



Fire lookout structure on the Uinta National Forest, 1929. The Forest Service built few fire lookouts in Utah. Most were makeshift platforms on poles or in trees. Other lookouts were situated on undeveloped locations on mountain peaks or on top of buildings such as the Walker Bank Building in Salt Lake City.

BUILDING THE FOREST SERVICE IN UTAH: AN ARCHITECTURAL CONTEXT

BY RICH A WILSON

“The greatest good for the greatest number in the long run.” With these words, Gifford Pinchot articulated the philosophy of the United States Forest Service, a philosophy that would be a factor in shaping the young agency’s architecture. As the Forest Service’s first chief, Pinchot was in charge of managing the nation’s forests and watersheds to ensure long-term availability of timber, rangeland, and other resources. His mission had roots in the late 1800s when growing concern over timber depletion prompted several actions. In 1875, the American Forestry Association was formed, and upon that group’s lobbying, the Division of Forestry was created in the United States Department of Agriculture in 1881. A decade later, the Forest Reserve Act of 1891 allowed the president to designate public lands as forest reserves and President Benjamin Harrison established the country’s first federal forest reserve, the Yellowstone Park Timberland Reserve. The act led to Utah’s early reserves, often created in response to written petitions of locals seeking protection of rangeland and watersheds. The Uintah (1897), Fish Lake (1899), and Payson (1901) forest reserves were the first in the state.

The Department of Interior’s General Land Office managed the reserves until 1905 when, with Pinchot’s urging and President Theodore Roosevelt’s support, responsibility transferred to the Forest Service, a new agency in the Department of Agriculture.¹ Chief Pinchot overhauled the forestry workforce with a new cadre of foresters and range managers who passed civil service exams. Designated as forest rangers and forest guards, these men—for they were all men at first—surveyed boundaries, estimated timber cuts, classified land areas by vegetation and topography, counted cattle and sheep, and oversaw logging operations and grazing

relationships exhibited a utilitarian focus with water sources, roads, and pasturage dictating building placement. Landscaping was minimal, and site features were usually limited to fences and the required flagpole. Once built, ranger stations received little maintenance because funds were limited and often went to boundary fences, trails, and telephone lines. Many forest supervisors and rangers operated from their own houses or rented commercial buildings. Orrin C. Snow, supervisor of the La Sal National Forest, leased rooms in the Cooper Martin building on Moab's Main Street beginning in 1906. John Riis, the son of noted social historian Jacob Riis, succeeded him in 1908 and recalled ranger Rudolph Mellenthin's attempt to beautify the office by painting its walls with "a beautiful panorama of the snow-capped La Sals, the lower mesas and Dry Valley with a lone cow puncher, head bowed, riding across the hot waste lands." Visiting ranchers, claimed Riis, "sat open mouthed before it."⁹

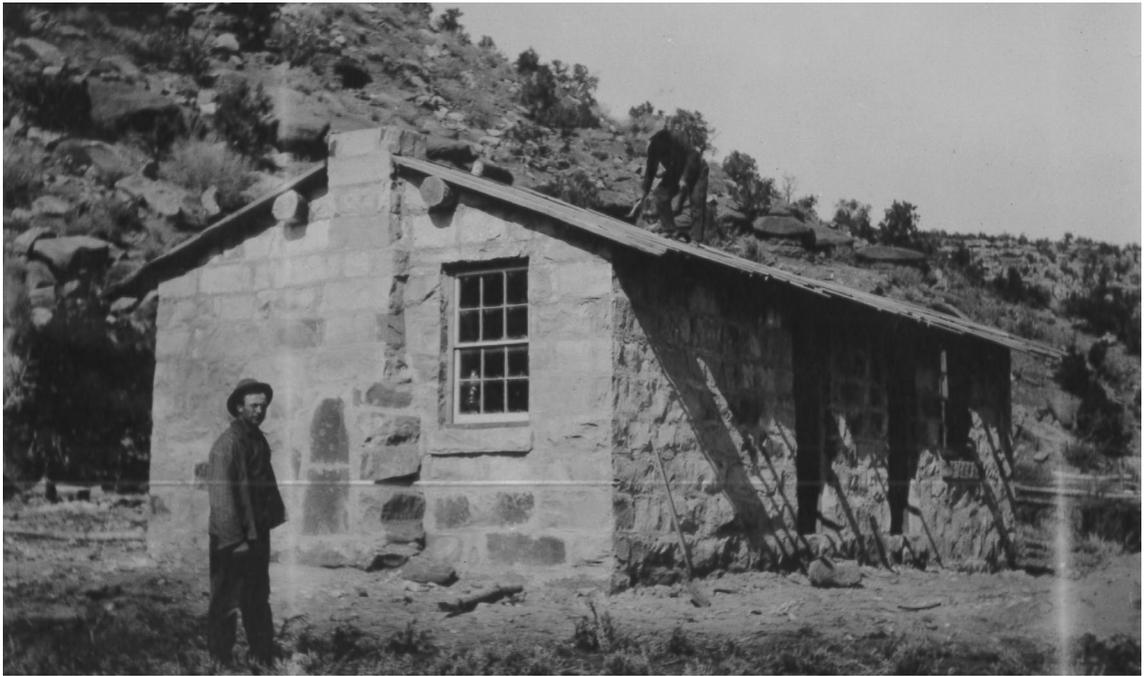
Even when money was allocated to building construction, Congress limited expenditures to five hundred dollars per cabin, a constraint that bought only rudimentary structures. Although the spending cap rose in following years, it continued to be a factor that affected building design and construction, particularly its size and materials. The funding cap did not include the cost of moving a building so forest person-

Utah's first ranger cabins were vernacular or folk structures best described by floor plan and form rather than by style.

nel often recycled buildings and salvaged materials, practices that have continued for over a century.¹⁰ The lucky rangers who received funds for cabins were instructed to build them of logs with wood shingle or shake roofs when possible.¹¹ This promotion of wood, a product of the national forests, was not always cost effective or possible. In Utah, it was often cheaper and faster to build cabins with sawn lumber from local mills. On rare occasions, rangers constructed buildings of stone because logs or sawn lumber were not readily available or easily transported.¹²

The earliest rangers—often locals with some construction experience on their farms and ranches—were responsible for erecting buildings at their stations.¹³ As formally trained foresters with little or no proficiency in construction filled these positions, the Forest Service increasingly relied on contracts to erect administrative facilities. The Washington Office began providing guidance after Pinchot established a central Engineering Section in 1906 and each region subsequently set up engineering divisions.¹⁴ In 1908, the Washington Office issued building plans with materials lists for nineteen dwellings, two bunkhouses, two storehouses, and four barns.¹⁵ The plans, which were optional for rangers' use, foreshadowed the adoption of mandatory standard plans for the Intermountain Region. Forest Service officials relied on the 1908 plans for several ranger residences in Utah, some of which still stand, including the Indian Canyon Ranger Station just south of Duchesne and the Koosharem Ranger Station on the Fishlake National Forest.

