



Grand Canyon's corridor trail system: Linking the past, present, and future

By Elyssa Shalla

Abstract

Grand Canyon National Park is in the final stages of a multiyear process to revise the park's 1988 backcountry management plan. This article provides an overview of the early use, development, and management of the park's corridor trail system, as a means for understanding some of the current recreational trends that challenge park managers.

Key words

corridor, cultural history, Grand Canyon National Park, recreation

The corridor trail system of Grand Canyon National Park (Arizona) is one of the most popular and heavily visited backcountry destinations in the National Park System today (figs. 1 and 2) (USDI 2012). This backcountry area has a complex cultural history spanning thousands of years, serving as a homeland and transportation, utility, and recreation corridor for inhabitants, park managers, and visitors alike. Over the past several decades visitation to the park and recreational use of the corridor trail system have grown tremendously. Grand Canyon National Park is in the process of updating its backcountry management plan to address issues of visitor access, visitor experience, resource management, and resource protection in the corridor. As the first revision of this plan since 1988, it is coordinated with several management studies and program reviews. Public scoping for the revised plan began in spring 2011, and the park is now reviewing comments on the recently released draft environmental impact statement. A final decision is expected in the next year. This article outlines the history of the corridor trail system and is intended to “set the stage” for the three companion articles that follow, each of which highlights a related management program or study: visitor experience research on trail capacities, the canyoneering monitoring program, and the preventive search-and-rescue

program.



Figure 1. View of the upper Bright Angel Trail from Hermit Road on the South Rim of Grand Canyon.

