Chapter Six

Refuge in Rusticity

Yellowstone National Park in the Great Depression

The 1930s brought considerable change to Yellowstone National Park. While the nation reeled from the effects of the Great Depression, the park continued its mission of providing recreational and educational opportunities for an ailing nation. During this period, the public viewed the park alternately as an unnecessary luxury, as an opportunity to get America back to work, and as a place of refuge. Each of these viewpoints in turn forced park officials to adjust their plans for park improvements. The result was an adventure in rusticity—a built landscape and educational programs that emphasized the rustic splendor of Yellowstone.

As Superintendent Roger Toll (1929–1936) understatedly put it: "An unsettled state of affairs throughout the country had its effect on the travel and business in Yellowstone National Park." Initially, fewer tourists visited the park, causing notable financial strain on concessioners who "found it necessary to retrench considerably."[1] When tourist numbers rebounded, they did so largely because financially strapped Americans realized they could recreate in the park for relatively little money. "In the present trying times, as never before," wrote National Park Service (NPS) Director Horace M. Albright, travelers "appreciated our varied accommodations built to meet the requirements of all pocketbooks."[2] Visitors, according to Albright, "unquestionably found life in the mountains and woods and along the streams and lakes restful and healthful and in every way worth while, and at the same time realized that simple camp life offers more opportunities for the practice of economy than oftentimes can be found at home."[3] Thus, while concessioners suffered serious losses, bringing some projects to a standstill, and as rail travel and hotel visits plummeted, a record number of Americans opted for roughing it by driving to the park and making use of its free public campgrounds. Park officials responded with more and better-equipped campgrounds.[4]

To provide opportunities for refuge, recreation, and education, the NPS continued to improve Yellowstone's infrastructure and educational programming. Initially, a reduction in federal park appropriations resulted in a decrease in funding for construction projects and a cut in professional manpower to manage the park's resources. With the New Deal, however, the government came to the park's rescue in the form of Emergency Conservation Work (ECW), undertaken by the Civilian Conservation Corps (CCC) and the Public Works Administration (PWA). Support from these agencies inspired NPS officials to forge ahead with a master plan for the park, which was completed in 1933. The notion of coordinating and planning all aspects of the park's built environment continued throughout the period, resulting in tremendous growth and programmatic changes in the Landscape Architecture Division under Thomas C. Vint. The division grew considerably during this period as, according to one account, it "found itself on the cutting edge of the New Deal."[5]

During this period, the NPS emphasized rustic architecture with unobtrusive structures made from native materials that fit into a park's natural surroundings. While the details of this rusticity were carefully worked out by Vint and his co-workers, it is hard to call it a style. Rather, as William C. Tweed, author of *Parkitecture: A History of Rustic Building Design in the National Park*

System, 1916–1942, wrote, rustic architecture "was a number of styles sharing a central concept or ethic." The point was to create structures made from local materials that harmonized with but did not overpower the natural surroundings. The architects practicing this rusticity referred to "their numerous design styles" as "parkitecture."[6] The "parkitecture" of Yellowstone was log—or log-frame—construction of simple design that harmonized with its immediate surroundings.

The park's informational and educational programs also emphasized a form of rusticity by giving more tourists the opportunity to learn about, experience, and appreciate the park—albeit through structured tours and programs whose formats were derived from modern life. Adjusting to the times, the park created a new kind of guided tour: the auto caravan. Yellowstone officials also spent a considerable amount of time and money developing a popular, but highly unnatural, "educational" program—the bear show. Thus, just as Americans ". . . sought and found . . . diversion, recreation, and rest" in the nation's first national park, so they found that diversion in a "naturalistic" built and educational environment that emphasized rusticity.[7]

The Administrators

Roger Wolcott Toll was appointed superintendent of Yellowstone on February 1, 1929, following Albright's departure to become NPS director in January of that year. Toll, superintendent of Rocky Mountain National Park at the time of his transfer to Yellowstone, was an engineer by training—he had attended the University of Denver and Columbia University—and had joined the NPS in 1919 as superintendent of Mount Rainier National Park. Toll was superintendent during the largest road building project to date in Yellowstone, and one of the most active periods of building construction. Wilderness areas were set aside during his administration, and Toll extended NPS wildlife protection to include previously persecuted predators such as the pelicans and coyotes.[8] In addition, it was Toll who recognized that Yellowstone had a serious "bear problem," and called in biologists from the NPS's Wildlife Division to assess the situation and make recommendations for improving visitor safety and natural conditions in the park.[9] However, because Toll left the park each winter to tackle servicewide issues from an office in Denver, his seven years as superintendent of Yellowstone were, according to Aubrey Haines,

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Superintendent Roger Toll. 1929.

"less outstanding than they might have been." Toll was on such a mission "to investigate the possibility of establishing international parks and wildlife refuges along the Mexican–American border," when he and Wildlife Division Chief George Wright—two of the brightest and best of the second generation of park managers—were killed in an automobile accident near Deming, New Mexico, on February 25, 1936.[10]

During Toll's many absences, two assistant superintendents, Guy D. Edwards and John W. Emmert, managed the park. Emmert had a long tenure with the NPS. A student of electrical engineering, he was employed at Yosemite National Park from 1912 until his transfer to Yellowstone in 1934. Upon Toll's death, Emmert served as acting superintendent of the park until May 1936, when Edmund Burrell Rogers, following in

Toll's footsteps by leaving the superintendency of Rocky Mountain National Park, became Yellowstone's third NPS superintendent. Rogers's tenure as superintendent was of record-setting length—twenty years. His administration, according to Haines, "began on the hopeful side of the Great Depression, struggled through the doldrums of World War II, and had to settle for preserving park values during the postwar resurgence of travel." Haines noted that Rogers was efficient and diplomatic, and that his administration handled a threefold increase in visitation (nearly 1.5 million people visited Yellowstone in 1956), with relative success, "despite [the] appalling obsolescence of physical facilities."[11] Rogers accepted the job of special assistant to the director of the NPS in 1956, and retired in 1960.

These administrators had their work cut out for them. Overseeing the nation's first and largest park during a time of economic catastrophe certainly proved challenging, but in several important ways, the government response to that same disaster actually made Toll's and Rogers's jobs easier. Assistance—both in the form of funding and manpower—provided by New Deal programs resulted in numerous park improvements.

The Civilian Conservation Corps Makes Its Mark on the Park

The decade of the 1930s dawned grey and dreary for Yellowstone. The "unsettled state of affairs throughout the country" quickly clouded the park's future: a 12-percent decrease in visitors in 1931, followed by a 3-percent decrease the following year, and a 29-percent decrease in 1933, meant fewer Americans would benefit from the park's instructive and recreational benefits and fewer dollars would arrive in concessioners' and the NPS's coffers.[12] Park funds, already severely reduced by forest fires in 1931, were hit hard by a considerable cut in appropriations. The effects on park improvement and protection were significant. Personnel pay cuts of 8 ⅓ percent in 1932 were increased to 15 percent in 1933.[13] Building maintenance and construction projects were also affected by reduced appropriations. In 1933, there were 245 government buildings in the park, many of which required considerable maintenance work, and an allotment of only $12,000 to cover expenses. This represented a 15-percent decrease in appropriations—a worrisome reduction, because a majority of the buildings were many decades old.[14]

What the park needed to continue its improvement and protection schedule was a large infusion of money and manpower. It received both from the Civilian Conservation Corps (CCC), the force of unemployed men and youth put to work on resource-related public projects as part of President Franklin D. Roosevelt's Emergency Conservation Work (ECW). The ECW program was enacted on March 31, 1933, just weeks after Roosevelt's inauguration. Under the provisions of Roosevelt's executive order, the unemployed were put to work "in the construction, maintenance and carrying on of works of a public nature in connection with the forestation of lands . . . the prevention of forest fires, floods and soil erosion, plant pest and disease control, [and] the construction, maintenance or repair of paths, trails and fire lanes in the national parks and national forests. . . ."[15]

The CCC proved vital to park operations. As Matthew Redinger wrote in his study of the CCC in Yellowstone, "Faced with reduced appropriations in the depth of the Depression, any park expansion or development to accomplish the end of making the parks more attractive seemed unrealistic. The establishment of the Civilian Conservation Corps in 1933 changed all that."[16] The NPS recognized the CCC's essential contribution to the well-being of the park, and made ready use of the organization. The "CCC boys," as they were called, provided the park with tens of thousands of "man-days" of work that it would not have had otherwise. As Superintendent Rogers explained in his 1936 annual report, "All work accomplished by the companies located here has been very much worthwhile and of great benefit with lasting result."[17]

All CCC and ECW work was supervised by landscape architects working in each park. "The CCC technical staff—architects, landscape architects, and engineers—were actually employed by the National Park Service through ECW funds," wrote historian Linda McClelland.[18] Thus, all improvement work—structural, landscape, and trail—fit a landscape improvement plan devised by Vint's office. One CCC undertaking was the construction of smaller-scale projects. Workers built cabins, cottages, comfort stations, and garages. According to Timothy Mann's 1981 summary of their work in Yellowstone, the CCC took responsibility for most of the construction at the Lamar buffalo ranch and the residential area just below Mammoth headquarters.[19] Furthermore, the CCC built, maintained, and improved trails throughout the park. For example, they worked

each summer on the 157-mile Howard Eaton Trail along the Grand Loop Road, "blasting out tripping hazards (rocks and logs) and grading for a more comfortable [horse] ride."[20]

CCC workers also helped with the protection activities of Yellowstone's rangers. The shortage of money meant fewer seasonal rangers, which led to a heavier workload for permanent employees. By assuming some of the "easier" enforcement and protection-oriented tasks, CCC workers allowed park rangers to devote their time to tasks requiring expertise, experience, and training. For example, they staffed entrance stations and helped out in the museums. In addition, they helped maintain Yellowstone's burgeoning elk herd by providing better cover and browse areas with reforestation projects and their involvement with elk feeding. They also participated in efforts to cull the elk herd when park officials began to recognize that "too many elk" would prove harmful to the park's resources.[21] At the Lower Slough Creek Ranch, CCC workers set up spike camps, then built elk traps and slaughtered animals selected by NPS rangers for removal.[22]

CCC workers also worked on protection projects aimed at eradicating whitebark pine blister rust and bark beetle infestations, and on fire hazard reduction projects.[23] By 1936, they had built and were staffing eight fire lookouts. They also constructed fire caches, cut fire breaks, and built fire trails.[24] In fact, during the years the CCC was active in the park, fire control and protection activities were at an all-time high. According to Redinger, the "CCC provided the Park Service with a source of manpower and finances that enabled the Service to implement the increased fire protection plans of the Forest Protection Board."[25] Stephen Pyne, author of a history of fire and firefighting in America, claimed that the CCC fire work amounted to a revolution in fire management, providing the basis for "practically all of the organized crews so essential to modern fire control."[26] In 1938, according to Redinger, "the height of CCC fire protection in [Yellowstone], each camp had a flying squad and a backup on call for two days each, and each ranger station had a small smokechaser crew."[27]

As part of their fire suppression work, CCC workers busied themselves with roadside cleanup, another job that required little experience or training, and little supervision.[28] In addition to the garbage they removed, CCC workers cleared dead wood from burned areas in the park and removed "stumps from within sight of park roads."[29] Called "fire presuppression" work, this cleanup effort fit closely with landscape architects' notion of park beautification, and was informed as much by their concern for scenery preservation as for fire hazard elimination. Later in the decade, however, the cleanup was criticized by biologists studying ways to keep Yellowstone's fauna both wild and available for public viewing. Later still, such cleanup efforts were actually considered ecologically harmful.

