Criteria 4, the property also embodies distinguishing characteristics of an architectural type specimen exceptionally valuable for the study of a period and style. Specifically, the property is one of the most significant examples of Park Service Modern architectural style. This style relates to contemporary American modernism, and Anshen and Allen were among the most important American modern architects. The Quarry Visitor Center was one of this firm's two most important early

¹This nomination is one of four that have been presented in the historical theme of "Mission 66 Visitor Centers." These four buildings have been nominated as National Historic Landmarks because they are the four most significant architectural designs of the Park Service's "Mission 66" program, an initiative that transformed the American national park system to meet the new conditions and demands of the postwar era. Each of the four visitor centers is one of the original and most influential examples of a new building type—the visitor center—which was at the heart the new planning and design direction in the National Park Service in the postwar period. The visitor center subsequently became a central feature of park planning in park systems all over the United States and the world. Besides this distinction, each of these four buildings also possesses another dimension of significance that relates to their place in the history of American modern architecture. Each building was a pivotal commission in the history of an architectural firm of national importance in the history of American modernism. In this case, the Quarry Visitor Center was one of two commissions that launched the firm of Anshen and Allen, and brought it national attention for the first time.

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commissions (the other is the Sedona Chapel in Arizona). The Quarry Visitor Center was an early, precedent setting example of the new, modern style embraced by the Park Service as part of Mission 66. More than any other early Mission 66 visitor center, it legitimized modern architectural style for use in national parks. Advanced building technology, efficient materials, and labor-saving construction were also showcased by this benchmark project. The Quarry Visitor Center was the most powerful and influential early example of how modern construction techniques and architectural style could be appropriate and successful for national park development.²

The Quarry Visitor Center is one of the four most significant examples of the particular strain of American modern architecture that can be described as Park Service Modern. Because of its significance as an example of American modern architecture of the period, the property possesses extraordinary national importance under NHL Criterion 4.

HISTORIC CONTEXT³

Origins of MISSION 66

In 1949, Newton B. Drury, Director of the National Park Service, described the national parks as “victims of the war.”⁴ Neglected since the New Deal era improvements of the 1930s, the national parks were in desperate need of funds for basic maintenance, not to mention protection from an increasing number of visitors. Between 1931 and 1948, total visits to the national park system jumped from about 3,500,000 to almost 30,000,000, but park facilities remained essentially as they were before the war. Meeting the increased need for visitor services required significantly larger appropriations from Congress. Throughout his tenure, however, Drury remained unable to obtain adequate appropriations to change the situation.⁵ In 1951, Conrad L. Wirth took over as director of the Park Service, but at least at first, funding levels continued to lag behind the perceived need for new, enlarged, or renovated park facilities.

The conditions Drury had described in 1949 soon became a subject of public concern, not to mention ridicule. Social critic Bernard DeVoto led the crusade for park improvement with an article in his *Harper's* column, “The Easy Chair,” entitled “Let’s Close the National Parks,” which suggested keeping

²For the significance of Anshen & Allen see: Emerson Goble, “Architecture (?) for the National Parks.” *Architectural Record* 121, no. 1 (January 1957): 173-85; Richard Hein, “Design: Anshen & Allen, San Francisco, California.” *AIA Journal* (December 1960); and Architectural Forum, eds., *Building USA* (New York: McGraw-Hill, 1955). The California Council of the American Institute of Architects presented Anshen & Allen its 1997 award for the firm’s 50 year contribution to architecture in the United States. Acknowledging the importance of the building in launching its modernist reputation, the firm continues to work with the National Park Service on the rehabilitation of the Dinosaur visitor center.

³The following text is extracted from Sarah Allaback, *Mission 66 Visitor Centers: The History of a Building Type* (Washington, DC: GPO, 2000).

⁴Newton Drury, “The Dilemma of Our Parks,” *American Forests* 55 (June 1949): 6-11, 38-39.

⁵President Truman also tried to obtain additional funds for the national parks in 1949, but his efforts were thwarted by a democratic Congress. See Elmo Richardson, *Dams, Parks and Politics* (Lexington, Kentucky: University Press of Kentucky, 1973), 40.

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the parks closed to the public until funds could be found to maintain them properly.⁶ The story caught the attention of John D. Rockefeller, Jr., a longtime national park supporter, who wrote to President Eisenhower of his concern over this potential “national tragedy.” Eisenhower’s staff responded with a standard apology, but Rockefeller’s letter did cause the President to request a briefing from Secretary of the Interior Douglas McKay on conditions in the parks.⁷ As the need for massive “renovation” of the Park Service entered the public forum and reached the President’s desk, the Park Service’s pressing maintenance problems continued to mount.⁸

During the summer of 1954, Department of the Interior Undersecretary Ralph Tudor began a reorganization of his department. According to historian Elmo Richardson, the reorganization allowed Conrad Wirth to focus attention on the crisis within the Park Service. Once the door was open, Wirth had an opportunity to begin to press ambitious proposals for increased funding to redress long-standing inadequacies within his agency.⁹ Director Wirth’s own recollection of his initial idea for what became known as “Mission 66” is fittingly more dramatic. In his memoir, *Parks, Politics and the People*, Wirth remembers one “weekend in February, 1955” when he conceived of a comprehensive program to launch the Park Service into the modern age.¹⁰ Rather than submit a yearly budget, as in the past, Wirth would ask for an entire decade of funding that would total hundreds of millions of dollars. Inspired perhaps by other multi-year federal initiatives (particularly in public housing and highway construction), Mission 66 would allow the Park Service to repair and build roads, bridges and trails, hire additional employees, construct new facilities ranging from campsites to administration buildings, improve employee housing, and obtain land for future parks. The new program would result in a fully modernized national park system in time to celebrate the 50th anniversary of the Park Service in 1966.

Early in 1955, Wirth organized two Park Service committees to plan the Mission 66 program: a steering committee to develop and oversee the planning process, and a Mission 66 committee to make the specific proposals for the program. Representatives from several branches of the Park Service devoted themselves full-time to the project. Lemuel Garrison put aside his new appointment as chief of conservation and protection to act as chairman of the steering committee. In his memoirs, Garrison captures the energy behind the mission and its fearless confrontation of park problems. Each superintendent was asked to write a list of “everything needed to put ‘his’ park facilities into immediate condition for managing the current visitor load, while protecting the park itself.”¹¹ They were also to

⁶ Bernard DeVoto, “Let’s Close the National Parks,” *Harper’s* 207 (October 1953): 49-52. Many popular magazines featured stories warning the public of the dangers of visiting the parks and the slum-like conditions encountered within park boundaries. See Jerome Wood, “National Parks Tomorrow’s Slums?” *Travel* 101 (April 1954): 14-16; Charles Stevenson, “The Shocking Truth About Our National Parks,” *Reader’s Digest* 66 (January 1955): 45-50. “Twenty-Four Million Acres of Trouble,” in the *Saturday Evening Post*, took a slightly more sympathetic approach by featuring Conrad Wirth and his ceaseless efforts to improve the Park Service despite inadequate funding. See *Saturday Evening Post* 3 (July 3, 1954): 32, 78-80.

⁷ Dwight D. Eisenhower, *Mandate for Change* (Garden City, New York: Doubleday & Co., Inc., 1963), 549-550.

⁸ William Nelson Noll, “Mission 66, the National Park Service Program for the Revitalization of America’s National Parks, 1955-1966,” (Master of Arts Thesis, Kansas State University, 1997), 11-12.

⁹ Richardson, *Dams, Parks and Politics*, 111.

¹⁰ Conrad L. Wirth, *Parks, Politics, and the People* (Norman: University of Oklahoma Press, 1980), 238.

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estimate the number of visitors ten years in the future. The Mission 66 staff derived a list of priorities for determining park needs to assist superintendents in their assessments. One result of the project was the development of standards throughout the system. Each park was to have a uniform entrance marker listing park resources, a minimum number of employees, paved trails to popular points of interest, and other basic amenities. Visitors could expect the same basic facilities in every park.¹²

Wirth's preliminary planning of the Mission 66 program was geared toward promotion and, by necessity, selling his idea to Congress and the Eisenhower Administration. The Mission 66 staff was to produce a basic outline of the program for the Public Service Conference at Great Smoky Mountains on September 18, 1955. Since a meeting with Eisenhower had been scheduled for May, Wirth hoped to keep details of "Mission 66" confidential until then. However, news of the program leaked out after the Great Smokies conference, which only increased public interest in the program. After several dry runs and administrative delays, Wirth introduced Mission 66 to the President and his cabinet on January 27, 1956. The program received immediate approval, and Mission 66 was officially introduced to the public at an American Pioneer Dinner held at the Department of the Interior on February 8. Highlights of this event included a presentation by Wirth, a Walt Disney movie entitled "Adventure in the National Parks," and the circulation of *Our Heritage*, a promotional booklet describing the Mission 66 program. Wirth himself was involved in every detail of the carefully orchestrated publicity that followed.¹³

Modern Architecture and the National Parks

Even before Mission 66 planning began, the Park Service planners and architects were moving away from the traditional "rustic" construction that had characterized prewar park development. There were many reasons for this shift, which mirrored national trends in architectural style, construction technology, and planning policies.

Mission 66 reached the drawing boards in the mid-1950s, at a time when modern architecture had reached the mainstream of American architectural design. Conrad Wirth was trained as a landscape architect in the 1920s, and in the 1930s he had been responsible for the Park Service's state park development program. His chief of planning and design, Thomas C. Vint, had been chief landscape architect since 1927 and was one of the originators of the Park Service rustic style. Other Park Service designers active in the 1950s, such as architect Cecil Doty, had been principal Park Service designers during the rustic era. But in many ways this group continued the tradition of park planning and design that they had created over the previous decades, in other ways, postwar conditions, changing ideas about nature, and new practices in the construction industry necessitated new approaches. Mission 66 designers needed to find new ways for park development to "harmonize" with park settings.

As the negative effects of larger numbers of visitors and their vehicles began to be better understood, for example, Mission 66 planners responded by centralizing services and controlling visitor "flow" in what

¹¹ Lemuel A. Garrison, *The Making of a Ranger* (Salt Lake City, Utah: Howe Brothers, 1983), 255-56.

¹² Roy E. Appleman, *A History of the National Park Service Mission 66 Program* (Washington, D.C.: Department of the Interior, National Park Service, 1958), 2-32. Pilot studies were also conducted for Yellowstone, Chaco Canyon National Monument, Shiloh National Military Park, Adams Mansion National Historic Site, Fort Laramie, Everglades, and Mesa Verde.

¹³ Appleman, "A History of the National Park Service," 33-95.

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were called “visitor centers.” In some cases, planners proposed removing some park facilities and relying on motels and other businesses springing up in gateway communities to serve visitors. Enlarging parking lots and widening roads encouraged this trend, since faster roads made access in and out of parks quicker. However, under Mission 66, parking lots, comfort stations, gas stations, and other visitor services were bound to proliferate, in any case. Conrad Wirth remained firmly committed to the idea that the parks were “for the people.” Mission 66 planning proceeded under the long-standing assumption at the Park Service that increased numbers of visitors (and their cars) should be accommodated. Modernized and expanded park development, usually restricted to existing road corridors within the parks, was therefore proposed as the essential means of preserving nature to the greatest degree possible, while making sure visitors were not turned away.

But if Mission 66 continued traditional assumptions, it also exploited the functional advantages offered by postwar architectural theory and construction techniques. Mission 66 architects (whether in-house or consultants) employed free plans, flat roofs, and other established elements of modern design in order to create spaces in which large numbers of visitors could circulate easily and locate essential services efficiently. The architects also used concrete construction and prefabricated components for buildings, highways, and other structures. Development was often sited according to new criteria, as well. Visitor centers were located according to functional concerns relating to park circulation, and so were not calculated as components of larger landscape compositions. Although Mission 66 park development was no longer truly part of the landscape, in this sense, in many cases this meant that buildings could be sited less obtrusively near park entrances or along main roads within the park. Stone veneers, earth-toned colors, and low, horizontal massing also helped continue the tradition of reducing visual contrasts between building and site. Mission 66 architecture was not picturesque or rustic, but it did “harmonize” with its setting (at least in more successful examples), although in a new way. Stripped of the ornamentation and associations of rustic design, Mission 66 development could be both more understated and more efficient than rustic buildings.

Park Service designers were following a nearly ubiquitous, international trend in postwar architecture. Changing styles, changes in architectural training, and perhaps above all, changes in the technology and economics of construction fueled the new trend. But the prospect of abandoning traditional “rustic” architectural design in national parks still provoked an outcry from critics. One of the most outspoken critics of modern architecture in national parks was Devereux Butcher of the National Parks Association. As early as 1952, Butcher wrote of his horror at finding contemporary buildings in Great Smokey Mountains and Everglades national parks and criticized the Park Service for abandoning its “long-established policy of designing buildings that harmonize with their environment and with existing styles.” Among the eyesores he discovered was a curio store with “blazing red roof and hideous design,” a residence “ugly beyond words to describe,” and a utility building that he felt might as well have been a factory. Later in the decade, David Brower and Ansel Adams joined Butcher in condemning such park development, although these critics focused more on issues of resource conservation than architectural style.¹⁴

¹⁴ Devereux Butcher, “For a Return to Harmony in Park Architecture,” *National Parks Magazine* 26, no. 111 (October-December 1952). See also David Brower, “‘Mission 66’ is Proposed by Reviewer of Park Service’s New Brochure on Wilderness,” *National Parks Magazine* 32, no. 132 (January-March 1958); Weldon F. Heald, “Urbanization of the National Parks,” *National Parks Magazine* 35, no. 160 (January 1961); Ansel Adams, “Yosemite--1958, Compromise in Action,” *National Parks Magazine* 32, no. 135 (October-December 1958). That Butcher’s opinions remained unaltered over

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Despite the criticism of Butcher and others, the Park Service felt it had remained consistent with its tradition of architectural design in harmony with the surrounding landscape. In fact, the design methodology behind the use of rustic architecture was adapted to explain contemporary design decisions. According to Director Wirth, Mission 66 buildings were intended to blend into the landscape, but through their plainness rather than by identification with natural features. Even the qualities that defined rustic architecture might draw attention to a building intended to serve a practical function.¹⁵ The Park Service communicated this architectural philosophy in its early promotional literature, as well as in its relations with the national media. In August 1956, *Architectural Record* reported that Mission 66 would produce “simple contemporary buildings that perform their assigned function and respect their environment.”¹⁶ The magazine also emphasized that while this policy had traditionally led to the use of stone and redwood, “preliminary designs for the newer buildings show a trend toward more liberal use of steel and glass.”

