



Chapter Three

Ironic Golden Years

1930 - 1941

The 1930s at Grand Canyon National Park witnessed a seamless progression of building programs begun in the mid-1920s. The two decades were linked as well by persistence with earlier efforts to enhance visitors' experiences and protect the landscape through educational programs, boundary extensions, and the elimination of private and state inholdings. The continuity seems odd at first glance, as it accompanied the deepest economic depression the nation has yet endured. This cyclical malady of world capitalism might have resulted in reduced federal spending, a return to traditional extraction of resources, or a nonstructural approach to park management. Instead, it triggered federal subsidies in the form of emergency building funds and a ready supply of desperate low-wage laborers. Under Miner Tillotson, one of the better park superintendents by NPS standards, a mature administration took full and efficient advantage of national economic woes to complete structural improvements that, given World War II and subsequent financial scrimping, might never have been built. In contrast to the misery of national unemployment, homelessness, dust bowls, and bread lines, financial circumstances combined with a visitational respite to produce a few golden years at many of the West's national parks, including Grand Canyon.

From an administrative perspective, staffing and base funding remained at late-1920s levels through 1932, as if there had been no stock market crash and deepening financial collapse. Permanent employees in 1930 consisted of the superintendent, an assistant superintendent, chief ranger, assistant chief ranger, six rangers, two permanent naturalists, and half a dozen clerks.¹ Tillotson hired eleven seasonal rangers and naturalists, as well as day-wage laborers as various projects required. By 1933, at the depression's depths and immediately before the onset of New Deal programs, permanent staff numbered between forty-two and forty-four, a slight increase over 1930, consisting of the superintendent, assistant superintendent, chief ranger, two assistant chief rangers, and six rangers among the "protection" ranks, two naturalists, a clerical staff of six, and sixteen workers within the engineering department.² While visitation declined each year from 184,000 in 1929 to 105,000 in 1933, easing administrative demands, base appropriations remained at late 1920s amounts, ranging from \$145,000 to

\$172,000 annually. Normal road and trail funds diminished, causing several new projects to be delayed, but deficits were offset by modest emergency funds of the Hoover Administration that allowed those projects already in progress to continue unabated.³

The park fared even better after mid-1933, as work-relief and emergency funding programs of the Roosevelt Administration supplied all the workers that managers could reasonably employ and all the money they could spend for the remainder of the decade. Tillotson wrote in 1933 that

from a purely mercenary point of view the park [will] gain more in the form of physical improvements by the National Recovery Act than would have transpired for a number of years—in some instances not at all—under a normal trend of park affairs.⁴

His insight proved correct. While NPS base appropriations servicewide rose from \$10.8 million in 1933 to \$27 million in 1939, Congress injected another \$218 million during the same years into emergency relief projects within the parks and monuments. Of the handful of work-relief agencies created to spend this money, the Public Works Administration (PWA) and Civilian Conservation Corps (CCC) figured most prominently at Grand Canyon.⁵



Figure 13. Park rangers R. Redburn and George Collins in front of the new administration building (today's ranger operations), September 1931. Collins was an avid capable photographer who recorded many of the construction projects taking place in the early 1930s. GRCA 64.

Administrators considered PWA workers, who labored for private contractors on dozens of projects like the East Approach Road and West Rim Drive, to be bonuses since they did not require park service management. The quasi-military CCC, on the other hand, relied on NPS managers to select camp sites within the park, supply equipment and transportation, assign rangers, engineers, and landscape architects for technical planning and supervision, and perform associated clerical duties in order to benefit from the workers and funds.⁶ The first two contingents arrived on 29 May 1933, when Company 819 under command of Capt. L.C. Dill settled in at a former contractor's camp near Avenue A (Apache Street), and Company 818 under Capt. W.O. Poindexter occupied the former Cape Royal Road construction camp at Neal Spring. From mid-1933 until the last enlistee left in mid-1942, six permanent camps labeled NP-A-1 through NP-A-6 were established at Grand Canyon National Park. On any given day for nearly a decade, two to three companies numbering 400-600 young men sallied forth from these camps to undertake construction, maintenance, conservation, and educational projects of every sort other than management and major road construction.⁷

The park's concessioners fared worse than their administrative partners in light of customer downturns and an understandable trend among visitors to economize. Smaller operators offering low-cost goods and services with minimal investments lost volume but remained slightly profitable. However, with rail travel down 30 percent in 1931, the Fred Harvey Company posted "big losses" that

only got bigger in 1932 and 1933. Capital outlays by the Utah Parks Company in 1927-30 that had been gambled on the immediate promise of North Rim tourism could not have been made at a worse time. The \$500,000 loss of the Grand Canyon Lodge to fire in September 1932 only sharpened their financial problems. Recognizing the importance of their private partners, administrators responded quickly by acceding to the postponement or cancellation of planned capital investments and taking a more flexible posture concerning rates, the extent of services, and hours of operation.⁸

Beyond immediate assistance, the nation's comptroller general ruled in April 1932 that the NPS could renegotiate concession agreements before their expiration. At Grand Canyon, administrators chose to relieve financial burdens of the Fred Harvey Company by executing a new twenty-year contract, effective January 1933, that required payment of 22.5 percent of *profits* after allowing 6 percent for capital investment. Contractually, nothing could be done for the Utah Parks Company whose agreement already stipulated a franchise fee based on profits and included the capital investment clause. Still, the company's 1928 pact allowed losses to be carried forward, and the difficult depression years ensured that it would never pay franchise fees. Verkamp's store remained profitable through the 1930s and began to pay a percentage of earnings when John Verkamp signed his first ten-year contract in January 1936. Emery Kolb, who appeared unaffected by the depression, continued to pay 4 percent of gross receipts for the remainder of the decade. Babbitt Brothers Trading Company wrote letters to NPS managers and Arizona's congressmen complaining of financial hardship in hopes of securing a new contract based on profitability, but could convince no one to renegotiate since their income statements remained in the black.⁹



Figure 14. Uniformed personnel, ca. 1934. Left to right, top: Dale S. King, Arthur L. Brown, Joseph Bryan, Ranger Lund, Elliot Betts, Ranger Sturgill. Middle: Louis Schelksh, James P. Brooks, Miner R. Tillotson, Edwin D. McKee, Perry Brown. Bottom: Ranger Hawkins, Russell Gaier, Ranger Dishar, Hubert R. Lauzon, Albert Turner. GRCA 1077.

Concessioners' financial difficulties and plummeting visitation played decisive roles in arresting early plans to decentralize Grand Canyon's facilities and services. In 1930 park managers agreed to a five-year, \$3.5 million Santa Fe Railroad building program that would have replaced the El Tovar and Bright Angel Hotels with a grand hotel in the

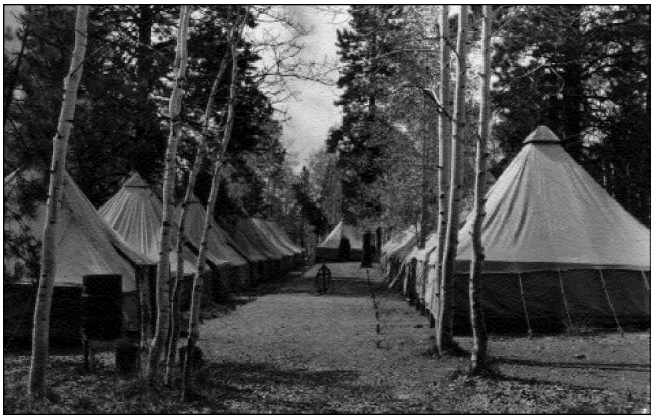


Figure 15. October 1936 view of the North Rim camp for Civilian Conservation Corps Company 818, while worked on road, trail, and landscape projects at the rim during summers and on the Colorado River, Clear Creek, and North Kaibab Trails, and at Phantom Ranch during winters, 1933-38. GRCA 294.

same location and added a “subsidiary” hotel at Desert View, a “development” within Havasu Canyon, and lesser facilities at Bass Camp. At the same time, the Utah Parks Company seriously considered a hotel complex at Cape Royal similar to their Grand Canyon Lodge. These remote

overnight facilities would have required more roads than already scheduled and ancillary developments that may have approached the dimensions of Grand Canyon Village. Worsening financial conditions derailed these intentions. The park service had the money, manpower, and willingness to proceed, but given the already entrenched NPS-concession relationship, it made little sense if their partners could not follow up with tourist services.¹⁰

The Great Depression ended immediate thoughts of decentralization but by no means inhibited structural enhancements within the central corridor. The Utah Parks Company continued to improve the state-of-the-art water and power system it had built on the North Rim in 1927-29. Given fewer than 10,000 annual North Rim visitors in those years, this half-million-dollar project represented a remarkable investment. The system, which still satisfies water and power needs at Bright Angel Point, tapped the plentiful flow of Roaring Springs to power water through a 3.5 inch pipe nearly 4,000 vertical feet to a 50,000-gallon water tank at the rim. The hydroelectric plant built beside Bright Angel



Figure 16. Aerial view of the South Rim, facing east, 1932. Kolb Studio is at center left, the Brown Building and Bright Angel Hotel tent cabins at center top and the post office (former Cannon Hotel) in the center. This photograph was taken three years before demolition of the Bright Angel Hotel and tent cabins, construction of the Bright Angel Lodge and wood-frame cabins, and reconstruction of the Hermit Rim Road. The power house laundry building, and wastewater settling ponds are visible at upper right. GRCA 9543; Fred Harvey Company photo

Creek included two 100-horsepower turbines that delivered three-phase, sixty-cycle current at 2,300 volts three quarters of a mile up to the pump house below the springs. Here it was stepped up to 4,000 volts for transmission, then stepped down to 220 and 110 volts for administrative and concessioner use. Construction required a 10,000-foot-long temporary tramway to supply materials and machinery to the base of Roaring Springs, and a 4,000-foot-long, redwood-stave penstock down to the power plant.¹¹

The Utah Parks Company’s effort probably inspired the Santa Fe Railroad to get on with a resolution to the more serious water problem at Grand Canyon Village.