The range of projects undertaken by the CCC to make the park "more attractive and comfortable for visitors" is daunting.[30] They built and ran a large nursery on the newly acquired section of land just northwest of Gardiner, Montana, then called the "Game Ranch" (added to the park in 1932 after the Gallatin Game Preservation Company spent several years buying up private holdings between Gardiner and Reese Creek, now referred to as the Stephens Creek area) for purposes of raising trees for the reforestation of campgrounds and burned areas in Yellowstone and Glacier national parks.[31] This nursery, a very important ECW project, was the source of all plantings—trees and shrubs—used to beautify the park and to hide traces of human disturbance throughout the park. Plantings also concealed construction scars and helped blend developments "harmoniously into the surrounding environment," wrote McClelland. "So successful was landscape naturalization," she continued, "that, in most [cases], it is impossible today to distinguish the planted vegetation from the natural and the construction site from its undisturbed setting."[32]

Plantings were also used to improve the appearance of the park's campgrounds. Under guidance from the landscape architects, CCC workers developed and improved campgrounds in the park for "greater beauty and utility."[33] Developing and extending campgrounds involved more than planting; it entailed "paving the forest for parking spaces to accommodate the new onslaught of automobiles, building and improving roads, relocating the trails around the project areas, and developing the water and sewer lines to accommodate the increased bathing facilities and comfort stations." Campers also benefited from new fireplaces, grills, picnic tables, benches, garbage dumps and pit toilets.[34] According to the first director of the EWC, Robert Fechner, the CCC's improvement, development, and expansion of campgrounds made it possible for Yellowstone to accommodate more visitors, and made "it easier and more pleasant for men, women, and children to visit and enjoy America's most scenic and historic spots."[35] In fact, according to Fechner, the NPS determined in 1935 that "through Emergency Conserva-

tion Work, the development of the Nation's recreational areas has been advanced farther than would have been possible in 10 to 20 years under the old order."[36]

Reconstructing the Campgrounds

Throughout the 1930s, most of the work on campground reconstruction in the park was done by the ECW. Reconstruction work was necessary because of the extensive pressure put on Yellowstone's campgrounds during the 1920s—in 1929 alone, 166,500 visitors used them.[37] Park administrators agreed in 1930 to a comprehensive study of the state of existing campgrounds, including recommendations for change. This study, completed in 1933 by Fred Johnston, assistant chief ranger in charge of forestry in the park, agreed with many of the findings of Dr. Emilio P. Meinecke, principal pathologist of the U.S. Department of Agriculture, who advocated a system whereby campground sites were chosen according to their suitability to withstand use and their attractiveness for visitors. Thus, according to Meinecke's principles of campground protection, regulation, and reconstruction, changes in the park's campgrounds were infused with a scientific approach to camp reconstruction, regulation, and planning. Campsites were to be constructed in such a way that campers' use of the land was regulated without their sense of pioneer spirit being diminished. Restrictions on driving, parking, and building fires were necessary, Meinecke argued, but should be "drawn so unobtrusively that [the camper] hardly recognizes them as such." "The art of distributing such heavy obstacles where nature has not provided them lies in the automatic and immediate conveyance of the instruction to the [camper] and in avoiding at the same time the impression of artificiality," he wrote in his "Camp Planning and Camp Reconstruction."[38]

Meinecke's guidelines for campgrounds—designed to achieve "protection and permanence" while encroaching "as little as possible upon that legitimate degree of personal liberty which the camper has a right to enjoy"—fit neatly with the NPS's landscape architectural emphasis on rusticity and unobtrusiveness.[39] In order of importance, these regulations consisted of one-way roads through campgrounds, "the fixation of the [camper's] car in its parking spur," and the fixation of the fireplace and table.[40] The obstacles used to direct traffic, keep automobiles within their respective parking spots, and delineate individual campsites were to be placed neither uniformly nor decoratively. "The object is not at all to make the camp look pretty," wrote Meinecke. "When people go camping they want nature as unspoiled as possible," he reminded park officials. "The object of improving a camp ground is certainly not to embellish it, but to introduce just that degree of order which is necessary to make a camp ground permanent, safe and pleasant, and no more."[41] Meinecke also advocated "a system of camp rotation" whereby "endangered" camps were "temporarily closed" in order to sufficiently recover "either naturally or by artificial means."[42]

Johnston's study found that many of the park's eight major campgrounds and "numerous minor or undeveloped camp grounds" had suffered due to the constant pressure of repetitive camping and the fact that campers were allowed to select their own camping spots. He referred to the situation as "grave" and called for "drastic steps toward camp ground regulation."[43] He recommended closing some portions of campgrounds "for the purpose of artificial restoration," and called for an end to the practice whereby campers freely selected their own sites.[44] He urged park administrators to begin the process of campground regulation at Mammoth first, because that area had received the most abuse. Mammoth's campground was so far gone, he argued, that it should be used for only as long as it would take to prepare a new area for future use as a campground.[45] The Old Faithful and Fishing Bridge campgrounds should be next on the list, he opined, while others should be inspected regularly. His recommendations for these areas followed Meinecke's principles: extensive regulation of traffic (one-way with spurs for parking), barriers to enforce traffic patterns and parking, and fixed table and stove arrangements.[46]

Responses to Johnston's report were mixed. Acting Superintendent Guy D. Edwards claimed that most of Johnston's recommendations—for example, placing obstacles and closing part of certain campgrounds for restoration—were already planned but were not yet implemented due to a lack of funding. He also disagreed that the Mammoth Campground should be moved, arguing in favor of restoring the current campground.[47] Concerns regarding abuse of campgrounds were certainly not resolved with this study. In fact, the issue of how to improve and regulate the camping experience in Yellowstone remained open throughout the decade. In the summer of 1934, for example, park officials debated which style of fireplaces to construct at campgrounds.[48]

The Meinecke system of campground planning

and restoration did become the blueprint for Yellowstone, however. In 1934, Meinecke himself spent several days in Yellowstone discussing campground problems with park rangers. George F. Baggley, chief ranger and, at the time, acting superintendent, noted that Meinecke's visit had been helpful for rangers and asked that additional copies—enough for each permanent ranger—of Meinecke's two campground bulletins be sent to the park.[49] In 1935, Superintendent Toll told NPS Director Arno Cammerer (who had replaced Albright in 1933) that the park "planned to develop [the] larger camp grounds along the lines suggested by Dr. Meinecke."[50]

One campground issue on which park officials couldn't look to Meinecke for guidance was the question of how to deal with permanent campers—those who set up camp for an entire season and surrounded themselves with ramshackle structures and other debris. Campers had been establishing themselves at sites in this way for years, and park officials were growing weary of the mess. In May 1935, resident landscape architect Frank Mattson reported to Vint that "permanent campers" were becoming "a greater problem each year." The "type of structures they throw up are a disgrace to any campground," he wrote. He wanted the NPS to establish regulations or a code "by which the standard of camp construction [could] be controlled."[51]

As might be expected, factions of the public did not respond favorably to the NPS's attempts to limit and regulate their camping experiences. Several complained that prohibiting campers from finding their own sites limited their freedom. "Considering the large amount of space available," read one petition to park officials, "we feel that the reproduction of urban crowding is both unnecessary and contrary to national park ideals." The authors of this petition also did not like "the impression that the so-called seasonal camper is not entirely welcome," and complained that "[r]estrictions and regulations are becoming more numerous and irritating."[52] By 1937, the NPS had instituted a thirty-day limit on camping in the same spot, and the complaints kept coming.[53] Park officials stuck to the thirty-day limit but remained lenient of campers who were determined to choose their own site as long as it was not visible from the roadways.

"Auto camp trailers" posed another vexing problem. These larger vehicles required more space for camping, plus more space for maneuvering. When Director Cammerer asked the parks for suggestions regarding ways to deal with the problem, Mattson responded that although the park could not deny entrance to people pulling the trailers, it could enact some restrictions with regard to safety, load, and even "objectionable features such as gaudy colors, sign boards and advertising."[54] In 1938, Secretary of the Interior Harold Ickes authorized the sale of electricity to trailer tourists by means of coin-operated machines.[55]

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Mammoth Campground. 1939.

That year, Johnston again presented a report on the condition of campgrounds in the park. He argued for a greater ranger presence in the campgrounds, so that campers would "become better acquainted with the Service ideals and objectives and [that] protection ideas [could] be more easily put across." He also suggested that foresters and landscape architects be involved with the planning of new campgrounds and improvements of older ones.[56]

While not all campground issues were resolved in the 1930s, much progress was made on the enlargement and beautification of most sites. None of this would have happened without the CCC. But while very involved with restoring campgrounds and constructing small, relatively out-of-the-way structures, CCC workers did little in the way of constructing major projects, especially in the early years of the ECW. As Tweed put it, "The skills required in rustic construction were thought to be too complex for efficient execution by young and generally unskilled enrollees." Another problem was "an administrative dictum that structures erected by the E.C.W. in the national parks could not cost more than $1,500."[57] There was a branch of the Roosevelt administration, however, that did get involved with bigger projects: the Public Works Administration. The PWA awarded

grants to various federal agencies for constructing "roads, water and sewer systems, buildings, and other physical improvements."[58] In this way, PWA building allotments were used on numerous NPS projects in Yellowstone.

Landscape Architecture and the Development of a Master Plan

Despite the shortage of available cash, the 1930s witnessed an expansion of Yellowstone's built environment. All construction during this period remained under the purview of the Landscape Division. Thomas Vint, chief landscape architect, chose Kenneth C. McCarter, a hydraulic engineer from Grand Canyon National Park, as assistant landscape architect for District Six (which included Yellowstone), and Frank E. Mattson as McCarter's assistant, or junior landscape architect.[59] McCarter, who resided in Yellowstone during the construction season and was thus considered the park's resident landscape architect, accepted the position with the Landscape Division in 1930.[60]

Vint's division changed dramatically over the decade. First, in 1933, the division was renamed the Branch of Plans and Design, and it was charged with producing building designs and plans for all park structures. Second, Vint's staff grew exponentially between 1933 and 1937, as the branch's scope of activity increased. Records from this period indicate that there were numerous landscape architects working in the park. One ramification of this growth was that after 1933, Vint was less involved with his associates in the field, and thus had less control over their projects and designs. Another result was that Vint's office manager, William Carnes, born and raised in Montana, and with a degree in landscape architecture from University of California at Berkeley, became the person in charge of the Western Division of the Branch of Plans and Design when Vint moved, in late 1934, to Washington, D.C., to establish a headquarters for the branch.[61]

One of the first projects landscape architects worked on during the early years of the decade was a master plan for the park. Official planning had been a part of NPS policy since 1925, when superintendents were encouraged to draw up five-year plans, with the help of landscape architects Hull and Vint. These plans outlined "the expansion and improvement of developed areas of the parks."[62] It soon became clear, however, that the scope of a five-year plan was too limited in its vision. Each park needed a plan "that viewed the park holistically in terms of geography, visitation, and landscape protection, all in relation to the service's many developing programs: fire control, interpretation and natural history, and engineering."[63] Such a transition to "master planning" was orchestrated under Vint's leadership, and by 1929 these so-called "park development plans" were mandatory. Park development plans were described in this way:

> Such a plan will give the general picture of the park showing the circulation system (roads and trails), the communication system (telephone and telegraph), Wilderness areas, and Developed areas. More detailed plans of developed areas (villages, tourist centers, etc.) will be required to properly portray these special features. These plans being general guides will naturally be constantly in a state of development and should be brought up to date and made a matter of record annually. Their success depends upon the proper collaboration of study and effect on the part of the Park Superintendent, the Landscape Architect, the Chief Engineer, and the Sanitary Engineer. The resulting plan will not be the work of any one but will include the work of all. Since Park Development is primarily a Landscape development, these plans will be coordinated by the Landscape Division.[64]