NPS/Michael Quinn

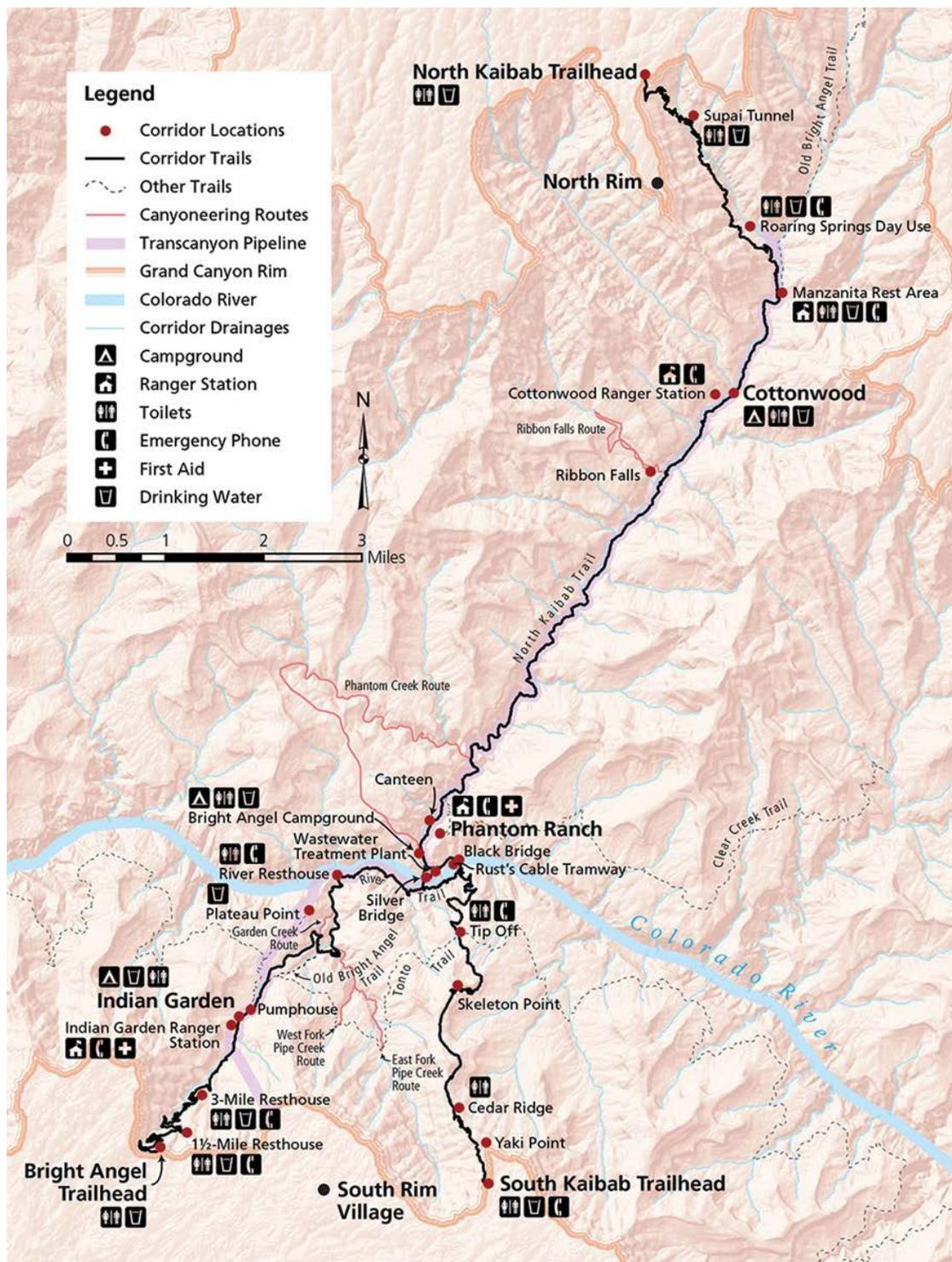


Figure 2. The popular corridor trail system at Grand Canyon National Park connects the North and South Rims by way of the North and South Kaibab Trails and the Bright Angel Trail over a total distance of 30.5 miles (49 km).

NPS/Grand Canyon National Park GIS

Background

Grand Canyon National Park's corridor primarily consists of the Bright Angel, South

Kaibab, and North Kaibab trails (fig. 2). Descending at least 4,000 ft (1,219 m), each trail plunges off of forested rims and then switchbacks its way down into the lower Sonoran Desert life zone (see fig. 1). These 30.5 miles (49 km) of trail function as the main arteries for inner canyon travel and are linked at the heart of the canyon by two suspension bridges and the Colorado River Trail. A cultural and historic landscape distinct from the more than 1.1 million acres (445,000 ha) of proposed wilderness that surround it (fig. 3), the corridor reflects how human use and recreation have evolved in the park's backcountry over time.