Appropriating the ample springs at Indian Garden for rim-side use had been considered since 1920, but the railroad thought it economically unfeasible until alarming trends in water consumption and experience gained from the Roaring Springs system prompted construction to begin in 1930. Completed in August 1932, the new system consisted of a pumping plant with two sets of two turbine pumps, together capable of delivering eighty-five gallons per minute (gpm) from a 70,000-gallon concrete reservoir through 12,000 feet of six-inch pipe against a static head of 3,300 vertical feet. Some of its more sophisticated features included remote operation from the village power plant, auxiliary pumps at lower springs that fed the upstream reservoir, a photoelectric cell that automatically diverted silty water before reaching the pumps, thermostats that warned plant operators to start idle pumps to keep pipes from freezing, water softeners, and chlorinators. Despite conservation measures, consumption during the 1930s required the Santa Fe Railroad to upgrade the pump house to one set of eighty-gpm and two sets of 160-gpm pumps. The improved system delivered water to rimside tanks totaling one million gallons, eliminated the steady stream of water trains, and reduced rates from \$3.09 to \$1.66 per 1,000 gallons.¹²

Aside from water and hydroelectric projects, concessioners expanded, improved, and maintained other utilities and services to meet demands of visitors whose number increased each year from 147,000 in 1934 to 437,000 in 1941. At Grand Canyon Village, the Santa Fe Railroad bore the expense of producing, metering, and delivering electricity; pumping, distributing, and metering fresh water; improving the reclamation system as well as treating, metering, and distributing reclaimed water; extending and maintaining sewer and fire-suppression lines; and building homes for its key personnel within the residential area west of Center Road. It also spent tens of thousands of dollars on seasonal employee quarters, including men's and women's dormitories in 1937 and 1938, respectively, and nearly one million dollars in capital improvements during 1930-41 on utilities alone, excluding labor costs.¹³ At the North Rim, the Utah Parks Company built a 3,600-square-foot building in 1933 atop the ashes of the original lodge to function as a temporarily business office, post office, curio store, and entertainment center. They also built more cabins and by 1935 had finished a motor lodge with housekeeping cabins and cafeteria (named the Grand Canyon Inn) beside the NPS campground, an "industrial" complex consisting of a service station, garage, and utility buildings, and an employee dormitory. They opened the new Grand Canyon Lodge in July 1937 and fifteen-bedroom men's and women's dormitories in November of the same year. Aside from these investments, the Utah Parks Company extended water, sewer, and electrical lines to its developed areas and supplied most utilities to NPS administrative buildings free of charge.¹⁴

Superintendent Tillotson characterized the year 1931 as the "biggest building construction program in the history of the park," alluding to concessioner investments but also to the number of NPS structures built or begun in that year. He could well have made the same claim in succeeding years as emergency resources poured into the park and efforts were efficiently guided by the administration's first all-inclusive master plans. Prompted by the depression's onset and the Employment Stabilization Act, Horace Albright had ordered superintendents to develop six-year plans encompassing parks' "entire development scheme" to include road and trail systems, general layouts of all tourist, parking, and administrative areas, utility plans, relocation and rearrangement of buildings, and other aspects of construction.¹⁵ Grand Canyon's plan, begun in 1930 and revised periodically as money and manpower arrived, retained the 1924 village blueprint as an integral component. With completion of the new administration building in 1929, NPS laborers renovated the earlier (1921) office into a larger superintendent's residence and museum of natural history. The park's first hospital was completed in early 1931 and a ten-year contract let to Dr. B.G. Carson.¹⁶ In 1935 the Del

E. Webb Construction Company finished a new post office and postal quarters and CCC crews built a new community building. In 1939 CCC and PWA workmen completed a three-room school with an auditorium southeast of the Fred Harvey Garage. Other NPS buildings erected within the village during the 1930s included several dozen laborers' cabins and permanent-personnel bungalows in the residential area east of Center Road, a gasoline station and oil house beside the central warehouse, and a few minor utility structures.¹⁷



Figure 17. Twenty 10,000-gallon tankers deliver water from the Chinle Valley to South Rim storage tanks, 1961. The Santa Fe supplied water in this manner from 1901 until the late 1960s—daily until 1932 and as needed thereafter. GRCA 3605.

Administrators continued limited development outside the village as they had since 1925, finishing natural history exhibits at Yavapai Point in 1928-30 and the MacCurdy Wayside Museum of Archeology at Tusayan Ruin in 1932.¹⁸ CCC recruits cleaned up the tiny community called Supai Camp west of Rowe Well Road in 1935 and 1939, demolishing shacks and building fourteen- by twenty-foot, two-room cabins to house Havasupais with regular village jobs. Caretakers' cabins and utility buildings sprouted annually at Indian Garden and at the mouth of Bright Angel Creek. NPS laborers strung a cable across the river at the latter location in 1931 to acquire driftwood fuel for Phantom Ranch.¹⁹ Construction at Bright Angel Point on the North Rim also proceeded apace at the NPS "industrial-residential" area, where employees' quarters and a bunkhouse, mess hall, oil shack, equipment shed, and ranger cabin were added in 1930 and 1931.²⁰

Other than substantial water, power, and building projects undertaken by the Utah Parks Company, Santa Fe Railroad, and NPS civilian contractors, most of Grand Canyon's physical infrastructure during the 1930s came about through emergency relief funds and labor. CCC

forces built and/or maintained nearly all administrative buildings in these years and strung the park's new, two-wire, transcanyon telephone line in 1936.²¹ They extended sewer, water, steam, and electrical lines to reach all public buildings at Grand Canyon Village, Bright Angel Point, and Desert View, and during the late 1930s relocated overhead utilities underground. They built, expanded, rehabilitated, and maintained village residences, laborers' cabins, and housekeeping units, as well as mess halls, paint and machine shops, mule and equipment sheds, the first village jail, the second community center, and cabins at Supai Camp. In addition to new construction, they furthered administrators' goals to beautify developed areas by razing many old structures, removing debris, obliterating old road and trail alignments, and reseeding or replanting previously disturbed areas.²²

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Entrance roads and all scenic drives envisioned in 1925 but one were completed by 1931, but administrators were far from finished directing traffic to and through the national park. The 1924 village plan relied upon a south entrance road (completed in 1928) to separate concessioner housing from NPS residential and service districts and a village loop road that would separate the tourist zone along the rim from the railroad's industrial zone south of the tracks. The loop would also enable a smoother passage around and through the tourist and administrative zones. A wagon road of sorts followed the desired path prior to 1919. Contractors began to realign and upgrade it to automotive standards in 1928 by continuing the new South Entrance Road to meet with the new East Rim Drive at the Fred Harvey Garage. In 1930-31 the park road crew reconstructed and realigned the wagon path south of the mule barns to facilitate passage from the South Entrance Road to the new headquarters campground and Motor Lodge, and continued the new road north across the tracks to end at Hermit Rim Road.²³

The final segment of the village loop was rebuilt as the eastern leg of West Rim Drive, a \$185,000 emergency-works project completed by the G.R. Daley, Vinson and Pringle Company of Phoenix in 1935. Beginning at the Fred Harvey Garage, the 2,800-foot-long village segment was built immediately above the railroad tracks as a through road, bypassing the earlier alignment of Hermit Rim Road that is used today as a service driveway on the south edge of the El Tovar. From a point just below Colter Hall, the new road was built atop Hermit Rim Road to the west end of the village where road crews rubbed shoulders

with workmen completing the Bright Angel Lodge. West Rim Drive's scenic segment ascended Hopi Hill in reduced grades, then curved sharply north to snugly parallel the rim, providing access to new overlooks at Trailview I, Trailview II, and Maricopa Point. After making a wide detour around the Orphan Mine, the new alignment rejoined the old at Hopi Point and continued to the Great Mohave Wall (the Abyss) where it again left the rim until reaching Hermits Rest. West Rim Drive was the last major inner-park road constructed at Grand Canyon. NPS engineers and landscape architects designed it as a compromise between high-speed highways like East Rim Drive and slower-going, meandering byways like the Hermit Road it replaced.²⁴