Within the Park Service, architects appear to have embraced the opportunity to modernize facilities and experiment with new design concepts. For example, Cecil Doty had designed a rustic masterpiece, the Santa Fe Headquarters building, in 1937. By the early 1950s, however, he recalled “a change in philosophy. . . . That’s why you started seeing [concrete] block in a lot of things. We couldn’t help but change. . . . I can’t understand how anyone could think otherwise, how it could keep from changing.”¹⁷ Doty’s statement provides a key to understanding the legacy of Mission 66 architecture, the purpose of which was not to design buildings for atmosphere, whimsy or aesthetic pleasure, but for change: to meet the demands of an estimated eighty million visitors by 1966, to anticipate the requirements of modern transportation, and to exercise the potential of new construction technology. As Director Wirth explained, the Park Service not only had to serve greater numbers of visitors, but to understand their increased need for appropriate facilities. The “stress and restless activity of this machine age, when man is sending satellites spinning into orbit around the sun and our own earth” required more frequent renewal in “the peace and solitude offered by nature.”¹⁸ Even critics agreed that some kind of efficient action was necessary to bring the parks up to contemporary standards.

the decade is indicated by his article, “Resorts or Wilderness?” in *Atlantic Monthly* 207, no. 2 (February 1961).

¹⁵ Wirth issued a memorandum to the Washington Office and all field offices announcing that field officials attending the Public Services Conference at Great Smoky Mountains (September 1955) “recommended that structures be designed to reflect the character of the area while at the same time following up-to-date design standards.” He added that “park structures are to conform, to some extent, with the trend toward contemporary design and the use of materials and equipment accepted as standard by the building industry. However, restraint must be exercised in the design so that the structures will not be out of character with the area and so that the structures will be subordinated to their surroundings.” See Conrad Wirth Papers (CWP), Box 6, American Heritage Center (AHC), Laramie, Wyoming.

¹⁶ Ernest Mickel, *Architectural Record* 120, no. 2 (August 1956), 32. *The New York Times* also picked up the story, reporting Park Service officials stating that “...the national parks were maintained as showcases for natural attractions,” and therefore “Mr. Wright’s ‘modernized type’ of building would be out of place among Yosemite’s trees and glacier-cut rock cliffs...” See *The New York Times* (December 1, 1954).

¹⁷ Jonathan Searle Monroe, “Architecture in the National Parks: Cecil Doty and Mission 66,” (Master of Architecture thesis, University of Washington, 1986), 82.

¹⁸ “Address by Conrad L. Wirth, Director of National Park Service, at the Dedication of Badlands National Monument and Mission 66 Facilities on Wednesday, September 16, 1959,” “Speeches, 1959,” CWP, AHC, Laramie, Wyoming.

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Mission 66 planners and administrators were also clearly caught up in the enthusiasm of the modern movement. Wirth told his steering committee to be “as objective as possible. Each was to be free to question anything if he thought a better way could be found. Nothing was to be sacred except the ultimate purpose to be served. Man, methods, and time-honored practices were to be accorded no vested deference.”¹⁹ A writer for *Architectural Record* expressed this sense of limitless potential for park architecture in 1957:

Let us not decide, just because we cannot draw it on the back of an envelope, that the great and sympathetic architecture cannot exist...The whole habit of thinking in the parks is the other way. We have not dared to let man design in the parks; we have not asked to see what he might do. We have slapped his hand and told him not to try anything.²⁰

But the acceptance of modernism and its use in the parks was also a matter of urgency and economics. The Park Service needed to serve huge numbers of people as quickly as possible, and, despite increased funding, it had to do so on a limited budget. The often less expensive materials that composed modern buildings (steel, concrete, glass) allowed more facilities to be built for more parks. In its publication, *Grist*, the Park Service praised concrete as “low-cost, long-lived beauty treatment for parks.” Asphalt was “nature’s own product for nature’s preserves,” and asbestos-cement products “building materials for beauty, economy, permanence.”²¹

Despite the general acceptance of modernism, Americans were still unfamiliar with modern architecture in national parks. When, in the mid-1950s, *The New York Times* reported on the controversy surrounding Gilbert Stanley Underwood’s Jackson Lake Lodge, the reporter emphasized the contrast between the new concrete building and the area’s wild west tradition, noting that “sheepmen,” “naturalists,” and “gamblers...now heatedly discuss the pros and cons of modern architecture.” Nevertheless, the *Times* clearly admired “the artful blend of comfortable modern with western” even as critics called it “a slab sided concrete abomination.” The *Virginian Pilot* was more conservative in its coverage of the “modern trend in architectural ideas” exhibited in the shade structures at Coquina Beach, Cape Hatteras National Seashore. Although Park Service architect Donald F. Benson received a *Progressive Architecture* award citation for the design, the paper warned that, “until people get used to the modern trend,” the new shelters would “cause as much comment as three nude men on a Republican

¹⁹ Appleman, “A History of the National Park Service,” 16-17. Wirth reprinted this statement in his memoirs. See *Parks, Politics and the People*, 242.

²⁰ Emerson Goble, “Architecture (?) for the National Parks,” *Architectural Record* 121, no. 1 (January 1957), 184.

²¹ *Grist*, a publication of the National Conference on State Parks in cooperation with the National Park Service, Dept. of the Interior (September-October 1957; July-Aug. 1958; November-December 1958). The story on concrete was written by the Portland Cement Association and that on asphalt by the Asphalt Institute.

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Convention Program.”²² The Coquina facilities (destroyed by a storm in the early 1990s) soon became among the most widely praised designs of the Mission 66 era.²³

The Park Service accepted modernism at a time when the new tradition had aged, and its post-modern backlash not yet emerged. The visitor center designed by Mitchell/Giurgola for the Wright Brothers Memorial was featured in a “news report” in *Progressive Architecture* suggesting that the Park Service had finally caught up with the standard required by the modern visitor. “The design of visitors’ facilities provided for national tourist attractions seems to be decidedly on the upgrade, at least as far as the work for National Park Service is concerned. One hopes that the rustic-rock snugery and giant-size ‘log cabin’ previously favored”²⁴ are disappearing. That the progressive periodical chose two visitor centers to “exemplify new park architecture” was not surprising. The Park Service intended for the new visitor center buildings to represent the values and results of its system wide development campaign.

Developing a New Building Type: The “Visitor Center”

Even before the commencement of the Mission 66 building program, the Park Service had begun to develop a new type of visitor facility, eventually known as the “visitor center.” *Our Heritage* described the visitor center as “one of the most pressing needs, and one of the most useful facilities for helping the visitor to see the park and enjoy his visit.” Visitor centers were lauded as “the center of the entire information and public service program for a park.”²⁵ One hundred and nine visitor centers were slated for construction over the ten-year period. This new type of park facility would not only embody new park visitor management policies, but also the spirit of Mission 66, which looked forward to an efficient Park Service for the modern age.

During the early 1950s, Park Service architects and planners began developing a centralized service facility that would help manage increased visitations. The updated facility, equipped with basic services and educational exhibits, was known in its early stages as an “administrative-museum building,” “public service building,” or “public use building.” As this range of labels suggests, the Park Service was struggling not only to combine museum services and administrative facilities but to develop a new building type that would supplement old-fashioned museum exhibits with modern methods of

²² Jack Goodman, “Controversy Over Lodge in the West,” *The New York Times* (August 7, 1955); Dan Morrill, “No Daub, No Wattles: Coquina Beach at Nags Head to Feature Modern Trend in Architectural Ideas,” *Virginian-Pilot* (July 22, 1956); *Progressive Architecture* 37, no. 1 (January 1956): 92. Donald F. Benson (1921-) grew up in Ottawa, Illinois, and graduated from the University of Illinois with an architectural degree in 1951. Benson’s work for the Park Service began in 1953, when Charles Peterson hired him as an architect in the Philadelphia office. During Mission 66, Benson worked for EODC under John B. Cabot, designing and supervising the design of visitor centers at Everglades National Park, Saratoga and Hopewell Village (now Hopewell Furnace), among other locations. Benson is now retired and living in Lakewood, Colorado. Interview with Donald F. Benson by the author, March 9, 1999, Lakewood, Colorado.

²³ Wolf Von Eckardt, “The Park Service Dares to Build Well,” *Washington Post* (March 29, 1964); Lois Craig, et al, *The Federal Presence* (Cambridge, Massachusetts: MIT Press, 1979): 493.

²⁴ “Two Visitors’ Centers Exemplify New Park Architecture,” *Progressive Architecture* 40, no. 2 (February 1959): 87.

²⁵ U.S. Department of the Interior. *Our Heritage, A Plan for Its Protection and Use: “Mission 66”* (Washington D.C.: Government Printing Office, 1956).

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interpretation. In February 1956, Director Wirth issued a memorandum to help clarify the use of terminology applied to the new buildings, explaining that “there are differences in the descriptive title, although most of the buildings are similar in purpose, character and use.”²⁶ From then on, Wirth expected park staff to use “visitor center” for every such facility, even “in place of Park Headquarters when it is a major point of visitor concentration.” As late as 1958, however, the matter remained unclear to many park visitors. When the topic was raised at a design conference, it was noted that “the term ‘Visitor Center’ is sometimes confusing to the public as it is an unusual and specialized facility which may be associated with shopping centers with which the general public is familiar.”²⁷ If still puzzling to some, the building’s label emphasized the novelty of the visitor center and bolstered the Park Service’s image with high-profile examples of Mission 66 progress.

The Custer Battlefield museum & administration building, designed by Daniel M. Robbins & Associates of Omaha, demonstrates the transition from early Park Service museum buildings to standard Mission 66 visitor centers. The building was constructed in 1950, the first year since World War II that congressional appropriations for the parks included museum funding.²⁸ A lobby space and offices were incorporated into the new museum, but orientation areas remained small; no audio-visual or auditorium space was included and restrooms were relegated to the basement. Visitor circulation between the various areas does not appear to have been a major consideration. The Department of the Interior *Annual Report* for 1953 announced the commencement of “the first major public use development at Flamingo, on Florida Bay,” which would consist of “a boat basin and other developments...camping and picnic facilities, dock and shelter building, roads, and water and sewer systems.” At this time, “public use” was still a general term, applicable to a marina or an interpretive facility. The report also noted “administration and public-use buildings at Joshua Tree and Saguaro National Monuments, and utility buildings in Potomac Park, Washington, D.C., and at Death Valley National Monument.”²⁹ Other early precedents for visitor centers included the public information centers at Yorktown and Jamestown.

The public use building planned for Carlsbad Caverns in July 1953, underwent the transition to visitor center during its design and construction. Preliminary drawings for the building were produced by the Office of Design and Construction in Washington, D.C., before the creation of the eastern and western design offices. Thomas C. Vint, chief of the Washington office, signed off on the proposal for a streamlined, two-story public use building with steel and glass facade. It featured a central lobby area and, on the left side, a coffee shop/fountain/dining room, curio store, and kitchen. The museum and auditorium were entered from the right side of the lobby, which included the women’s restroom. Park Service offices were in the basement, along with the men’s restroom, and on the second floor, where they overlooked the double-height lobby.³⁰ By December 1954, a more detailed preliminary design for the Carlsbad Caverns facility had been drafted in which the entrance lobby was attached to a lounge area

²⁶ Conrad Wirth to Washington Office and field offices, memorandum, “Visitor Centers; Park Roads,” February 10, 1956.

²⁷ “Summary of General Discussions of Visitor Center Design Problems,” WODC, February 4, 1958, 7.

²⁸ Lewis, *Museum Curatorship*, 128.

²⁹ *Annual Report of the Secretary of the Interior*, 1953.

³⁰ These drawings are available on microfiche at the Technical Information Center, Denver Service Center.

