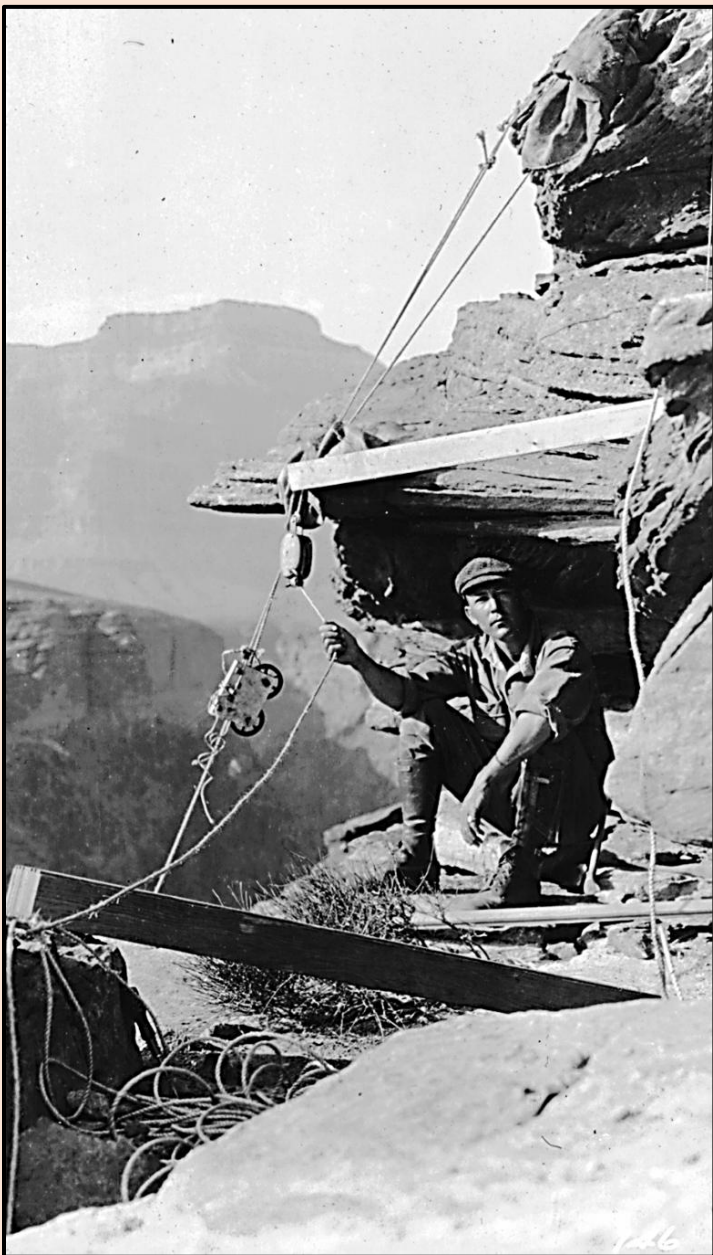


Grand Canyon

WIRED



TRAMS, CABLES
AND WIRES
OF THE
GRAND CANYON
OF ARIZONA

an exploratory
bibliography about
proposed and
developed projects

ILLUSTRATED

Earle E. Spamer

COVER PHOTO — An unidentified surveyor in the canyon with George K. Davol's 1919 survey for a proposed cableway that would have run a zig-zag course from Hopi Point on the South Rim to Tiyo Point on the North Rim by way of Dana Butte, Tower of Set, Osiris Temple, and Shiva Temple (the survey routes were far more tortuous).

*(Grand Canyon National Park Museum Collection,
Grand Canyon Cableway Survey Photographs album, GRCA-05781)*

GRAND CANYON WIRED



FRONTISPIECE — Rose Evans and Lida Belveal from El Tovar and Los Angeles (though not separately identified in the photo) are the first passengers to ride on David Rust's cable over the Colorado River, September 21, 1907; the man, presumably with the Rust operation, is not identified. (Detail.)