The 1924 village plan also delineated several curvilinear residential and service streets south of the industrial and administrative zones. Construction began with NPS and concessioner forces grubbing and rough-grading Avenue A (Apache Street) in 1926, then going to work on Avenue B (Boulder Street) and Avenue C (southwest of the recreational field) until all three streets were finished in 1931. After May 1933, CCC Company 819 enlistees built Tonto and Juniper Streets to NPS residences and service buildings; regraded and surfaced Avenues A, B, and C; built most of their masonry features; prepared residential sites; and laid utilities to individual homes. Bungalows, cabins, and utility buildings went up along these service and residential streets, beginning with Avenue A, from 1926 through the 1930s as funds became available.²⁵

National work-relief programs also benefited regional approach highways. Grading and subgrading of the long-anticipated South Approach Road began the day after the county ceded the Bright Angel Trail to the park, but bridges, surfacing, and finishing touches were completed with men and money of the first emergency employment acts of

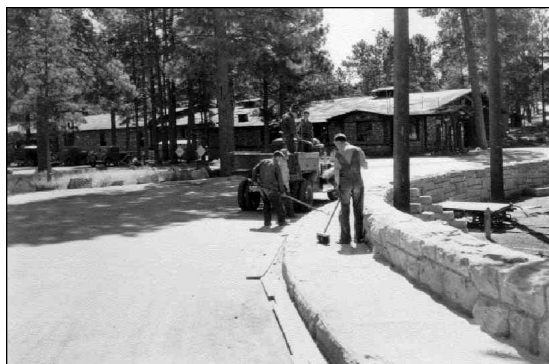


Figure 18. Civilian Conservation Corps recruits constructing today's wall and walkway across from the Fred Harvey Company garage, September 1937, following completion of West Rim Drive. GRCA 336.

1930-32. The fifty-three-mile-long highway began several miles east of the old road and town of Williams at the National Old Trails Highway, wound its way through volcanic hills beyond Red Lake, then made a beeline across the Coconino Plateau to meet the South Entrance Road at Moqui Lodge, cutting travel time from Williams from nearly a full day to less than two hours.²⁶ Although designated Arizona State Route No. 64 soon after completion,

Superintendent Tillotson had an embarrassing time convincing the Arizona Road Commission to assume maintenance. After meeting with commissioners in Phoenix in February 1932, he wrote that the

Highway Department continued to hold that they have always held that our checking station is a "toll gate" and they state that it is their unalterable policy not to build or maintain roads leading to a "toll gate." I explained in great detail the manner in which the one dollar entrance fee is charged, what the camper gets in the way of free campground service, etc., and although they conceded that the auto visitor got his dollar's worth, they continued to insist that... we were charging a "toll" and operating a "toll gate."²⁷

No doubt the state brought up the irony of the park's long battle to eliminate the Bright Angel Trail toll, only to impose its own fee of an equal amount, but Tillotson managed to iron out the disagreement by May 1933 when the state assumed maintenance of the South Rim's first automotive approach highway.²⁸

Plans to build a new East Approach Road from Cameron originated with the Santa Fe Railroad's ire at maintaining the Navahopi Road. The railroad spent \$3,000 to build the latter in 1924 and another \$40,000 for improvements by 1929, when 8 percent of visitors used it to reach the South Rim. The existing road and proposed path of a replacement ran through lands administered by the National Park Service, State of Arizona, U.S. Forest Service, and Bureau of Indian Affairs (BIA). Officials of each refused to spend a dime on the concessioner's road, but did ante up \$15,000 in 1930 to survey a 31.7-mile-long automotive highway across difficult terrain connecting the Painted Desert to the Coconino Plateau. Superintendent Tillotson personally worked harder making this road happen than any other, garnering varied agencies' support, arguing its financial benefit to each (particularly to residents of the Navajo Reservation), and finding funds for construction in years when the NPS juggled a dozen such projects throughout the West. He was assisted by a 1931 amendment to the National Park Approach Roads Act that allowed the Department of the Interior to build roads and bridges to national parks on the "seven-percent system" (93 percent matching federal funds) if the distance from the nearest public road was thirty miles or less and if 90 percent of the land traversed was managed by a public agency. The latter condition was made to order, and Tillotson circumvented the former requirement by cannily arguing that the final 3.5 miles of the proposed highway actually ran within park boundaries and therefore constituted an "entrance" road.²⁹

Although the forest service, BIA, and state were ambivalent at best to the eastern approach, they gave permission for construction, which began with funds appropriated in Fiscal Year 1931. During the next four years, BPR engineers, NPS landscape architects, and private contractors completed the highway in nine related phases costing



Figure 19. The bridge spanning Dead Indian Canyon along the original East Approach Road from Cameron, ca. 1935. Today's approach road from Cannon was rebuilt to the north (left) of this bridge in the 1960s, although the bridge still stands. GRCA 2920.

\$1,060,000. As the only "mountain road" within or approaching the park, rising from an elevation of 4,370 feet at Cameron to 7,438 feet at Desert View, the sinuous highway completed in 1935 offered majestic vistas comparable to those obtained from canyon overlooks. A walk today along the original alignment down Waterloo Hill reveals the intent of NPS Landscape Architect Thomas Carpenter to afford the best panoramas. National Park Service architects also designed or approved plans for the extant Dead Indian Canyon Bridge, completed in 1934 but later bypassed by a highway realignment. Although the park erected another "toll gate" at Desert View in 1934, the state assumed maintenance for the entire approach as far as the park boundary in 1935. It immediately became a segment of the half-loop State Highway 64—an important link in regional tourist travel, convenient connection between South and North Rims, and entryway to the park's South Rim that was driven by nearly 100,000 visitors in 1940.³⁰

On the North Rim, concessioner improvements at Bright Angel Point were closely tied not only to the imminent promise of a North Entrance Road within the park (completed in 1931), but to certain knowledge that state road agencies with federal money and expertise planned to construct automotive highways throughout southwestern Utah and northwestern Arizona.³¹ The Bureau of Public Roads and U.S. Forest Service built the North Approach Road (replacing the old Grand Canyon Highway) from Jacob Lake in the early 1930s, then rebuilt it in 1937-40 to the approximate alignment of today's State Highway 67.³² While the Utah Road Commission fulfilled its promise to build highways linking Zion, Bryce, and Cedar Breaks to the Arizona Strip, the Arizona Road Commission undertook construction of Navajo Bridge spanning Marble Canyon. Its completion in January 1929 prompted the commissioners to replace the old Mormon emigrant road with U.S. Highway 89 in a thirteen-year-long series of uninter-

rupted projects that connected Kanab to U.S. 66 east of Flagstaff just prior to the outbreak of World War II.³³

In support of Navajo Bridge and U.S. 89 Superintendent Eakin wrote in 1927 that “the tourist crop never fails and we should cultivate this crop in order to secure the greatest yield possible.”³⁴ By 1940 Grand Canyon’s administrators could delight in the fulfillment of Eakin’s dream as all regional, approach, and inner-park roads had been rebuilt to exacting federal standards, completing the intricate highway network originally envisioned by Stephen Mather. Reconstruction of U.S. 66 from Gallup to Needles in the 1930s facilitated transcontinental access to the Grand Canyon region. The South Approach Road from Williams and East Approach Road from Cameron, in combination with the South Entrance Road, East Rim Drive, and the East Entrance Road, ensured that motorists along the southern edge of the National Park-to-Park Highway would visit Grand Canyon National Park. These roads joined with U.S. 89 to open a new circle tour connecting the canyon with Wupatki National Monument, the Painted Desert, and national forests of the southwestern Colorado

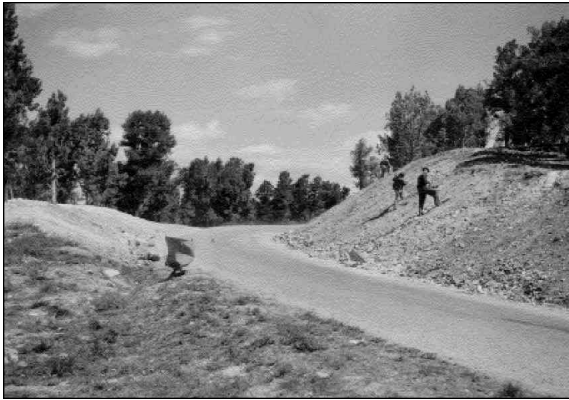


Figure 20.A 1937 Civilian Conservation Corps are rounding slopes along West Rim Drive. GRCA 281.

Plateau. New highways reaching Utah’s southwestern national parks and monuments joined U.S. 89 from

Kanab to Jacob Lake, the North Approach Road (State Highway 67), and the North Entrance Road to capture the North Rim in another popular circle tour promoted by the Union Pacific Railroad since 1922. Sixty years later, with only minor realignments and replacement of U.S. 66 by Interstate 40, these highways still form the backbone of regional travel.