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on the right side surrounded by restrooms, an exhibit space, and a ticket booth. The concession area was further defined as a curio shop, coffee shop, nursery, playroom, kitchen, and offices. This design incorporated an existing elevator building constructed in 1932, and one wing of the new facility was built by the concessioner, the Cavern Supply Company, with guidance from the Mission 66 staff.³¹ The 1955 *Annual Report* called it “a public use building and elevator lobby, museum and naturalists’ offices.”³² By January 1956, “the Public Use Building was in the final stage of preparation,” but when bids for construction were opened in March, the building was referred to as a visitor center.³³ In his dedication speech nearly three years later, Conrad Wirth praised the Carlsbad Caverns Visitor Center for its use of “modern design” and “modern high-speed passenger elevators.”³⁴

Early proposals for the public use building at Grand Canyon suggest a similar struggle with programmatic aspects of the new facility. Preliminary drawings of the building were produced in 1954, with several proposals designed by Cecil Doty. Despite variations in planning, the front facade of the various proposals remained remarkably similar. The entrance area was mostly glass framed in decorative brick. The exhibit wing to the left was cement stucco, and the wing to the right either additional brick or stucco. The building was long and low, with little to attract attention except the flagpole and sign. By 1955, a courtyard scheme had been chosen for the floorplan, perhaps because its plan allowed for more flexible circulation. Visitors entered a lobby and were confronted with an information desk on their right, directly in front of the rangers and superintendents’ offices. The library and restrooms were straight ahead, and the exhibit space, lecture room, study collection/workshop, and offices arranged in clockwise procession around the courtyard. The public use building was an immediate source of pride for the Park Service, which praised this “visitor center” as “a one-stop service unit” in 1956. An information desk complete with uniformed ranger, lobby exhibits, an illustrated talk, and a park museum “where a great variety of exhibits, arranged in orderly and effective fashion” were among the many conveniences for the visitor. The presence of the park superintendent and naturalist was also considered remarkable, as were the study collection, workshop, and library. According to the Park Service, the new building provided much-needed efficiency and economy.³⁵

The use of the word “center” to describe these early visitor centers indicated the planners desire to centralize park interpretive and museum displays, new types of interpretive presentations, park administrative offices, restrooms, and various other facilities. The underlying theory relates to contemporary planning ideas such as shopping centers, corporate campuses, and industrial parks, all of which sought to give new civic form to emerging patterns of daily life and urban expansion in the late 1940s and 1950s. Like the shopping center, the visitor center made it possible for people to park their cars at a central point, and from there have access to a range of services or attractions. Earlier “park

³¹ Building Maintenance Records, “Elevator Bldg. Carlsbad Cavern’s N.P.,” n.d., Carlsbad Cavern archives.

³² *Annual Report of the Secretary of the Interior*, 1955.

³³ Superintendent’s Monthly Reports [R. Taylor Hoskins, Superintendent], Carlsbad Caverns National Park, January 1, 1956, and March 3, 1956.

³⁴ “Address by Conrad L. Wirth, Director, National Park Service, Dedication of Visitor Center, Carlsbad Caverns National Park, New Mexico, June 12, 1959,” “Speeches, 1959,” CWP, AHC.

³⁵ *Annual Report of the Secretary of the Interior*, 1956.

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village” planning had typically been more decentralized, with different functions (museum, administrations building, comfort station) spread out in an arrangement of individual, rustic buildings. The Mission 66 visitor center brought these activities together in a single, larger building intended to serve as a control point for what planners called “visitor flow,” as well as a more efficient means of serving far larger numbers of visitors and cars in a more concentrated area. Centralized activities created a more efficient pattern of public use, and assured that even as their number grew to unprecedented levels, all visitors would receive basic orientation and services in the most efficient way possible.

Considering the commitment of Mission 66 era planners to accommodating the growing numbers of people who wanted to visit the parks, the centralized visitor center was an essential approach to park preservation. The visitor center facilitated, yet concentrated, public activities and so helped prevent more random, destructive patterns of use. The siting of visitor centers was determined by new considerations in park master planning that involved the circulation of unprecedented numbers of people and cars. While on the one hand the Park Service remained committed to making the parks accessible to all who wanted to use them, on the other agency planners also felt it was desirable to continue to concentrate automotive access in relatively narrow areas and road corridors, most of which were already developed for the purpose. As a result, Mission 66 development plans (at least in older parks) usually called for the intensification of development in existing front country areas, rather than opening back country areas to new uses. This implied road widenings, the expansion of campgrounds and parking lots, and often, the construction of a new visitor center. The visitor center was therefore sited in relation to the overall park circulation plan, in order to efficiently intercept visitor traffic. These criteria for siting Mission 66 visitor centers differed significantly from the criteria for siting and designing the rustic park villages and museums of the prewar era.

The Visitor Center and Mission 66

The planning and design of visitor centers began in the Park Service offices of design and construction in San Francisco (WODC) and Philadelphia (EODC). Both offices had been established as part of the Park Service’s reorganization in 1954, and both were overseen by the central planning and design office in Washington, D.C. Neither the WODC nor the EODC was prepared for the quantity of work Mission 66 would bring to the drawing boards. Rather than hire additional architects and landscape architects who would have to be laid off at the conclusion of Mission 66, the Park Service planned to contract out work to private firms on a project by project basis. In most cases, the Park Service furnished contract architects with preliminary drawings, which the consultants would then use as the basis for the developed design and contract drawings. In some cases, consultants simply provided the contract drawings for designs that had been fully developed in-house. Visitor centers were typically the most expensive new buildings in the parks, as well as high-profile commissions, and therefore attractive to private consulting firms.³⁶

Whether or not consulting architects were employed, in all projects the Park Service retained control over the location of buildings and, in many cases, significant aspects of the consulting firm’s design. The planning of early visitor centers reflected the Mission 66 concern with protection and use, the idea

³⁶ The Design and Construction Division benefitted from student trainee and assistant programs that provided the WODC with 90 student architects, engineers, and landscape architects during the summer of 1956; EODC was supplied with 75 students. See *Annual Report of the Secretary of the Interior*, 1956.

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that park development provided the key to preservation. According to the 1955 *Annual Report*, the Park Service decided to locate administration offices, warehouses, shops, and residences away from areas devoted to visitors, creating separate “zones” for maintenance, employee housing, administration, and visitor services. Location within the park was also an important interpretive issue. Planners debated whether visitor centers provided better visitor orientation from a location near the entrance to the park, or were more effective near a significant feature that visitors would want to see and know more about. In some cases, this issue was resolved by creating secondary visitor centers, which were usually little more than a single exhibit space equipped with restrooms.

Throughout the Mission 66 period, the Park Service’s overriding goal for its visitor centers was to improve interpretation and stimulate public interest in the park. To do this, the park’s “story” was to be told as clearly and effectively as possible. Historians and interpreters played crucial roles in the Mission 66 planning process. According to Robert Utley, chief historian for the Park Service beginning in 1964, historians such as Roy Appleman and Ronald Lee favored siting visitor centers “right on top of the resource” so that visitors could “see virtually everything from the visitor center.”³⁷ The location of visitor centers in sensitive areas often occurred at cultural sites and battlefields, where the purpose of the visitor’s trip to the site was to gain a fairly comprehensive understanding of an important historic event. The preservation of cultural and natural resources sometimes became a concern, but was rarely articulated, according to Utley. The siting of a visitor center among the ruined structures at Fort Union, for example, was deemed advantageous for interpretation. During the Mission 66 period, the Park Service strove to educate the public, sometimes even at the expense of encroaching on the historical or natural environment. Mission 66 historians and planners believed that more effective public education justified such encroachments, and that resulting understanding of sites would lead to greater support for preservation. But if this priority meant sometimes siting visitor centers in sensitive areas, it did not extend to other types of development. Director Wirth emphasized that “definite steps were taken to move as many of the administrative, government housing, and utility buildings and shops as possible out of the national parks to reduce their interference with the enjoyment of park visitors.”³⁸

Within the visitor center building, Park Service designers faced the challenge of orienting visitors and directing them to desired services. These design decisions also affected visitor impacts on park resources. The visitor center was considered “the hub of the park interpretive program,” and a method of orienting park visitors who “lacking these services, drive almost aimlessly about the parks without adequate benefit and enjoyment from their trips.”³⁹ Not only was the visitor center a signpost intended to attract the aimless visitor within, but also a method of distributing information and other services in the most efficient and significant manner. Park Service architects confronted such issues in the development of building “circulation” or “flow” diagrams. Visitor circulation patterns were particularly important in this type of building, because people were expected to use the building in different ways; while some would study the exhibits and watch the films, others were only interested in visiting the

³⁷ Utley in Sellars and Webb, “An Interview with Robert M. Utley.”

³⁸ Wirth, *Parks, Politics and the People*, 278.

³⁹ U.S. Department of the Interior, *Mission 66, To Provide Adequate Protection and Development of the National Park System for Human Use* (Washington, D.C.: Department of the Interior, National Park Service, 1956).

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restrooms or purchasing a park map. At this early date, Park Service architects had no precedents for use patterns, and, therefore, only a vague idea of how the new buildings would function.

The Park Service design and construction staff and interpretation staffs held joint meetings on visitor center planning in November 1957 (EODC) and February 1958 (WODC), and distributed their general findings in a summary. The discussions focused on participants' experience at early visitor centers, particularly those at Colonial National Historic Park and Grand Canyon. Conference participants discussed the desirability of open design, the need for outdoor rest rooms, the importance of determining anticipated numbers of visitors, and the consideration of administrative requirements. Planning visitor center interpretation in conjunction with roadside and trailside interpretation was also encouraged. Individual spaces were to be designed with environmental factors in mind. If the lobby served as "a transition area for the harassed visitor between the crowded highway and the park atmosphere," it should "convey a mood and invite a relaxed frame of mind." Assembly rooms had actually become multiple use spaces and, as the example at Jackson Lake Lodge demonstrated, were more effective with flat rather than sloping floors. These spaces also played a role in the visitor's "transition from 'outside' into the park atmosphere." Exhibits might require artificial light for curatorial purposes, but they also benefitted from a little daylight "to avoid claustrophobia." Finally, information counters could only function effectively at the minimum height requirements suggested, and portable counters were often most useful.⁴⁰

In his discussion of visitor center placement, John B. Cabot, supervising architect for the EODC, described three potential locations. An entrance visitor center established the mood of the park and introduced the visitor to "the total interpretation of park values." The "en route" center posed the problem of simultaneously introducing the visitor to the park and providing information about the site to be visited. Most common was the "terminal visitor center," located at a popular destination, which supplied the visitor with a summary of park values while incorporating relevant information about the area; architects of these centers were encouraged to make use of surrounding views in their designs. According to Cabot, the location of the visitor center influenced the development of the building program because placement "affects how, in what sequence, the story is told, as well as how much or how little." This narrative depended, to a great extent, on the type of park under consideration. Whereas any of the dozens of locations on the edge of natural areas might serve to orient visitors in wilderness parks, most historical parks could only be adequately understood with the help of interpretation presented in close proximity to the commemorative site. In a January 1960 report on visitor centers, the chief of interpretation commended the "desirable" siting of Colonial (Yorktown), which featured an "excellent view of the battlefield from the Siege Line Lookout on the roof of the visitor center," but criticized that of Grand Canyon, which stood midway between Mather Point and Grand Canyon Village, as "too far removed (1/3 mile) from the Canyon Rim." Park Naturalist Shultz commented that "a visitor center should be 'in touch' with the feature it interprets."⁴¹

⁴⁰ U.S. Department of the Interior, *Visitor Center Planning, Notes on Discussions Held in EODC November 18-22, 1957 and WODC February 4-6, 1958* (Washington, D.C.: Department of the Interior, n.d.).

⁴¹ "A Report on Visitor Centers" (Washington: U.S. Dept. of the Interior, ca. January 1960), National Park Service History Collection, Harpers Ferry Center.

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Once planners had chosen a building site, architects considered the park's story on a more intimate level. Cabot demonstrated how "visitor sequence diagrams" (flow diagrams) showed alternatives for visitor travel through a series of spaces; a typical example placed reception/information (lobby) in the center, with the assembly (auditorium), toilets, administration and interpretation (museum exhibits) areas grouped around it. In the diagrams, spaces were represented by circles of varying sizes. One alternative placed a circulation terrace between the various areas, allowing the visitor to choose his or her route. Cabot suggested that architects develop a sequence analysis, flow diagram and estimates of spatial dimensions before beginning preliminary drawings. Such planning required a close working relationship between museum professionals and architects, as indicated by Cabot's lengthy outline for visitor center design.⁴² The "architectural treatment" of assembly or audio-visual rooms depended, in part, on mechanical systems and park programs. Funding for certain "audio-visual devices" became available in 1956, too late for incorporation into early visitor center plans, such as the Fort Frederica Visitor Center on St. Simons Island, Georgia. In the future, Ronald Lee recommended supplying architects with audio-visual related information, including descriptions of the devices, whether accommodations were needed for slide or film projectors, the audience's seating requirements, and the possibility of dividing auditorium space for several smaller presentations. Architectural consideration of such factors would lead to the development of "rooms which open from the lobby and which are separated from the exhibit rooms in order to keep the devices from distracting the visitor in his enjoyment of the exhibits."⁴³ Both Cabot and Lee encouraged architects to work closely with the interpretive branch and to contact consultants at the Washington Office for assistance in designing suitable spaces.

The professional partnership between Park Service designers and planners and interpreters and curators dated back at least to the creation of the Museum Division in 1935. During the planning stages of the Jefferson National Expansion Memorial, the Museum Division developed exhibits for the future museum and catalogued significant architectural fragments from the site as it was cleared for construction. In the early 1940s, architect Lyle Bennett wrote up a "Checklist for Museum Planning," addressing issues that would become relevant in his Mission 66 visitor centers designs. The close relationship between exhibit and architectural designers was strengthened by Tom Vint during the early years of Mission 66. Vint discussed exhibits at Grand Canyon with architect Cecil Doty, and it was typical for him to consult with Ralph Lewis or another museum expert on interpretive aspects of visitor center design.⁴⁴ Ten years after the official conclusion of Mission 66, Lewis published *Manual for Museums*, a technical handbook for curators on collections management. Although visitor centers are beyond the scope of the work, its frontispiece is a color photograph of the Mission 66 visitor center at Wright Brothers National Memorial. This "characteristic example of museums in the National Park

⁴² "Visitor Center Planning," 13-40.