NPS Director Albright first officially referred to these development plans as "master plans" in 1932, during a presentation before a meeting of agency officials in Hot Springs, Arkansas.[65] Coming as it did in the middle of the Depression and just after passage of the Employment Stabilization Act (1931), which asked "government bureaus to prepare six-year plans for needed construction," the NPS's efforts to revitalize its "planning initiative" were timely.[66] By the end of the year, master plans were completed for all the parks, including Yellowstone. They consisted of a "park development outline, a general plan, and a six-year program," the details for which were provided by park superintendents who had outlined the park's existing "areas"—including specific and characteristic "components"—as well as a wish list of "what they needed to develop an area properly over several years assuming funds were available."[67] Vint explained the function of a park's master plan by comparing it to a city or regional plan: "Its use is to steer the course

of how the land within its jurisdiction is to be used. Nothing is built directly from it. Each project, whether it be a road, a building, or a campground, must have its construction plan approved. In the course of approval it is checked as to whether it conforms with and is not in conflict with the Master Plan."[68] The Landscape Division, under Vint's direction, prepared the plans, which "took the form of a series of large color drawings and an accompanying narrative, the development outline."[69] Besides providing basically a list of "existing facilities" and "proposed facilities," each plan broke the park landscape into distinct areas or land-use categories: "developed areas," "research areas" (areas where human activity and access were restricted as "areas where scientists could find 'things in a normal, natural condition'"), "sacred areas" (areas of limited size "around major attractions [. . .] that precluded any construction"), and "wilderness areas" —defined by Albright and Vint simply as "the rest of the park."[70]

According to a memorandum Superintendent Toll sent to Albright in 1932, Yellowstone's first master plan should include five "research areas": Electric Peak, Petrified Tree, Fossil Forest, Mirror Plateau, and Bechler River. According to Toll, each of these areas "contain[ed] some particular type of flora or fauna or [had] some particular geological history not common to the surrounding country." "Sacred areas" in the park were numerous: Mammoth Hot Springs, Norris Geyser Basin, National Park Mountain, Lower and Midway Geyser Basin, Old Faithful, Shoshone Lake, West Thumb, Heart Lake, Grand Canyon, and Tower Fall. No development that would "in any way deface the formations or detract from the scenic value" was to be allowed.[71]

"Wilderness areas" set aside in 1932 included the Upper Yellowstone River, the Lamar River–Mirror Plateau, and Cutoff Peak. Of these, Toll wrote: "These are great areas in the more remote sections of the park which are to be forever maintained in their present state of improvement and development and which will be accessible only by trail. . . . These areas are to be kept in their present state as near as it is possible to do so." Recognizing the tremendous pressure motorized tourists put on the parks and the need to keep some land untrammeled for future generations, Toll asserted, "The National Park Service realizes its responsibility to future generations and has taken these steps to insure great wilderness areas for coming generations."[72]

Except for three of the five research areas and the West Thumb sacred area, these recommendations became part of the park's first master plan.[73] Yellowstone's master plan of 1933 was a beautiful document consisting of numerous large sheets of paper (3' × 4') with large-scale colored-pencil and pastel drawings of maps of developed and special areas, park roads, trails, and fire control facilities, and large plans of each developed area and proposed facility.[74] The sheets depicting the proposed developments were signed in 1934 by Vint or his assistant, Thomas E. Carpenter, a graduate of Harvard's landscape school and former employee of the Olmsted firm.[75]

While many of the master plan's proposed developments were not implemented due to a lack of funds and changing interpretations and priorities, the plan did establish and record the NPS's attitude toward land-use categorization in 1933. It is especially interesting to note the changes planned for developed areas. From the proposed changes, it is clear that many of the park's existing improvements—some of its roads and older buildings—were considered obtrusive and obsolete.[76] The master plan offered a clear picture of how the NPS planned to reorganize developed areas in ways that would harmonize with the natural features of their surroundings.

One area to receive attention in the 1933 master plan was Old Faithful. The plan called for a new utility site as part of the government area of the development. This utility site would include such buildings as a mess house, laborers' bunkhouse, and barn (constructed in 1931). The government area would include a ranger dormitory, a married ranger dormitory (partially complete in 1932), and a ranger naturalist's residence (remodeled from an old mess house in 1932).[77] The plan also called for a new bear-feeding ground.

The master plan also addressed Mammoth Hot Springs. A closer look at the planning process for this area provides a glimpse into the competing interests at work in planning park administrative structures in the 1930s. Previous plans to modify the Mammoth area had culminated in 1928, in the efforts of Vint and Ferruccio Vitale (of the U.S. Commission of Fine Arts) to locate the appropriate venue for the new museum planned for the area. This search for the perfect museum site was transformed in 1930 into a much larger project when Vint invited landscape architect Gilmore D. Clarke, of the Westchester County Park Commission in New York, considered the "nation's leading authority of parkways," to spend ten days in Yellowstone devising a general plan for development in the Mammoth area. The general

plan would correct what many perceived as, and what McClelland has called, a "serious problem in park planning." According to McClelland, the "village" at Mammoth "was marked by a discordant array of structures and buildings and a system of congested roads which contradicted the naturalistic principles that the national park designers sought to uphold."[78]

Actually, the Mammoth area was not so much the product of poor planning as it was the product of little planning. Clarke himself referred to his reorganization plan as "a basis for the better development of an area that has grown 'like Topsy,' and which is much in need of a new plan." The plan—drawn up after intensive field work in the park, numerous conferences with Toll, Herbert Maier, Vint, and McCarter, and Clarke's assistant, landscape architect Allyn R. Jennings—rested on the premise that the "Mammoth Hot Springs and the formations are the most remarkable in the world." "Consequently," Clarke wrote, "the setting should be unencumbered by artificial works of man."[79]

The plan indicated which of the area's numerous buildings and roads were to be removed and where those proposed as new construction were to be built.[80] McClelland wrote that the plan

> called for the removal of most of the former army buildings and the hotel and its related buildings but retained recently built park buildings such as the superintendent's residence, a barn, and a ranger's residence. The entire area was redesigned, changing the circulation system to one of curving streets around an open elliptical lawn on the site of the old hotel. The new concessionaire's development was situated to the east in a radiating pattern, and the park administration area, residential area, and utility complex were located to the south in several tiers along curving roads. A road with diagonal parking and a median of several planted islands joined the park and concessionaire's business areas.[81]

These recommendations found their way into the master plan for 1933, and appeared in subdued color as a reminder of a particular vision of the Mammoth area.

A major part of Clarke's proposal advocated changing the "approach road to the park from the north entrance at Gardiner." He promoted Route C as proposed in "Report of Reconnaissance Survey of Mammoth Entrance Roads," written by A. C. Stinson, chief engineer, in January 1930. Stinson's reasoning was that this new route offered "the opportunity . . . of bringing traffic into Mammoth before making junction with another entrance road and of connecting with Mammoth at the logical geographic location, thereby affording the unacquainted tourist an exit from Mammoth in the direction he desires to go."[82] This part of the plan, implemented by the end of the decade, included a median-divided entrance to Mammoth from Gardiner that would separate the government area from the park operators' buildings.

Other parts of the proposal met with limited success. While two new buildings were added to the area as per the plan, most of the older buildings—both government- and concessioner-owned—remained, and remain to this day, forming the central part of park headquarters (today's Fort Yellowstone National Historic Landmark) and the tourist facilities of Mammoth Hot Springs. The story of the plan's implementation success—or failure—was familiar: too little funding and too much disagreement between parties.

Disagreements started right after copies of the plan were disseminated to Toll, Albright, McCarter, Vint, and a host of interested parties ranging from concessioners to other government officials (the director of the U.S. Weather Bureau, for example).[83] McCarter explained the "primary assumption" of the plan to John Nolen, a professor of landscape architecture at Harvard with extensive experience in state park planning. "Mammoth itself should be the junction of the three roads [from Gardiner, Norris, and Tower] in order that the hot springs formation will not be bypassed with traffic in any direction," he wrote.[84] The premise upon which the plan was devised was that the natural setting of the area should not be dwarfed or "encumbered by artificial works of men."

While most could agree that the Mammoth area should not be bypassed, views differed widely on how to improve the area while keeping natural features as its focus. The discussion revolved around whether government or tourist facilities were more important at Mammoth Hot Springs, and how much, and for what reason, development should occur. Concessioners were predictably unhappy with the recommendation that their buildings be razed and that they be required to live in quarters attached to their places of business. Vernon Goodwin and William Morse Nichols of the Yellowstone Park Lodge and Camps Company complained about the proposed removal of concessioners' buildings while the

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Auto caravan, Mammoth Hot Springs. 1932.

government buildings were allowed to stay. "[I]t would strike an unbiased observer," wrote Goodwin to Toll in September 1930, "that Mr. Clarke has been influenced, perhaps unconsciously, by the fact that the government is his client." He also complained about Clarke's proposal for the location of the hotel, from which guests' rooms would no longer look out onto the Mammoth Terraces. "I can express only my personal preference," he wrote, "but I would more thoroughly enjoy a leisurely view of this beautiful sight from a comfortable chair on the porch of the hotel or lodge than to catch a fleeting glimpse from a motor bus or the back of a horse."[85]

Nichols went further in his objection. It was the hotel and other tourist facilities and not the administration buildings that belonged at Mammoth, he wrote. "The reason for the hotel, stores or shops, is to serve the public desiring to view the Terraces and to stop over night and be taken care of. With the exception of Information Bureau, Museum and Post Office to equally serve the public at this point," he fumed, "there is no reason why the government buildings should not be near Gardiner. The Park could certainly be as well administered from Gardiner as from Mammoth and with virgin ground at Gardiner any kind of a landscaping scheme could be laid out and built."[86] Furthermore, Nichols countered Clarke's plan to have traffic enter the Mammoth area to the north of the administration area. This, at best, would give tourists a "sideling [*sic*] view of the Terraces." "Why not bring the road to a point opposite the center of the area through the present government buildings and make it a real approach to the Terraces?" he asked.[87] Nichols complained that implementing the plan would leave "the ugly government buildings" in place to "encumber the landscape," and, after removal of all the buildings along the northwest side of the Mammoth area (the concessions), it would merely give people a "view of some bare hills." It all came down to money, he felt. Was removing the buildings worth the cost, and "if it should warrant such expenditure, who would furnish the money?" he asked.[88]

George Whittaker, owner of the Yellowstone Park Stores, also did "not favor a change [in the buildings] unless it would be to remove the government buildings and build the hotel where the bachelor quarters and the front row of buildings are and have it face the terraces; then put the stores and gas station where the old hospital now stands."[89] Anna K. Pryor, manager of The Park Curio Shop, called the plan "excellent," but she noted that implementing it would mean that the government would need to compensate concessioners for the money they had invested in their operations. In the case of the Curio Shop, she wrote, the amount due would have been about $28,000.

Pryor also complained that concessioners should not have to live in or over their places of business. "Inasmuch, as concessioners serve the public the same as government employees," she wrote, "they are entitled to a site for a comfortable home."[90] J. E. Haynes, who with his wife had lived for 18 summers above their shop, also objected to the idea of concessioners living on site. "I feel that some of us must have separate residences for the same reasons that you [Superintendent Toll] have a separate residence," he argued.[91]

This issue of where to house concessioners was not unique to the Mammoth redesign plan. Also in 1930, Vernon Goodwin requested permission to use a building at Willow Park by the Obsidian Creek Bridge for his residence. While McCarter had "no objection to its use for such a purpose on a short term lease," he was concerned that "it might be a dangerous precedent in the matter of scattering operators' residences all over the park." "If the operators object so strenuously to living quarters attached to their places of business to such an extent that they are willing to be removed several miles," he reasoned, "it might be as well to require them to reside at Gardiner in relation to the Mammoth area in lieu of giving them rent-free government space within the park."[92]

Vint was bothered enough by this issue of concessioner housing that he wrote to Director Albright in September 1930 asking for clarification regarding NPS policy on the location of operators' residences. The plan for revamping Mammoth "should be made to fit Park policy," he wrote. Vint liked Clarke's proposal (so much,

apparently, that in 1931, he sent McCarter for "two months of winter study" with Clarke), and argued for its implementation servicewide.[93] His concern was that "[a]s a rule the property occupied by such company officials is 'sacred area' to the n'th degree." He had, for example, noted instances "where residence sites for officers in operating companies [had] given the Park Service difficulties," and he was worried the NPS would be setting itself up for trouble if it did not regulate concessioner housing.[94] However, Clarke's solution was one of many parts of the plan not implemented.