The 1930s also witnessed completion of the park’s inner-canyon trail system. Reconstruction of the pre-park corridor had been advanced during 1922–28 with the building of the South Kaibab Trail and Kaibab Suspension Bridge and realignment of the North Kaibab and Bright Angel Trails, but additional flexibility was achieved with completion of

the Colorado River Trail in 1936.³⁵ CCC Company 818, stationed at Camp NP-3-A (Bright Angel Campground) during winter months, began construction in December 1933 with experienced foremen and hard-rock miners guiding enlistees in techniques perfected on the South Kaibab Trail. Although only two miles in length and relatively level, the work proved anything but simple. Inexperienced youths found themselves wielding jackhammers while dangling from granite cliffs to plant powder charges that frequently placed crews below in jeopardy of landslides.³⁶ Difficulties working the granite of the Inner Gorge added to the danger and the project’s duration, but safety measures limited serious injuries to only three. Completion coincided with improvements to the Bright Angel Trail, thereafter affording a popular south side loop when combined with the South Kaibab Trail and an alternate path from Phantom Ranch to Indian Garden.

While three CCC crews concentrated each winter on the river trail, others of Company 818 worked on North Kaibab spur trails to upper Ribbon Falls and Clear Creek. A.T. Sevey, with the assistance of Lloyd Davis and Harry Moulton, supervised construction of the nine-mile-long Clear Creek Trail. Beginning at a point just north of Phantom Ranch in November 1933, the young recruits moved up the solid schist with compressors, jackhammers, and 10,000 pounds of black powder, building trail as they blasted their way up to and across the relatively level Tonto Platform. Rangers stocked Clear Creek with rainbow trout even before the trail’s completion in April 1936. Advertisements in 1935 promoted mule trips from Phantom Ranch, “excellent trout fishing,” and visits to Indian ruins beside the now easily accessed side canyon.³⁷

During their three-year stint at Camp NP-3-A, Company 818 and others working along the central corridor were supplied by the U.S. Army’s 7th Pack Train, headquartered at Ft. Huachuca, Arizona, but stationed at Yaki Point year-round. The train consisted of army as well as civilian packers, fifty pack mules, and ten saddle stock divided into sections of twenty mules and four packers each. Packers were responsible for making one trip per day, five days per week, hauling coal, mail, and foodstuffs averaging six thousand pounds. In winter, when snow drifted as high as five feet on the upper trail, men preceded the pack animals to clear the way. In the event of landslides blocking the upper trail, the train descended the Bright Angel, Tonto, and lower South Kaibab Trails to reach the river. In three years of operation, “the 7th,” as proud and disciplined as the men they supported, never missed a scheduled delivery.³⁸

The centralization of tourist services was advanced in August 1930 when the park service authorized abandonment of the Hermit Trail and Hermit Camp. Permission came from the NPS Washington office but seems puzzling,

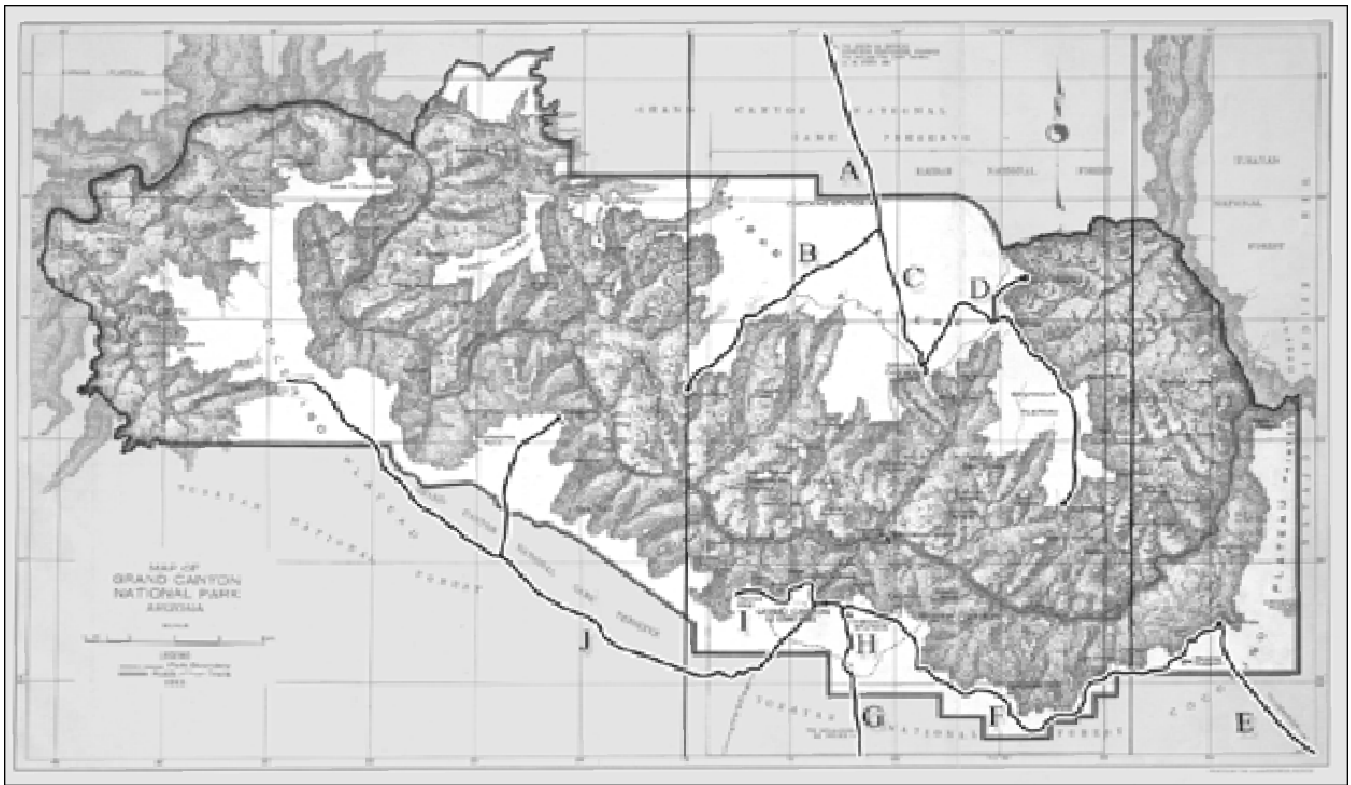


Figure 21. Map of Grand Canyon National Park road system pre-1940. Prior to 1919 all roads approaching and alongside Grand Canyon had been built or worn by cattlemen, pioneer entrepreneurs, and the Santa Fe Railroad for horse and mule conveyances. With creation of the national park, the federal government undertook reconstruction of these roads to automotive standards, relying on the expertise of the Bureau of Public Roads (today Federal Highway Administration). A: North Approach Road, 1937. B: Original alignment of the Point Sublime Road, 1924-25, never rebuilt to full automotive standards, but

maintained. C: North Entrance Road, 1931. D: Cape Royal Road and Point Imperial spur, 1931. E: East Approach Road, 1935. F: East Rim Drive, 1931. G: South Approach Road, 1932. H: South Entrance Road, 1928. I: West Rim Drive, 1935. J: Road to Topocoba Hilltop and Tusupai Point, built by Bill Bass and others beginning in the 1880s, never rebuilt to full automotive standards but occasionally realigned and maintained by the park service and forest service.

given construction of West Rim Drive a few years later, the engineering excellence of the trail and four associated rest houses, and the camp's profitability at a time when the Santa Fe Railroad and Fred Harvey Company were losing money on overall operations. Nevertheless, in 1930, and without recompense, the concessioner abandoned the trail, camp, tram, and other developments that had cost more than \$100,000. In 1936 the park service ordered the railroad to dismantle and salvage what it could, and on a cold winter night village residents gathered at the rim to watch the spectacle of the torch applied to what remained.³⁹

Park managers briefly deviated from centralist plans with minor developments near Swamp Point and Thunder River in the mid-1920s and 1930s. Since they had already begun to consider park expansion to the west and were sensitive to criticisms that they had never opened the park's northwest lands to recreational use, administrators undertook a few projects aimed at limited access, including the bridle path to Swamp Point and the Muav Saddle snowshoe cabin in 1925.⁴⁰ In 1925-26, coincident with development of a private hunting camp at Big Saddle, Ed Laws and several other rangers built a rough trail from the rim at Indian Hollow down to Thunder Springs. Laws retained an interest in the area as a backcountry ranger through the

1930s, occasionally making his way down to the springs to plant trout. It was only in October 1939 that the park service hired a crew of Arizona Strip residents to finish the trail from the springs to Tapeats Creek. After arguments over the creation of Grand Canyon National Monument abated, administrators once again abandoned the area to cattlemen and a trickle of adventurous tourists led by post-season hunting-camp guides.⁴¹

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Fortuitous emergency funds and cheap labor accounted for the completion of park infrastructure envisioned in the 1920s but did not ensure that consumers, feeling the pinch of the Great Depression, would continue to buy the scenery. As it turned out, the National Park System did not suffer as greatly as private enterprise. The depression struck harder at the poor than those of the middle and upper-middle economic classes who, by the 1920s, had supplanted the wealthy as the parks' principal clientele. Although belt-tightening might preclude expensive trips, a supposition supported by the headlong decline in rail travel and hotel patrons, Americans by 1930 owned thirty million automobiles and, with cheap gasoline and camping equipment, did not need to forego vacations entirely. NPS administrators

and concessioners astutely analyzed the depressed economy, improved upon marketing strategies, and enhanced the park experience according to reduced consumer demands.