⁴³ Ronald L. Lee, Chief, Division of Interpretation to Chief, Eastern Office of Design and Construction, memorandum, "Audio-Visual Space Requirements in Visitor Center Buildings," ca. November, 1956, Box 29; "WASO Design and Construction Correspondence," 1954-56, Regional Archives, Philadelphia, Pennsylvania.

⁴⁴ Ralph H. Lewis, *Museum Curatorship in the National Park Service, 1904-1982* (Washington, D.C.: Department of the Interior, National Park Service, 1993), 108-142.

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System,” was still a suitable representation of current Park Service curatorial standards nearly twenty years after its construction.⁴⁵

Mission 66 caused a surge of activity in the museum branch of the Park Service that led to the reopening of the Western Museum Laboratory in San Francisco’s Old Mint building.⁴⁶ Within months of its organization, the laboratory began work on exhibits for Quarry Visitor Center at Dinosaur National Monument, the Mission 66 building slated for a grand opening June 1, 1958.⁴⁷ Correspondence between the Division of Interpretation and the director indicates that Park Service exhibit professionals influenced the design of the center. The contract architects, Anshen & Allen, drew up exhibit plans based on the Western Museum laboratory’s requirements. In April, the laboratory corrected some circulation problems in the construction drawings.⁴⁸ Since the laboratory must have provided preliminary designs, other alterations may have taken place during the planning process.

The development of the visitor center not only increased the demand for museum work, but also opportunities to supplement traditional dioramas and displays with more innovative “hands on” exhibits and audio-visual productions. The Mission 66 report of 1956 noted that museums were frequently part of the administration building or visitor center and emphasized the great importance of museum collections in preserving “priceless national legacies.” Audio-visual presentations were also seen as a means of reducing costs and presenting interpretive material more quickly and effectively. Improvements in mechanical systems and the production of high-quality 16 mm films were the wave of the future. This technology would replace more traditional museum exhibits--and change the role of museum professionals--in later visitor centers, such as the headquarters at Rocky Mountain National Park, Colorado. Even the 1963 preliminary designs for this building featured an enlarged audio-visual room rather than exhibit space, demonstrating the transformation from museum-administration building to visitor center within the decade.⁴⁹

The cover of “Mission 66 in Action,” a 1958 brochure promoting the program, features a streamlined, modern visitor center and viewing terrace dotted with visitors.⁵⁰ Another drawing of a simple, rectangular visitor center building is pictured inside. Thirty-four of these new “focal points of park activity” had already been completed and twenty were under construction. By this time, the Park

⁴⁵ Lewis, *Manual for Museums* (Washington, D.C.: Department of the Interior, National Park Service, 1976).

⁴⁶ “The Eastern Museum Laboratory increased its exhibit construction staff to about 30 and the Western Laboratory reopened with a staff of fifteen.” In anticipation of over a hundred new visitor centers and the rehabilitation of exhibits in about forty existing museums, the Museum Division “planned laboratory facilities to maintain a permanent production rate of 250 exhibits per year.” Another one hundred and fifty exhibits were to be obtained through contractors. See R.H. Lewis, draft, “Reexamination of the Museum Phases of Mission 66,” National Park Service History Collection, Harpers Ferry Center.

⁴⁷ Lewis, “Museum Curatorship,” 153-4.

⁴⁸ John W. Jenkins to Director, May 6, 1958 in “Dinosaur Interpretive Plans, vol. I, Quarry Visitor Center Exhibit Plan,” library, Denver Service Center.

⁴⁹ David D. Thompson, Jr., “Visitor Centers...”, 4.

⁵⁰ This design was conceptual and was never executed.

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Service was on its way toward establishing standards for visitor centers, at least in terms of in-house examples. The design conference offered park architects important tips on early planning and guidelines for developing appropriate buildings. Park publications promoted modern materials for design, and during the early 1960s, Park Service personnel could look at their own publications for guidance.

Park Practice Design, a joint publication of the Park Service and the National Conference on State Parks, featured a rustic wood museum building in 1957, but qualified its praise with the observation that it had “limited application because of its architectural character and the fact that it would be relatively expensive to construct.” These issues were no longer applicable in 1962, when the publication emphasized the centralization of functions, circulation of visitors, and presence of modern utilities in visitor centers at Pipestone, George Washington Carver, and Everglades. Writing for the Park Service newsletter, *Guidelines*, Howard R. Stagner, chief of the Division of Natural History and a member of the original Mission 66 planning staff, compared visitor centers to modern businesses. The overwhelming purpose was luring people inside. Stagner noted the absence of any standard plan for visitor centers, since each varied according to its reason for being. Taken out of context, the visitor center had no inherent value, but placed near a point of interest, it became indispensable to the curious park visitor. By 1963, museum professionals described how the visitor center allowed the Park Service to “orient the public according to its own objectives.” This was achieved through what had already become a standard set of experiences: approaching the information desk, discovering one’s location on a map, watching a narrated slide production, visiting the museum, taking in a view and then proceeding down the road to a major attraction.⁵¹

During the last few years of Mission 66, both the EODC and the WODC experimented with visitor center plans that moved away from the centralized, single building model. The new designs were of two basic types--an entry lobby with distinct wings for other services and a series of independent buildings grouped around a courtyard or terrace. The visitor center and administration building at Saratoga, New York, designed by Don Benson and the EODC staff in 1960-1962, are early examples of this effort to clarify services and the circulation between them. Offices are housed in a hut-like space adjacent to a similar form containing a lobby and roofed terraces. These six-sided “huts” are connected by a corridor to the assembly/museum area, which is similar in plan and outward appearance. The exterior walls of all three areas are covered with beveled wood siding and the six-sided pointed roofs are protected by hand-split wood shingles. Although the Salt Pond Visitor Center (1964), Cape Cod National Seashore, Massachusetts, was based on a different plan and aesthetic treatment, it also effectively dispersed services into three distinct areas. EODC Architect Ben Biderman designed the visitor center with a central entrance lobby between an audio-visual room and museum. The elevation reads as three separate buildings, but the two wings are connected to the lobby with glassed-in corridors. In contrast to the Saratoga Visitor Center, Salt Pond emphasized the character of each area with distinctive roof designs and wall treatments.

The WODC also began experimenting with alternatives to the centralized, single-building visitor center during the later years of the program. Cecil Doty produced a visitor center on the “three hut model” with pointed shake roofs for Curecanti Visitor Center (1965) in Colorado, but the building was

⁵¹ Howard R. Stagner, “Making the Visitor Center Work,” *Guidelines* (National Park Service, November 1963): 75-77; Charles W. Warner, “The Interpretation of an Historic Area through the Original Environment and the Visitor Center,” *Guidelines* (National Park Service, November 1963): 79-81.

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completely redesigned by a contract architectural firm. The reverse situation occurred at Cabrillo Visitor Center, San Diego, for which Doty chose a more centralized plan that contract architect Frank L. Hope reconfigured as three completely separate buildings in 1965. In this case, the administration building, exhibits/auditorium, and viewing/sales buildings were grouped around an open-air courtyard. Roughly contemporary with this design were the plans for the headquarters at Fort Raleigh, Cape Hatteras National Seashore (1964-65), and the Kalapana Visitor Center at Hawaii Volcanoes (1965-66; destroyed by a lava flow in 1989). The visitor center portion of Fort Raleigh was completely separate from the headquarters, a series of “pod-like” buildings. The Hawaiian structure featured an office building, comfort station, and exhibit room with attached lanai (porch). Both of these buildings, and perhaps not coincidentally most of these later visitor centers, made extensive use of wood shingles, built-up roofs, and decorative wood siding. Although “classic” visitor centers were still designed in the late 1960s, this move toward decentralizing visitor services appears to have been both a response to visitor circulation issues and a reaction to a design trend that would appear in school buildings and other public facilities during the late 1960s and 1970s.

The Mission 66 visitor center combined old and new building programs and served as the centerpiece of a new era of planning for American national parks. The influence of the Mission 66 visitor center was profound. New visitor centers (and the planning ideas and architectural style they implied) were used in the development or redevelopment of scores of state parks in the United States, as well as nascent national park systems in Europe, Africa, and elsewhere. The visitor center is still the core facility of park development programs for parks of various sizes and in various contexts all over the world.

“Park Service Modern”

The Mission 66-era visitor center also embodied a distinctive new architectural style that can be described as “Park Service Modern.” By the late 1930s, Park Service architects had become aware that American architecture was changing fundamentally, and that the situation had also changed in the national parks. Park Service Modern architecture responded to the new context of postwar social, demographic, and economic conditions. The new style was an integral part of a broader effort at the Park Service to reinvent the agency, and the national park system, for the postwar world.

The new style was evident, above all, in the design of visitor centers. These showcase facilities exploited the functional advantages offered by postwar architectural theory and construction techniques. The larger, more complex programming of the visitor center encouraged Park Service architects to take advantage of free plans, flat roofs, and other established elements of modern design in order to create spaces in which larger numbers of visitors could circulate easily and locate essential services efficiently. Such planning implied the use of concrete construction and prefabricated components, and was further complemented by unorthodox fenestration and other aspects of contemporary modern design. At the same time, Park Service Modern also built on some precedents of earlier rustic design, especially in the use of interior courtyards and plain facades, which Cecil Doty had used, for example, in Pueblo revival structures of the 1930s.

The architectural elevations of Park Service Modern visitor centers reflected a new approach to designing what was, after all, a new building type. Stripped of most overtly decorative or associative elements, the architects typically employed textured concrete with panels of stone veneer, painted steel columns, and flat roofs. These were established formal elements of the modern idiom, but they also

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often allowed the sometimes large and complex buildings to maintain a low, horizontal profile that remained as unobtrusive as possible. Many visitor centers were sited on a slope, so that the public was presented with a single-story elevation, while the rear (service/administrative facade) dropped down to house two levels of offices. Stone and textured concrete could also take on earth tones that reduced visual contrast with landscape settings. The Park Service Modern style developed by the Park Service during the Mission 66 era was a distinctive new approach to park architecture. The style was quickly adopted and expanded upon by Park Service consultants, notably Mitchell/Giurgola and Neutra. The Park Service Modern style soon had a widespread influence on park architecture not only in the United States, but internationally as well.

Park Service Modern architecture also reinterpreted the long-standing commitment to “harmonize” architecture with park landscapes. The Park Service Rustic style had been essentially picturesque architecture that allowed buildings and other structures to be perceived as aesthetically harmonious elements of larger landscape compositions. The pseudo-vernacular imagery and rough-hewn materials of this style conformed with the artistic conventions of landscape genres, and therefore constituted “appropriate” architectural elements in the perceived scene. Rustic buildings harmonized with the site not just by being unobtrusive, but by being consistent with an aesthetic appreciation of the place. Park Service Modern buildings were no longer truly part of the park landscape, in this sense, since they were not sited or designed to be part of picturesque landscape compositions. But in many cases this meant that buildings could be sited in less sensitive areas, near park entrances or along main roads within the park. At times, the new, larger visitor centers could be even less obtrusive than rustic buildings often had been. Park Service Modern architecture, at its best, did “harmonize” with its setting, but in a new way. Stripped of the ornamentation and associations of rustic design, Mission 66 development could be both more understated and more efficient. If the complex programs and extensive floor areas of the new visitor centers had been designed in a rustic idiom, the buildings probably would have taken on the dimensions and appearance of major resort hotels. Park Service Modern offered a new approach that, when successful, provided more programmatic and functional space for less architectural presence.

During the Mission 66 era, the Park Service Modern style (epitomized by the Mission 66 visitor center) led the way in establishing what was considered an appropriate approach to planning and designing the built environment in national and state parks. The new, modern image became widespread, and was adopted by many different park and public land management agencies all over the United States. As the national park movement spread worldwide in the postwar era, visitor center planning and the Park Service Modern style were often exported as well. Mission 66 and Park Service Modern became as influential in shaping postwar park planning as the New Deal and Park Service Rustic had been between the wars.

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THE QUARRY VISITOR CENTER***Dinosaur and Echo Park***

Surrounded by the dry, rocky terrain of northwest Colorado and northeast Utah, more than two hundred miles from any major city, Dinosaur National Monument is an unlikely location for one of the Park Service's most distinctive modernist buildings. Even before its completion in 1958, the "ultramodern" Quarry Visitor Center at Dinosaur had become a model of Mission 66 design and achievement. Its glass and steel observation deck, concrete ramp, and cylindrical "tower" suggested scientific inquiry, and literally sheltered working paleontologists.