Museum specialist Hermon C. Bumpus appreciated Clarke's plan but feared that the proposal would not move forward. "[Clarke] has evidently approached the subject with an open mind," he wrote, and he agreed that the "extraordinary natural features" of the Mammoth area should control recommendations for change in the area. But he also felt that Clarke was, as he put it, "optimistic" for thinking that there would "be any sweeping destruction of buildings that are privately owned."[95]

As it was, there was little destruction of operators' or government buildings in the Mammoth area. While only a small part of Clarke's design made it off the page, it was not for lack of approval or because operators' wishes were considered paramount.[96] The plan was indeed approved with only one minor change and, after all the fuss, park operators' objections were determined to "carry little weight." In fact, expectations for completion of the plan were firm—but they were considered long-term. As Vint explained it, park officials considered the plan as "intended to show what to do when any particular unit is rebuilt," "not in order to reconstruct."[97] Toll himself, in March 1931, called the plan "a satisfactory plan toward which to work," and acknowledged that it would "of course, be many years before some of the major items of the plan [were] constructed."[98] The plan's prospects for being used as a blueprint for development—or rebuilding—remained rather bright throughout the decade. The minor change made to the Mammoth plan in 1931 involved shifting the museum's location to the "planted area in front of the residential row," a location favored by Bumpus and Albright. They felt that the museum's location should be near the road to and from Tower Fall, as it had been determined that more visitors entered the Mammoth area on that road than any other.[99]

Clarke's slightly modified ideas for Mammoth guided the 1939 master plan as well. The 1939 plan included revisions that, as authors wrote, "more closely coincided with present circumstances."[100] By 1939, park landscape designers had chosen a new location for the proposed museum: it would be combined with the administration building and be situated, again to accommodate traffic patterns, adjacent to the post office.[101] Other changes in the 1939 master plans included alternative entrance/checking station layouts for the North and West entrances, a new proposal for the Bridge Bay development, and a new village at Canyon. According to the master plan, the entrance at Gardiner was to be modified extensively. While the main entrance for visitors arriving by train would remain the arch, a second entrance for motorists (never built) would give direct access into the park from Gardiner's Yellowstone River bridge. The checking station (rebuilt in 1939 after extensive fire damage) would be razed and another built essentially where the entrance station is today.[102]

The Bridge Bay proposal was intended to consolidate all boating operations at one point, a location considered "most desirable" because the bay was protected from storms. The proposal included a concessions area with a building devoted to "various retail operations," and a campground and cabin area. While some officials felt the proposed development was "a natural setup for a developed area," others, authors of the 1939 master plan acknowledged, "oppose[d] the development of another commercial area." This opposition was "well-founded," wrote authors of the master plan, considering "the policies of the Service." Furthermore, they conceded, it was "very difficult to limit the size of any development." "[T]he developments within the Park cannot expand indefinitely without serious damage," they wrote. But at that point, the authors conceded, the Bridge Bay development plan was merely a proposal that would "require further field study and consultation with the Park Operators."[103]

The new village proposed for Canyon would return the Upper and Lower Falls areas to more natural conditions, protect the Grand Canyon area from further encroachment, and allow more tourists access to the area. For decades, the authors wrote, the original congressional act setting Yellowstone aside and prohibiting construction of facilities within "one-eighth mile" of a park treasure had been violated "to the detriment of the area and to the exclusion of thousands of tourists enjoying the area to the greatest possible degree." The construction of a new village would "try to correct these mistakes" and would be justified aesthetically and economically, as well as on conservation principles. Among the many alterations proposed was the building of a

new ranger station "near [the] proposed retail area with possible museum wing and general contact station."[104] Many of these changes were finally implemented after World War II as part of the park's Mission 66 program (see chapter 7).

Changes in the Park's Built Environment

While the Depression interfered with the implementation of much of the master plan, quite a bit of construction occurred during the period. The design of most of this construction bore the mark of the NPS's love affair with rusticity and was part and parcel of Vint and his associates' Branch of Plans and Design. Vint was in charge of enforcing this design style. According to Tweed, Vint himself trained his associates in the art of this "non-intrusive or 'rustic' design." This burden fell on Vint, Tweed wrote, as "[e]ven the best landscape schools of the time included little in their curricula that prepared a student for National Park work."[105]

For several years, Vint and the Landscape Division had been designing structures that looked as if they "'belonged' in the often awesome natural surroundings" of the park.[106] This trend continued throughout the 1930s, reaching its peak before the decade ended. According to Laura Soulliere Harrison, author of *Architecture in the Parks, National Historic Landmark Theme Study,* Vint and his cohorts were "designers and onsite construction supervisors [who] carefully studied the natural materials in the surrounding landscape—the color, scale, massing, and texture—and incorporated what they could into their designs."[107] They were "willing to seek out those design elements in their work which made the buildings necessary for park development as unobtrusive and harmonious as possible in their park settings."[108]

By 1935, this "harmonious" design style was so well-developed and so much in demand throughout the NPS that Ohio architect Albert H. Good published a catalogue, *Park and Recreation Structures,* intended to serve "as a training tool for new architects and landscape architects designing developments in parks." This single volume was followed in 1938 by Good's three-volume set, *Park Structures and Facilities.*[109] Good's volumes "helped popularize and standardize compelling imagery for 'appropriate' park architecture."[110] McClelland referred to Good's volumes as a "comprehensive index of national park principles and practices for naturalistic landscape design and rustic architecture," filled with "examples to foster imaginative harmonious solutions adapted to the needs and character of each situation."[111]

Good authored the text, but the ideas developed in the volumes represented the thoughts of a committee of architects—an editorial board that included, among others, Vint and architect Herbert Maier. While the architectural designs endorsed by Maier, Good, Vint, and other architects of the period were not of one style, they did exhibit general tendencies: such designs tried either to "blend into" or celebrate their surroundings by incorporating native materials; they emphasized the principle of horizontality, were to be made of native materials with "character," and were built according to a scale appropriate to surrounding features. Horizontal structures were "less conspicuous and more readily subordinated to their settings," Maier and Good believed, and reasonable "overscaling" of the structural elements of rustic construction to the "surrounding large trees and rough terrain" was appropriate in forested and mountainous regions. They eschewed straight, rigid lines "in favor of properly irregular, wavering, 'freehand' lines," and advocated doubling roof shingles every fifth course to soften the effect and create a more primitive image. Furthermore, wherever possible, they argued, designs should incorporate inspiration from pioneering or primitive structures of the area. But log structures made from unpeeled logs had only "transitory charm," Good wrote. "It is in the best interests of the life of park structures," he continued, "as well as in avoidance of a long period of litter from loosening bark, and of unsightliness during the process, that there has come about general agreement that the bark should be entirely sacrificed at the outset."[112]

Good somewhat reluctantly referred to the above style as "rustic," a term already in place to describe the structures built in forested parks but one that, he felt, was "misused and inaccurate." While he hoped a better word would gain currency, he also defined the term for posterity: "a style which, through the use of avoidance of severely straight lines and over-sophistication, gives the feeling of having been executed by pioneer craftsmen with limited hand tools. It thus achieves sympathy with natural surroundings and with the past."[113] One of the leading architects to employ this style was Herbert Maier, architect of several trailside museums in the park.

Maier's career with the NPS was long and productive, his influence growing as his position changed from architect of museums to landscape architect and park

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Hermon Bumpus, Kenneth Chorley, and Herbert Maier. 1930.

planner. His philosophy of park architecture centered on the belief that the "concept of 'improvement' was an anomaly in park development." To minimize a structure's impact on its surroundings, he argued for "screening, the use of indigenous and native materials, adaptation of indigenous or frontier methods of construction, construction of buildings with low silhouettes and horizontal lines, avoidance of right angles and straight lines, and elimination of the lines of demarcation between nature and built structures."[114] Perhaps his greatest contribution to park design, according to McClelland, was "his mastery of rockwork, assimilating both the landscape gardener's emphasis on naturalism and the architect's vision of the construction potential of this material."[115] As Carr wrote, "Maier's park architecture . . . could literally improve the view; it embodied the intellectual keys—scientific research and interpretation—that could open the experience of places to new dimensions of appreciation."[116]

By the early 1930s, Yellowstone's rustic architecture had become such a trademark that planners of state parks from around the nation often called on the park's superintendents for advice on construction projects. Toll advised those interested in Yellowstone's rustic designs to direct their requests to the Landscape Division in San Francisco.[117] These state officials were most often interested in design plans for the park's snowshoe cabins.

In fact, much of the rustic construction built in the park during the 1930s was in the form of snowshoe cabins. Evenly spaced and strategically located throughout the park, these little structures were intended to enhance the protective mission of Yellowstone and were so important that park managers ordered them constructed, replaced, and maintained as needed. Superintendent Toll had, in fact, a "policy" of constructing two cabins a year because, by 1930, many of the cabins built in the military era were "past the stage of repairing."[118] Cracks in the walls and floors as well as decayed and settled foundation logs were common problems. "They are hardly fit for human habitation during the winter months," Toll wrote in an outline of planned construction work, "but [they] are strategically located for winter patrols and winter studies of the geyser basins and are necessary to our work."[119]

Most of the cabins built during this decade adhered to a design the NPS adopted as part of its effort to standardize plans for frequently built structures. Although Acting Superintendent Leroy Hill told Vint in 1927 that Yellowstone's chief ranger, Samuel T. Woodring, did not want to submit or work from design plans for snowshoe cabins that were "to be built in remote locations and by unskilled labor," Vint's office had forged ahead and created a standardized design plan for snowshoe cabins that would reflect the agency's intention that building designs be both functional and harmonious with the environment.[120]

In 1930, the Landscape Division gave park officials three cabin design plans to review. All three cabins were

the same size (15' × 13') and shared a floor plan and such features as an eight-foot deep front porch; a stone chimney; built-in closet, cupboard and sink; and a little food cellar accessible by a trap door in the cabin's floor. The exterior designs, however, were different. The Type 2 Standardized Snowshoe Cabin—a log building with a four-light window on each sidewall, a porch roof carried on log posts, and three purlins resting on log uprights and a beam that spanned the log posts—was adopted by the park but modified immediately to reflect practicalities. A sliding sash window was substituted in the back wall, the interior furnishings were eliminated, a puncheon floor was chosen for the porches, and the stone chimney was replaced with a galvanized stove pipe.[121] The last change likely disturbed the Landscape Division more than any other, as it detracted considerably from the romantic notion of rusticity. The list of construction details sent to the park upon adoption of the Type 2 plan, however, involved enough rustic features, including several that the park had incorporated in their cabins since the early 1920s, to keep the landscape architects happy: "stone piers, battered log crowns, axe-cut log ends, and purlins extending beyond the roof edge."[122]

In 1931, this standardized plan was again modified to meet the real-world needs of rangers using the cabins: "The stove was moved from the front to the rear of the cabin and the cellar was moved from a rear corner to near the front with the trap door opening just to the side of the entry door." These changes allowed for a more practical placement of furniture. Also, the four-light sash window became a six-light sash. In addition, the rustic wood shingles, or shakes, were replaced with practical, snow-shedding, corrugated iron. This modified version of Type 2 standardized snowshoe cabin became the standard plan—referred to as Standard Snowshoe Cabin Drawing 3037—for cabins built in the park throughout the 1930s.[123]

Before this standardized plan was put into effect, however, one last snowshoe cabin was built with "distinctive design characteristics" in the old style of the 1920s.[124] In the summer of 1930, a one-room cabin (22' × 20') was built at Miller Creek (variously referred to as the Calfee Creek or the Lower Miller Creek Cabin). The logs used for the walls, measuring 12–18 inches at the butt and at the chisel-pointing of the gable's log crowns (which were a continuation of the log walls from below), gave this cabin "architectural significance."[125] According to a recent architectural assessment, the Miller Creek Cabin is "the oldest identified cabin in Yellowstone to use vertical log posts beneath the purlins in the open porch gable." This solution to the problem of how to support the extended porch roof was one of many plans with which the designers and builders had experimented over the years. The cabin's success in this arena apparently resulted in its "method of supporting the extended purlins" being adopted as a standard design feature in the NPS's standardized plan for snowshoe cabins.[126]

Another anomaly, although less successful according to Assistant Landscape Architect McCarter, was the cabin's appearance. Its oversized logs and "steeply pitched roof" were "at odds with the National Park Service's philosophy that buildings be inconspicuous and readily subordinated to their setting." McCarter criticized the cabin's appearance as it was being built; in particular, he did not like that the builders had used 14- and 16-inch logs when they ran out of 12-inch ones. He did, however, approve of the steep pitch of the roof and even the galvanized roofing, as he put it, "to eliminate some of the snow shoveling since the cabin [was] not visited very frequently during the winter and practically no tourists ever reach[ed] that territory."[127] The galvanized roof was adopted as part of the standardized plan even if the practice of using such a steep pitch was discontinued.