Utah's first ranger cabins were vernacular or folk structures best described by floor plan and form rather than by style. The most common types were one- or two-room buildings with gable or hip roofs made of locally available materials and with little or no ornamentation. Some had minor details such as exposed rafter tails that made subtle references to the Bungalow and Arts and Crafts movements. Most were painted brown with white trim and a moss green roof, a color scheme that dominated ranger stations in Utah and throughout the Intermountain Region in the 1910s and 1920s. Many were tenuous structures with inadequate roofing materials, no milled siding, and unstable foundations (if any) that provided minimal



The North Cottonwood Ranger Station is a rare example of a masonry ranger station in the Intermountain Region. The two-room structure, completed in 1914, is about ten miles due east of Monticello, Utah.

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shelter against the weather.¹⁶ They were a significant improvement over the tents in which some families lived, even during winters, but conditions were far from luxurious. A national inspection in 1920 of 310 ranger stations determined only forty-six had running water and three had bathtubs. Subsequent efforts to upgrade the ranger's living and work environments included installation of water supply systems, removal of offices from living rooms, and provision of cellars.¹⁷

While day-to-day work spurred the construction of ranger dwellings, offices, and barns, another activity spawned a new building type that evolved during the first decades of the Forest Service. A severe fire season in 1910, notorious for many deaths and thousands of burned acres in Montana and northern Idaho, prompted Congress to pass the 1911 Weeks Act, which directed attention and funds to fire suppression infrastructure. Telephone lines were some of the first improvements constructed since timely reporting of fires was critical for early suppression. The Forest Service also built roads, firebreaks, and trails to facilitate fire control

work. The most iconic improvement, however, was the fire lookout structure.

Initially, fire guards who staffed the network of lookouts on high peaks lived in tents or small cabins and often used trees to gain unobstructed views. Some trees had structures that were "no more than a platform on poles, or a 'Crow's Nest' in the top of a high tree, reached by spikes set in the trunk."¹⁸ The lookout as a building type advanced in the early 1910s after Coert DuBois, a regional forester in California, wrote the first fire plan in the country. He took his plan a step further in 1914 when he produced a report titled *Systematic Fire Protection in the California Forests*. DuBois proposed that a one-room cab measuring no more than twelve feet square could serve as the lookout man's home, office, and workroom. DuBois also endorsed the Chicago-based Aermotor Company's design for lookout towers that placed the observer above a high tree line. Constructed of seven-foot-by-seven-foot cabs on steel or wood towers, the structures were for observation only, with lookout personnel occupying a separate cabin at night. The Aermotor Company,



Koosharem Ranger Station, 1925. The dwelling (right) was built ca. 1910 following Plan No. 12, one of several standard plans issued by the Forest Service's national office in 1908. The set offered many options. Some buildings were square or rectangular with one to three rooms, while others had complex plans with T-, L-, or U-shaped footprints. They could be of log or frame construction with board-and-batten or drop siding. Roofs were typically front-, side-, or cross-gabled, although some buildings had hip roofs. Porches were full- or partial-width and inset. Windows were fairly uniform, consisting of four-over-four or six-over-six configurations, as were exterior doors (four-panel) and roofing (wood shingles). Materials lists specified beadboard ceilings and walls for most dwellings.

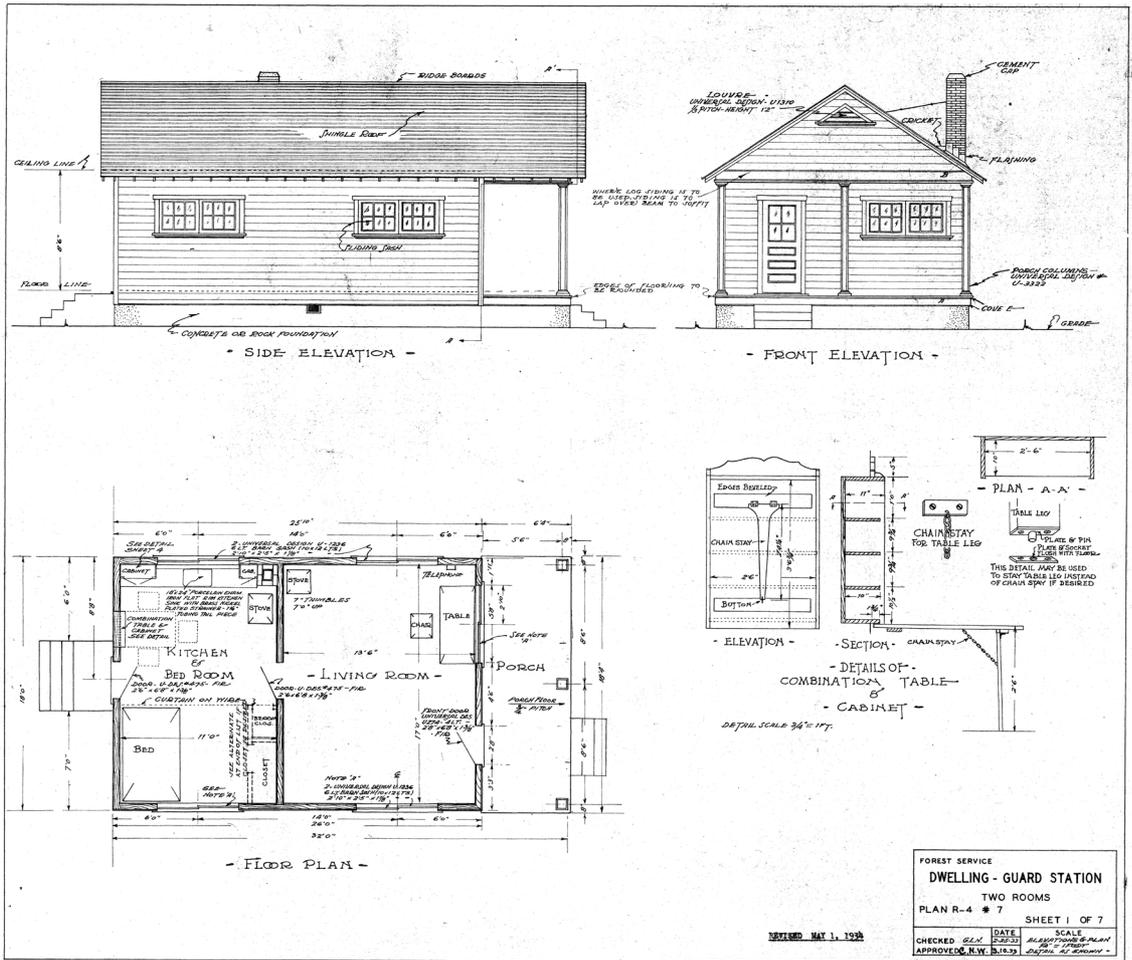
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manufacturer of windmills and military observation towers, supplied the cabs and towers to the Forest Service until at least the 1930s.¹⁹