Success in selling the economic value of parks to Congress and presidents since the 1910s was evidenced by federal money invested in park infrastructure during the depressed 1930s, but Horace Albright found additional arguments for continuing federal support. Recognizing social unrest during this period of economic decline, he wrote that “in a time of anxiety and restlessness [the parks] were immensely useful to large numbers of our people” and were “a strong influence for stabilization and good citizenship.” He observed that many people were extending their stays because “simple camp life offers [greater] economy that oftentimes can be found at home.” Albright made it clear that this new use of the parks, “particularly to people in financial difficulty, gave us unusual satisfaction.” Although it cannot be known how many of the depression’s dispossessed took up residence at Grand Canyon National Park while searching for work, NPS policy allowed unlimited campground stays for the price of admission, and Miner Tillotson expressed his personal satisfaction at employing an average 300-500 day laborers during summer months prior to 1933.⁴²

The National Park Service, though it welcomed the new class of visitors, did not market the parks as retreats for the homeless; rather, it continued with its partners to promote western travel to the middle class. Successful arrangements were made with chambers of commerce and other tourism offices to distribute park literature printed by the Department of the



Figure 22. Off-duty Civilian Conservation Corps recruits meet Hawey Girls, 1936. GRCA 12148; photo by Ernest Lee Burns.

Interior. Mather’s NPS travel division did not materialize until 1936, but the railroads’ Bureau of Service continued to solicit tourist travel from around the world. Given global economic conditions, it was unnecessary to highlight the See America First campaign, which, nonetheless, continued as a marketing undercurrent appealing to citizens’ patriotism as well as their pocketbooks. NPS directors encouraged new editions of the *National Parks Portfolio* a bound collection of Western landscape art that had helped secure a National Park Service in the 1910s. The Department of

the Interior published voluminous circulars of general information for the major parks including Grand Canyon, and the park service continued to issue press releases and diligently respond to individual requests for information. As one of the better known jewels of the park system, Grand Canyon naturally benefited from these national promotions.

Local administrators also answered all inquiries of potential visitors and maintained contacts with chambers of commerce and tourism offices in the gateway communities, but concentrated on enhancing, or “adding value,” to the visitor’s experience while leaving most regional advertising to their concession partners. Roads, trails, convenient traffic flow, and aesthetic constructions, of course, were all part of the strategy to attract and please as well as accommodate customers. Recognizing that the depression increased the ratio of motorists over rail arrivals and stimulated visitors’ interest in cheaper, motorist-friendly accommodations, managers persisted with their policy to develop campgrounds and roadside picnic areas according to demand, adding primitive campgrounds at Point Sublime and Cape Royal and a picnic area at Shoshone Point in 1931.⁴³ Throughout the decade, CCC crews added sites, utility lines, parking spaces, and walkways to campgrounds at Bright Angel Point, Desert View, and Grand Canyon Village. NPS landscape architects in 1931 designed two attractive housekeeping cabins—a two-bedroom with kitchen separated by wood partitions and a one-bedroom with kitchen and optional partition—that would henceforth be added by concessioners at park motor lodges and gain in popularity as moderately priced alternatives to camp sites and hotel rooms.⁴⁴

While administrators left most services to concessioners, they considered education within their purview and an important park enhancement. Since assuming his directorship, Stephen Mather had been keenly interested in the parks as classrooms for the humanities and natural sciences and as laboratories for scientific investigations, delegating the latter responsibility to the nation’s scientists but taking an aggressive posture toward visitor education. The Le Conte Memorial Lectures and Nature Guide Service at Yosemite, ethnological and archaeological lectures at Grand Canyon, campfire talks at Yellowstone, a museum at Mesa Verde, and natural history publications at a number of western parks had all appeared by 1920. Each of these areas of public education flourished in the succeeding decade.⁴⁵ At Grand Canyon, as at other western parks, rangers were expected to be conversant in the natural sciences and to impart their knowledge to curious visitors on demand. Formal attention to education began in 1922, when money donated by the *Brooklyn Daily Eagle* funded the park’s first museum: an information room consisting of natural history



Figure 23. Early naturalists (left to right) Fred Waight, Eddie McKee, Vernon Bailey, and Glen Sturdevant at Grand Canyon, 1929. GRCA 17577.

exhibits and a reference library within the old administration building. In the following year, the nature guide service begun at Yosemite and Yellowstone reached

Grand Canyon on an experimental basis and was formally adopted in 1926. In the same year, the park began to distribute a monthly periodical called *Nature Notes* and for the first time assigned a ranger to conduct nature hikes, present campfire talks, and collect natural history exhibits. In 1928 the observation station at Yavapai Point was completed, and the park's first ranger-naturalist, Glen E. Sturdevant, began daily lectures with the help of two summer seasonals.⁴⁶

The National Park Service took public education to a higher level with a formal survey of educational opportunities and creation of the NPS Branch of Research and Education under Harold C. Bryant in 1930. In its first year, the new branch hired additional ranger-naturalists and furthered their training at the University of California at Berkeley, added educational activities to the first formal master plans, and accelerated museum construction. It also developed a wide range of programs consisting of guided hikes and automobile caravans, lecture series, exhibits and signs along nature trails, and training of concessioner guides to better interpret park resources. At Grand Canyon in the same year, seven permanent and seasonal ranger-naturalists staffed museums at Yavapai Point, the old administration building, and within Grand Canyon Lodge; initiated evening programs at the North Rim; guided nature hikes and auto caravans along both rims; conducted daily lectures and nightly campfire talks; and enlarged natural history collections and exhibits. Administrators continued to expand facilities, exhibits, and programs, reporting 85,000 educational contacts in 1930, 126,000 in 1931, and 107,000 in 1932. These numbers multi-

plied as economic conditions improved after 1933.⁴⁷

In March 1932 park residents organized the Grand Canyon Natural History Association (GCNHA, today's Grand Canyon Association) to help offset decreased NPS appropriations for visitor education, interpretation, and research. Although the organization's immediate goal was to continue publication of *Nature Notes* (discontinued in 1935), aspirations of the first executive secretary, Eddie McKee, and 132 charter members matched the objectives of those who had created the Branch of Research and Education two years earlier. In GCNHA's first year the association's members began to build the park's nascent museum collection, research library, and scientific publications through wildlife observations, bird-banding programs, specimen collections, collecting books, subscribing to scholarly journals, granting funds for research, and publishing and selling natural history monographs. By the outbreak of World War II, the GCNHA had also funded the park's first botanist (Rose Collom), mycologist (Inez Haring), and historical researcher (Edwin Austin); supplied a part-time librarian and clerk-typist for the interpretive program; purchased shop and laboratory equipment; and taken on the formidable task of answering public inquiries for park information.⁴⁸



Figure 24. Pauline "Polly" Mead Patraw (1904-), first woman ranger-naturalist at GCNPPolly may have worked for the NPS at the North Rim as early as 1927 while earning her M.S. in botany from the University of Chicago. She is dressed here in the standard NPS uniform, but with a "more feminine" Fred Harvey courier hat chosen by Mine Tillotson. GRCA 176.

Along with educational programs that helped sell the parks during the depression, NPS officials paid closer attention than ever to pricing. Congressional arguments of the 1920s had led to legislative approval of modest entrance fees (automobile permits), but to a prohibition of campground fees.⁴⁹ With the economy's slump, Congress continued to argue the nature of fees while Horace Albright equivocated. He acknowledged in 1932 that those who entered the parks and stayed in concessioner accommodations had a right to complain about those who paid the same amount then stayed at free campgrounds, yet wrote later in the year that the NPS "should seek primarily the benefit and enjoyment of the people rather than financial gain and such enjoyment should be free to the people without vexatious admission charges and other fees."⁵⁰ Arguments for and against federal charges persisted

through the 1930s, yet policy at Grand Canyon remained unchanged. The one dollar admission for motorists, no charge for others, entitled visitors to road and trail usage, unlimited campground stays and amenities, and attendance at all educational facilities and programs.