The snowshoe cabins built in 1931—the Fern Lake and Upper Miller Creek buffalo herder's cabins—are the oldest extant examples of the Standard Snowshoe Cabin Drawing 3037. The cabin at Fern Lake was built, according to Guy Edwards, "for the purpose of having a comfortable station where rangers and other parties interested and assigned to game study work can make their headquarters."[128] George Larkin, a contractor from Gardiner, Montana, submitted the low bid and was chosen to construct the cabins at Fern Lake and Upper Miller Creek.[129] The latter cabin was not intended for winter use, as it was built to house the herder responsible for monitoring the bison that spent the summer on the high open range of the Lamar River and Miller Creek.[130]

When funding for NPS construction in fiscal year 1934 dried up, Toll used ECW funds to construct cabins, arguing that the cabins were necessary for protective purposes and that the park lacked resources to continue its program of building two cabins per year.[131] In October 1934, three standard snowshoe cabins were built under NPS supervision: the Upper Lamar River Cabin (its site now occupied by the Lamar Mountain Cabin) on the Upper Lamar River at Saddle Mountain (moved to Lamar Mountain in 1992); the Buffalo Plateau Cabin on the park's north boundary; and the Cold Creek Cabin,

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Fern Lake Cabin. 1931.

YNP PHOTO ARCHIVES, YELL #31609

Upper Miller Creek Cabin. 1933.

close to the spot of the military-era cabin that burned down in June 1934. The cabins on Buffalo Plateau and the Lamar River were constructed under contract by George Larkin, who again submitted the low bid. They were felt to be "of particular strategic importance in protecting Yellowstone's game animals from poachers."[132] The Cold Creek Cabin replaced one built by the army that burned in June 1934. Superintendent Toll wanted to rebuild right away, because the cabin was critical as a patrol point for rangers from the Lake and Soda Butte districts in winter, and for a fireguard in summer.[133] Also built in 1934 were a root cellar, barn, and outhouse (all extant) at the site of the Lower Blacktail Deer Creek Snowshoe Cabin.[134]

In 1938 and 1940, two cabins were built in conjunction with the U.S. Bureau of Fisheries' egg-collecting projects: one at Clear Creek and one at Peale Island. Of the several egg-collecting stations the bureau constructed around Yellowstone Lake, only these two cabins are still extant. The cabins built at these sites were intended to house the "egg harvesters" —or "spawntakers" —during their time in the park. The cabin at Clear Creek, built in 1938, replaced a cabin built earlier—sometime between 1913 and 1925—that collapsed under the weight of a heavy snowfall during the winter of 1937–1938. Public Works Administration employees constructed the Peale Island Cabin in 1940. Both cabins became part of the park's array of snowshoe and backcountry cabins when they were transferred to the NPS in 1961. Both cabins were frame structures. The Clear Creek Cabin was a three-room, rectangular (22.5' × 15'), log-frame building with a sleeping loft. The cabin at Peale Island was a four-room, wood-frame building, rectangular in shape (21.5' × 23.5') with decorative front and rear bargeboards supported by false purlins.[135]

During this period, controversies concerning the color of structures' exteriors, roofs, and walls were perceived as opportunities to encourage unobtrusive building practices. For example, in 1930, Assistant Superintendent Guy D. Edwards asked Superintendent Toll to contact Chief Landscape Architect Vint regarding the color scheme of park structures. As Edwards explained, "Almost everyone concerned, here, favors the green roof with the brown sides," as opposed to the brown building/brown roof scheme dictated by the Landscape Architecture Division. Edwards also noted that all the buildings at Zion, Bryce Canyon, and Grand Canyon national parks had green roofs.[136] When Superintendent Toll approved the new standard "Park Service Green" paint for use on automobiles, signs, and buildings that year, he noted to Vint that in the past, both the walls and roofs of many NPS buildings had been painted with brown stain, creating an effect he called "not pleasing, as the color scheme looks drab and without interest or character." He much preferred a brown-stained building with a green painted roof. In response, Vint explained to Toll that brown-stained roofs were preferred because the green faded more quickly. The intent, moreover, was for buildings to be two shades of brown. Thus, Vint continued to recommend that the roofs of the Mammoth Auto Campground buildings, for instance, be stained brown because that color would be less noticeable than green when viewed from the terraces.[137] Good and Maier agreed with Vint: both discouraged the use of green. "Strangely enough," Good wrote in his catalogues, "green is perhaps the hardest of all colors to handle, because it is so difficult to get just the correct shade in a given setting and because it almost invariably fades to a strangely different hue."[138] In short, green stood out, making a structure conspicuous.

Relative to roof construction, Vint preferred the use of 24" shingles or shakes, which, as he put it, tended "to get away from flimsyness [*sic*] in the ordinary roof." He also favored Good's and Maier's recommendation of doubling every fifth course to break up the "dull flatness" of the roof and using a pre-dipped shingle that he believed gave "a pleasing result by using two-third green and one-third grey, distributed at random." Twenty-four-inch shingles, doubled on every fifth course, were used for all park buildings built during this period except those at Old Faithful Utility Area.[139]

Just as buildings were meant to blend with their surroundings, so, too, were the signs used in the park. The NPS erected "rustic signs" throughout the park and complained when concessioners' signs stood out too much.[140] In 1934, landscape architect Frank Mattson complained to Superintendent Toll about the increase in use of white signs throughout the park. Mattson was "under the impression," as he put it, "that the background of these signs would be very much like the color of the building they were on: generally a brown with the lettering a contrasting color." He argued against signs that drew attention to themselves and were intended to drum up business. "It is my understanding," he wrote, "that these signs are for information and not for competative [*sic*] advertising as one would be impressed by their present use." He called for "some definite regulation regarding signs and advertising."[141] Toll responded with a "Memorandum to Operators" that outlined such regulations. He reminded concessioners that "[a]ll details of the sign[s] [erected on operators' buildings] including size of the sign and size and type of the lettering and the color of the lettering and background, should be approved [by the resident landscape architect] in advance." He wrote that some signs used in the park were "appropriate and harmonious while others [were] not."[142]

Ranger stations built during this period were also unobtrusive and rustic. The log-bearing West Entrance Ranger Station was built according to an "irregular plan" on a concrete foundation with "a battered stone veneer." Two smaller residential wings—the mirror image of each other—veered off a main rectangular block with its own intersecting "large central wing." The one-story, rectangular, log ranger station at the Northeast Entrance had a concrete foundation covered with a rough native stone veneer with a partial basement, a low pitched front-gable roof covered with cedar shingles, and doors of "tongue and groove construction with long metal strap hinges on the exterior." The ranger stations' rustic touches included the typical features of most rustic park architecture at the time: ventral saddle notches joining the walls at the corners and log ends with a "chopper-cut end finish." Another rustic detail was that "the line of the log ends [was] cut so that they flare[d] slightly at the base." An "intersecting gable roof [with] wood shingles" and exposed purlins and rafters topped off the structures.

The Northeast Entrance checking station was also of rustic design, with three separate log saddle-notched buildings sharing a "sweeping side-gable roof." The central building, an office, was separated from the two smaller structures, which served as booths used to house park checking station attendants, by carports through which cars passed on their way into and out of the park. The gable of the office building was covered with vertical tongue-and-groove siding, and boasted a routed National Park Service sign under the roof's peak.[143]

George Larkin was contracted to construct new ranger stations at the West (1932) and Northeast (1935) entrances, as well as a checking station at the Northeast Entrance. The designs for all three buildings emanated from the Branch of Plans and Design and combined a certain functionality with rusticity. In the summer of 1940, the Snake River Ranger Station burned. It was rebuilt, under the new NPS policy mandating frame-constructed buildings instead of logs; in 1939, agency officials had restricted the cutting of park trees for construction and decided to design all future buildings using milled lumber.[144]

Fire also destroyed other important buildings during this period. In March 1937, the Gardiner checking station burned and was rebuilt to the original design. At that point, the station (quarters included) was located on the right side of the road just inside the park from the North Entrance arch.[145] In September of that year, the Thorofare Ranger Station was gutted by fire. A new floor, ceiling, and roof were built that fall, and all the furnishings were replaced.[146]

At least five primary fire lookout stations were built during the 1930s as part of the park's efforts to protect forests, structures, and wildlife from fire. Lookout stations at Mount Sheridan (1930) and Mount Holmes (1931) were built as one-room structures, the design of which followed "standard No. 3 plans," with a stone foundation, "a small basement for the storage of water, a few tools, etc.," and a "lightning arrester."[147] Lookout stations at Pelican Cone and Observation Peak were built in 1937 using ECW labor.[148] These bigger lookouts were one-story, one-room "houses" with windows on all sides.

The lookout house at Pelican Cone was started by the ECW workers but finished by the park carpenter "in order to finish it up in good order."[149]

The lookout on Mount Washburn was discussed in 1938, and constructed in 1939. The principal point of discussion was whether to let the public enter the building.[150] Because it was decided that the public would be allowed access, "a more pretentious building was desired." The plan included a building separated into two sections. One section consisted of a three-story tower with separate floors for an observation room (third), living quarters (second), and "a public comfort station of the chemical type" (first). The other section included "a duplicate of the regular fire locating equipment and tools to be used for instructing the public in the science of fire location, and also a small museum."[151] Construction of section one began in the summer of 1939, and was handled by Associate Architect Earhart.[152] The building was "of reinforced concrete with a bush hammer finish on the outside."[153]

Work on improving the comfort stations around the park also continued apace in the 1930s. The Apollinaris Spring development, begun in 1925, was enhanced when a comfort station was added to the area in 1931, and in 1935, when fountains were built for tourists to drink "the best mineral water, readily accessible, in the park." The 25' × 13.5' comfort station had walls of reverse board and batten with "exterior log framing in vertical, diagonal and horizontal patterns." In 1931, as part of its efforts to standardize plans for park buildings, park officials chose this comfort station at Apollinaris Spring as the model or standard for comfort station construction throughout the park.[154] Several comfort stations were also built at West Thumb that year. The stations were built from standard plan No. 3034; each of the one-story rectangular buildings had a concrete foundation wall and an exposed log frame faced on the interior with board-on-board siding. The gable roof was covered with large wooden shingles.[155]

The location of comfort stations became an issue at the beginning of the 1930s, when city planner John Nolen visited the park and subsequently recommended that comfort stations "be made an essential part of all public buildings and included under the main roof" of these buildings. Apparently he had found the situation at Norris and other points unaesthetic. Toll wrote to Vint that Nolen "criticised in a friendly manner the unfortunate appearance of a building to which much attention had been given to architecture, but in which the general effect had been marred by the location of detached comfort stations in the immediate vicinity." Toll concurred and suggested that in the future, each structure built by the NPS or by the Laura Spelman Rockefeller Memorial should include plans for a comfort station under its roof. He sent his recommendation to Herbert Maier, the designer of the Rockefeller museums in the park.[156]

Assistant Landscape Architect McCarter wrote back, insisting that attached comfort stations would not work at areas of "considerable traffic congestion, and especially where traffic requires large comfort stations." He was also concerned that the kind of structures Nolen and Toll were suggesting would make "the museum an addenda [*sic*] to a comfort station." "In combining [the comfort stations] with the museums being built here in the park," he responded, "it would seem to me that the buildings are too small to accommodate both units. If the comfort station is of sufficient size, approximately our standard station, it would put it on a par with the museum itself and the signs should read 'Comfort Station and Museum.'" McCarter advised not including comfort stations in structures like the Fishing Bridge Museum, which was "comparatively small," and where "accommodations [were] conveniently supplied elsewhere."[157]