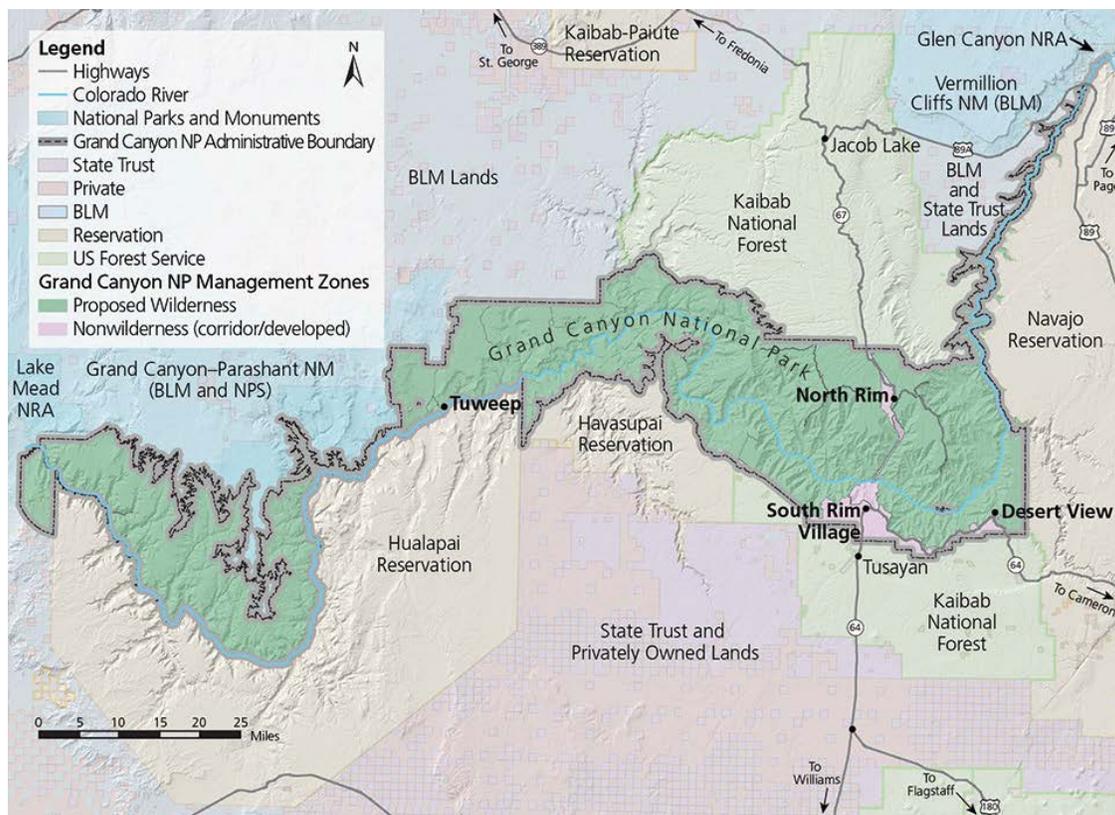


Figure 3. Multiple jurisdictions and various land uses surround the national park in the Grand Canyon region. Within the national park the corridor trail system is a designated cultural and historic landscape among the more than 1.1 million acres (445,000 ha) of proposed wilderness.

NPS/Grand Canyon National Park GIS

Early use of the Bright Angel Fault

Native uses

Grand Canyon has lured people to venture into its depths for thousands of years. Bisecting the canyon and contorting its most formidable geologic layers into penetrable terrain, the Bright Angel Fault has served as a natural means of access to the inner

canyon since prehistoric times. At numerous sites along the fault, archaeologists have documented structures and artifacts created by Archaic, ancestral Puebloan, Cohonina, and protohistoric American Indians (Milner 2005). The availability of water and warmer temperatures likely inspired early travel and human occupation of the area.

Mining

At the turn of the 20th century, prospectors (and their mules) came in search of mineral wealth (Berkowitz and Thybony 2004). From 1890 to 1891, Pete Berry, along with brothers Niles and Ralph Cameron, widened what is now the Bright Angel Trail as far down as Indian Garden in hopes of exploiting nearby mineral deposits. However, it did not take them long to realize that “the real riches lay in tourism and not in ore” (Berkowitz and Thybony 2004). Much to the ire of the Santa Fe Railroad, whose tracks had reached the South Rim in 1901, Ralph Cameron filed mining claims at strategic points along the trail. He also charged a \$1 toll for use of the trail (fig. 4) and profited from overnight guests at his newly established Indian Garden Camp (Berkowitz and Thybony 2004).



Figure 4. Riders pay a toll at Cameron's Bright Angel Trailhead, around 1910.

Kolb Brothers photo, Grand Canyon National Park Museum Collection

Tourism

Also hoping to profit from the burgeoning popularity of inner canyon tourism was E. D. Woolley, a Utah businessman. In 1903, Woolley established the Grand Canyon Transportation Company with his son-in-law, David Rust, a local schoolteacher (Swanson 2007). Rust would go on to develop a trail on the north side of Bright Angel Fault that had originated with Francois Matthes of the US Geological Survey. This trail, the predecessor to the modern North Kaibab Trail, led to a camp that Rust also developed, situated near the mouth of Bright Angel Creek (Berkowitz and Thybony 2005). By 1907, outfitting services were offered from Kanab, Utah, to Rust's Camp, and Rust had erected a cable tramway over the Colorado River (fig. 5), linking trails on both sides of Bright Angel Fault (Anderson 2000). At this time, the majority of visitors to Grand Canyon's backcountry were visiting these remote locales via guided mule trips.



Figure 5. Visitors enjoy the convenience of David Rust's aerial tramway crossing the Colorado River, around 1908.

Kolb Brothers photo, Grand Canyon National Park Museum Collection

Developing the corridor trail system

South Kaibab Trail and Phantom Ranch

Coconino County took control of the Bright Angel Trail in 1912 when Cameron's legal right to operate the trail as a toll road expired (USDI 2006). The National Park Service (NPS) assumed management of lands adjacent to the Bright Angel Trail as a national park in 1919. The Park Service made improvements to the area around this time, including the construction of a swinging wooden suspension bridge that would mitigate safety concerns with Rust's old cable tramway (USDI 2012). However, sustained legal struggles between the county and the National Park Service over control of the Bright Angel Trail soon led to the construction of the South Kaibab Trail.

In 1924, two crews began constructing this trail between the west side of Yaki Point and the Colorado River. Completed in 1925, the South Kaibab Trail provided visitors with spectacular views and toll-free access to Phantom Ranch (fig. 6), a resort at the bottom of the canyon operated by the Fred Harvey company, a park concessioner, and the Santa Fe Railroad (Anderson 2000).