The transformation of the monument from a paleontological site to a visitor destination worthy of such attention resulted, in part, from one of the country's bitterest conservation battles. The canyon near the confluence of the Green and Yampa Rivers was the preferred location for a Bureau of Reclamation dam, and had been eyed by the Bureau for inclusion in the Upper Colorado River Basin Project since the 1930s. Legislation passed to expand the monument in 1938 included provisions for future development of water resources. What appeared to be a matter of local water rights in the late 1930s, however, would become a topic of national discussion after World War II. If the value of Dinosaur National Monument lay in its paleontological site—the richest deposit of Jurassic remains ever discovered—its sudden notoriety came from the high canyon walls and rushing rivers that the river development project promised to transform into power, irrigation, and drinking water. The dam controversy touched the heart of the National Park Service by threatening its basic mandate to protect individual parks and the integrity of the entire system. It pitted governmental departments against each other. Even within the Park Service, staff members stood on either side of the issue. The public was equally divided. This was an era in which big water projects, such as the Hoover Dam, were wonders of engineering constructed for public benefit. Many Westerners demanded "equal water rights," while members of the growing national "wilderness movement" saw the Echo Park Dam development issue as an opportunity to prevent a loss equivalent to that of Yosemite's Hetch-Hetchy Valley.⁵²

The Echo Park and Split Mountain Dams appeared a foregone conclusion to many by 1950, when newly appointed Secretary of the Interior Oscar Chapman scheduled hearings to discuss the proposals. Among the monument's supporters was Frederick Law Olmsted, Jr., the nation's foremost landscape architect, who warned that the loss of "scenic and inspirational values obtainable by the public" at the monument would be "catastrophically great."⁵³ Olmsted urged the Department of the Interior to choose an alternative site, even if it resulted in financial loss. Despite such pleas, Chapman supported the dam. The headline of the January 28 *Salt Lake City Tribune* read "Echo Park Dam Gets Approval." Less than a year later, the Park Service announced plans for a resort-like development at the new Echo Park and

⁵² The Wilderness Society, the National Parks Association, the Sierra Club, the National Wildlife Federation, the Izaak Walton League, the American Planning and Civic Association, the Wildlife Management Institute, the Audubon Society, and the National Council of State Garden Clubs were among the approximately thirty conservation groups involved in the Echo Park issue.

⁵³ Frederick Law Olmsted, "Statement of Frederick Law Olmsted at Hearings Held by the Department of the Interior, April 3, 1950 in the Matter of Dinosaur National Monument, Echo Park, and Split Mt. Dams," library, Dinosaur National Monument; Olmsted's testimony was based on fieldwork relating to the water project. See "Dinosaur National Monument Region, Report of Progress, May 13, 1943."

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produced a sketch of Echo Park Lodge, a vast complex for 500 visitors estimated to cost \$2,500,000. Park Service maps indicated the areas that would be flooded and showed the locations of both Split Mountain and Echo Park Dams and reservoirs.⁵⁴

The Park Service may have given up the fight after the Secretary of the Interior's decision, but grassroots conservation groups refused to back down. Media attention had been building since the hearings, and in July 1950, an article by Bernard DeVoto informed more than four million of *Harper's* readers of a potential tragedy at Echo Park. A native of Utah, De Voto helped make the situation a popular issue, and once it reached a national forum new coalitions joined the conservationists. Californians protested that their water was being diverted, while Easterners declared themselves unwilling to pay taxes for western water projects. The campaign to save the canyon was given an additional boost in 1952, when David Brower became president of the Sierra Club. After seeing a film of the river, Brower made the preservation of Dinosaur his personal crusade. The new Sierra Club leader encouraged others to take up the fight by sponsoring river trips, producing his own film, and writing and speaking on behalf of the monument. Brower asked New York publisher Alfred A. Knopf to publish *This is Dinosaur*, a collection of essays by notable wilderness advocates intended to show "what the people would be giving up" if they accepted the dams.⁵⁵ Each member of Congress was sent a copy of the book, with a special brochure about the monument sewn into the binding.

Finally, in November 1955, Secretary of the Interior Douglas McKay announced that the Echo Park dam would be removed from the Upper Colorado River project.⁵⁶ In March, both Houses approved water storage at three sites: Flaming Gorge, Utah; Glen Canyon in Northern Arizona; and Navajo, New Mexico (the inclusion of Curecanti, Colorado, was contingent on further research). The threat of future development at Dinosaur remained, but for the present, the monument would be left alone. The Park Service quickly took advantage of this lull in the controversy to push for the long-awaited visitor center at the now nationally famous site. Mission 66 came to Dinosaur amid this clash of ideals. The Park Service chose to construct a monumental modernist building that demonstrated its commitment to the "protection and use" of Dinosaur National Monument.⁵⁷

⁵⁴ *Vernal Express* (February 15, 1951); "Dinosaur National Monument, Plan of Development as a National Monument by the National Park Service," n.d., "Dinosaur" clippings files, Western History Collection, Denver Public Library.

⁵⁵ Knopf had recently visited Dinosaur to show support for the endangered area. Wallace Stegner, ed., *This is Dinosaur: Echo Park Country and its Magic Rivers* (New York: Alfred A. Knopf, 1955).

⁵⁶ Owen Stratton and Phillip Sirotkin, *The Echo Park Controversy* (Alabama: University of Alabama Press, 1959), 95.

⁵⁷ According to the *Vernal Express*, June 3, 1958, the structure came "partly as a result of increased national interest in the monument, growing from the publicity inherent to the Echo Park Controversy..." Historian Elmo Richardson provides evidence that once the Upper Colorado Basin bill passed, the Secretary of the Interior planned immediate Mission 66 improvements at Dinosaur. See Richardson, "Just a Tiny Dinosaur," in *Dams, Parks and Politics* (Lexington, Kentucky: University Press of Kentucky, 1973), 151.

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Early History

In 1909 Earl Douglass discovered an amazing deposit of fossilized dinosaur bones in the remote and arid northeastern corner of Utah. Douglass, a paleontologist from the Carnegie Museum in Pittsburgh, established a camp at the site from which to begin excavating the valuable remains. Over the next few decades entire skeletons were removed and sent to museums throughout the country--approximately 700,000 pounds of fossilized bones to the Carnegie alone. These prodigious discoveries led President Woodrow Wilson to proclaim Dinosaur a national monument in 1915. About this time, Douglass envisioned a museum exhibit with "the skeletons which had been unearthed . . . mounted in relief on one side of the paleontological hall of the museum in the position in which they had been found."⁵⁸ A few years later, he preferred "a stately edifice in which there should be assembled plaster-casts of the dinosaurs which we have extracted from the spot."⁵⁹ Finally, in 1924, Douglass wrote what might easily have been preliminary instructions for the architects of Quarry Visitor Center:

The uncovered area should be housed to protect the specimens and provide shelter for sight-seers and students. The north side would be a natural wall, of course, with the skeletons in place. The south side would probably be a natural wall also but the ends would have to be built and a roof with ample sky lights would cover the whole. The extra space and the walls could be utilized for many other exhibits from this most interesting geological and paleontological region.⁶⁰

If Douglass was the driving force behind the visitor center concept, public servants in higher places had more influence over construction within the monument. George Otis Smith, Director of the U. S. Geological Survey, expressed his preference for an in situ exhibit as early as 1916, and by 1923 Secretary of the Interior Herbert Work imagined a similar situation and encouraged the Smithsonian to take on the project. Evidently, local residents believed that a building at the Quarry was eminent. The board of the Vernal Chamber of Commerce estimated that a shelter featuring a roof with three skylights and end walls of native rock would cost about \$5,000. Although Work was unable to obtain approval for his scheme, he did attract the attention of Director Cammerer and members of the scientific community. Cammerer expressed concern over the amount of labor necessary to reveal exhibit bones and feared incurring additional expenses. Nevertheless, in 1924, Congressman Colton of Vernal introduced Bill 9064 to the 68th Congress in an effort "to properly house for its protection the Dinosaur National Monument."⁶¹ Congress shelved the bill, but Colton continued to fight for a protective shelter.

⁵⁸ Beidleman, Richard G, "The Dinosaur Museum--From Idea to Reality," in Administrative History Dinosaur National Monument, 1963, unpublished manuscript, library, Denver Service Center (DSC). The quotation was taken from Douglass' correspondence.

⁵⁹ Beidleman, "The Dinosaur Museum," 4; "correspondence," Holland to Cammerer, November 8, 1921, National Archives, File 580, Dinosaur National Monument archives.

⁶⁰ Beidleman, "The Dinosaur Museum," 9; "correspondence," Cammerer to Case, December 30, 1924, National Archives, File 580, Dinosaur archives.

⁶¹ Beidleman, "The Dinosaur Museum."

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Meanwhile, Cammerer focused on finding an academic institution to resume excavations in partnership with the park. Dr. Case of the University of Michigan Geology Museum, a group active in excavating the site, hesitated to reveal fossils that might deteriorate when exposed to the elements. Financial support was a problem for the university as well, and in 1925 Cammerer decided to halt excavation until something could be done to protect the bones. Finally, in 1930, the American Museum of Natural History in New York bargained with the Park Service for rights to fossilized remains in exchange for developing a public exhibit. Museum excavators would be allowed to remove any full skeletons they unearthed. The Depression ended hopes of building a museum in the early 1930s. However, a federal relief project resuscitated the excavation efforts in 1933, promising twenty workers. Even after the removal of funding in the spring of the next year, work continued under the Transient Relief Service of Utah. A temporary structure for the paleontologists, which also served as a museum, was constructed on the site in 1936.⁶²

The relief work primarily involved “overburden removal,” but as this task was accomplished the Park Service began planning for a new museum. Ned J. Burns, chief of the museum division, warned that “the building must be erected as soon as possible after this work has advanced to a stage where the fossils are located and enough exposed for identification.” Not only did Burns anticipate potentially damaging water seepage, but also several features of the building. He thought the structure housing the in situ exhibit should be “entirely functional with ornamental treatment reduced to a minimum.” The balcony opposite the rock’s face would allow visitors to observe excavation. In closing, Burns noted that “an in situ exhibit of the size contemplated will . . . achieve international fame,” but warned the Park Service to obtain the necessary funds before beginning construction.⁶³

Burns may have been referring to a preliminary design for a museum produced in January 1937, and, remarkably, the early proposal most similar to the Quarry Visitor Center. The project assumed collaboration with the American Museum of Natural History, the chief architect of WODC, and the director of the Park Service. Unlike successive designs of the 1940s, this scheme contains a circular foyer, apparently of concrete, which acts as a hinge linking the Quarry exhibit area with an optional office wing. The narrow museum building includes a library and curatorial office on the first floor, and stairs adjacent the foyer and at the far end of the museum lead up to a second-floor balcony space, enabling visitors to circulate without backtracking. In elevation, the building is simple and streamlined, with only a random stone facade as ornamentation. Its strip clerestory windows, flat roofs, and use of geometric forms is more characteristic of Mission 66 than the rustic architecture typical of the Park Service in the 1930s.⁶⁴

Interest in the Quarry area appears to have increased in 1938, probably because the enlargement of the monument from eighty acres to three hundred and twenty-five square miles brought attention and

⁶² Beidleman, “The Dinosaur Quarry and Federal Works Projects 1933-1938.”

⁶³ Ned J. Burns, “Comments on Proposed Museum at Dinosaur National Monument,” in “Quarry Development 1936-1953,” ca. 1936, Dinosaur archives.

⁶⁴ “Preliminary Drawing for Museum Building,” January 24, 1937, DIN-3-A, microfiche, Technical Information Center, Denver Service Center.

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financial support to the area.⁶⁵ Signs were installed on Route 40. In his inspection of the monument, Assistant Chief of the Naturalist Division H. E. Rothrock reported on the prospect of further excavation in the quarry: "This work cannot be undertaken until the plans and the exact location of the building which is to house the exhibit have been completed. These plans await the excavation of the fossil bed because the location of the building and its general design will depend upon the location, condition, and abundance of the fossil material which exists in the bone layer."⁶⁶ If funding for the building had been an obstacle in the past, it must have seemed impossible during World War II. Nevertheless, in April 1944, the Park Service produced two alternatives for museums in the Quarry area.

The preliminary sketch for a museum, designated 3-B as if in relation to the 1937 proposal, shows a more elaborate facility with a less modern appearance. The main exhibit room is a 60- by 160-foot rectangle composed of an in situ exhibit on the north side and exhibit cases or dioramas on the south underneath a second-story viewing balcony. Visitors traversed a winding path up the rock (and adjacent the road) to reach the main entrance to the building, entered a lobby with restrooms, viewed the quarry face, walked downstairs to the exhibit room, and then exited through a vaulted loggia on the first floor which also served as a truck entrance. The laboratory and preparation room was located in a one-story side wing jutting out from the front of the building, and additional offices were on the second floor of part of this wing. The building had a random stone facade and terraces but no significant ornament.⁶⁷

A third museum proposal (drawing 3-C) wedged the building between the in situ quarry and the southern canyon wall, with a slightly undulating stairway providing access to the exhibit room, a second-floor mezzanine, and third-floor balcony. Offices were on the south side of the building and on the second floor. An optional skylight was included in the section, along with triple-height side windows. The general plan of the building qualifies it as an ancestor of the future Quarry Visitor Center, as does the basic circulation pattern. A quick glance at the elevation ends the comparison, however, as it is a massive three-tiered structure with vaguely Spanish details. One feature of note is the boulder-lined path that follows the entrance road up to the second-floor roof terrace.

Fortunately, the Park Service's financial situation did not lend itself to such an elaborate Quarry complex.⁶⁸ A temporary shelter was more realistic, and by 1951 plans were approved for a utilitarian structure resembling a warehouse or farm building. The north wall of the building consisted of the quarry face itself and a corrugated sheet metal shed roof protected paleontologists and visitors alike.

⁶⁵ President Franklin D. Roosevelt signed the proclamation enlarging the park boundaries on July 14, 1938.

⁶⁶ H. E. Rothrock, "Report on Inspection of Dinosaur National Monument," June 1938, microfiche, TIC, DSC.

⁶⁷ Preliminary Sketch, "Museum," February 7, 1944, DIN-3-B, microfiche, TIC, DSC. This drawing includes the following note: "This preliminary sketch is designed to the approximate dimensional specifications outlined in Associate Park Naturalist M.V. Walker's 'Report on Studies and Investigations at Dinosaur national Monument relative to an interpretive and museum development program,' dated May 2 to June 15, 1943."