The acting head of the Division of Landscape Architecture, Thomas Carpenter, raised another comfort station issue in 1931, when he disagreed with the location of a comfort station planned for the Mammoth Automobile Campground. Recalling the disagreement between Superintendent Albright and Landscape Engineer Hull over the placement of ranger stations at Canyon and Old Faithful years earlier, Carpenter wanted the comfort station in a less conspicuous location, but Acting Superintendent Edwards disagreed. "[O]ur opinion," he wrote back, addressing his letter to Thomas Vint, "is that if a desirable looking building is constructed at this place there would be no objection. In other parks suitable log comfort stations are erected in different places with no effort made to conceal them," he reminded Vint and Carpenter, "the idea being that they should be out where everyone can find them."[158]

The built environment of Yellowstone's developed areas changed considerably in the 1930s. As noted above, changes at the Mammoth Hot Springs developed area were not as extensive as the master plan called for, but there were a few. While Mammoth did not receive the new museum for which Clarke and others had planned,

YNP PHOTO ARCHIVES, YELL #30601-4

Mammoth apartment house. 1936.

changes were made to the existing museum building in 1933. All offices were relocated to the north end of the building, and the portion under the offices was excavated and a stairway constructed leading to the newly relocated library. The old office and library were converted to an exhibit area for geology specimens, and the main basement was converted into storage and a workroom. During 1933, the Yellowstone Library and Museum Association was created to assist with donations and developing the library and museum.[159]

Clarke's plan had included a new building for employee housing. This part of his design bore fruit when plans were drawn up for new NPS housing behind the 1911 guardhouse and jail. Adequate employee housing had been both a problem and a priority since the park's creation, and in 1933, Landscape Architect Vint suggested that a cottage group be built east of the utility area at Mammoth. A short time later, however, the discussion between Vint and the park turned toward the construction of a 20-unit apartment house, with Toll suggesting that the four residences on the lower row be removed upon completion of the apartment. Toll also tried to reassure Vint that the apartment did not take the place of a proposed new residential area they had discussed earlier.[160] Before construction began, Acting Superintendent Guy Edwards wrote to Acting Chief Landscape Architect Carnes, arguing that the building be made "as fireproof as possible, considering the limited quantity of water for fire protection at Mammoth and the lack of water pressure, which did not exceed fifty pounds. "With such a limited water supply," he reminded Carnes, "a catastrophy [*sic*] might arise if the building is made only fire resistant."[161]

Construction on the new apartment house began in 1935, and by March 1936, the first government building to be built at Mammoth since the army left in 1918 was completed. William Gebhardt oversaw the construction process, as inspecting architect.[162] The "massive masonry bearing" building had an I-shaped footprint and "elaborate Tudor detailing" embellishing the simple concrete face, ornamenting the oriel windows, and breaking up the "symmetrical fenestration pattern" on the top floor.[163] Although none of these details can be considered rustic, the building's design did fit in with its eclectic, army-era surroundings.

The other two major buildings under construction in the "government" area of Mammoth Hot Springs that year—the new Mammoth Post Office, which was part of Clarke's plan, and a utility building—also tested the rule of rustic design.[164] Both were imposing concrete structures that did harmonize with the existing army-era structures. Gebhardt also oversaw construction of the utility building, which proceeded much more slowly than anticipated. While it was expected that the building would be completed by December 1936, it was not actually finished until May 1937. "While there was a great deal of greif [*sic*] for the Park and the Inspecting Architect on this project," resident landscape architect Sanford Hill wrote, "the final results turned out satisfactorily."[165] Construction on the post office was slowed by financial problems, but was finally completed in October 1937.[166] The building itself has been "cited as the only example of the French Renaissance Moderne Style in Wyoming." It is "a seven-bay, two-story, rectangular, concrete building on a raised basement," with a stucco finish and slate shingles on its steeply pitched hipped roof.[167]

Not part of Clarke's plan for the area, but in the works nevertheless, the Lower Mammoth residence area, with its series of one-story frame houses, was also established between 1937 and 1939. These dwellings, built with CCC labor, were part of a host of residences built over time to house NPS employees and their families.[168]

The Lamar Buffalo Ranch area also experienced change in the 1930s. In 1938, the Soda Butte Snowshoe Cabin/Ranger Station, built in 1930, was relocated to the ranch to be used as the assistant buffalokeeper's residence.[169] A bedroom/bathroom addition, accessible from both the outside and the kitchen, was added soon after relocation, creating an L-shaped plan.[170] Plans were underway at the end of the decade to use the ranch as a utility area for road maintenance as well as a site for bison management. Thus, Superintendent Rogers was "greatly surprised" to learn, in 1939, that the NPS, as part of its wildlife policy, intended to "eliminate the development at the Buffalo Ranch." "New water systems and other improvements are being made with full approval of all branches," Rogers complained in a memorandum to Cammerer, "and as far as we know everyone has agreed that this is the place for a utility area." Rogers suggested that Cammerer in the future refer questions of "wildlife policy as regards Yellowstone . . . to [his] office for an opinion before they [were] given wide publicity."[171] Thus, Cammerer's plans for eliminating the ranch and restoring the "Lamar Valley to primitive conditions" were abandoned in favor of using the site as a utility area (and much later, as an educational area).[172] Around 1940, a snowplow garage (used more recently as a powerhouse and, in 2000, removed altogether from the site) and two fire hose houses were built on the site.[173]

Between 1933 and 1935, the Game Ranch (Stephens Creek area) acquired a new residence/office, barn, garage, and storage sheds. In 1934, a house was relocated to the area and remodeled extensively to replace the existing "tumbled down log structure which provide[d] shelter but scarcely anything more." The "new" house, originally built in 1917 and owned at the time the NPS purchased it (1929) by Ernest A. and Sybil Rife, underwent many changes. It received a new basement and concrete-wall foundation faced with "coursed, cut stone from the old Mammoth Stone quarry," a new addition to replace the "crude" one already attached, wallpaper, and changes to the doors and windows. Park landscape architect Frank Mattson was in charge of the remodeling project but remained skeptical about its success: he believed that the $10,000 project "did not meet the park standards in either construction or appearance."[174]

YNP, PHOTO ARCHIVES, YELL #44323

Fishing Bridge Museum under construction, ca. 1930.

Another area to undergo tremendous change was Fishing Bridge. The museum planned for Fishing Bridge in 1928 as part of the park's trailside museum project was finally constructed in 1930, but not without controversy. The educational staff, notably Dr. Hermon C. Bumpus of the American Association of Museums and assistant landscape architect Kenneth McCarter, favored a location on the lakeshore near the auto camp, while Superintendent Toll and Director Albright argued for a site by the hatchery, or at the very least, on the loop road between the hatchery and the proposed Lake Junction.[175] Toll and Albright felt that the lake location would exclude visitors without their own means of transportation—those staying at the Lake Hotel, for example—or visitors driving the loop road who were willing to stop only once, that stop being at the fish hatchery.[176] Both Toll and Albright agreed, however, that the decision should be Bumpus's—both, in short, were willing to "accept his judgment," and so the museum was built at Bumpus's proposed location off the main road by the lake.[177] When the museum received fewer visitors than other park museums in 1949, Superintendent Edmund Rogers attributed the lower visitation to the museum's location off the main road.[178]

The building itself, the last of the four museums planned and designed by Herbert Maier, perfectly illustrated the NPS's rustic design concept. The one-story, stone and wood-frame structure had an elongated rectangular footprint of a central block with two unequally sized wings. The structure's "uncoursed rubblestone masonry foundation . . . extend[ed] to the window sills," and the frame section above was covered with "wood shingles set in a wave pattern." Wooden shakes covered

the gable roofs, which had large log purlins and rafters with exposed ends and log brackets supporting the central building's overhanging roof.[179] The three rooms, devoted to "Bird Hall" (the central room), "Lake Geology," and "Lake Biology" (the wings), were well-supplied with natural light from multi-light doors and casement windows. According to Albert H. Good's description, the "nature museum" was "well-planned and well-lighted." It was, he wrote, "a successful example of the employment of principles important in the creating of buildings suitable to natural areas—the value of the freehand line, the avoidance of underscale, and the pleasing quality of the furrowed and knotted log."[180]

The museum was completed and opened to the public in 1931. In 1933, Superintendent Toll wrote to McCarter complaining about the native stone steps used to access the museums at Fishing Bridge and Norris. The irregular treads were particularly "unsatisfactory for the use of the considerable number of people that use these museums," he wrote. While he "appreciate[d] . . . that these plans [for the steps] were not drawn up in your office," he asked that the NPS "take advantage of this experience and not use any more native stone for the treads in park buildings."[181]

YNP PHOTO ARCHIVES YELL #4390

Fishing Bridge Museum. 1930.

YNP PHOTO ARCHIVES YELL #4386

Fishing Bridge Museum interior. 1930.

Maier also designed the naturalist's residence located adjacent to the east side of the museum and resembling the museum in many ways. The residence, also one story and of wood-frame construction, had a cement foundation "faced with large-diameter uncoursed rubblestones that slope outward at each exterior corner in a naturalistic organic design." Wooden shingles in a wave pattern covered the frame structure above the stone-faced foundation, and, with every fifth course doubled, they also covered the roofs—both the hip roof of what is probably the original section and the shed roof of what might be the addition. Two factors led architectural experts to believe that the wing was an addition: its "unusual shed roof design and . . . minimal fenestration."[182]

Additions were also made at the Norris and Lake areas. At Norris, two rustic buildings were constructed close to the museum in the first half of the decade: a one-story, log comfort station and a one-story, log bearing barn with a gable roof.[183] At Lake, a rustic comfort station was built. This one-story, one-bay log frame building had walls enclosed with vertical "shiplap" siding and a gable roof with "exposed rafter ends and purlins under the eaves."[184] The ranger station/community room was also altered. Plans were drawn up in 1931, and a north wing was added at a later date to accommodate permanent residents.[185]

Herbert Maier was also involved with the construction of another mainstay of park architecture: the amphitheater. In fact, he elevated the amphitheater to "an architectural form in its own right."[186] Yellowstone was not the first national park to build an amphitheater, however. Already in 1920, Charles Punchard, the NPS's first landscape architect, had recommended use of the design for outdoor amphitheaters in national parks, calling the design "attractive, unique, and comfortable," and a simple one had been built in Yosemite in 1920. Furthermore, well-known landscape architect Frank Waugh had published articles and even a treatise on amphitheaters, *Outdoor Theaters: The Design, Construction, and Use of Open-Air Auditoriums* (1917).[187]

Of the several amphitheaters built in the park during the 1930s, the earliest two were designed by Maier: one at the Old Faithful Museum and one at the museum at Fishing Bridge. Both were built with funds

YNP PHOTO ARCHIVES, YELL #123212

Old Faithful amphitheater. 1933.

provided by the American Association of Museums, and dedicated in the summer of 1932. Maier found and adapted prototypes of his outdoor theater design in the Greek Theater at the University of California–Berkeley (1903), and in architect Myron Hunt's design for Pomona State College in California. His finished products were semicircular, rustic adaptations of the traditional Greek theater: aisles and rows of log seating radiated out from a center stage into a hillside. According to McClelland, "Maier's semicircular designs with their log materials were better suited to the intimate woodland surroundings and use for evening lectures and slide shows than the massive stone and concrete prototypes." Their smaller scale and "naturalistic" style "befitt[ed] [their] forested location." Split logs formed the benches, and "scattered trees within the theater were left in position" to enhance the structure's rusticity.[188]

Not all the details were equally successful at blending in and being unobtrusive, however. Good found the "perching of the housing for the projector on log 'piles' . . . of interest," and the placement of rocks along the path at the Old Faithful amphitheater so "unfortunate . . . as to force their eventual removal, unless Nature hastens to supply some ground cover to obliterate them in considerable degree."[189] In the 1950s, as part of the "improvements" of the Mission 66 project, the half-log seats were replaced with "typical" plank seats on metal legs.[190] The Fishing Bridge amphitheater faced Yellowstone Lake; it had skulls and antlers attached to the projection screen that were later removed.[191]