Figure 6. Three visitors sit outside the original lodge at Phantom Ranch, around 1925.

NPS/Grand Canyon National Park Museum Collection

Situated near the site of Rust's Camp, and designed to resemble a rustic ranch in the

desert, Phantom Ranch, designed by Santa Fe Railroad architect Mary Elizabeth Jane Colter, quickly became a popular hideaway for stylish celebrities of the era (Thybon 2001). The resort expanded, and by 1930, it consisted of many cabins, tents, a recreation hall, a bathhouse, and a canteen. The rapidly increasing visitation led to construction of the park's first corridor sewage system in 1936 (USDI 2012).

The North Rim

Improving recreational access to Phantom Ranch from the North Rim was a priority for the National Park Service from 1926 to 1928. During this time, the Park Service constructed the North Kaibab Trail. This new trail followed Rust's trail at its lower elevations but deviated from it nearer the top, passing through Roaring Springs Canyon and directly linking to the North Rim Entrance Road, currently known as Highway 67. In the lower trail segment, 94 crossings of Bright Angel Creek were reduced to a mere seven with the construction of steel and concrete bridges spanning the creek (Anderson 2000). Upon completion of this work, the North Kaibab Trail was connected to the South Kaibab Trail with a new, rigid, steel suspension bridge called the Black Bridge (fig. 7).



Figure 7. Early corridor trail users benefited from the 1921 swinging bridge (lower of the two) and the 1928 Kaibab suspension bridge over the Colorado River in 1928. The Kaibab suspension bridge, also known as "Black Bridge," is still used today by hikers and for all mule crossings.

NPS/Grand Canyon National Park Museum Collection

Bright Angel Trail

Black Bridge was nearing completion in 1928 when Coconino County ceded the Bright Angel Trail to the National Park Service. Park administrators, confronted with the prospect of maintaining two rim-to-river trails on the south side of the canyon, considered abandoning the Bright Angel Trail altogether, but ultimately recognized its value as an additional path to the river. The trail also provided access to perennial Garden Creek, the source of water for the first pipeline to the South Rim (Anderson 2000). Over the next decade, the National Park Service reconstructed and realigned the entire length of the Bright Angel Trail and created a new trail linking it to the South Kaibab Trail. This 1.5-mile (2.4 km) link, now known as the Colorado River Trail, was built by Civilian Conservation Corps Company 818—with the assistance of approximately 40,000 pounds (18,144 kg) of explosive powder (fig. 8) (Purvis 2002). At the close of the 1930s, the corridor trail system was complete. The system's infrastructure would see few major changes in the decades to come, but its dusty tread would soon capture more than just mule tracks.



Figure 8. Workers with Civilian Conservation Corps Company 818 construct the River Trail, around 1935.

NPS/Grand Canyon National Park Museum Collection

Crowds in the corridor

Hiking and backpacking

Mule rides remained the primary form of recreation below the canyon's rims until the end of World War II, when "young men, conditioned to long walks with heavy packs," began embarking upon day hikes and overnight stays in the canyon (Anderson 2000). By 1946, registers at the South Kaibab and Bright Angel trailheads indicated that the number of hikers equaled or surpassed the nearly 10,000 annual mule riders descending into the canyon. As a result, the corridor soon became so congested that in 1947, mule parties departing Phantom Ranch were sent up the South Kaibab Trail in order to avoid the throngs of hikers on the more popular Bright Angel Trail (Anderson 2000).

Increased recreational use in the corridor reflected an overall boom in visitation that was occurring on the rim (fig. 9). With visitation to the park rising from 665,000 in 1950 to 1,168,000 in 1960, the pipeline from Indian Garden to the South Rim struggled to meet the demand for water (Anderson 2000). By the early 1960s, a critical water shortage developed, and construction began on a transcanyon pipeline that would supply water to the South Rim developed area from Roaring Springs, located nearly 5 miles (8 km) down the North Kaibab Trail. As it neared completion in 1966, a major flood destroyed the transcanyon pipeline. Reconstruction began the following year and by 1970, Roaring Springs water was being pumped to storage tanks on both rims (Hughes 1978). The transcanyon pipeline was the most significant addition to corridor infrastructure since the 1930s. It provided treated water to recreational visitors at various locations along the North Kaibab and Bright Angel Trails, and also resulted in the construction of another suspension bridge about one-half mile (0.8 km) downstream from Black Bridge. The new Silver Bridge, built to suspend the pipeline over the Colorado River, would also benefit an increasing demographic of hikers and backpackers. Mule traffic remained on Black Bridge, however, because it was a more stable walking surface for pack animals.