Lookout design enjoyed several more refinements. In 1917, DuBois proposed a fourteen-foot-by-fourteen-foot live-in cab with a ribbon of single-pane windows on all sides and a fire alidade to identify the fire's location, in the center. Known as Plan 4-A, the design provided comfortable quarters and replaced the twelve-foot-by-twelve-foot cab. By 1921, the Intermountain Region had adopted it as a standard lookout and issued the floor plan with a bill of materials that included paint for brown exterior walls, a moss green roof, ivory white trim, and an interior of ivory white, light tan, or gray. Paint colors for lookouts and other administrative buildings would receive even more attention in the Forest Service's third phase of architectural development, which emerged after the

Wall Street crash of 1929.

The Great Depression precipitated a dramatic escalation of construction activity on the national forests. As the nation experienced grim economic conditions, President Roosevelt implemented "make work" programs as part of his New Deal. Several programs directed substantial funds and large labor pools to federal and state agencies. The existence of the Civilian Conservation Corps (CCC) from 1933 to 1942 corresponded with a distinctive period of architectural advances for the Forest Service. As the agency received oversight of hundreds of CCC enrollees and extensive funding for building construction, it hired scores of engineers, architects, and landscape architects. This professional cadre introduced two important trends: an emphasis on site planning and landscape design, and the evolution of separate architectural identities for



Dozens of the Plan 7 guard station and its variants were built throughout the Intermountain Region during the New Deal era.

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each region.

The stimulus for well-designed sites and distinctive architecture in the Intermountain Region came from Utah native George L. Nichols (1896–1972) who joined the Forest Service as a draftsman in 1924. As the Intermountain Region’s first architect, he was involved with the construction or redevelopment of hundreds of ranger stations, guard stations, and other administrative sites.²⁰ Before his retirement in 1956, he created scores of standard plans that, in a departure from the agency’s emphasis on decentralization through delegation of authority to forest supervisors and rangers, were mandatory for all national forests within the region:

Only standard or special plans sent you from the Regional Office shall be used. Approved plans and specifications must be followed in detail without variation. Changes in floor plans, design, finish, etc., shall not be made in the field except upon specific approval by the Regional Forester or his duly authorized representatives. Recommendations for such changes must be supported by conclusive evidence as to why the change is necessary.²¹

Nichols’ *Building Construction Manual*, issued in 1933 and expanded in 1935, outlined site planning principles and set forth a hierar-

chy for the placement, size, and amenities of structures. When laying out stations, agency officials were to consider appearance, natural setting, exposure (south facing was recommended), drainage, accessibility, fuel, shade, shelter, water, and pasturage. The selection of guard stations should also consider viewsheds, as a forest guard often served as a fire lookout or smokechaser. The manual provided sample site plans that carefully considered vehicular access and circulation, image, and building relationships. The house, as the most important building, was to be in a prominent location. As the second most important building, the office was to be visible and accessible to the public. To create a pleasing arrangement, the manual recommended positioning buildings at right angles to, but not lined up with, other structures on the site. The house, garage, woodshed, cellar, and other frequently used buildings were grouped closely together, while others were set at the rear of the site with the malodorous barn being furthest away. Housing for temporary men was to be placed away from the ranger's house for reasons of privacy. To reduce fire hazards, buildings were to be at least

The stimulus for well-designed sites and distinctive architecture in the Intermountain Region came from Utah native George L. Nichols

fifty feet from each other. The manual also addressed driveways, walks, and site features and provided standard plans for signs, gates, cattle guards, and tire barriers. This level of detailed instruction for the development of ranger stations and guard stations produced remarkably similar groupings of administrative buildings throughout the Intermountain Region.²²

Nichols' construction manual mirrored the work of W. Ellis Groben, a consulting architect who influenced Forest Service architecture by promoting a higher quality of design and encouraging the use of standard plans. He advocated the idea of an agency identity while allowing for flexibility in design and materials to conform to regional styles and environments.²³ His *Principles of Architectural Planning for Forest Service Administrative Improvements*, published in 1938, brought together technical information and design guidelines that reflected Groben's architectural training and personal preferences. He discouraged drop siding and imitation log siding because the former gives a "miniature, toy-like appearance" and the latter looks "too uniform." He also disliked wood siding wider than eight inches and the "disturbing and unsightly" appearance of "X" and "Z" bracing on garage and barn doors. Groben recommended local materials and paint schemes made of several shades of the same color, although "delicate colors" were to be avoided inside buildings used primarily by men.

Groben's emphasis on regional identity, local materials, and context led most regions to adopt standard plans. A survey of the six western Forest Service regions illustrates the stylistic variety of buildings that emerged during the New Deal period.²⁴ Offices and houses following Park Rustic principles were common in the Rocky Mountain Region. These buildings, often considered the showpieces of a ranger station, relied on large-diameter logs, irregularly laid stone, and other Rustic features. Similar constructions were found in ranger stations of the Pacific Northwest Region. Often labeled "Cascadian," the influences of the Rustic style are apparent if not exaggerated in the combination of materials, heavy timbers, and massing. The Pueblo Revival style dominated in the Southwest Region's ranger stations. In Utah and the rest of the Intermountain Region, George L. Nichols created a portfolio of stan-

dard plans that included offices and dwellings with Neoclassical Revival and Colonial Revival influences.

Many of the plans he developed from 1933 to the mid-1940s contrasted with some of Groben's principles. He clad most of his buildings with drop, novelty, or imitation log siding, and he unabashedly used "X" and "Z" bracing on garages, barns, and other utilitarian structures. Nichols' designs for garages, barns, and other utilitarian buildings have few architectural details but his dwellings and offices reflect the influences of Period Revival styles popular in Utah during the first half of the twentieth century. The Colonial Revival style is apparent in Plans 1 and 8, while the "temple front" porches of Plans 4, 5, 7, and 51 allude to the Neoclassical Revival style. The Plan 53 dwelling is a Minimal Traditional home with vague Tudor Revival references.