(National Park Service, https://www.flickr.com/photos/grand_canyon_nps/4739554338/sizes/z/, Creative Commons license <https://creativecommons.org/licenses/by/2.0/>; last accessed April 16, 2026.)



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A Raven's Perch Digital Production



RAVEN'S PERCH MEDIA

BIBLIOGRAPHICAL AND HISTORICAL RESOURCES ON THE GRAND CANYON
AND LOWER COLORADO RIVER REGIONS

GRAND CANYON WIRED

by Earle E. Spamer

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Raven's Perch Media
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Introduction

THIS IS A selectively illustrated, groundwork bibliography of proposed and developed projects in the Grand Canyon that employed the use of aerial cables and trams, and other specialized uses of wires. It was compiled as the result of an inquiry whether any list of references was available regarding this subject. Continuous bibliographical efforts for the Grand Canyon have been underway for more than fifty years, during which at times items turned up that pertain to these aerial systems; yet there was no separate accounting for them despite occasional interest. Most published information about the various trams, cables, and wires remains widely scattered within the texts of more broadly focused historical and popular publications; most of them simply repeat facts. Faced with such sprinklings of information known to be in print but not compiled, it will take substantial research beyond present resources; a quite elaborate commission. It seemed that compiling a less-focused accounting should be abandoned, yet because recurrent curiosity about the Grand Canyon's aerial apparatuses is evident, to avoid the subject altogether is irresponsible.

To preserve what has been found in a half century of bibliographical work, a novel "exploratory bibliography" is devised here. These citations are gathered to serve as a starting point for a more informative and ambitious bibliography, serving for now a basic need in the event that no such further project comes about. It may assist one with a project that may then be at hand, or just to answer a quick question. Making this a truly comprehensive index, if such is called for, will be a significant effort; there are a great many publications and "gray literature" documents that incorporate comments about one or another of the many cables and wire strings that have been wound across great and short distances in the Grand Canyon. Some of these may offer unique data not so recognized at this time. And in the process of compiling this brief volume a number of obscure references came to light, which are themselves peculiar or interesting asides in the history of Grand Canyon's cables; some reveal eccentric schemes that came to nothing (or were nothing to begin with). These might have been forever forgotten save for serendipitous rediscoveries. Some references herein may even be entirely new to Grand Canyon aficionados.

A few of the systems addressed in the different parts of this bibliography are well known, and because of this users of this volume may be disheartened not to find many more

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resources listed for them. For example, the damsite for the proposed Marble Canyon Dam was served by a tram coming down on the east side of the river from the Navajo Nation. While that intended dam is well integrated into Colorado River and Grand Canyon history, relatively little about the tram appears in the literature except as ancillary comments in broader historical and administrative works; just one item was found in the popular literature that focuses specially on the tram. And the contemporary plan for Bridge Canyon Dam on the west end of the canyon likewise is reported to have had a tram, though virtually nothing has been seen regarding it. But it is not the object here to provide comprehensive histories; only to offer lists of publications that have come to light during decades of penetrating bibliographical research on the Grand Canyon and Colorado River.

Another example is the well-known tram for the Bat Cave guano mine in the western part of the canyon (which even appears in the climax of the 1959 crime–adventure film, *Edge of Eternity*). The mine’s audacious purpose was to extract thousands of tons of rich bat guano for fertilizer sales. Workers who had run the Bat Cave operation also named the headframe area Batchit, Arizona; not known until a book with that title was published. The mine was a producing one for a while, but perhaps most regretfully it is often, sometimes giddily, remembered for the fact that after considerable expense and infrastructural construction it was ruined when virtually all of the estimated accumulation of guano turned out to be decomposed limestone and a thinning of deposits at a rise in the middle—and, to add injury to insult, the last of several ill-fated cables was severed by the wing of a U.S. Air Force jet during a flight through the canyon. (The pilot safely returned the damaged aircraft to base.) The Bat Cave cables still lie draped across the canyon and river bottom. Unlike all the other trams focused on in this bibliography, remnants of the Bat Cave tram—its high towers—are still present (though one administrative episode looked to demolish with explosives the towers that stand within Grand Canyon National Park, on the north side of the river). The tram headframe on the south rim at “Guano Point” on the Hualapai Indian Reservation can be visited during tours to the tribe’s Grand Canyon West attractions, from where the closest tower on the cable’s former descent from the rim can also be seen.