⁶⁸ The 1949 park brochure, "Dinosaur National Monument Past and Present," informed visitors of the Park Service's "high hopes and plans that this world-famous quarry may be protected from weathering and erosion by erecting a roof over it. Such a structure will make it possible to preserve bones now exposed in the quarry face and also house some dinosaur restorations. But above all it will make it possible to present to the public an active, working quarry where men are engaged in uncovering and preserving in place the fossil remains of these great prehistoric creatures." William Lee Stokes, *Dinosaur National Monument: Past and Present* (Washington, D.C.: Government Printing Office, 1949).

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Four equally spaced windows in the south wall above the entrance and one on the east side let light into the museum. The lowest construction bid was offered by Bus Hatch, a native Vernal “river man” who had guided boatloads of tourists through the canyons during the preservation effort.⁶⁹ Although a rather primitive wooden structure, this early museum was a precedent in situ shelter serving the required protective function. The new Quarry Visitor Center would not only borrow its method of bringing the site to the visitor, but also its utilitarian quality updated to showcase modern materials and modern scientific efforts. Whether or not the contract architects examined the temporary shelter is unknown, but Park Service designers were certainly influenced by the building.

Mission 66 brought new hope of fulfilling promises for the Quarry area development envisioned twenty years earlier. Park staff met with members of the regional office and the WODC for three days in May 1955, to discuss upcoming construction projects. The group agreed to push for immediate preparation of preliminary drawings for the “Quarry Museum” and construction as soon as funds were available. Among those attending the meeting were Lyle E. Bennett and Robert G. Hall, both of whom probably contributed their design expertise to the committee’s building description:

The building is to be designed with a length of approximately 180 feet, covering a general area of the quarry as located on the ground. The building is to have a balcony on the south wall at a height which will give the visitor the best possible view of the quarry face and the in situ exhibit. Entrance and normal visitor exit of the building would be at the balcony level near the center of the south wall. The circulation pattern within the building is to provide for visitors traveling from the balcony to the ground floor for a closer view of the in situ exhibit and other related exhibits planned for installation under the balcony and elsewhere in the building.⁷⁰

By March 1956, the Park Service announced that funds allocated for Mission 66 improvements at Dinosaur totaled \$615,899.⁷¹ According to Director Wirth, the money would be used for roads, a new \$275,000 visitor center, employee housing, and water and sewer facilities.⁷² In May, just a month before hiring contract architects, the park produced a “comment sketch” for a modern visitor center.⁷³ This drawing shows a two-story building with an upstairs lobby and spectator’s balcony. The lower floor housed offices and work rooms arranged en suite and a visitor gallery, probably intended for exhibits. Visitor access to the building was from a broad stairway running parallel to the offices. No comments or elevations were included in the sketch. At this point, the park must have been seeking a private

⁶⁹ Dinosaur National Monument files, memorandum, “Temporary Quarry Shelter,” April 17, 1951.

⁷⁰ Regional Director to Superintendent, memorandum, “Report on Conference, May 18, 19, 20, Dinosaur National Monument” [stamped date June 9, 1955], Box #7, Office Files of Director Conrad L. Wirth, 1946-1964, RG 79, National Archives.

⁷¹ “‘Dinosaur’ Improvement Fund Reaches \$615,899,” *Vernal Express* (March 1, 1956).

⁷² The eight projects included in the program were “the relieving of fossils, construction of roads and parking lots for the visitor center, reconstruction of Split Mountain road, installation of utilities, roads and walks for utility buildings, signs and markers,” and campground and comfort facilities along the Green and Yampa Rivers. “Dinosaur Monument Construction Draws Big Response at Bid Opening,” *Vernal Express* (March 21, 1957), Dinosaur clippings file.

⁷³ See photo collection, “Quarry,” Dinosaur archives.

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architectural firm for help in designing the building. By midsummer, work had begun on a guard rail at Harper's Corner, parking lots, and concrete channel crossings. Bidding began on water and sewage improvements and grading the residential housing in the quarry area.⁷⁴ Over the winter, Park Naturalist John Good envisioned the improved situation at the site, which would allow visitors to "whisk up a paved road to the quarry instead of walking up the hot, dusty trail that has been used for so many years."⁷⁵

In preparation for the new building, the Park Service removed facilities constructed during the 1930s. The museum section of the old headquarters was "cut from the naturalist's quarters portion and skidded across a narrow bridge and placed at its new location about a mile from its original site," an achievement "deemed impossible."⁷⁶ The park went to great lengths to replicate the quarry exhibit by installing a temporary contact station at Neilson Draw and building a trail up to "in situ" interpretation at Dinosaur Ledge. Fossilized backbones and large leg bones were exposed in the ledge area, and a ranger naturalist stationed at the site simulated excavation.⁷⁷ Throughout the construction, park personnel and local boosters described every step of progress in anticipation of a visitor center "distinctly different in design from anything at present constructed in other national parks." Park interpreters were optimistic that the new facility would finally provide an appropriate setting for modern paleontological research. For the next several years, visitors would witness actual excavation by professional paleontologists. This demonstration would be supplemented by a series of "exhibits, explaining what dinosaurs are, the world they lived in, the geological events following their death, discovery and working the quarry, and methods of preparing specimens." The visitor center would include laboratory facilities, such as a "preparation room for work on the bones, a technical library, storage space for study of collections, and a fully equipped darkroom."⁷⁸

Anshen and Allen, Architects

The year Echo Park was saved the San Francisco architectural firm of Anshen and Allen designed its most famous building, a small chapel in the Sedona desert. S. Robert Anshen and William Stephen Allen began private practice together in San Francisco about four years after their graduation from college in 1936.⁷⁹ Former classmates at the University of Pennsylvania, Anshen and Allen worked as a

⁷⁴ "Dinosaur National Monument Quarry Development Now Open for Bidding," *Vernal Express*, July 12, 1956.

⁷⁵ John Good, "73,000 Visit Dinosaur Monument During Past Year, Says Report," *Vernal Express* (December 20, 1956).

⁷⁶ Daily Yellow Correspondence, Superintendent's report, May 9, 1957, Dinosaur archives.

⁷⁷ Jess H. Lombard, superintendent, to Mr. Martin Litton, Travel Editor, *Sunset* (October 3, 1956).

⁷⁸ "Master Plan Development Outline," ca. December, 1956, filed in 1954-1957 Daily Yellow Correspondence, Dinosaur archives.

⁷⁹ After graduation, Anshen and Allen were awarded a traveling fellowship abroad and, several years later, arrived in San Francisco nearly penniless. The young architects heard that Ralph Davies, Director of the Standard Oil Company, was eager to have a European residence dismantled and brought back to California. They convinced Davies to abandon the European plan and hire them to design his home in Woodside, California. The Davies commission led to work on Standard Oil stations and ship interiors for an associated business, American President Lines. Telephone interview with Richard Hein by the author, April 1, 1999.

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team, sharing the responsibilities of design and engineering. From the beginning, Anshen and Allen espoused no particular style or architectural methodology, but prided themselves on creating the “variety” that evolved naturally out of clients’ desires and programmatic requirements.

One of the partners’ notable early buildings was a house designed in Taxco, Mexico, for Sonya Silverstone (1949). An article about the residence inspired Marguerite Brunswig Staude to contact Anshen and Allen about the possibility of building her dream chapel in Sedona, Arizona.⁸⁰ The architects must have been intrigued when Staude, a sculptress, showed them her sketches of a Roman Catholic Church inspired by Rockefeller Center, a version of which was almost constructed for Hungarian nuns on Mount Ghelert in Budapest. Anshen and Allen began working on the chapel project beginning in 1953.⁸¹ Staude not only financed the chapel, but also provided accommodations for the architects at her Doodlebug Ranch in Sedona. When it was time to find an appropriate site, Staude, her husband, and the architects flew over the local hills in search of the perfect location. This type of collaboration between architect and client would also occur in the firm’s work for the National Park Service.

The Chapel of the Holy Cross, a concrete and glass structure designed around a colossal cross, was built into dramatic red rock formations overlooking the town of Sedona. A serpentine concrete ramp leads the visitor out of the parking area and up to a courtyard in front of the chapel. Through the paned-glass entrance facade, the view extends to the concrete cross spanning the building’s opposite wall and to clouds outside that seem to float above the altar. Anshen and Allen’s chapel received praise in architectural journals, popular magazines, and newspapers soon after its construction.⁸² Park Service architects must have known about this unusual structure located a short distance from Montezuma Castle National Monument and other national monuments near Flagstaff. The chapel’s textured concrete walls and sinuous ramp would foreshadow a similar use of concrete at Quarry Visitor Center. The glass wall that so successfully brought the outdoors into the building would be adapted to the conditions of the park site. Perhaps most important, the designs of both buildings would accommodate living rock. In its unadulterated simplicity, the chapel makes the most of modernist design, and Park Service architects might very well have hoped to see its secular equivalent in a national park. *Architectural Record* clearly saw the connection between the chapel’s setting and the design challenges inherent in a park environment. The journal concluded its October 1956, story on the chapel with the following prediction:

It may fall to the lot of other architects to work with sites of similar grandeur, if plans for the Mission 66 program of the National Park Service do lead, as planned, to a substantial

⁸⁰ Marguerite Brunswig Staude (1899-1988), a sculptress, originally presented her idea for a 500-foot, block-wide cathedral to Lloyd Wright, Frank Lloyd Wright’s son, in the 1930s. Although the design was finally accepted by nuns in Hungary, World War II prevented construction. In 1950, Staude contacted Wright again with plans for a much smaller chapel, but the architect refused to proceed with any but the original design. Kate Rutland Thorne, “Upon This Rock, Marguerite Brunswig Staude and her Sedona Chapel,” (West Sedona, Arizona: Chapel of the Holy Cross, 1995).

⁸¹ About this time Anshen and Allen were planning a major housing development in Palo Alto, California. Although originally named the Fairmeadows Tract, the residences came to be known as “Eichler Houses” after their patron, Joseph Eichler.

⁸² According to “Upon this Rock,” a brochure purchased at the chapel, the building appeared in *Life Magazine*, *The New York Times* (August 25, 1957) and *The Washington Post*. It received an A.I.A. award for religious structures in 1956, and was pictured in the September 1958, *Architectural Record*.

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building program in the national parks. NPS and its concessioners in the parks will be dangling before architects just such problems in scale, in awesome scenery, color, lighting conditions. In an earlier day rusticity was the accepted answer, or chalet importations from another mountainous land. Contemporary architecture has not had much opportunity to test its tenets in such terrain, or, too much success when it has had the chance. The design of this chapel seems to suggest a better approach than we are used to in our national parks.⁸³

Regardless of the Park Service's admiration for the Sedona chapel, initial contact between architects and client appears to have occurred as a result of the Mission 66 effort to find suitable contract architects for visitor center commissions. The WODC advertised its need for architects and, about six months after Anshen and Allen interviewed at the San Francisco office, the firm was hired to design Quarry Visitor Center. The partners chose Richard Hein as project architect.⁸⁴ From the beginning, a certain amount of collaboration was implied, but Anshen and Allen welcomed the challenge offered by their unusual client. In accepting the project, the firm was assuming decades of in-house planning, not to mention the responsibility of an early high-profile Mission 66 project. Anshen and Allen soon realized that the Park Service's expectations for its new building were influenced by the traditional park museum model; preliminary Park Service designs depicted a fully enclosed, windowless building lit exclusively by artificial light. When Anshen visited the site, he recognized the importance of opening up the building so that people could see the environment surrounding the covered quarry section. Together, Hein, Anshen, and Allen begin to plan an exhibit shelter as open as possible in order to achieve a maximum integrated relationship of the remains to the site. The shelter was conceived as a totally glazed structure. This conception had the additional advantage of creating the least intrusion of the building on its natural surroundings which had been one of the Park Service's principal requirements. The administrative and utility areas were to receive a subordinate location and treatment to the main Exhibit Shelter in order to detract as little as possible from the public's view from the site. Technical aspects of the design were addressed by Robert D. Dewell, a civil and structural engineer based in San Francisco.⁸⁵

According to project architect Hein, the original concept for the visitor center made use of the site's natural landscape features by spanning the "v-shaped cut" in rock formations with "a series of suspension cables on a catenary curve."⁸⁶ Because the region's severe climatic conditions fluctuated up to 150 degrees throughout the year, the architects were forced to abandon this plan. The new scheme evolved from the original idea, but supported the asymmetrical butterfly roof with a more substantial

⁸³ *Architectural Record*, vol. 120, no. 4, (October 1956), 182.

⁸⁴ Richard Hein graduated from the University of Oregon with a bachelor's of architecture in 1953. After working for a private company in San Francisco for eighteen months, Hein joined the firm of Anshen and Allen. He specialized in passenger ship interiors for American President Lines, producing approximately twenty-six designs for marine projects during his career. Hein's early work also included designing the ramp for the Sedona chapel, the Quarry project, and the Food Machinery Corporation building in San Jose. After nine years with the firm, Hein left for eight years and then returned for another fifteen years. He retired in 1987. Telephone interview by the author, April 1, 1999.

⁸⁵ Richard Hein, "Design: Anshen & Allen, San Francisco, California," *AIA Journal* (December 1960).

⁸⁶ Hein, "Design," 1960.

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rigid frame system. This solution solved the basic requirement of covering the quarry face, but departed radically from the Park Service's shed-like design.