Nichols custom designed several Rustic style fire lookouts for specific Idaho sites. For most locations, however, he relied on a plan from the Northern Region, headquartered in Missoula, Montana. In 1933, he traced and later published in his manual that region's L-4 lookout, a fourteen-foot-by-fourteen-foot cab that could be placed on a foundation, a one-story substructure, or a tower. Officials with the Ashley National Forest chose that design, designated in the Intermountain Region as Plan 80, for the Ute Fire Lookout, and the Civilian Conservation Corps constructed it near Manila in 1937. Restored in 2014, it is the only remaining Forest Service fire lookout tower in Utah.

The reliance of Nichols on a limited palette of materials, details, and colors contributed to an architectural look that made Forest Service facilities easily identifiable. He deemed log structures appropriate in conifer settings, which applied primarily to the national forests in Idaho and Wyoming. Frame structures were best for areas of broadleaf vegetation and in places where neither conifer nor broadleaf trees were predominant. The latter was usually the case throughout Utah where frame buildings were generally clad in novelty siding, with cove and double-drop (also known as "waterfall") as the most common profiles. Shiplap siding with a partial log profile, often called Shevlin siding after a mill in Bend, Oregon, was also popular.

Foundations were usually of poured concrete, but locally available stone was sometimes used with skilled labor. Wood shingles or shakes covered roofs; plaster or composite board such as Nu-Wood or Firtex finished interiors. Floors were varnished tongue-and-groove wood strips. Linoleum covered kitchen and bathroom floors when funds were available.

Most exterior doors had five horizontal panels and no glass, although front doors had one or four panes of glass or occasionally a fanlight. Large doors on barns, garages, and warehouses had "X" or "Z" bracing that presented a visually distinctive appearance, especially when painted a contrasting color. Windows were often six-pane sliders, although six-over-six double-hung or six-pane casement windows were common, particularly on residential buildings. Shutters, louvered on the lower half, had a pine tree cut into the upper panel.²⁵

At least in the Pacific Northwest Region, the number, placement, and design of the pine tree were often inconsistent with that region's specifications. CCC crews seemed to use the logo as a means of expression and frequently cut, applied, forged, and carved it on shutters, gable ends, porch pediments, mailboxes, and latch plates.²⁶ The consulting architect Groben urged restraint in 1938:

The pine tree, as a painted insignia, gig-sawed out of wood or in other decorative forms, has become a recognized Forest Service emblem. Refrain from employing pine trees of different sizes in the same composition to eliminate the "old and young" or "father and son" conflict that always results in design when using the same motif at difference scales. The pine tree emblem should be used sparingly. The effect created by their repeated use in the same building is very unfortunate, resulting in their loss of all Forest Service significance.²⁷

The Intermountain Region's *Building Construction Manual* discontinued the use of dark brown stain formerly used on the region's facilities and provided four standard color schemes with variations for log and frame structures. Predominant vegetation, exposed rock or earth, and/or adjacent buildings dictated the



Plan 1 dwelling at the Great Basin Experiment Station near Ephraim. Standard plans were sometimes reversed and the natural setting often dictated exterior finishes and color schemes.

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appropriate scheme. For example, log buildings in conifer settings were to be light or medium brown stain with medium brown or red stone paint. The roof could be green or medium brown stain. Frame structures near aspen, maple, or cottonwood trees were to be painted light gray with white trim and a green roof. The color scheme for structures in towns—white with Nile green trim and green roof—became iconic for Forest Service buildings in Utah. To insure consistency in color, the regional office in Ogden purchased and mixed all paints and stains; local purchases were not permitted. Interiors also had standard colors that varied with the function of the building. Lookout interiors were an olive green shade that, while recognized as a depressing color, maximized absorption of light to prevent harmful reflections and eye strain. Dwellings and offices were to have light green, colonial ivory, light tan, buff, or cream-colored walls. Woodwork could be varnished or painted with pearl grey, light tan, Nile green, seafoam green, old ivory, colonial

ivory, orchid, or gloss white paint.

Nichols' influence on architectural assemblages, primarily ranger stations and guard stations, helped brand the Forest Service in the Intermountain Region. The employment of tidy, modest buildings with green roofs, along with the pine tree logo, standard signage, and a wood flagpole, created a vignette that people readily associated with the agency. Nichols also played a role in the construction of a few buildings that did not fit within this identity. The first stemmed from his efforts to relieve an overcrowding problem. Regional staff in Ogden had occupied the Kiesel Building at the corner of Lincoln Avenue and 24th Street since 1909, but by the late 1920s the leased space was considered too small. Nichols began designing a four-story headquarters in late 1928, revising his plans several times over the next two years as Forest Service officials worked with various parties to secure funds. In 1931, with the support of Senator Reed Smoot and



Plan 1 dwelling at the Kendall Ranger Station in Wyoming. Standard plans were sometimes reversed and the natural setting often dictated exterior finishes and color schemes.

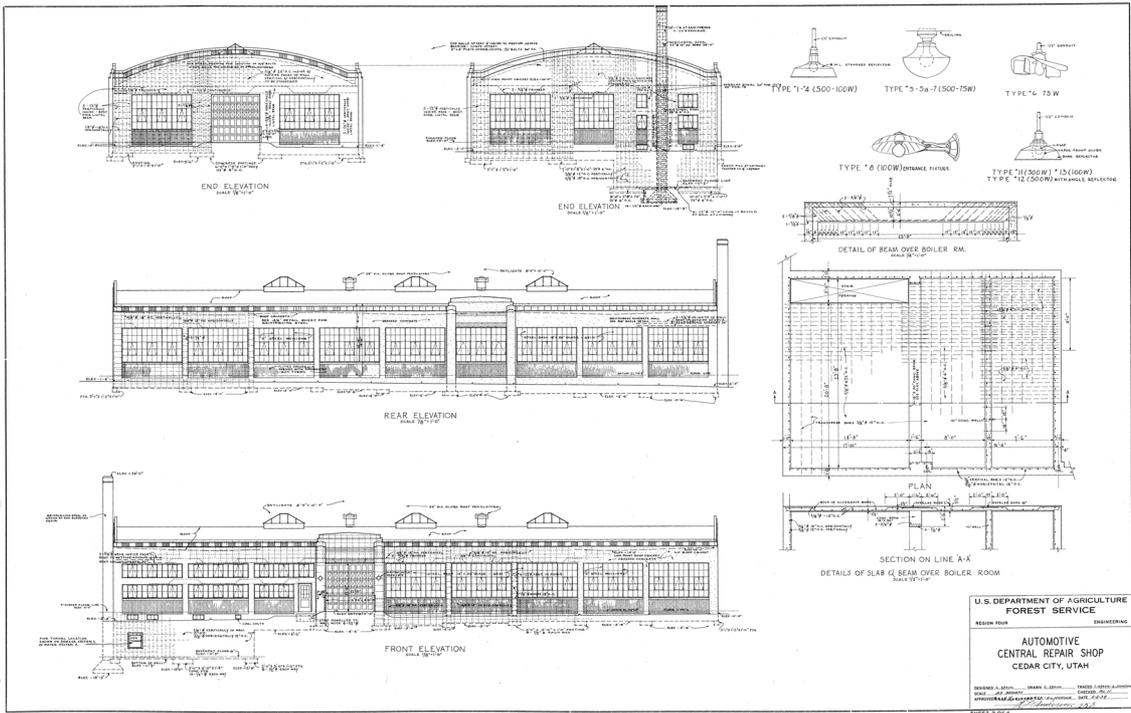
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the Ogden Chamber of Commerce, the Forest Service received an appropriation of \$300,000 to construct a new building. Leslie S. Hodgson and Myrl A. McClenahan, local architects experienced with commercial design, developed Nichols' preliminary plans.²⁸ The St. Louis firm of Murch Brothers Construction began erecting the building on January 10, 1933, and completed it the following January at a cost of \$235,869.²⁹ The multi-story brick edifice, located at the southeast corner of Twenty-fifth Street and Adams Avenue, epitomizes the Art Deco style with its emphasis on vertical lines, stepped ornamentation, and abstract motifs. At more than 52,000 square feet, its size and style depart from typical Forest Service buildings constructed in Utah during this period. It also joins the 1937 Ogden High School and 1939 Ogden Municipal Building to form a trio of notable Art Deco buildings designed by Hodgson and McClenahan.