Major concessioners suffered financially through the mid-1930s despite NPS efforts to ease their losses, yet adjusted well enough with centralized investments, vigorous marketing, and affordable pricing. By 1929 the Fred Harvey Company's tourist facilities had been concentrated at Grand Canyon Village, Hermits Rest, Hermit Camp, Desert View, and Phantom Ranch. In the ensuing decade, major changes outside the village entailed abandonment of Hermit Camp, improvements at Phantom Ranch including a swimming pool built by CCC crews in 1935, completion of the Watchtower at Desert View with its first-floor curio shop in 1932, and construction of a one-pump gasoline station at Desert View in 1939. Rimside overnight facilities and formal dining services remained in the village. The Santa Fe Railroad continued to add cabins at the Motor Lodge where it also opened a cafeteria with inexpensive meals in 1940 and completed the Bright Angel Lodge in June 1935 that replaced the old Bright Angel Hotel and adjacent tent cabins. The new lodge included a central services building with restaurant, curio shop, and entertainment rooms; a renovated and expanded Buckey O'Neill Cabin; a reconverted dormitory immediately to the west (today's Powell Lodge) that became seventeen-room and twenty-five-room guest houses; and new, all-wood cabins. Conversion of the El Tovar music room into four suites in 1940 represented the only new, higher-priced accommodations.⁵¹

Advertising to a regional audience consisted of the National Park Service's annual circulars of general information, which emphasized park rules, facilities, and services, and an annual series of Santa Fe Railroad brochures detailing railroad timetables, tourist facilities, services, guided trips, and rates. Both types of marketing literature briefly sold the beauty of Grand Canyon but focused primarily on the convenience afforded by roads, trails, overlooks, utilities, lodging, restaurants, and similar amenities. Rates remained at or below 1920s levels, the most significant allowance to hard times being the introduction of the European Plan (rooms without meals) when, in the prior decade, rooms and most cabins had been available only on the American Plan. In 1930 one could stay at the El Tovar, American plan, for \$7.00; at a Bright Angel cottage for \$1.50-2.00; in a housekeeping cabin for \$1.50; in a tent cabin at Hermit Camp for \$5.00, American plan; or Phantom Ranch for \$6.00, American plan. Meals at the El Tovar ranged from \$1.25-1.75. Automotive services like storage (\$.75), wash (\$3.00), repair (\$1.75-2.00/hour), and

towing (\$1.00/hour) were available, as were guided trips ranging from \$4.00-5.00 for a mule ride to Plateau Point to \$16.00 for a 160-mile automotive trip to Moenkopi. By 1940 a room at the El Tovar could be had for only \$2.50, with three meals adding another \$3.50. A room at the Bright Angel Lodge rented for \$1.50-4.50, with cafeteria meals as low as forty-five cents. A housekeeping cabin cost \$1.25-2.25, with a ten percent discount for stays of four days or more. A Phantom Ranch cabin went for \$6.00, American plan. Guided trips by trail or road also remained at or slightly lower than 1930 rates with a variety of mule tours available for \$5.00 per day. The all-day adventure to Moenkopi had been reduced to \$12.00, including lunch.⁵²

The Union Pacific Railroad proved no less demanding than the Santa Fe Railroad in pressing for improved roads during the 1920s, and it was equally aggressive in selling the scenic wonders of southwestern Utah, the Arizona Strip, and its facilities at Bright Angel Point. The Union Pacific's passenger agent, Douglas White, ran into some opposition when arguing for improved regional access, illustrated by Utah Governor Simon Bamberger's response to his and Horace Albright's lobbying in the late 1910s: "Doug Vite, I build no more roads to rocks!"⁵³ But despite such difficulties, the Union Pacific, with NPS assistance, BPR expertise, and the Utah Road Commission's cooperation, managed to coerce and cajole construction of modern highways among southern Utah's parks during the 1920s and 1930s. It also built a rail spur from Lund to Cedar City in 1923 specifically to stage its tourism ventures.⁵⁴

Strategically, from the 1920s until the 1970s, the Union Pacific Railroad tied North Rim investments, advertising, and pricing into what it had named its "circle tourism route." This Stephen Mather concept included, with a few variations, Cedar City, Zion and Bryce National Parks, Cedar Breaks and Pipe Springs National Monuments, and other scenic attractions along its 460-mile path. Investments at Bright Angel Point followed more than \$3 million that the railroad had poured into Zion and Bryce in 1923-25. Like the Fred Harvey Company, the Utah Parks Company profited from the *National Parks Portfolio* See America First campaigns and publications, and other national promotions, and advertised heavily on its own. The circle tour and parks it touched also received considerable exposure in the tourism periodical, the *Union Pacific Magazine*. In 1925 the railroad added its "Red Book," a glossy annual similar to Santa Fe Railroad brochures celebrating the route and detailing its facilities, services, tours, and prices.⁵⁵

In 1925 circle tour schedules offered by the Parry brothers included six packages beginning at the railroad's El Escalante Hotel in Cedar City, including an all-expense-paid, two-day excursion to Zion and Grand Canyon's

North Rim and an all-expense-paid, five-day tour of the entire circle for \$86.75. By 1930 the cost of the latter trip had been reduced to \$74.50. In the same year, visitors not associated with multi-day packaged tours could rent a Grand Canyon Lodge deluxe cabin for \$13.00 and standard cabin for \$7.00, American plan, or choose the latter without meals for \$2.50. Overflow tents were available for \$1.25 and meals ranged from \$1.25 to \$1.75. Guided auto-stage trips were offered along newly reconstructed roads from Bright Angel Point to Point

Imperial (\$3.00), Cape Royal (\$4.00), or both scenic overlooks (\$5.00). Regular guided trail trips ran to Point McKinnon (\$5.00) on the west (today known as Widforss Point) and to Natchi Point (\$3.00) and Point Imperial (\$5.00) on the east. Saddle horses rented for \$5.00 per day, and the concessioner would

outfit visitors for adventures along the rim for as little as \$15.00 per day in groups of seven or more. By 1940 less costly housekeeping cabins had been built at the Grand Canyon Inn, while prices for lodge cabins had been discounted and services unbundled. Deluxe cabins dropped to \$5.00 per day or \$8.25 for three persons, standard cabins to \$2.25, and housekeeping cabins (sleeping three) to \$2.00. Cheap cafeteria meals had been introduced, and guests could opt to buy their own groceries at the store adjacent to the housekeeping complex. The railroad had reduced the price of the all-expense-paid circle tour (extended to six days) to \$58.75. Sightseeing rides to Cape Royal, which included Point Imperial and stops at Farview and Vista Encantada, had been reduced to \$3.00, while the cost of guided saddle trips and stock rental remained the same.⁵⁶

Advertising, reduced prices, better roads, and improved economic conditions after 1933 combined to generate an even steeper spurt in visitation than had been experienced in the 1920s. Concessioners added affordable accommodations each year and administrators responded with new and expanded campgrounds, but the boom outpaced infrastructure as had visitation upturns of the mid-1910s and late-1920s. In summer 1937 Superintendent Tillotson began to recognize that South Rim accommodations of all types were full by early evening, and on 4 July of that year, a new one-day record was set when 3,400 people entered the park. Additional records were set with 93,000 arrivals in August 1939 (3,828 on 8 August) and on 5 July 1941 when 4,763 showed up in 1,256 automobiles.⁵⁷ Clearly the village and park roads had once again begun to clog.

INITIAL BOUNDARIES AND INHOLDINGS

Physical boundaries for national parks and monuments have usually been drawn from the political agendas of congressmen, land managers, and an assortment of private sector allies. Prior to World War II, NPS administrators fought tooth and nail to carve new parks and expand existing ones from lands managed typically by U.S. Forest Service administrators, who battled equally hard to retain the forests for traditional economic uses. Both agencies



Figure 25. The temporary ranger staff of 1939. Left to right: Shirley Allen, Frank Bynam, Charles Hurst, Perry Brown (Chief Ranger), Glen Harmon, Ralph White, John Carlock, Harold Barow, Freddie Gillum. Seasonal and "temporary" rangers made their appearance at Grand Canyon in the mid-1920s and have been hired every year since to meet demands of the peak summer season. GRCA 1223.

masked their bureaucratic struggles with ostensibly logical, high-minded arguments for one agency's management over the other's. Forest administrators relied principally on utilitarian aspects of conservationism. As aggressive newcomers, NPS managers proved somewhat more creative, building credibility for the economic value of western tourism, which aided in the creation of new parks, but more often citing the protection of game animals, inclusion of outstanding facets of local scenery, and efficient management of administrative units to fight for enlarged boundaries.

Determining the original boundaries of Grand Canyon National Park involved a smattering of each of these political, economic, and administrative arguments. Benjamin Harrison's Senate Bill 863, introduced in 1886, identified an arbitrary, 3,864-square-mile rectangle extending fifty-six miles from the Little Colorado River to the vicinity of Havasu Canyon and sixty-nine miles north and south to envelop much of the Coconino and Kaibab Plateaus. Harrison's inclusion of valuable timber and grazing lands accounted in large part for northern Arizona's early resistance to park designation. Resistance persisted into the 1910s as interest groups like the American Scenic and Historic Preservation Society countered no-park advocates by suggesting a preserve that would extend from Lees Ferry to the Arizona-Nevada border, encompassing the entire canyon as well as the Coconino, Kaibab, and Dixie National Forests, 7,154 square miles in all. Adjudicated boundaries, however, were owed to land managers, especially the forest service, which delineated the original 1,279-square-mile national monument in 1908, then negotiated

with the Department of the Interior to formulate boundaries for a national park. Chief Forester Henry S. Graves, though generally in favor of a park, argued with the Department of the Interior's E. C. Finney throughout 1910-15 and with Stephen Mather thereafter to exclude grazing and timber lands and USFS administrative sites along both rims, resulting in Henry Ashurst's bill that settled on a total of 958 square miles (613,120 acres). Understandably, there was little debate with the new park's east-west extent, the forest service conjuring no economic value for a mile-deep canyon and easily accepting the breadth proposed by Harrison thirty-three years earlier. But irregular north and south boundaries drawn primarily along sectional lines tightly squeezed both rims, reflecting political victories for the forest service and local extractive users.⁵⁸