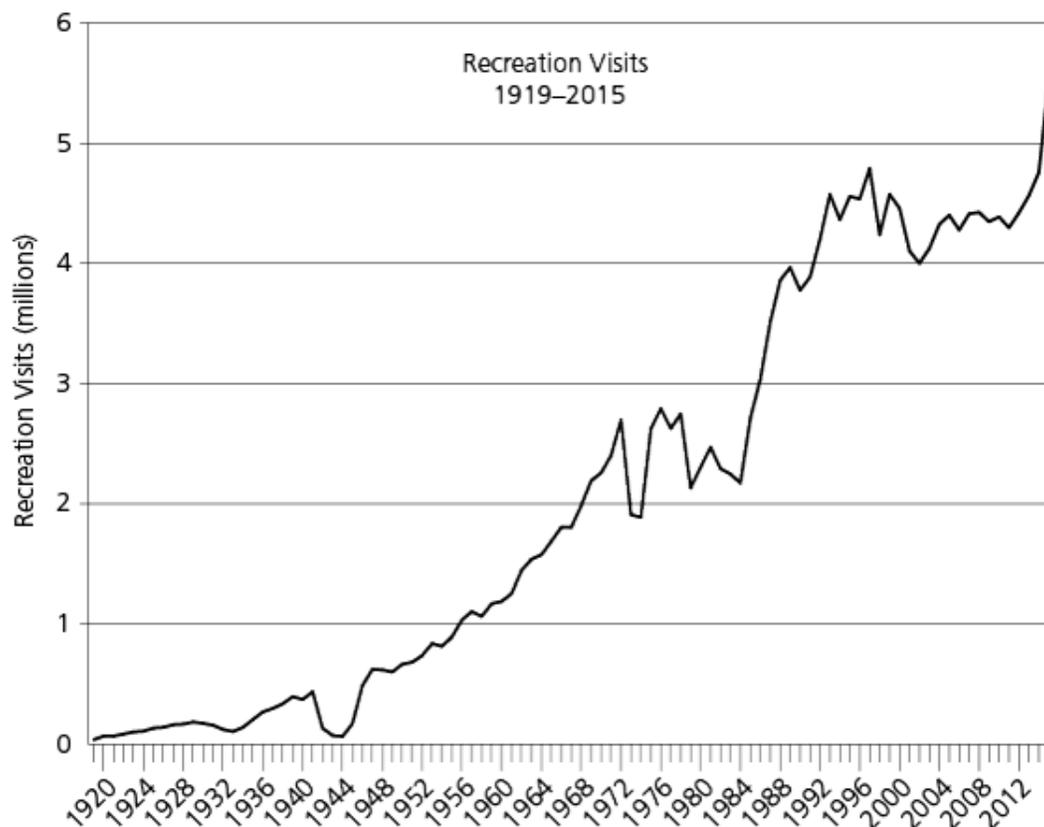


Figure 9. Annual recreation visitation at Grand Canyon National Park, 1919–2015 (NPS 2016). (The data are presented in the linked file.)

NPS/Natural Resource Stewardship and Science

By the 1970s, backpacking had exploded at Grand Canyon and established trails and campgrounds were overcrowded. According to Hughes (1978), “On some summer nights at Phantom Ranch, 800 to 1,000 campers occupied a campground that could comfortably accommodate 75 at most.” The increase in recreational use was so dramatic that in 1974 a backcountry office, a reservation system, and the park’s first backcountry management plan were created (Anderson 2000).

The rise of adventure and endurance sports

Backpacking remains popular in the corridor (fig. 10), but in recent years, the number of people participating in activities such as canyoneering, trail running, and endurance hiking at Grand Canyon has increased from a mere handful of individuals into distinct user groups. For canyoneers, slot canyons and waterfalls located near the corridor provide opportunities to hike, climb, rappel, and swim (Martin 2011). Canyoneers use the corridor to access nearby routes such as Pipe Creek, Garden Creek, Phantom Creek, and Ribbon Falls. For endurance athletes, the corridor is a venue to execute laps, test one’s stamina,

and race against a stopwatch. Groups surpassing 300 people strain the water spigots, toilets, emergency telephones, and backcountry rangers along the route.