Nichols was also involved with the design and 1939 construction of four repair centers in Salt Lake City, Cedar City, Boise, and Reno to accommodate major overhauls of the CCC's

Tidy, modest buildings with green roofs... created a vignette that people readily associated with the agency.

large equipment.³⁰ He oversaw a team of designers that drew plans for several buildings, including a large automotive repair shop and a utility building that departed stylistically and



The original design drawings for the Cedar City Central Repair Shop included monumental entrances and Art Deco details that were eliminated from the constructed building. This shop is one of two that still stand.

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materially from the region's standard designs. Their most prominent features were industrial sash windows, concrete or stucco-finished exterior walls, and semi-arched roofs formed with bowstring trusses. The designs draw from Modernist architecture and represent a departure from the historicism of the Period Revival styles favored by Nichols. Such a shift was a logical choice for the industrial nature of the work inside and the need for large, open spaces with good lighting.³¹ The central repair shops successfully accommodated CCC enrollees and, later, military personnel who repaired and maintained trucks and other large equipment. Only two of the four centers exist, both in Utah.

World events determined the third phase of architectural development, a phase marked initially by inactivity and then by a program of adaptive use and relocation. The declaration of war on Japan in December 1941 heralded the end of work relief programs and associated construction. The CCC was disbanded in 1942 and the federal government implemented

measures to support the war effort by restricting the use of construction materials, reserving mineral and timber resources for military use, and channeling labor and funds to the armed forces. While Forest Service building construction had slowed in 1940 and 1941, it effectively halted in 1942 for the war's duration. The loss of design professionals also hampered the agency's construction program as many joined the military or secured jobs in the private sector. Those who remained were assigned to critical work such as the Emergency Rubber Project, and some even served as district rangers.³² These factors forced remaining personnel to focus on maintenance, reuse, and rehabilitation of existing facilities.

Nichols continued to serve as the regional architect during this time. Anticipating increased building activity after the war—or perhaps to fill time during this slow period—he developed additional standard plans and, in 1946, issued *Engineering Handbook, Building Construction Section* to replace

the 1935 *Building Construction Manual*. His new house plans followed emerging design trends that emphasized comfort, efficiency, and informal, one-story living. These types of dwellings were relatively cheap thanks to shorter plumbing lines and heating ducts, the elimination of stairs, and compact plans. Informal spaces omitted hallways while combining functions in one room (living/dining room, family room/kitchen), and carports, attached garages, and built-in storage became increasingly prevalent. Shallow roof overhangs, a lack of ornamentation, and a reliance on mass-produced materials resulted in thousands of houses later dubbed “Minimal Traditional.” Nichols’ designs reflected this style and marked a distinct shift away from traditional Period Revival styles toward a mid-century modern ethic.

Nichols’ preparations for postwar construction were in vain, as the Forest Service focused on rebuilding other infrastructure when the war ended. To compensate for paltry building budgets, agency officials throughout the Intermountain Region acquired Army surplus equipment and buildings, including two Quonset huts at the Salt Lake City central repair shop. Nichols adjusted to the exigencies of postwar development by creating a program of building relocation to accommodate changing facility needs. The lack of in-town housing for a returning workforce was of particular concern. He oversaw the transfer of underutilized buildings from rural stations to populated areas, including the relocation of dwellings and garages from the Ashley National Forest’s Elkhorn Ranger Station to Roosevelt and from the Fishlake National Forest’s Delano Ranger Station to Beaver. Buildings from the Tony Grove Ranger Station in Logan Canyon relocated to Brigham City and Preston, Idaho. On the Dixie National Forest, a barn from the Green Ranger Station became an office at the Panguitch Ranger Station.³³

The 1950s saw renewed vigor in administrative site development, although it would never reach the zenith of the New Deal era. As the Forest Service entered the second half of the twentieth century, it prepared for an ambitious building program that was symbolic of the nation’s relative prosperity. During this fourth architectural phase, many district-level personnel

moved to new Ranch style homes and offices, welcoming them as more modern, spacious, and progressive than those of the previous era.

After a long and productive career, Nichols retired from the Forest Service in 1956. His successor, William R. Turner (1918–2006), studied engineering at Brigham Young University and graduated in 1941 from Utah State University with a degree in civil engineering. He worked in private industry and for government agencies before joining the Forest Service in 1956.³⁴ Turner was an engineer, not an architect, but with the assistance of draftsmen Cal Spaun and Al Saunders, he created a new set of buildings plans that often were evolutions of Nichols’ postwar designs. They kept the simple forms and massing while integrating several features characteristic of modest midcentury architecture: lap siding with a wide exposure, flush doors, and one-over-one double-hung windows. Their houses had a rectangular layout with small entry porches, attached single-car garages, and picture windows. The designers drew from the Ranch style that many new homeowners favored by the 1950s, but with cost-conscious materials and few stylistic embellishments, the Forest Service dwellings often resembled tract homes.