In 1934, the CCC built two more amphitheaters around campfires: one at Mammoth for 200 people "on the hillside above the camping area," and another, smaller one for 75 persons near the Madison Museum "at a point from which National Park Mountain is visible."[192] By 1935, after another for 125 people was added to West Thumb, five amphitheaters were in use.[193] In 1936, plans were made to build an outdoor theater at the Canyon Campground. These plans did not materialize, however, until September 1937, because the general plan for the Canyon area was being revised, which meant that the naturalist program—or "campfire lecture," as it was called—at Canyon was held in the community room of the ranger station.[194] With all ranger-naturalist programs moved out of any operator's or concessioner's building, such as lodges and hotels, the NPS could rest assured knowing, as Superintendent Toll put it, that visitors finally had a clear choice regarding the quality of their instruction in the park. "We believe this to be an improvement," he wrote in his annual report for 1935, "as the visitors now have a choice as to whether they will attend the naturalist program around the campfire or a 'savage' program in a lodge."[195]

Amphitheaters were just one result of the relationship between landscape architecture and educational programming, which bore fruit in the naturalistic

design and landscaping of numerous other elements of Yellowstone's cultural environment. These included the system of nature trails, observation platforms, and roadside exhibits—alternatively called markers, kiosks, or nature shrines—integrated into the park's landscape.[196] Rustic outdoor settings were created for each of these elements of Yellowstone's interpretive program. While other national parks were also busy with such interpretive developments, Yellowstone's program, according to McClelland, "led the service in integrating these features into the design and operation of museums throughout the park." The landscapes thus created "drew heavily from the traditions of rustic architecture and naturalistic gardening."[197]

One example of how advances in landscape crafting and engineering guided the construction of an educational project was the nature trail across Norris Geyser Basin. In the summer of 1936, landscape architects and park officials followed the 1933 master plan for the area and devised a circular, naturalistic footpath in keeping with McCarter's 1929 recommendations for the trail at Old Faithful. The three stages of construction at Norris were "the installation of parallel rows of log curbing, the building of a boardwalk of planks supported on two-by-fours, and a final surfacing with concrete and gravel that blended with the natural coloration of the basin."[198] Work on the trail system at Canyon also emphasized the use of natural elements and followed the master plan. When, in 1936, park officials had to repair snow and ice damage to the Upper Falls lookout at the Grand Canyon of the Yellowstone, CCC workers rebuilt the stairway and constructed a new overlook "in the form of a terrace that featured a naturalistic rock guardrail and was accessible by a sturdy log stairway and a log bridge."[199]

Another mainstay of park educational architecture was the nature shrine (today known as a "wayside exhibit"). The park's first shrine was planned and built at Obsidian Cliff in 1931. In *Park and Recreation Structures*, Albert Good distinguished between signs and markers, or shrines as he called them, on the basis of their purpose and intent: "Signs function to direct, regulate, or caution," he wrote, "whereas the marker and its close cousin, the shrine or graphic guide, serve simply to further the public's understanding and enjoyment of the cultural aspects of a park."[200]

Shrines, according to Good, were the perfect educational device for several reasons. First, "[s]hrines or graphic guides are devices of bringing exposition to the very scene of an historic event or natural phenomenon,

YNP PHOTO ARCHIVES, YELL #41214

Norris boardwalk. 1936.

or to the natural abode of a faunal or floral species," he wrote. Second, "[t]hey are designed to 'answer questions.' The interpretive material displayed may be in the nature of specimens, photographs, charts, maps, and such other information matter, supplemented by legends and detailed explanation. . . . They can make possible a broader understanding of an area than endless tramping over the actual ground could give." Third, and most importantly, shrines provided education on the visitor's own terms. "Since guide and shrine devices are unattended," Good noted, "they are that perfect guide service—the park naturalist or historian par excellence—which, if found dull, may be 'walked out on' without reason to feel the pin prick of conscious rudeness." The shrines' inanimate nature necessitated an animated and to-the-point presentation of the material being delivered, however. "Being thus disadvantaged through their inability to frown at a yawning spectator or physically to force him to remain attentive until the last bitter fact is told," Good advised, "these inanimate guide facilities should be accorded by their devisers all the benefits of interesting presentation and clear, concise exposition. As interpretive media they are in theory and in fact truly transitional between the marker and the museum. They are at once glorified marker and museum in embryo."[201]

Yellowstone's first nature shrine, built in 1933, explained the natural formation of Obsidian Cliff.[202] Carl Russell, the park naturalist and museum exhibit expert Albright had recruited to plan and organize exhibits at the park's new trailside museums, had the idea for the shrine; Herbert Maier designed the actual structure. Maier's design, according to McClelland, perfectly "illustrated the converging principles of rustic architectural design and landscape naturalization."[203] Measuring 6' × 16', the shrine had walls "constructed of clusters of basaltic columns that had been carefully selected from a

YNP PHOTO ARCHIVES YELL #12214

Wayside exhibit near Obsidian Cliff. 1933.

nearby formation and moved to the site." The structure was open-sided, with glass covering the exhibit panels and a "wood-shingled overhanging roof . . . carried on exposed log purlins." The whole area was made more attractive with flagstone paving inside a curb of basaltic blocks and native plants.[204]

According to Good, this "open air museum-in-miniature" was significant because it employed in its construction the materials it was designed to interpret. He also admired its design. "The novel motif," he concluded, "is altogether amiable largely because it has been employed with logic and restraint."[205] The shrine has since been modified. The original exhibit case was removed and replaced with "two modern interpretive panels mounted on metal posts," and a low stone wall was built between the two stone piers to support these modern panels.[206]

The nature shrine at Obsidian Cliff was the first of several interpretive kiosks located along Yellowstone's Grand Loop Road. In 1933, Carl Russell and Herbert Maier also designed shrines at Tuff Cliff, Firehole Canyon, and Rhyotravertine Gulch (in the area of the Mammoth Hoodoos and Bunsen Peak). Other kiosks were constructed during the early 1930s at Swan Lake Flat, Beaver Dams, and Nymph Lake, but none remain.[207] Still others were built to resemble Maier's design, for example the Natural Bridge sign and kiosk. Like all the kiosks built during this period, the Natural Bridge kiosk consisted of two vertical logs supporting a sign case and a protective roof covered with hand-split shakes. The whole structure rested on a mortared stone foundation.[208] Good's catalogue included a photograph of a visitor standing beside such a kiosk; his description was of a "typical shrine," with "rustic, hooded frames housing glass-fronted cases to display specimens, illustrations, and printed matter pertaining to a natural phenomenon at hand."[209]

It is important to note that the appearance of the nature shrines coincided with, and was in fact an outgrowth of the rise of auto tourism in Yellowstone. The 1920s had seen an explosion of the number of motorists touring the park, and the trend continued through the 1930s. Waysides with interpretive shelters and exhibits were but one response to this trend. It was just a matter of time before other educational programs were developed to meet the needs of auto tourism.

Changes in the Educational Programming

In 1930, park managers added a publication, *Trailside Notes for the Motorist and Hiker,* and the guided auto caravan tour to the list of educational services offered in the park. Introduced on an experimental basis in 1929, *Trailside Notes* was designed to help motorists obtain reliable information about the park and to sustain their interest in park features while behind the wheel. "Stop the car and look back," read one instruction to motorists. "Go slow but do not park at the blazed post, and take in the wonderful view of Jupiter Terrace," read another.[210] The publication was a tremendous success. One visitor from Galesburg, Kansas, opined that the *Trailside Notes* should be available at each park entrance, because "[t]ourists miss much that is of interest, that would be supplied in further descriptive notes."[211] Subsequent editions were indeed filled with many more details. By 1939, two volumes existed that interpreted the biology, history, and primarily the geology of the landscape through which visitors drove on the road from Mammoth to Old Faithful, through Norris, and back again through Canyon and Tower Fall.

Auto caravans gave "the moving crowd" and those with "an aversion to long hikes" an opportunity to experience a ranger-led excursion.[212] They consisted of a lead car with a ranger naturalist inside and a string of cars following. The ranger would stop at points of interest and use a megaphone to "carry his message to those in the waiting cars."[213] Ranger-naturalist Edward Jones recognized the need for such a service in his 1929 report on educational activities: "The desire of the average Park visitor to see as much as possible from his own car must

YNP PHOTO ARCHIVES YELL #32689

Auto caravan on Mammoth Terraces. 1937.

be recognized and provided for," he wrote, adding that the "increased number reached would definitely repay extra expense."[214] Bumpus also commented on the need for auto caravans, noting that "Autominded parties are not given to hiking."[215]

The first auto caravan took place in the Mammoth area, and featured the buffalo show corral and the hot springs. It was such a success that regularly scheduled caravans were also conducted at Old Faithful, Tower, and Canyon the next year. Success, however, brought its own set of problems. The tours often became unwieldy—one Old Faithful tour reportedly included over 300 cars and 800 visitors—and concessioners complained that they were drawing potential customers away from their own tours.[216] To rectify the latter problem, the NPS allowed the transportation concessioner's buses to join the caravans at Mammoth.[217]

By the 1930s, the park's fish hatchery activities were proving so popular that a uniformed guide was stationed at the Lake Hatchery to explain the process to visitors. During 1931, more than 24,500 tourists heard this presentation. Furthermore, a ranger for fishery activities was hired in 1931, something Fred J. Foster, district supervisor of the Bureau of Fisheries, had recommended the year before. Fishing was also gaining in popularity, which made Foster worry that without increased hatchery operations, the park's waters might become less productive. In 1931, he announced plans to construct additional fish-rearing ponds at Old Faithful.[218]

That year, another of the park's interpretive programs developed a more formalized format and venue, as the practice of feeding bears for tourist enjoyment was built into the landscape. For a host of reasons, park officials moved the bear feeding site at Canyon from behind the hotel to a more distant location on Otter Creek.[219] Superintendent Toll reported that this move "involved the construction of three-quarters of a mile of road, installation of rustic seats for spectators, and the construction of a concrete feeding platform with the necessary water and sewerage facilities."[220] This development marked the beginning of the bear shows at Otter Creek and the continuation of the uneasy relationship between managing wildlife for their survival and attracting them for the enjoyment of park visitors.

The Otter Creek feeding station, along with its access road and parking lot, were constructed in 1930–1931. The feeding platform, made of reinforced concrete and measuring 18' × 40', had a source of rinsing water at one end and a drain and cesspool at the other so it could be flushed and cleaned regularly.[221] A "small reinforced concrete dam" impounded the water of several small springs about 450 feet up the canyon from the feeding ground so it could be used for cleaning the platform. There was also a protective, eight-foot barrier of timber cut into the slope and hidden from view to "present an unbroken slope to the spectators" which, along with a wire fence added around 1933, protected the spectators from the possibility of attack.[222] Toll had recommended the retaining wall as a way to both protect and please the crowd. As he put it in a letter to McCarter, "If a retaining wall, which could act as a barricade, is constructed, it might be possible to gradually bring the feeding platform closer to the observation platform, which would of course add to its interest."[223]

While park officials were utilizing bears as a tourist attraction both at the feeding grounds and in the form of roadside feeding, which was rampant by this time, they were also encouraging habits that were bad for both bears and people. Teaching bears to associate people with food rewards turned the animals into a source of both entertainment and trouble, and by the 1930s, bears had become a source of serious consternation to the NPS. In 1932, Toll wrote of the problems in his annual report: "Bears were numerous everywhere and were really the main source of grief to the park administration and campers," he lamented. Without irony, Toll claimed that the bears had become "exceeding[ly] bold, particularly around the campgrounds and housekeeping cabin areas, doing considerable damage to cars and property belonging to visitors and park operators." The situation was dire enough—the number of complaints had reached record proportions and there was "some loss in travel" (i.e., income), due to "the undesirable publicity which the park received from newspapers and visitors"—that

YNP, PHOTO ARCHIVES, YELL #27353-7

Bear feeding grounds at Otter Creek. 1936.