From end to end, Grand Canyon has had its fill of wires. In addition to the widely scattered remarks in various historical publications, not traced in this exploratory bibliography, there is a wealth of unpublished manuscript materials and administrative records for Grand Canyon National Park that relate to the many projects and schemes, which future compilers would do well to track down. ○

GRAND CANYON WIRED

Introduction

KEY TO ITEM NUMBERS USED IN THIS BIBLIOGRAPHY

DeWald, Bud

1957

2.17912

They go to work in a bucket. Men and machinery drop 1800 feet into the Grand Canyon to reach mine discovered in 1893 by "Pop" Hogan. *Arizona Days and Ways (Arizona Republic)*, (June 9): 6-11.

Throughout this bibliography the unique Item Numbers applied to each citation in the master bibliography from which this one was created, *THE GRAND CANON** Volume 1/Part B (5th edition, Raven's Perch Media, 2025, plus additional citations accumulated since January 2025). These are only serial numbers, first applied in the bibliography in the 1990s to distinctively identify citations. The prefixes (for example, "2.") indicate the subject-specific part of the master bibliography (see the list below for those used in the present bibliography). The suffixed numbers ("17912" in the example above) begin with 1 within each part. The numbers occasionally are used to unambiguously cross-reference other citations in the bibliography. In a few instances, just one or a couple of citations from a category are cited in this bibliography.

Part numbers not listed are not pertinent to this bibliography

<u>PREFIX</u>	<u>SUBJECT</u>
2.	GENERAL PUBLICATIONS
3.	<i>THE NEW YORK TIMES</i>
4.	MEMORIALS
6.	PUBLICATIONS FOR AND BY YOUTH AND YOUNG ADULTS
12.	COLORADO RIVER WATER SUPPLY, MANAGEMENT, AND POLICY
13.	ADMINISTRATIVE AND MANAGEMENT ISSUES OF POLITICALLY DEFINED UNITS
16.	ARCHAEOLOGY AND CULTURAL RESOURCES
17.	NATIVE AMERICANS
18.	PHYSICAL ENVIRONMENT
21.	GEOLOGY
26.	AUDIO-VISUAL WORKS
27.	AUDIO WORKS
28.	MISCELLANEOUS IMAGERY

* **The Grand Canon** is a series of bibliographies for the Grand Canyon and Lower Colorado River regions produced by Raven's Perch Media, <https://ravensperch.org>. All productions are as searchable book-format PDFs, which can be downloaded without charge and may also be present in the digital collections of libraries, organizations, or government agencies. Many of the bibliographies are also archived at the Internet Archive, <https://archive.org>.

South Rim Trams

The Indian Garden (Havasupai Gardens) tram, posted on the rim behind Bright Angel Lodge, was used in 1931–1932 during the construction of the first water-delivery system to the South Rim. The tram was dismantled when the project was completed.

The Orphan Mine tram was put up in 1955 after the old Orphan Lode claim (originally patented in 1893 by Dan Hogan for copper) was reassessed for its rich uranium content, which was mined during 1953–1969. The tram was removed in 1964 when an elevator hoist was constructed for ore removal. Mining ceased when uranium demands decreased and shipping costs increases. The property reverted to the National Park Service in 1987.

Hermit Camp, operated by the Santa Fe Railway–Fred Harvey consortium was opened for tourists in 1912. The tram, used for cargo, was put up in 1926 and used until the camp's closure in 1930. The camp and tram were removed later.