Quarry Visitor Center was an original design by Anshen and Allen, but it was also a collaborative effort with the National Park Service. In an oral history interview more than twenty years later, Cecil Doty not only took credit for the original design, but remembered details of the collaboration process. With drawings to illustrate his points, Doty showed how he revised the building plans "on the basis of my second preliminary [drawing]" after Ronnie Lee pressured him to remove all glass from the exhibit gallery and make provisions for artificial lighting. Doty claimed that Anshen and Allen restored the glass, borrowed his shell and truss design, and then "went high tailing to Washington" and got approval for the building. As this controversy illustrates, work between private and Park Service architects often blurred the lines between client and architect.⁸⁷ In a feature article on "Recent Work of Anshen & Allen," *Architectural Record* described the building in glowing terms as a highly successful revision of "the Park Service's original design."⁸⁸

The firm produced a seven-sheet set of preliminary drawings in July 1956. Because of the large amount of glass in the plans, preliminary drawings included diagrams indicating the angle of the sun at various months and hours. "Sun patterns" were shown in plan and cross section. These solar studies were directly related to building features, such as the shape and extent of roof overhangs. The building consisted of three main areas: the concrete cylinder or "circular element" housing facilities for visitors, including the lobby, restrooms, and service staff; the one-story administrative office and laboratory wing; and the double-height gallery, which included the fossil exhibit. From the parking lot, visitors entered by following the concrete ramp as it wrapped around the cylindrical building and emerged in an area adjacent to the exhibit. The two floors were connected by a narrow stairway in the rotunda and by a stairway at the far end of the gallery; visitors were intended to use the ramp entrance, discover the restrooms to the left of a small lobby, walk along the upper gallery and then take the stairs down to the lower viewing area. This gallery included a window into both the paleontologists' preparation and storage room and part of the administration wing. The first floor also housed the library and conference room, the geologist's office, darkroom, employee lockers, and mechanical equipment. Visitors concluded their tour of the lower gallery at another lobby space, now a crowded bookstore. Additional Park Service offices were arranged in the semicircle around the lobby. The exit was located at the far end of the exhibit space. This route provided efficient circulation through the building and back to the parking area.

⁸⁷ See Harrison, "Interview with Cecil Doty," 17. Doty repeated his claims in an interview with Jonathan Searle Monroe, who paraphrased the architect's comments in his master's thesis: "A more dramatic change occurred at the Dinosaur Quarry Visitor Center at Dinosaur National Monument. This early Mission 66 building (1958) was well received by the architectural press and gave Anshen & Allen, the designers, good publicity. The design concept, the overall size and functional relationships, the siting, and even some of the construction details were done by Doty. Anshen & Allen made changes to the roofline and altered the shape of an office wing from rectangular to round, both of which significantly changed the final form of the building but not the basic concept. Doty's name was never mentioned in any of the numerous articles describing the building." See Monroe, "Architecture in the National Parks: Cecil Doty and Mission 66," 123-4.

⁸⁸ "Recent Work of Anshen and Allen," *Architectural Record* 124 (September 1958): 165-180.

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Evidently, Director Wirth was not entirely pleased with the preliminary drawings and, in July, refused their approval. Anshen responded by offering to “restudy the problem in accordance” with Wirth’s comments.⁸⁹ The acting chief of design and construction reported his extreme doubts that a building satisfying the desired functional requirements could be designed and built with the available funds. As the architects worked on revisions over the next few months, they also demonstrated that their glass and steel building could be completed within the allotted budget.

The form of the gallery covering the fossils appears to have been determined relatively early in the design process, but the cylindrical administrative building proved more contentious. The architects produced at least ten versions of the ramp and cylinder, with variations in the treatment of “skin” covering the two-story office space, the size and shape of the ramp and its termination. These are all drawn in soft pencil, with a similar background treatment, as if part of a series.⁹⁰ The most significant variations occur in the concrete pattern of the cylinder; the architects varied the spacing of verticals, in one case leaving half the wall completely smooth and in another proposing a textured wall of concrete block. Ramp possibilities ranged in the extent of curve—including an example that seems almost level. The architects experimented with the ramp entrance and toyed with the idea of a series of steps part-way up the ramp. As Senior Associate of Anshen and Allen Stephen Bruneel speculated in 1999, the drawings suggest that “the final round form of the admin/service wing was arrived at early on, but that there was uncertainty or resistance either within the firm or with the client. The result causing a long detour before the original scheme was returned to.”⁹¹

This “resistance” was most likely directed at the building’s function, rather than its modernist aesthetic, and resulted primarily from the museum department’s desire for traditional, enclosed exhibits. Ronald Lee’s Division of Interpretation preferred the use of artificial lighting in the visitor center, and his influence was a determining factor in early in-house conceptions of the building. An enclosed, darkened exhibition space would allow museum technicians to employ dramatic lighting affects without any external distractions, create a sense of mystery, and propel visitors back to the time of the dinosaurs. However tempting such a performance might have been for the museum division, this traditional approach to exhibition defeated the purpose of a site specific exhibit. Visitors could not see the relationship between the enclosed part of the quarry and the continuing rock face outside. As Hein subsequently explained, “the Park Service design, while being suited to the normal concepts of museum planning, was failing to recognize the unique aspects of this particular project.”⁹² By August 1956, when Anshen and Allen had already submitted the first sketches of their glass-walled building, members of the museum and park staff had not only changed their minds about the display technique but were arguing for a building “as light and open as possible...with glass ends.” Although such a design was

⁸⁹ Acting Chief, Division of Design and Construction to Director, memorandum, “Monthly Narrative Report, July 1956,” Box #7, Office Files of Director Conrad L. Wirth, National Archives.

⁹⁰ According to Steven Bruneel, Senior Associate of Anshen and Allen, “the shed is usually part of the sepia background with just the admin/service wing drawn in by hand.” Steven Bruneel to Christopher Jones, February 11, 1999. No dates or title blocks are included on the drawings, but one alternative (later rejected) is signed by Tom Vint.

⁹¹ Bruneel to Jones, February 11, 1999.

⁹² Hein, “Design,” 1960.

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part of the Mission 66 planners' early concept, the museum branch's preferences had influenced preliminary planning and was responsible for the alterations that so disappointed Cecil Doty.⁹³

Despite strong approval from the WODC, Anshen and Allen's design had undergone revisions since its preliminary stage, and the architects were required to re-submit their plans to the park superintendent, regional office, museum branch, and Washington office. As Hein recalls, Director Wirth was torn between the opinion of the museum experts and that of the WODC. Wirth scheduled a design presentation in the San Francisco office, and after hearing the strong support of the Park Service architects firsthand, he accepted their consensus even though the working drawings submitted in November 1956, displayed no significant changes. The cylindrical element featured a pattern of vertical lines made by alternating strips of insulated glass, concrete panels and areas of concrete masonry.⁹⁴ Its composition roof was topped with a plastic skylight. But the highlight of the design was certainly the massive glass wall on either end of the building. More than the butterfly roof or concrete ramp, the extensive use of glass and steel created an atmosphere suggestive of modern innovation. Porcelain enamel sandwich panels were installed near the base of these walls. The drawings also included plans for the traveling scaffold that was to be part of the working exhibit. The air conditioning and radiant heating systems were handled by Earl and Gropp, electrical and mechanical engineers based in San Francisco.

The "finish and color schedule" for the visitor center paints a colorful picture of the building's original interior surfaces. The visitor gallery walls and trim were surf green and the ceiling vernal green. The lobby was surf green with varnished birch trim, and the rotunda and stairway were also green. Offices had walls painted starlight blue and honey beige. Less significant spaces, such as corridors, vestibules, and storage spaces were tusk ivory. These brightly painted surfaces were intended to relieve the monotony of the valley's gray surroundings and, perhaps, create the effect of an oasis in the desert. A similar effort would be made at the new facility in Petrified Forest National Park a few years later.⁹⁵

During planning for the visitor center, the architectural firm was also busy with designs for employee housing and a utility building in the quarry area below the visitor facility. In June 1956, Hein drafted plans for the site, showing three residences and a four-unit apartment arranged in a small cul-de-sac of the road leading to the maintenance area. The buildings were one-story, and the pitched roofs covered with asbestos shingles. A redwood fascia encircling the building under the roof line provided a decorative touch. Floors were specified as slabs covered in asphalt tile and sidewalks and patios were of colored exposed aggregate concrete. Various drawings indicate that Park Service architects helped with

⁹³ Museum Specialist Robert L. Barrel to Chief, Museum Branch, memorandum, "Method of Displaying Quarry Face, Dinosaur NM," August 5, 1956, "Dinosaur" files, National Park Service History Collection, Harpers Ferry Center.

⁹⁴ Although Anshen and Allen stipulated colored concrete for the exterior of the building, the Park Service used local aggregate without added coloring. According to Richard Hein, the color that naturally resulted from the native stone was exactly what the architects had chosen. Richard Hein, Interview by the author, April 1, 1999.

⁹⁵ Anshen and Allen, "Finish and Color Schedule," ca. Nov., 1956, archives of Anshen and Allen, San Francisco.

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this typical Mission 66 housing.⁹⁶ The concrete block utility building included areas for carpentry, auto maintenance, and equipment storage.⁹⁷

Building the Visitor Center

The park sent out invitations for bids on construction of the visitor center in early February 1957, and by the closing date of March 19, had received multiple offers.⁹⁸ On April 23 the Department of the Interior issued a press release announcing that R. K. McCullough Construction Company of Salt Lake City would build the \$309,000 building, which promised to be “distinctly different from those in other national park areas.” In the second week of May, Park Service Project Supervisor R. Neil Grunigen reported that the McCullough Company was “erecting a field office, staking out the building and removing the old quarry structure.” Excavation for the employee housing near the quarry was complete and contractors were beginning the concrete form work. Grunigen shared his reports with Superintendent Lombard and both consulted Lyle Bennett, WODC supervisory architect, on issues requiring official approval.⁹⁹

After a month of work, the superintendent complained of slow progress (only 15% of the site had been excavated) and the McCullough Company demanded a meeting with the architects. According to construction representative Lee Starke, delay in the delivery of structural steel resulted in early setbacks, as did waiting for Anshen and Allen to select colors for the block and concrete. By June, the contractors had excavated footings in preparation for beginning “forming and concrete work.”¹⁰⁰ R. K. McCullough’s superintendent, Duard Davis, had already requested an extension of time because revised drawings for the foundations had not been approved, delaying the order of structural steel. In the meantime, a local Vernal firm, Intermountain Concrete Company, began work on a contract for Quarry area “roads and parking areas, bridge, base course, colored concrete and curb and gutter, timber guard rail, overlook and walk.”

Despite the slow start, Superintendent Lombard reported much progress that Fall. The foundation wall was in place and exterior concrete “treated with acid to create a ‘pebble’ effect to blend with the rocky background.”¹⁰¹ Newspaper accounts reported details of the building’s concrete construction—its glass walls with customized sun filters, and the fourteen-foot ramp wrapping around the side of the tower. By November, the structural steel framework had been erected and steel window sashes installed. Anshen and Allen selected “Mirawal’s royal blue no. 202” as the color for the porcelain panels on the east elevation. Without its glass, the roof appeared a delicate steel cage. As winter approached, the “roof

⁹⁶ See, for example, “3 Bedroom Residence, Quarry Area,” Drawing #3116B, July 27, 1956, TIC.

⁹⁷ “Utility Building, Quarry Site,” drawing #3114A, November 21, 1956, and #3114B, April 29, 1957, TIC.

⁹⁸ Hanson Construction Company of Altamont submitted the lowest bid of \$224,000, but was allowed to withdraw after recognizing the insufficiency of its estimate.

⁹⁹ R. Neil Grunigen, Project Supervisor, to Chief, WODC, “Weekly Construction Report,” May 13, 1957.

¹⁰⁰ Grunigen to Chief, WODC, “Weekly Construction Report,” June 24, 1957.

¹⁰¹ “Rising Visitor Center Revives Dinosaur Era,” *Vernal Express*, September 26, 1957.

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sheathing was on all the roofs and the built-up roofing applied on the circular element and low-wing areas.”¹⁰² Park Naturalist John Good reported that the building shell was “truly a massive thing.”¹⁰³ In the month of December work shifted to the interior of the building, as contractors prepared to install wall coverings.

In his “narrative statement” on the building construction, Lee Starke mentioned the excellent relationship between the job superintendent and the contractor, who actually altered problematic aspects of the building without charging the government. A Mission 66 progress report written in March 1958 described the “exemplary accomplishment,” emphasizing such technical details as the “Dusklite glass” panel walls of the exhibition hall that would “eliminate the reflection of the summer sun from the adjacent hills.”¹⁰⁴ Quarry Visitor Center was completed on May 9, 1958. Along with the upcoming dedication of the building came news that Dinosaur might become a national park; coincidentally, the bill to achieve such status was part of the proposed Sputnik bill.¹⁰⁵

The official dedication of Quarry Visitor Center, “Dinosaur Day,” began at 2:00 p.m. on June 1. Guests gathered as the Uintah High School band played a celebratory prelude. After Governor George D. Clyde and Superintendent Lombard welcomed guests, Dr. LeRoy Kay, formerly of the Carnegie Museum, spoke about the natural history of the dinosaur quarry. Assistant Secretary of the Interior Roger C. Ernst delivered the dedicatory address. The ribbon cutting ceremony, a tour of the building, and a river boat trip followed. According to newspaper accounts, sixteen hundred people attended the event.

During the dedication ceremony, the architects appear to have become displeased with the color of the porcelain enamel panels located between the lower level entrance door and the maintenance door on the east facade. They offered to replace the nine blue panels with clear glass. Superintendent Lombard accepted the offer on the condition that the Park Service not incur additional expenses, but the firm was not willing to alter the building’s aesthetics free of charge. The park eventually paid for this change.