Director Albright gave his permission for the "disposal of surplus bears, both black and grizzly."[224]

At this point, NPS officials appeared to believe that once the few problem bears were disposed of, the problem would be solved. As noted above, it is difficult to detect in the official record any awareness of the irony of the situation. "Measures taken last year to dispose of the worst trouble makers have had their effect," Toll wrote in 1933, "and fewer complaints and damages resulted this year." At the same time, Toll wrote in glowing terms that the numerous mother bears and cubs "seen daily around the Canyon feeding ground . . . presented one of the finest wild animal shows to be found anywhere." Striking the right balance was believed to be crucial: too many bears posed a problem, but more bears were definitely better. The fact that there were fewer bears at the Old Faithful "Lunch Counter for Bears" than at Canyon mattered enough to park officials to warrant mentioning in Toll's 1933 annual report.[225] Toll referred to the bear shows in 1935 as "splendid and spectacular," and was pleased to report that "[e]ach year more bear are reported at the feeding ground at Canyon." He reported that the "high count" for one night in 1935 was 48, as compared to the previous "high count" of 38.[226]

Bear shows were so popular that toward the end of the summer of 1934, plans for a new bear feeding ground were underway. An earlier suggestion of constructing one off the Black Sand Basin Road was overruled in favor of a new "bear feeding amphitheater" on the Firehole River, southeast of Old Faithful at the location of the old feeding grounds from the early 1910s, then called "Bears' Playground."[227] Further discussions led to the opinion that to relieve congestion at Old Faithful, perhaps the new bear feeding grounds should be closer to Lake instead.[228]

Before these plans could go any further, however, two grizzly maulings occurred: a visitor was injured while hiking around the Canyon area, and an employee was hurt at a picnic site.[229] These encounters made the NPS nervous enough to close the Old Faithful feeding grounds and put any new feeding areas on hold. According to the new superintendent, Edmund Rogers, this was done because the Old Faithful feeding ground, which was closer to a developed area than the one at Otter Creek, "enticed grizzly bears into the crowded utility area, which . . . was considered . . . hazardous because of the nature of this species of bears." Park officials also killed four grizzlies that year and shipped another four to zoos. In the same report, Rogers wrote that the feeding ground at Canyon was "very popular," and that as many as 67 grizzlies were seen there on one night.[230]

By 1937, the bear feeding ground at Otter Creek was the only one operating in the park; consequently, it was very busy. Rogers reported that the area's large parking lot had proven "entirely inadequate to accommodate the 500 to 600 automobiles in which visitors travel to see the bear show."[231] He also noted that the amphitheater was packed with people. "During the year it was not uncommon," he wrote, "for 1,200 to 1,500 persons to be seated in this amphitheater at one time."[232]

There is no doubt that there was a contradiction between trying to attract bears and simultaneously keep them at a safe distance. Encounters between humans and bears continued; several grizzly bears were trapped and removed from campgrounds, and ten were killed in 1937. Black bears, habitually fed by tourists at the

park's roadsides, were the source of the vast majority of bear–human conflicts, however. Human injuries from black bears averaged 46 per year from 1931–1969, with 115 reported in 1937 alone. That same year, 41 black bears were killed as a result.[233] NPS personnel developed an excuse as to why these encounters were occurring: tourists were not following precautionary guidelines for appropriate behavior around bears. "In practically all cases [of dangerous encounters with bears resulting in injuries]," wrote Rogers, "the injured persons have been feeding bears *or have failed to take due precautions when in the vicinity of where bears are being fed or photographed*."[234] In other words, it was ostensibly acceptable for the park to provide visitors with opportunities to watch and photograph bears feeding on human food in designated areas, and for visitors and bears to interact to a certain degree, so long as people abided by strict behavioral guidelines.

Another development in 1937 was that bear feeding was moved from the Protection Department to the Naturalist Department (formerly the Education Department).[235] With this move, the bear shows became an official part of the park's educational program. Thus, when the Naturalist Department gave lectures on the natural history of the black and grizzly bears at the feeding ground, they were understood to be "a blending of the recreational, intellectual, and spiritual."[236] Long a popular attraction under the Protection Department, the lecture/bear show, in which a naturalist described "the life and habits of bears as they have been observed in Yellowstone," continued to be "[o]ne of the most popular lectures" given in the park.[237] Due to the popularity of the attraction, park naturalists gave "two lectures each evening [at the feeding ground] . . . so as to accommodate a larger group of people."[238] At the rate of two lectures per evening, assuming that many people didn't choose to sit through both lectures, as many as 3,000 people may have seen the Otter Creek bear show on any given night during the summer season.

The bear shows' days were numbered, however. Several factors converged to put an end to orchestrated bear feeding practices and to close the Otter Creek feeding ground after U.S. entry into World War II. One obvious factor was the increased danger humans and bears faced because of this unnatural arrangement. By the end of the decade, there were clear indications that the Protection Department and the park administration were becoming alarmed by the number of grizzly bears at the feeding ground. In 1938, Rogers wrote that the amount of food on the platform at Otter Creek was being reduced "in order to overcome the heavy concentration of bears in one area." "To the end of the fiscal year, about 20 grizzlies were in the area," he wrote in his annual report, "and we hope to maintain this number and avoid the heavy concentration which presents a real hazard to park visitors."[239]

Tied to this change in park policy was the increased influence of ecological thinking in some sectors of the NPS.[240] In 1929, George Melendez Wright, who had first joined the NPS in 1927, working as assistant park naturalist at Yosemite National Park under then-naturalist Carl P. Russell, proposed to Director Albright that a wildlife survey program be established for the National Park Service, to be funded personally by him until the program's value could be demonstrated.[241] Wright was joined in his proposal by biologist Joseph Dixon and naturalist Ansel Hall. Albright agreed, and the agency's Wild Life Survey was formed. Wright served as chief of the survey, which became the Wildlife Division in 1933, after Congress (instead of Wright) started funding the group's work. The survey was based out of Berkeley, California, in association with the NPS's Education Division (then under the direction of Hall). Wright was joined by fellow biologists Joseph Dixon and Ben H. Thompson, as well as secretary Mrs. George Pease.[242]

Dixon, Wright, and Thompson published the results of their work in a series entitled *Fauna of the National Parks of the United States,* with an aim toward "the preservation of the native values of wilderness life" in the national parks. In each park, an effort was made to determine original and current wildlife conditions, to identify causes of adverse changes, and to recommend actions that would restore park wildlife to its original status. The authors acknowledged that "the parks' faunas have been extremely sensitive to the influences of civilization," and their goal was thus to document the "conclusions of a general investigation of the vertebrate life of the national parks with emphasis on these human relationships."[243] They proposed "a program of complete investigation, to be followed by appropriate administrative action."[244]

Fauna No. 1 identified eight negative repercussions of the bear feeding shows in Yellowstone: the spread of diseases or parasites encouraged by unnatural concentration of animals; the possibility that the garbage itself could introduce parasites to the bears; the possibility that feeding on unnatural foods could negatively affect bear physiology over time; the possibility that the

uneven distribution of food could have deleterious effects on bear physiology (garbage being plentiful at the height of the summer, but scarce in the fall, during hyperphagia, when bears need the most food just prior to hibernation); the unnatural advantage enjoyed by older bears in competition for food; the absence of bears from their natural niches during summer; habituation as bears lost their fear of humans and taught their cubs the same; and finally, a public relations problem. Due to the constant, vicious scuffles that took place as bears fought over garbage, "[b]ears appear at their worst on the garbage platform," wrote the authors, "so that their characters, in the minds of the visitors, suffer as well as does very probably their physical well-being from this manner of presentation."[245]

Wright et al. acknowledged the positive effects of the shows in fostering an appreciation for the wonders that the national parks had to offer, but averred that since the parks' popularity was now securely established, it was time "to modify the old practices in the interests of the welfare of both people and bears." Stating that the problem was worthy of further study, they recommended that in the meantime, it might be feasible to reduce the amount of food provided, and improve its content. Knowing fully that park managers would be reluctant to discontinue the wildly popular shows, they proposed that "[p]erhaps a natural bear food, such as honey, could be used to attract bears to certain places so that the visitor limited to a very short stay in the park could be assured of at least one good view of a bear." Nudging the NPS toward the preservation and education of wilderness-like values, and warning the agency about the possibility of visitor "burn-out" relative to bear watching, the authors advised, "[t]he sight of one bear under natural conditions is more stimulating than close association with dozens of bears. Even now one hears more accounts of encounters with an individual bear than of the bear show."[246]

Thus, NPS biologists tried to strike a balance between the conservation and enjoyment of the park's resources, with the goal of calculating a policy to "secure the best values to the visitor from park wildlife" while "avoid[ing] destruction of the primitive status of that wildlife."[247] "[W]herever any animal has been garbage-fed, hand-fed, petted, and tamed, the results have been detrimental both to the animal and to man in the park," they argued in 1934. "If we do not present park animals wild and in their natural background," they continued, "we do not present a wildlife picture of national parks[']significance."[248] In addition to advocating more natural conditions for the park's bears, Thompson's and Wright's greatest contribution to human/bear safety concerns may have been their recommendation to use bear-proof food storage and garbage containers in the campgrounds.[249]

They maintained concern for tourist enjoyment, however, and so they wrote that birds and mammals that frequented the park's roadsides were "of relatively greater value because they are the ones which are most apt to be seen." Because roadside cleanup efforts removed cover and debris used by wildlife, they advocated keeping such efforts to "the absolute minimum," citing existing agency orders to preserve wildlife values even while in the course of emergency conservation programs. Essentially, they called for a three-pronged approach to improving the tourist–wildlife interface: first, "permitting" the wilderness to "come up as close as possible to human concentration areas;" second, not "pauperizing" or taming park animals; and, third, exercising "ingenuity . . . to introduce visitors to the animals' environments without their presence having adverse effects."[250]

Another wildlife show—this one at the Antelope Creek buffalo corral—was also modified to reflect the idea of naturalizing wildlife exhibits, thereby assuring that visitors would see wild animals while keeping conditions somewhat natural. In 1934, the NPS built a 4-acre show corral and a 300-acre pasture as a way to keep bison in place long enough for visitors to catch a glimpse of the creatures. By the end of the decade, park officials found a way to reduce the staged quality of the corral concept. The 1939 master plan proposed doing away with the show corral, which was easily recognized as unnatural, "and develop[ing] a buffalo show similar to [the] moose show on Mammoth to Norris Junction road" by keeping only the 300-acre pasture. This larger enclosure would be harder to notice and thus would more closely resemble natural conditions.[251]

Other efforts to reduce the influence of unnatural conditions in the park were underway in the 1930s. In April 1930, Director Albright issued a memorandum to all parks regarding the planting of exotic seeds and plants. The new policy prohibited the introduction of foreign animals or plants in the parks "where they will not be under control." While supporting the intent of the policy, Toll argued for allowing Yellowstone's employees to have individual gardens with vegetables and flowers. For support, he cited nationally known landscape architect Grosvenor Atterbury's suggestion that vines be grown on the buildings at Fort Yellowstone. Toll feared that if employees were not allowed individual gardens,

they would see this new policy as simply "one more regulation." Furthermore, he felt that "the objective served was theoretical rather than practical." "All buildings are artificial," he wrote, "and I see no objection to having domestic vines and plants in their immediate vicinity."[252] In November 1934, predator control policies came to an end.

While the NPS sought ways to reduce the impact of humans on the park, agency officials still held fast to several practices that would be deemed inappropriate in later decades. Park personnel still fought forest fires aggressively, controlled insect and blister rust infestations, took measures to generally decrease the number of insects around the park, and allowed domestic vines and plants at Mammoth.

Conclusion

While the decade of the 1930s was a period of change for Yellowstone National Park—park officials introduced master plans, standardized building designs, camping policies, and educational programs, for example—it was also a period of continuation and entrenchment. The park remained a protected area and actually grew in acreage in the face of economic catastrophe, and it remained a favorite haunt of tourists in search of their rustic roots. In fact, for countless Americans facing economic hardship, Yellowstone became a refuge in rusticity, a place where they could soothe the impacts of economic difficulties by experiencing America's wild lands.