Turner witnessed the introduction of Operation Outdoors, a Forest Service initiative to address burgeoning recreational growth. After World War II, public lands increasingly became a refuge for city dwellers who had higher incomes and more leisure time than earlier generations. In one decade, recreation visits to national forests increased 213 percent, from 26 million in 1949 to 81.5 million in 1959. The Forest Service struggled to meet accelerating public demand for amenities and services. The National Park Service sought to address similar challenges by implementing Mission 66 in 1956. The ten-year program came with congressional appropriations to sustain and expand the nation’s parks by managing circulation, repairing and constructing infrastructure, providing appropriate facilities, and educating the public about resources. In 1957, the Forest Service inaugurated Operation Outdoors, a five-year program to improve recreation services for increasing numbers of visitors, as well as to address growing public opposition to the visual impacts of clearcutting. Less officially, the initiative was

the agency's competitive response to the Park Service's Mission 66 enterprise.³⁵

Officials in Ogden, anticipating a 98 percent increase in recreational visits by 1962, heartily supported Operation Outdoors.³⁶ They created positions for recreation staff officers, hired more landscape architects, and began funding recreation construction projects. The Regional Office also issued a revised *Recreation Handbook* in 1957 to provide landscaping plans, extensive lists of plants, and standard designs for camp stoves, picnic tables, toilets, and other recreation features. While Operation Outdoors focused on recreation sites, neither it nor the *Recreation Handbook* discussed visitor information services beyond displays and amphitheaters. They certainly made no mention of visitor centers, a new building type introduced by the National Park Service and adopted with some tailoring by the Forest Service.

As Sarah Allaback so thoroughly examines in *Mission 66 Visitor Centers: The History of a Building Type*, the National Park Service began designing facilities that centralized services and exhibits for park visitors in the early 1950s. The visitor center consolidated previously scattered activities and, by carefully coordinating building placement with circulation routes, managed the flow of visitors through a park. The Park Service planned to construct 109 of them during its ten-year Mission 66 initiative using modern, mass-produced building materials. By adopting prevailing architectural styles with a reliance on steel, concrete, and glass, it created what Allaback calls "Park Service Modern" architecture. This design aesthetic allowed the fifty-year-old organization to demonstrate its progress into the postwar era by providing efficient and clean buildings. Working with consultants known for their modern designs, the Park Service defined the visitor center as a building type and influenced other agencies, including the Forest Service, to shift away from the rustic and revival architecture of the early twentieth century.³⁷

The Forest Service identified the visitor center as an important component of its Visitor Information Service (VIS) program, a national initiative implemented in 1961 to offer a wider array of visitor services, such as interpretive trails, demonstration areas, vista overlooks,

wayside exhibits, guided walks, campfire programs, and personal contacts. The Intermountain Region formally implemented its VIS program in 1962 and acquired two distinctive buildings, the Redfish Lake and Red Canyon visitor centers, as a result.³⁸ The Washington Office determined each region would have one or two major visitor centers initially, with plans for an eventual hundred and fifty visitor centers nationwide. In 1961, the Mendenhall Glacier Visitor Center in Alaska opened as the Forest Service's first building of this type. The second, the 1962 Redfish Lake Visitor Center in Idaho's Sawtooth National Forest, was the first in the Intermountain Region and in the lower forty-eight states. The *Journal of Forestry* highlighted the "attractive building, constructed of stained plywood and cut stone." The Red Canyon Visitor Center, constructed in the Flaming Gorge National Recreation Area in 1964, is the region's second and only other visitor center from this era.³⁹ These and other early Forest Service visitor centers differed from the Park Service's Mission 66 visitor centers in their focus on interpretive services. The Redfish Lake and Red Canyon buildings highlighted scenic attractions, accommodated educational exhibits, and provided interpretive programs, but administrative functions remained at forest headquarters and district offices.

The Red Canyon Visitor Center is a stunning piece of architecture perched dramatically above the Green River. The Forest Service hired Ogden architect Thair Blackburn to design the building with a request that he use forest materials such as wood and stone. He obliged by incorporating rocks collected from the site and glue-laminated timber beams. Breaking from traditional forms, Blackburn designed a grid-based square building with a hyperbolic paraboloid roof. Also known as a saddle roof, it has a convex curve on one axis and a concave curve on the other, much like a Pringles™ potato chip. The wings of this bird-like form rise upward to expose two large expanses of glass, one serving as the entry and the other facing a jaw-dropping view of Red Canyon and the Green River. Two layers of two-inch-by-six-inch tongue-and-groove decking form the roof, which springs from two anchorage points. Blackburn, who had not designed a structure like this before, built a model to make sure it



Red Canyon Visitor Center, CA. 1966. The Forest Service's acceptance of Thair Blackburn's site-specific design marked a rare departure from the agency's reliance on standard building plans.

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The Red Canyon Visitor Center is a stunning piece of architecture perched dramatically above the Green River.

would work. He described it as an architectural form of “strength and simplicity.”⁴⁰ The media expressed interest in the Red Canyon Visitor Center’s “very uncommon” design, claiming it demonstrated the “sudden revolutionizing and updating” of Forest Service architecture.⁴¹

Blackburn earned his degree in architectural engineering from the University of Colorado in 1951. The program emphasized Internationalists such as Mies van der Rohe, Richard Neutra, Rudolf Schindler, Marcel Breuer, and John Lautner, but Blackburn found inspiration in Frank Lloyd Wright’s organic architecture and its connection to landscape.⁴² Organic architecture, summarized simply, emphasized design that responded to and respected the nature of the site, the needs of the client, and the nature of materials. Following Wright’s lead, Blackburn and other architects broke from the strict dictums of modernist architecture, espe-

cially the International style, and explored new forms and materials. Forsaking flat roofs, they experimented with butterfly, umbrella, and airplane roofs. Eduardo Catalano was one of the first to try out the hyperbolic paraboloid roof, a striking shape he employed in 1955 on his own house in North Carolina. Portland architect John Storrs received accolades for his use of seven hyperbolic paraboloids for the Forestry Pavilion at the 1959 Oregon Centennial Exposition. Funded by the Oregon forest industry, it utilized forest products to span 24,000 square feet with only seven supports.⁴³

The Red Canyon Visitor Center was not a revolution for the Intermountain Region. Rather, it was an anomaly and a bookend for the fourth phase of architectural development that ended as other influences—the Vietnam War, oil embargoes, a national recession, downsizing of the design workforce—led the agency to rely more on prefabricated structures, temporary buildings, and other cost-effective construction in the late 1960s and early 1970s.⁴⁴ The first phase, from 1905 to the early 1930s, saw the construction of vernacular structures to support Forest Service rangers working in remote areas. Spending limits for these buildings often resulted in substandard conditions, but agency leaders in Washington sought to ameliorate the situation by providing engineering guidance and developing building plans. The agency entered a second architectural phase when New Deal programs, particularly the CCC, funneled labor and money to the Forest Service. The national and regional offices responded by hiring architects and landscape architects who elevated the quality of site planning and building design. These professionals, including George Nichols in the Intermountain Region, produced designs tailored to regional landscapes and materials. World War II marked the beginning of a third architectural phase by halting construction and forcing a limited post-war program of salvage and relocation of administrative facilities. The country's prosperity in the 1950s mirrored the start of a fourth phase as construction funds became available and regional officials adopted a second round of standard plans that consisted of cost-conscious but comfortable houses and offices for Forest Service personnel. Continuing through the early 1960s, this construction period provided a short window for innovative structures to accommodate burgeoning num-

bers of recreationists thanks to Operation Outdoors and the associated Visitor Information Services program.