In a report to the regional director, Superintendent Lombard noted that the public reaction to the building had been “most favorable” and that the park staff was “justly proud.”¹⁰⁶ The building was featured on the cover of the July-August *Geotimes*, a magazine published by the American Geological Institute. For this organization, the building was much more than a Mission 66 achievement. As “the only place in the world where visitors can see bones in the rock and watch paleontologists at work,” the building was a

¹⁰² Superintendent’s monthly report, Jess H. Lombard, December 1957, Dinosaur archives.

¹⁰³ John K. Good to Dr. A. S. Coggeshall, December 6, 1957.

¹⁰⁴ “Progress Report of Mission 66 at Dinosaur National Monument,” National Park Service, March 7, 1958.

¹⁰⁵ “Dinosaur and Sputnik,” *Vernal Express* (November 23, 1957), Dinosaur archives.

¹⁰⁶ Jess H. Lombard to Director, Region Two, “Report on Operation of Visitor Center,” October 8, 1958.

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landmark educational facility.¹⁰⁷ For the architects, the design brought “national recognition” and “opportunities that made them a leading California firm.”¹⁰⁸

In Situ Interpretation

Considering the museum division’s early role in the design of the building, it’s not surprising that Anshen and Allen worked with the Western Museum Laboratory in San Francisco on exhibit plans throughout the visitor center. By design, the architecture of Quarry Visitor Center also involved museum interpretation; one wall of the building was an exhibit. The western exhibits planning team submitted its designs for the lobby installations on May 3, 1957.¹⁰⁹ The interior walls of the lower gallery were to be furred and faced with gypsum board in preparation for painting. Exhibits were installed in recessed cases, shadow boxes and in diorama form. A year later, the architects submitted preliminary drawings for the exhibit installation, plans that were not immediately accepted by Superintendent Lombard. According to John W. Jenkins, chief of the Western Museum Laboratory, museum staff red-lined the architects’ drawings with suggestions for spacing between panels to improve visitor circulation, and although Anshen and Allen approved the changes, work on construction drawings awaited further discussion with the superintendent. Jenkins supported the firm’s basic concept and praised the “excellent and very attractive plan . . . which would differ from most of the recent National Park Service installations.” In the meantime, Jenkins realized that the installation plan could not be completed in time for the dedication ceremony and agreed to supervise completion of a temporary exhibit. The architectural firm was also eager to submit its drawings for carpet-covered wooden benches and cubes for seating in the upper and lower levels.¹¹⁰ The architects’ working drawings for the exhibition gallery were finally accepted by Ralph Lewis in October 1958.

The excavation aspect of the quarry face exhibit would prove to be an ongoing project. It had actually begun in 1952, and, by 1963, geologists estimated another fifteen years of digging and scraping would be required to complete their work. The permanent monument staff included museum technicians and a Ph.D. museum geologist to carry out the excavation. Although fossils were removed from this area, a primary goal of the excavation was to prepare the north wall of the visitor center for public viewing. This 183- by 35-foot area, which formed a rock wall at a 67-degree angle, required “quarrying away the sterile rock, working the bone out in relief, and cleaning the surface with hand tools, and treatment of the fossil bone with a preservative.”¹¹¹ Although paleontologists no longer chip away at the rock, their tools

¹⁰⁷ “Dinosaurs Meet the People,” *Geotimes*, vol. 3, no. 1 (July-August 1958).

¹⁰⁸ George E. Thomas, *The Book of the School: 100 Years* (Philadelphia: The Graduate School of Fine Arts of the University of Pennsylvania, 1990). Even before the construction of Quarry Visitor Center, some critics grouped Anshen and Allen among the significant firms of the future. *Architectural Forum* predicted that the “names of Charles Goodman and Anshen and Allen and Quincy Jones and Fred Emmons and Carl Koch and Keyes, Satterless and Smith may have a place in future history as pioneers only a little less revolutionary than Frank Lloyd Wright.” See *Architectural Forum*, ed., *Building U.S.A.* (New York: McGraw-Hill, 1955), 8.

¹⁰⁹ “Exhibit Plan--Dinosaur Nat’l Monument Visitor Center,” May 3, 1957, microfiche drawings, TIC.

¹¹⁰ John W. Jenkins to Director, “Exhibit Plans, Dinosaur National Monument,” May 6, 1958, in “Dinosaur Interpretive Plans,” vol. 1, Dinosaur archives.

¹¹¹ Project Construction Proposal, Theodore E. White and Harold J. Broderick, April 1963, Dinosaur archives.

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remain behind as part of the current exhibit. Today the museum includes original exhibit panels and displays as well as more recent additions, such as a panel in front of the building describing the structure's architectural significance.

Current Conditions

The scenery at Dinosaur National Monument includes colorful mineral deposits, valleys revealing strata millions of years old, and fantastic shapes carved into solid rock by centuries of erosion. For Mission 66 designers who might have become jaded by this environment, geological power made its presence known in the form of bentonite deposits underneath the visitor center. When exposed to water, bentonite sprang into action, expanding at a force strong enough to move steel girders. Even before the building was completed, the Park Service observed damage to the parking area. Radiating cracks were first observed and reported by Construction Foreman Davis in November 1957.¹¹² During the first year the building was open to the public, the park staff felt an unsettling vibration in the upper gallery. Lyle Bennett advised performing a vibration test on the balcony slab by placing wooden posts at several points under the overhang. According to Supervisor McCune Ott, who conducted the test, the vibration could only be corrected by installing a post at every beam, a solution unacceptable to the park. Since visitors weren't complaining about the vibration, however, no further action was taken.

In 1962, WODC drew up plans for the reconstruction of the plaza area in an effort to improve the drainage system. These included details of the roof drains and a longitudinal section showing the "typical subsurface drain." At this time, the Park Service installed an aluminum handrail on the ramp and laid down a cobblestone and concrete slab around and under the ramp, which was extended slightly.¹¹³ Despite these improvements, the plaza continued to be a problem. In March 1966, the maintenance division regraded the ground on the north and south sides of the building, realigned the pavement slabs in the east plaza, installed steel pipeline for roof drainage, cut several French drains, and patched other problem areas. The next year, the San Francisco Planning and Service Center grappled with repairs to the visitor center building, which included replacing some of the existing footings with new twenty-foot-deep caissons. In addition, the Park Service extended the lower level lobby, installed new handrails in the gallery, and replaced several of the fixed-sash windows on the east and west wall elevations with operable sashes.¹¹⁴

The geological situation was not seriously analyzed until 1966, when a consulting firm, Dames and Moore, identified the presence of bentonite in the soil. Their evaluation indicated that additional damage could be avoided if moisture were kept out of the foundation. After the first intensive season of rain and snow, the bentonite began to move.¹¹⁵ Eugene Mott, who had witnessed similar subterranean

¹¹² William H. Clemons, supervisory park ranger, to Chief Ranger, "Structural Damage to Quarry Visitor Center Parking Area," November 27, 1957.

¹¹³ "Reconstruction Visitor Center Plaza," drawing #3149C, August 16, 1962, TIC.

¹¹⁴ "Repairs to Visitor Center," drawing #3330A (six sheets), September 1967, TIC.

¹¹⁵ "Report of Investigative Studies, Adverse Settlement, Visitor Center Building, Dinosaur National Monument, for National Park Service," Dames and Moore, July 14, 1966.

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action at the Painted Desert Community, compiled a detailed description of the building's damaged areas after inspecting the structure in 1968. Mott's list included two pages of "widening floor tile joints," and cracks in walls and ceilings; the south wall may have settled two inches. Like his predecessors, Mott recommended removal of moisture in the foundation area as the park's highest priority. But while others blamed bentonite, Mott thought that the loose, sandy soil around the building was the most likely cause of problems. According to his assessment, the "beautiful" building was "constructed properly"; it displayed solid workmanship and the design was "adequate for construction in a stable area." As far as the moisture problem, Mott had little advice but hoped to avoid a concrete border that would obliterate the landscaping around the building.¹¹⁶

More than twenty years later, a 1993 Park Service study reported that Quarry Visitor Center would have a very short lifespan if serious measures were not taken to solve drainage issues. Biannual reports on the water levels in the well holes and west manhole were requested. Even more recently, in 1997, Dinosaur was still "settling and moving," but the cause was determined as both bentonite and a subterranean fault. After structural evaluation, a team of Park Service specialists advised "an overall plan to manage and stabilize" the building, preferably supervised by an architecture and engineering firm or the Denver Service Center.¹¹⁷

Although the Quarry Visitor Center remains essentially as it was during the Mission 66 era, the visitor's approach to the site has been significantly altered. Parking became a problem at Dinosaur as early as 1968, and in the early 1970s the entrance to the park was reconfigured to accommodate a shuttle service for use during peak hours. The new design involved obliterating a portion of the original spur road and building a new section with turnoffs to the visitor center parking lot and the residential and maintenance area. Today, visitors park about a mile from the site and walk a short distance to a covered area equipped with a comfort station, benches, and exhibit panels. A shuttle bus then carries them up the winding road and drops them off in front of the visitor center entrance.¹¹⁸

Although the new visitor center was not the first modern facility constructed by the Park Service, it was the most original and the most famous early example of its type. Major architectural journals featured photographs and copies of plans, and their articles included notice of the Mission 66 program. Director Wirth realized he was going out on a limb with the Quarry Visitor Center, but felt that the "bold move" would result in a building of "world-renown" and "attract thousands of people."¹¹⁹ In retrospect, this calculated decision not only helped protect Dinosaur from the threat of a dammed Echo Park, but also launched the development effort that Wirth believed the salvation of the National Park Service.

¹¹⁶ Gene Mott to Al Heubner, "Inspection of Headquarters Building at Dinosaur National Monument," May 9, 1968.

¹¹⁷ A. Sayre Hutchison, CPSO Historical Architect, "Dinosaur National Monument Site Visit, May 19-23, 1997," Rocky Mountain Region archives.

¹¹⁸ "Development Concept," Dinosaur National Monument, ca. 1972; "Environmental Assessment, Proposed Comprehensive Design Plan," Dinosaur National Monument, Denver Service Center, May 1975.

¹¹⁹ "Hearing Before National Park Service on Mission 66 Program for Dinosaur National Monument," Vernal, Utah, May 24, 1958; transcription in Dinosaur archives.

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Quarry Visitor Center was listed in the National Register of Historic Places as part of a multiple resource nomination in 1986.¹²⁰ While other modernist Mission 66 buildings have been ridiculed for their flat roofs, concrete ramps, and cylindrical forms, Quarry Visitor Center receives more praise than criticism. Even as its foundation continues to move, the radical aspects of the building are accepted. One reason for this tolerance is that the modern style seems appropriate in the rocky, almost lunar environment of Dinosaur National Monument. Another reason for the building's success is its fulfillment of a larger purpose. The structure houses remains that are "living" exhibits; the site and its building are one. Modern achievements in the manufacture of tempered glass were prerequisites of the design. Like many of the best modern buildings, however, Quarry Visitor Center succeeds not only because of design factors, but through the accidents of location and program. As time has told, modernist buildings are most admired when they fulfill a purpose no other style could satisfy quite as well. Quarry Visitor Center is such a building.

Quarry Visitor Center was one of the earliest and most successful examples of a new building type: the visitor center. The building established new standards for visitor center design, and became a unique example of "in situ" interpretation of park resources. The visitor center was a very high profile project (in part because of the contemporary Echo Park dam controversy), and the new building was bound to be scrutinized and take on great significance as a symbol of Park Service stewardship in the postwar era. The critical and popular acclaim granted the building—despite and because of its extraordinary futuristic design—became an affirmation of the entire modern design direction of the Mission 66 program.

The Quarry Visitor Center also embodies distinguishing characteristics of Park Service Modern architectural style. This style relates to contemporary American modernism, and Anshen and Allen were among the most important American modern architects of the era. The Quarry Visitor Center was one of this firms' two most important early commissions (the other is the Sedona Chapel). The Quarry Visitor Center was an early, precedent setting example of the new, modern style embraced by the Park Service as part of Mission 66. More than any other early Mission 66 visitor center, it legitimized modern architectural style for use in national parks. Advanced building technology, efficient materials, and labor-saving construction were also showcased by this benchmark building project. The Quarry Visitor Center was the most powerful and influential early example of how modern construction techniques and architectural style could be appropriate and successful for national park development.

¹²⁰ National Register Nomination Form, "Dinosaur National Monument Multiple Resources," December 1986. This was the first National Register Nomination to include a substantial description of the significance of a Mission 66 building.

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Previous documentation on file (NPS):

- Preliminary Determination of Individual Listing (36 CFR 67) has been requested.
- Previously Listed in the National Register.
- Previously Determined Eligible by the National Register.
- Designated a National Historic Landmark.
- Recorded by Historic American Buildings Survey: #
- Recorded by Historic American Engineering Record: #

Primary Location of Additional Data:

- State Historic Preservation Office
- Other State Agency
- Federal Agency (Dinosaur National Monument Archives; NPS History Collection, Harpers Ferry Center)

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10. GEOGRAPHICAL DATA

Acreage of Property: Less than one acre

UTM References: Zone 35 Easting 4,477,820 Northing 644,150

Verbal Boundary Description:

Boundary includes building, building ramp, and area within 100 feet of foundations.

Boundary Justification:

Boundary is based on building footprint and additional surrounding area that constitutes the historic setting of the building.

11. FORM PREPARED BYName/Title: Sarah Allaback
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NATIONAL HISTORIC LANDMARKS SURVEY