Figure 10. A backpacking party passes the Cottonwood Campground restrooms on the North Kaibab Trail. Cottonwood is a small campground located 6.8 miles (11 km) below the North Rim.

NPS/Michael Quinn

As occurred during the previous periods of recreational growth, corridor infrastructure is again struggling to meet the demands of emerging recreational uses with mass appeal. The transcanyon pipeline has exceeded its 30- to 40-year life expectancy and is prone to multiple breaks annually (Lowe 2013). Jerome Chavez, Grand Canyon National Park's Phantom Ranch sewage treatment plant operator, stated in an e-mail message dated 4 February 2014, "The treatment plant exceeds its daily capacity by 10:00 am on Saturdays during spring and autumn." Although rim-to-rim running and canyoneering both have their roots in the 1960s, it is in the 2010s that the National Park Service is grappling with how to best accommodate the number of people participating in these activities (Strout 2013).

Conclusion

Park managers are in the final stages of a multiyear process to revise the park's 1988

backcountry management plan. Through this process, park managers are striving to understand how all of the corridor's recreational activities influence and affect the experience of different user groups, as well as the natural and cultural resources protected there (Strout 2013). Special-use permits have been tested for endurance sports over the past couple of years, adaptive management techniques are being adopted to handle emerging uses such as canyoneering, and modifications to staffing levels are being implemented to mitigate the strain of current recreational trends on emergency services personnel. The following three articles examine how the increased popularity of endurance sports has impacted visitor experience, how a canyoneering monitoring program has documented impacts to technical routes within the corridor, and how the implementation of a preventive search-and-rescue program has increased visitor safety.

References

- Anderson, M. F. 2000. Polishing the jewel: An administrative history of Grand Canyon National Park. Grand Canyon Association, Grand Canyon, Arizona, USA.
- Berkowitz, A., and S. Thybony. 2004. Grand Canyon Bright Angel Trail guide. Grand Canyon Association, Grand Canyon, Arizona, USA.
- . 2005. Grand Canyon North Kaibab Trail guide. Grand Canyon Association, Grand Canyon, Arizona, USA.
- Hughes, D. J. 1978. In the house of stone and light: A human history of the Grand Canyon. Grand Canyon Natural History Association, Grand Canyon, Arizona, USA.
- Lowe, J. 2013. Pipeline vital to Grand Canyon near a "catastrophic failure." KPHO-TV CBS 5, Phoenix, Arizona, USA. Accessed 17 July 2016 from <http://www.cbs5az.com/story/24235864/pipeline-vital-to-grand-canyon-near-a-catastrophic-failure>.
- Martin, T. 2011. Grand canyoneering: Exploring the rugged gorges and secret slots of the Grand Canyon. Todd's Desert Hiking Guide, Phoenix, Arizona, USA.
- Milner, J. 2005. Indian Garden, Grand Canyon National Park. Cultural Landscape Report. John Milner Associates, Charlottesville, Virginia, USA. Available at https://www.nps.gov/parkhistory/online_books/grca/indiangarden_clr.pdf.
- NPS (National Park Service). 2016. Grand Canyon National Park annual park recreation visitation (1904 to last calendar year). National Park Service Visitor Use Statistics website, Natural Resource Stewardship and Science, Fort Collins, Colorado, USA. Accessed 24 March 2016 from <https://irma.nps.gov/Stats/Reports/Park/GRCA>.
- Purvis, L. L. 2002. Civilian Conservation Corps Company 818: Building the Colorado River

Trail. Pages 81–85 in M. F. Anderson, editor. A gathering of Grand Canyon historians: Ideas, arguments, and first-person accounts. Grand Canyon Association, Grand Canyon, Arizona, USA.

Strout, E. 2013. National treasures: More runners are hitting the trails at national parks, for better or worse. *Running Times* 410:32–33.

Swanson, F. H. 2007. *Dave Rust: A life in the canyons*. University of Utah Press, Salt Lake City, Utah, USA.

Thybony, S. 2001. *Phantom Ranch, Grand Canyon National Park*. Grand Canyon Association, Grand Canyon, Arizona, USA.

USDI (US Department of the Interior). 2006. National Register of Historic Places registration form, Bright Angel Trail. Manuscript on file, Grand Canyon National Park Trail Archives, Grand Canyon, Arizona, USA.

———. 2012. National Park Service Cultural Landscape Inventory: Cross Canyon Corridor Historic District. National Park Service, Grand Canyon National Park, Arizona, USA.

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