Through these four phases, Forest Service administrative sites and buildings evolved under influences that reflected the agency's mission, national events, economic factors, local building traditions, typology, and identity through design. In recent decades, other considerations have molded the agency's architectural design: security concerns, information technology systems, energy-efficiency and sustainability directives, and stricter building codes. Another is the Forest Service's adoption in 2001 of a "Built Environment Image Guide," which seeks to re-establish regional architectural identities based on natural and historical contexts. The guide may never generate the kind of success enjoyed during the construction heyday of the New Deal period, but it plays a role in the ongoing evolution of the Intermountain Region's architectural history.

WEB EXTRA

For digital reproductions of Forest Service architectural plans and manuals dating from 1935 to 1940, see history.utah.gov/uhqextras.

- 1 The Forest Service is a four-tier organization with the top tier and headquarters ("the Washington Office") in Washington, DC under the leadership of the chief. At the second level, nine geographic regions led by regional foresters each encompass several national forests in one or more states. A forest supervisor is in charge of a national forest—the third tier—which is divided into ranger districts headed by district rangers. The hierarchy's delegation of decision-making authority at each level grew from Pinchot's insistence on a decentralized agency. See Harold K. Steen, *The U.S. Forest Service: A History* (Seattle: University of Washington Press, 1976), 76–78.
- 2 Jay Melvin Haymond, "History of the Manti Forest, Utah: A Case of Conservation in the West" (PhD diss., University of Utah, 1972), 48.
- 3 U.S. Department of Agriculture, Forest Service, *Report of the Forester for 1911* (Washington, DC: Government Printing Office, 1912).
- 4 Administrative sites are locations designated or developed to accommodate Forest Service personnel and livestock. They initially included ranger stations, guard stations, fire lookouts, and administrative pastures but came to include visitor centers.
- 5 This study is based on an analysis of primary and secondary sources—building and site plans, historic photographs, land records, correspondence, oral histories, and personal interviews—and is supported by field surveys of 1,278 historic Forest Service buildings on 383 administrative sites in five states.
- 6 USDA, Forest Service, *The Use of the National Forests: Regulations and Instructions* (Washington, DC: 1905),

- 72; USDA, Forest Service, *The Use Book* (Washington, DC: Government Printing Office, 1906), 25.
- 7 In 1906, Pinchot created three geographical inspection districts headed by chief inspectors. The following year, he reconfigured them into six inspection districts. Chief Inspector Raymond E. Benedict, working from Salt Lake City, administered District 4, which included Utah, western Wyoming, eastern Nevada, southern Idaho, and northern Arizona. Another reorganization in 1908 transformed the inspection districts into field headquarters headed by district foresters and moved the District 4 headquarters to Ogden, the Forest Service's supply depot for all districts. The Forest Service later changed the term "district" to "region" to differentiate them from ranger districts, and district foresters became regional foresters. The latter title is used throughout this article to avoid confusion.
 - 8 USDA, Forest Service, *The National Forest Manual* (Washington, DC: Government Printing Office, 1912), 52.
 - 9 *Grand Valley Times*, October 19, 1906, 1; Charles S. Peterson, *Look to the Mountains: Southeastern Utah and the La Sal National Forest* (Provo: Brigham Young University Press, 1975), 129; John Riis, *Ranger Trails*, reprint edition by Les Joslin (Bend, OR: Wilderness Associates, 2008), 57–58.
 - 10 USDA, Forest Service, *The National Forest Manual: Regulations and Instructions* ([Washington, DC: Government Printing Office], 1928), 66-A.
 - 11 USDA, Forest Service, *The Use Book* (1906), 108.
 - 12 Forest Service policy continued to promote the use of forest materials in following decades. The agency's construction manuals and handbooks recommended wood and wood-based products such as fiberboard and linoleum in its buildings. Wood roof shingles and floors remained the norm through the 1960s.
 - 13 USDA, Forest Service, *The Use of the National Forests* ([Washington, DC: Government Printing Office], 1907), 33.
 - 14 J. J. Byrne, "Brief History of Engineering in the Forest Service," in USDA, Forest Service Engineering Staff, *The History of Engineering in the Forest Service (A Compilation of History and Memoirs, 1905–1989)* (Washington: USDA, Forest Service, 1990), 3.
 - 15 USDA, Forest Service, *Field Program for August 1908*, 44; USDA, Forest Service, *Bills for Material Accompanying Standard Plans for Buildings on Ranger Stations* (Washington DC: Government Printing Office, 1908).
 - 16 For example, one forest inspector writing about the recent construction of a ranger dwelling in Laketown, Utah, said, "The thousand dollars was exhausted before the house was entirely finished, particularly the room for the office is not lathed or plastered and is too cold for winter use" (C. N. Woods to District Forester, June 27, 1923, File: "G-INSPECTION – Cache 1909–1925," USDA, Forest Service, Lands Status Office, Ogden, Utah).
 - 17 Steen, *U.S. Forest Service*, 170; USDA, Forest Service, District Four, "Alumni Bulletin, 1921," 44, Accession No. R4-1680-1992-0050-01, Forest Service Region 4 History Collection, Ogden, Utah (hereafter cited as R4 History Collection).
 - 18 James B. Adams, "Use of Telephones on the National Forests," delivered before the Telephone Society of New York, February 16, 1915, 35, Accession No. R4-1680-1992-0031-06, R4 History Collection.
 - 19 Mark V. Thornton, *A Survey and Historic Significance Evaluation of the CDF Building Inventory, California Department of Forestry Archaeological Reports Number 17* (Sacramento: California Department of Forestry and Fire Protection Archeology Office, December 1994). See also John R. Grosvenor, *A History of the Architecture of the USDA Forest Service* (Washington, DC: Government Printing Office, 1999), 96.
 - 20 For biographical information and list of professional work, see Kathryn Burnside, *George Lee Nichols: Regional Architect, Region 4* (Ogden, UT: USDA, Forest Service, Intermountain Region, 2006).
 - 21 USDA, Forest Service, Region Four, *Building Construction Manual* ([Washington, DC]: Government Printing Office, 1935), BP-11.
 - 22 In 1935, the landscape architect Albert D. Taylor toured four Forest Service regions as a consultant and prepared a report that included recommendations for laying out administrative sites. Many of his suggestions aligned with those of George L. Nichols. Taylor also urged the agency to hire landscape architects and by 1937, the agency employed seventy-five of these professionals with most working on recreational and administrative site development. See Albert Davis Taylor, *Problems of Landscape Architecture in the National Forests: Report to U.S. Forester's Office on Trip of Inspection Through Some of the National Forest Areas in Regions 2, 4, 6, and 1* (1935), 76; and Wayne D. Iverson, "Landscape Architects and the USDA Forest Service" (paper presented to the USDA, Forest Service Inter-Regional Landscape Architects Workshop, Tucson, Arizona, May 21, 1990), not accessioned, R4 History Collection.
 - 23 Groben was a graduate of the University of Pennsylvania and L'Ecole des Beaux-Arts in Paris. He served as chief architect for the city of Philadelphia before becoming a consulting architect for the Forest Service around 1933.
 - 24 See W. Ellis Groben, *Principles of Architectural Planning for Forest Service Administrative Improvements* (Washington, DC: Forest Service, Division of Engineering, 1938); Janene M. Caywood, Theodore Catton, and James R. McDonald, *Evaluation of Region 1 Forest Service-Owned Buildings for Eligibility to the National Register of Historic Places* (Missoula, MT: Historical Research Associates, 1991); Clyde P. Fickes, *Region One Handbook, Construction and Maintenance of Forest Improvements* ([Missoula, MT?]: USDA, Forest Service, Region One, 1935); Ralph J. Hartley and James Schneck, *Administering the National Forests of Colorado: An Assessment of the Architectural and Cultural Significance of Historical Administrative Properties* (Lincoln, NE: Department of the Interior, National Park Service, Midwest Archeological Center, 1996); T. W. Norcross, *Acceptable Plans, Forest Service Administrative Building* (USDA, Forest Service, Division of Engineering, 1938); Elizabeth Gail Throop, "Utterly Visionary and Chimerical: A Federal Response to the Depression" (M.A. thesis, Portland State University, 1979); John Ferguson, "A Guide to the Historic Administrative Buildings of the U.S. Forest Service Pacific Southwest Region, 1905–1970," February 28, 2011; and Richa Wilson, *Within A Day's Ride: Forest Service Administrative Sites in Region 4, 1891–1960* (Ogden, UT: USDA, Forest Service, Intermountain Region, 2004).
 - 25 In 1921, the chief directed use of the familiar pine tree logo, often associated with the New Deal era, on stationary, publications, and forms. The shield incorporated a "lone pine tree [that] should be known to