The park had no sooner been created than Mather renewed his arguments to expand boundaries, contending that additions were necessary on the North Rim to protect the Kaibab deer herd, to include springs necessary for tourist developments, and to provide for new roads. In 1923 Superintendent Crosby argued the necessity of bringing east-west roads beside the South Rim within park boundaries to create an identifiable straight line separating hunters in the adjacent forest from park developments. In the same year, Mather asked U.S. Geological Survey engineer R. T. Evans, who was mapping the park, to recommend new boundaries. Evans's report to the President's Committee on Outdoor Recreation in March 1925 suggested a northern boundary that would include scenic features and deer habitat in the Tapeats Basin, Indian Hollow, and the Big Saddle area to the west; part of Dry Park and all of VT Park to facilitate administration and road construction; and the East Rim, Pagump Valley, South Canyon, and thirteen miles of Marble Canyon for its tourism potential and deer range. At the South Rim, Evans suggested only modest expansion, arguing for a straighter boundary about a mile south of the existing line to facilitate administration, road building, and maintenance; to more effectively fence cattle out; to increase the deer range; and to afford a boundary facade of virgin ponderosa pine forest.⁵⁹

The forest service preempted Evans's suggestions with its own report to the president's committee in April 1924, advocating the addition of 43,160 acres to the park's northern boundary but opposing other extensions. Forest managers maintained that the park should be only as large as required to "provide for public use and enjoyment of the canyon," that the Kaibab Plateau was not of national park caliber, and that its best use lay in a nonexistent, but promising, million-dollar-per-year lumber industry. They also argued that jurisdiction over the Kaibab deer herd should not be split between the two agencies and that residents of the Arizona Strip had been led to believe that the

park would not seriously impinge upon grazing lands. The forest service agreed to redraw lines at the South Rim but enlisted the aid of Senator Hayden, representing Coconino County's cattle and timber interests, to limit changes to slight administrative adjustments. A compromise brokered by Hayden resulted in new boundaries that included representative portions of the Kaibab forest, lands north of Bright Angel Point as far as Little Park, the mouth of Havasu Canyon, and eight sections at the park's southeast corner to facilitate a road to Cape Solitude. It rejected additions desired for wildlife habitat and scenic views, however, and removed Beaver Canyon and the area north and east of the Little Colorado River confluence from the park. All in all, House Bill 9916, enacted on 25 February 1927, added a net fifty-one square miles to the national park, bringing the total land area to 1,009 square miles (645,760 acres).⁶⁰

In 1929 and 1930 Chief Field Naturalist Vernon Bailey of the U.S. Biological Survey resurrected debates to expand boundaries to add range for regional mule deer, mountain sheep, antelope, and buffalo. Writing at NPS request, Bailey couched his pleas in terms of saving what remained of the region's native vegetation and wildlife, advocating the addition of 196 square miles of ponderosa pine and pinyon-juniper forest at the South Rim as well as substantial portions of House Rock Valley and the Kaibab Plateau. Based on Bailey's conclusions, the NPS lobbied for an additional two to ten miles southward and five to fifteen miles northward, a total of 620 square miles, arguing that "every national park should be and is a game preserve." These recommendations went nowhere. Bailey's superiors and USFS administrators disagreed with the presumption that parks should be complete game preserves, arguing that the precedent would require park expansions throughout the West. Sportsmen feared that hunting would be curtailed, and one can safely surmise that local cattlemen and lumber companies protested as they had in every prior effort to create and expand the park. Arguments favoring the parks as natural preserves had been raised but had not yet acquired the vitality necessary to overcome politically drawn boundaries.⁶¹

Debates surrounding creation of Grand Canyon National Monument in 1932 and its reduction in size in 1940 further elucidate early NPS philosophy concerning park creation and expansion. In 1927, when Arizona Governor George H. Dern visited the Toroweap Valley and suggested that its scenic wonders be preserved for recreational use, it would have been difficult to locate a more remote area in the United States. The land remained unassigned public domain and certainly did not appear on tourists' itineraries. E. T. Scoyen, superintendent of Zion National Park, visited the area in 1929 and hailed its scenic

wonders, but the NPS did not consider adding any part of it to the park until President Hoover forced the issue in 1930 when he added lower Grand Canyon to a tract withdrawn to facilitate creation of Hoover Dam and its reservoir.⁶²

In May 1932 a party composed of Miner Tillotson; Pat Patraw, superintendent at Zion; Roger Toll, superintendent at Yellowstone; L. C. Crampton, special attorney to the secretary of the interior; and highway engineer W. R. F. Wallace visited the canyon portion of Hoover's 4,212-square-mile withdrawal to assess recreational opportunities and suggest disposition. Toll's report revealed the group's antipathy for the larger area, based on the region's lack of "national interest" and their assessment that the lower canyon's scenery was of the "same type" existing in Grand Canyon National Park.⁶³ The party agreed that the entire lower canyon would make a suitable park addition, but it was not necessary and most of it was "not readily accessible and would be expensive to make accessible." Still, they suggested that 392 square miles consisting of the Toroweap Valley and a segment south of the river from the existing park boundary to the Hualapai Reservation would be worth preserving. Because the Bureau of Reclamation planned to build a 570-foot-high dam and power plant at Bridge Canyon, creating a seventy-eight-mile-long reservoir that would flood the river as far upstream as Havasu Canyon, and because the NPS abhorred such water projects within the National Park System (but supported them elsewhere), the group recommended a national monument rather than park expansion. But Toll also wrote that should the state oppose the additions, "it would seem to be in the public interest to cancel the withdrawal of this portion of the area."⁶⁴

Following Toll's report, Tillotson delineated specific boundaries to include the Toroweap Valley and south side of the river but exclude most patented lands and cattle range to the north. Horace Albright defended the boundaries as they allowed automotive access, once a road could be built, to Grand Canyon's Esplanade with easily accessible views of the Inner Gorge. He also favored inclusion of nearby volcanic cones beside the rim and lava flows exposed along the river, geologic features not present within the park. So defined, Conrad Wirth forwarded Toll's, Tillotson's, and Albright's recommendations to President Hoover, who proclaimed the 426.79-square mile (273,145-acre) Grand Canyon National Monument on 22 December 1932.⁶⁵ The monument would remain a separate NPS unit under park supervision until 1975.

Creation of the national monument revealed NPS ambivalence toward creating parks or adjusting boundaries if the land in question did not promise tourist access. The ensuing decade offered proof of the agency's willingness to

protect such areas only in proportion to visitation. Arizona Strip cattlemen were a bit tardy in raising objections to the monument's creation, but afterward enlisted the aid of the Arizona Cattle Growers Association and Carl Hayden to abolish it. After eight years of on-and-off deliberations, Tillotson, who never showed great enthusiasm for the monument, negotiated the return of a three-mile strip along the northern boundary and upper Toroweap Valley (71,855 acres) to the U.S. Grazing Service. This was effected by President Roosevelt's proclamation of 4 April 1940.⁶⁶ In the following year, NPS administrators expressed their willingness to change the designation of what remained to "national recreation area" to accommodate "the new uses and values which the Bridge Canyon developments would bring about."⁶⁷

Administrators were unconcerned for monument boundary reductions and prospects for a dam, power plant, and reservoir along the river because they expected few visitors and planned little construction of their own. Most developments of the 1930s were, in fact, effected by a surplus of men and funds afforded by emergency works programs. They built and maintained drift fences, cisterns, game tanks, and a telephone line from Fredonia prior to 1935, and worked annually to improve these minimal features through 1941. Olds Brothers of Winslow, Arizona, completed today's ranger station, combination barn/garage, and water catchment system under contract in August 1935.⁶⁸ Rangers from the South Rim occasionally made the long trip around the canyon to inspect the monument, noting appalling range conditions and the ineffectiveness of partial drift fences oft-vandalized by local cattlemen. No concession was ever awarded for visitor services, and no ranger took up residence until William and Gertrude Bowen reported for work in October 1940. John Riffey replaced Bowen and began an illustrious thirty-eight-year career as caretaker in 1942. No services of any kind were offered (then or now) other than information gladly given by Riffey, a small undeveloped campground, and occasional maintenance of the sixty-two-mile dirt road from Pipe Springs. Funds for administration, protection, maintenance, repairs, and equipment in 1940 totaled \$200. Only nineteen tourists visited the monument in May and June 1941, and annual visitation did not top 1,000 until the 1960s.⁶⁹

The National Park Service considered the eradication of private lands and rights-of-way within its units of higher priority than boundary extensions, since they struck at the heart of management control. In order to obtain revenue from concessions, manage physical developments, prevent obnoxious or destructive uses, harmonize structures with natural environments, enforce rules and regulations, and generally clean up developed areas, administrators believed that they had to eliminate these interests that were

protected to some extent by each park's enabling act. Congress passed many laws during the 1920s and 1930s to exchange private for public lands to the benefit of individual parks and sometimes reduced boundaries to eliminate concentrated groups of inholdings. Generic legislation toward this end began with the Sundry Civil Act of June 1920, allowing the secretary of the interior to accept gifts of land, rights-of-way, buildings, and money that could be used to purchase properties and rights.⁷⁰ Securing title to private inholdings moved up to number eight on the director's list of priorities in 1921, but by 1926 the parks still enclosed more than 81,000 acres of private and state lands servicewide, about 1 percent of the system's total area.⁷¹ In 1928 Congress adopted a specific policy to eliminate inholdings, and in 1929 it authorized the power of condemnation (the "taking" of private lands) and a fund of \$3 million to match private donations to purchase properties. Appropriations for this fund peaked at \$1.75 million in 1931, then abruptly dropped to nothing for 1933, another casualty of the national depression.⁷²

Grand Canyon National Park's enabling act in most ways resembled those of other western parks. Sections Two through Nine granted the secretary of the interior broad latitude in allowing varied uses and grandfathered particular rights in place at the time of creation. Circumscribed interests of the Havasupai people were protected, as were "any valid existing claim, location, or entry...whether for homestead, mineral, right of way, or any other purpose whatsoever." The act also acknowledged Coconino County's right to the Bright Angel Trail and permitted the secretary to authorize irrigation and reclamation projects, easements for railroads, and the development of mineral resources. During the 1910s-1930s, NPS administrators in Washington D.C. fought successfully to preclude new railroad rights-of-way as well as private irrigation and reclamation proposals from Grand Canyon, while local managers concentrated on gathering data to invalidate mining claims, acquire patented lands, and limit the commercial use of private parcels.