- everyone for it is the symbol of a fine ideal, and the very word 'forest' carries an instinctive appeal to every normal human being" (USDA, Forest Service, "Alumni Bulletin, 1921," 31).
- 26 Elizabeth Gail Throop, "Utterly Visionary and Chimerical: A Federal Response to the Depression" (M.A. thesis, Portland State University, 1979), 43–44.
 - 27 W. Ellis Groben, *Principles of Architectural Planning for Forest Service Administrative Improvements* ([Washington, DC]: USDA, Forest Service, Division of Engineering, 1938), 56.
 - 28 The preliminary plans have not been located so it is unknown if they were similar to Hodgson and McClenahan's final design.
 - 29 George L. Nichols, "Our Building: A Records of Events and Facts of Interest," April 1956, photo album, Accession No. R4-1680-1992-0100-02, R4 History Collection.
 - 30 The central repair centers are a result of a struggle for control between CCC Director Robert Fechner and representatives of the CCC advisory council, particularly the War Department. See Conrad L. Wirth, *Parks, Politics, and the People* (Norman: University of Oklahoma Press, 1980) and John A. Salmond, *The Civilian Conservation Corps, 1933–1942: A New Deal Case Study* (Durham, NC: Duke University Press, 1967).
 - 31 Anne Oliver, "Historic American Buildings Survey, Cedar City Automotive Central Repair Shop (CCC Central Automotive Repair Shop)," HABS No. UT-139.
 - 32 Iverson, "Landscape Architects and the USDA Forest Service."
 - 33 George L. Nichols, "Moving Forest Buildings in Region 4," Accession No. R4-1680-2009-0382, R4 History Collection.
 - 34 Grosvenor, *Architecture of the USDA Forest Service*, 207–208.
 - 35 George A. Garrett, "Six Decades of Growth," in *American Forestry: Six Decades of Growth*, edited by Henry Clepper and Arthur B. Meyer (Washington, DC: Society of American Foresters, 1960), 23; Iverson, "Landscape Architects and the USDA Forest Service."
 - 36 USDA, Forest Service, *Operation Outdoors: Part 1, National Forest Recreation* (Washington, DC: Government Printing Office, 1957), 11.
 - 37 Sarah Allaback, *Mission 66 Visitor Centers: The History of a Building Type* (Washington, DC: National Park Service, 2000), 17, 22–33.
 - 38 Floyd Iverson, Regional Forester, to Forest Supervisors and Assistant Regional Foresters, August 2, 1968, Accession No. R4-1680-1992-0052-01, R4 History Collection; USDA, Forest Service, Intermountain Region, "Visitor Information Services, Regional Plan, 1978," 6, Accession No. R4-1680-1992-0052-13, R4 History Collection.
 - 39 "Third Forest Service Visitor Center Established," *Journal of Forestry* 61 (July 1963): 554–5. This article identifies a visitor facility in Missoula, Montana, as the Forest Service's second visitor center. However, this was not a dedicated building but a space in the Smokejumper-Fire Laboratory, which had the primary function of training smokejumpers and supporting wildland firefighting research. See also Chris Rabich Campbell and Douglas McBrayer Campbell II, "The Mendenhall Glacier Visitor Center: An Historic Assessment Report, January 1993," R4-1680-2013-0217, R4 History Collection.
 - 40 Thair Blackburn, interview by author, January 28, 2010.
 - 41 "New Overlook Building Has Unique Feature," *Vernal (UT) Express*, October 8, 1964, 11.
 - 42 Thair Blackburn, interview by author, February 1, 2010.
 - 43 "Centennial Pavilion Drive Nearing End," *Eugene (OR) Register-Guard*, December 30, 1958.
 - 44 Ferguson, "Guide to the Historic Administrative Buildings," 110–11.