In 1919 interests not altogether under control of the National Park Service at Grand Canyon, in approximate order of priority, consisted of Ralph Cameron's invalid mining claims; the Bright Angel Trail; mineral claims or homesteads patented by Dan Hogan, Sanford Rowe, Pete Berry, and John Hance; unpatented but valid mining claims held by W.I. Johnson, George McCormick, and William Bass; two unpatented homestead entries totaling 320 acres in the process of reconveyance to the federal government; state school sections totaling about 25,000 acres; and the linear rights-of-way and depot grounds of the Grand Canyon Railway.⁷³ Since administrators considered the railroad a financial and philosophical ally in the orderly development of Grand Canyon Village, their control of about thirty acres

in the heart of the village caused little trepidation. The railroad held these lands, in fact, until 1982, long after passenger trains had ceased to roll into Grand Canyon Depot.⁷⁴ School lands comprised the largest inholdings, but administrators did not consider this a threat since the state could not develop them and proved amenable to trades for public lands elsewhere.⁷⁵

The National Park Service and General Land Office worked aggressively to invalidate all bogus and unpatented mining properties within the park during the 1920s. George McCormick's claims near the Little Colorado River were abandoned by 1930.⁷⁶ Ralph Cameron's had been discredited by the U.S. Supreme Court in *Ralph H. Cameron et al vs. United States* on 19 April 1920, and although Cameron defied the court for the following few years and resisted efforts of the U.S. Attorney General to dispossess his caretakers in 1924, his interests evaporated after his senatorial defeat in 1926. Without Cameron's goading, the county yielded its trail rights two years later. Administrators took a gentler approach to the Bass family, Stephen Mather convincing the Santa Fe Land Development Company to buy out the aging pioneer and his wife Ada in 1926. The properties passed to the government by donation immediately following railroad divestitures in December 1956.⁷⁷

In their quest to acquire valid mining claims and patented lands, park officials generally exercised a great deal of patience and used most legal, persuasive, and coercive means at their disposal. Johnson's claims within Havasu Canyon were actually desirable adjacent lands that the park would acquire through purchase in 1957.⁷⁸ John Hance's patented parcels south of the river and homestead beside the rim had passed to James Thurber and Lyman Tolfree in 1895 and to Martin Buggeln in 1906. Buggeln had become a potent force among private residents at the South Rim by the time the park service arrived, and he was an impediment to development thereafter as his homestead and refusal to grant a right-of-way delayed construction of East Rim Drive. He also ran cattle on the inholding and adjacent forest lands until his death in 1939 when his widow, Eva Moss Buggeln, initiated negotiations to sell the property. The park service took out an option in 1943 and effected the purchase in 1948, eliminating the last rimside inholding east of Grand Canyon Village. Hance sold his patented asbestos claims along the north side of the river, totaling 325,827 acres, to the Hance Asbestos Mining Company in 1901, and administrators did not learn of their existence until 1930. Subsequently the property came into possession of the Hearst family. Limited mining activity took place at these claims into the 1950s; thereafter, owners occasionally revealed resort or residential plans for the inholding that is accessible only by trail, raft, and, since the 1940s, by helicopter. Known as the Hearst Tract today, it

remains the only private inholding within the park's original boundaries.⁷⁹

While administrators feared Buggeln's development of an independent tourist business, they found it easy to suppress his plans with a few well-placed threats. William Randolph Hearst's acquisition of Pete Berry's and the Canyon Copper Company's patented lands in 1913, totaling 207.7 acres, posed a much greater threat, as the newspaper magnate clearly had the political clout to disregard informal pressure and the capital to develop anything he wished. Hearst did taunt the NPS with rumors of grand developmental schemes but generally cooperated with authorities, agreeing to exchange 48.9 acres at Grandview Point for 25.8 acres elsewhere in 1926, and occasionally discussed the gift or sale of his lands to the government. Cooperation vanished, however, when Hearst's attorneys once again broached the subject of a sale and the NPS responded with a Declaration of Taking in September 1939. Park officials sustained criticism from the regional press, chambers of commerce, local residents, and the county board of supervisors for employing condemnation, the only time it has done so in park history, and for offering only \$25,000 for the prime real estate. Hearst's appraisers estimated its value at \$367,000, and his lawyers fought for the higher figure until October 1941, when federal judge David W. Ling ordered the payment of \$85,000. The taking, however, was legally effected in July 1940.⁸⁰

Administrators might well have taken the same approach to acquiring Sanford Rowe's and Ed Hamilton's properties at Rowe Well and Dan Hogan's Orphan Mine had they the same tourist visibility as Grandview Point. Many visitors to the South Rim did pass Hamilton's motor camp until completion of the South Approach Road, but in the 1920s administrators were just as happy that he stayed in business to accommodate growing numbers of visitors. After 1932 Hamilton and a succession of owners, lessees, and managers including Jack and Gladys Harbin, Walter Wilkes, and the Barrington Brothers added a motel, dance hall, bowling alley, and saloon to create an alternative to more staid village services and a favored "watering hole" for residents. The park service kept a wary eye on the Rowe Well properties throughout the 1930s and 1940s, but did not come up with the sale price, \$42,500, until 1956.⁸¹

Given its subsequent history, later administrators might well have wished that Miner Tillotson had offered more than \$5,555 to buy Dan Hogan's 20-acre Orphan Mine in 1931.⁸² There seemed no reason to suggest that it was worth more until 1936, when Hogan began to develop the site for tourism. He called his initial developments the Grand Canyon Trading Post, and over time it unfolded along lines similar to Rowe Well with cabins, store, and a saloon. World War II ended Hogan's modest business, but in 1946

he sold the property to Madeleine Jacobs, who reopened the facility as the Kachina Lodge. Jacobs then leased the property in 1949 to Will Rogers, Jr. and John Bonnell, who renamed it Rogers' Place. Rogers left the following year and the facilities were purchased by James D. Barrington and renamed the Kachina Lodge by 1952. Barrington and his brother operated the facility (in 1955 renamed the Grand Canyon Inn) until 1966. As if uncontrolled rimside tourist facilities were not enough, the site—highly visible from the Powell Memorial—witnessed some of the most intensive uranium mining in the Southwest during 1953–69. An 1,800-foot-long cable tram added in 1955 did nothing to improve the eyesore. In 1962, when the mine's operator, Western Equities, threatened to build an 800-room grand hotel that would spill "down the side of the precipitous cliff like a concrete waterfall," Congress stepped in with a law prohibiting tourist operations after 1966 and mining after 1987, when the property passed to the United States. Mining ended earlier, in 1969, only because of a declining uranium market and prohibitive costs to ship ore.⁸³

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From today's perspective, it is easy enough to criticize park administrators' consistent management philosophy of 1919–41, their anthropocentric motivations and priorities, their emphasis on mass marketing, services, and structures aimed at attracting ever more visitors. But from the viewpoint of early twentieth-century NPS managers and their myriad allies, as well as those who continue to believe that national parks are principally for the people's enjoyment, they did nearly everything right. Some visitors and businessmen would have appreciated still more developments at Bass Camp and Grandview, at Cape Royal, and at the heads of the Thunder River and North Bass Trails. Admittedly, remote areas were saved primarily through concessioners' economic equations influenced by the depression, but centralization also resulted in part from the notion that most of the park should remain undeveloped, if only to protect game animals—a hazy, incomplete, yet emerging sense of the value of wild ecosystems. By 1935 construction had subsided along the rims and central corridor with the completion of planned administrative, concessioner, utility, and residential buildings, as well as approach and inner-park highways, scenic drives, and inner-canyon trails. A calm, comfortable, economical interlude prevailed for the several hundred thousand who visited each year for the following decade. Reveling in the resort atmosphere of easy access, ample accommodations, breathtaking scenery, and profit, no one cared to consider the ephemeral nature of such an experience, given the inevitable outcome of managing the park as an inexhaustible scenic commodity.