EXPLORATORY BIBLIOGRAPHY

Indian Garden [Havasupai Gardens*] Tram

Northern Arizona's Mountain Living Magazine, Staff

- 2012 2.16918 Test your knowledge; 1912-2012. *Northern Arizona's Mountain Living Magazine*, (Special Centennial Edition): 40-41.
 ▶ Quiz. Includes photo of tram to Indian Garden, Grand Canyon.

Richmond, Al

- 1996 2.5395 Tram? What tram? *Nature Notes* (Grand Canyon National Park), 12(2) (Summer): 1-3.
 ▶ Principally about the Grand Canyon tramway surveyed by George K. Davol in 1919, but also includes brief remarks on the Orphan Mine tram, the Indian Garden tram (with two photos), the Marble Canyon damsite tram, the Bass cable across the Colorado River, the Rust cable over the Colorado near the site of present-day Black Bridge, the Bat Cave tram, and the USGS cable over the Colorado upstream from Phantom Ranch.

* Indian Garden (also called Indian Gardens) was in 2022 officially renamed by the U.S. Board of Geographic Names and the National Park Service as Havasupai Gardens, to acknowledge the original dwellers at the springhead there.

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South Rim Trams



Truck bottom inverted on the Indian Garden tram during water pipeline construction, *ca.* 1932. (Lookout Studio is in the background.)

(National Park Service, Grand Canyon National Park)

GRAND CANYON WIRED

South Rim Trams

Orphan Mine Tram

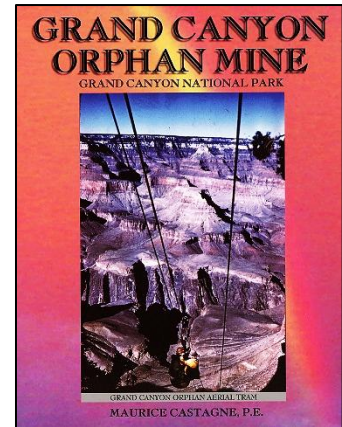
Castagne, Maurice

1990 21.3952

Grand Canyon Orphan Mine: Grand Canyon National Park. Mina, Nevada: Grand Canyon Orphan, 190+ pp.

► Written by a Professional Engineer who worked there. "The author was inspired to write the Grand Canyon Orphan Mine Book before its history is lost forever in the annals of time." (from the back cover). Includes numerous pictures of the tram, including the cover photo.

(ISBN 0-9764260-0-5)



(Author's copy)

DeWald, Bud

1957 2.17912

They go to work in a bucket. Men and machinery drop 1800 feet into the Grand Canyon to reach mine discovered in 1893 by "Pop" Hogan. *Arizona Days and Ways (Arizona Republic)*, (June 9): 6-11.

► Orphan Mine.

Richmond, Al

1996 2.5395

Tram? What tram? *Nature Notes (Grand Canyon National Park)*, 12(2) (Summer): 1-3.

► Principally about the Grand Canyon tramway surveyed by George K. Davol in 1919, but also includes brief remarks on the Orphan Mine tram, the Indian Garden tram (with two photos), the Marble Canyon damsite tram, the Bass cable across the Colorado River, the Rust cable over the Colorado near the site of present-day Black Bridge, the Bat Cave tram, and the USGS cable over the Colorado upstream from Phantom Ranch.



The Orphan Mine headframe was a highly visible landmark for years. It was a hoist for a 1,500-foot elevator that replaced the tram. Note the ore-dump chute. The headframe was not removed until 2009.

(National Park Service, Grand Canyon National Park)

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South Rim Trams

The following excerpt is from the National Register of Historic Places nomination for the Orphan Mine:

Orphan Lode Mine (listed August 1, 1974; 60 pp. plus photos)

Grand Canyon National Park, vicinity of Grand Canyon, Arizona; 2 buildings, 22 sites, 17 structures, 8 objects; original survey (1905), 20.26 acres; resurvey (1961), 20.64 acres. 1953-1969.

Nomination prepared May 28, 1993, Harlan D. Unrau, Denver, Colorado.

Summary: "Located on the south rim of the Grand Canyon in Grand Canyon National Park, Arizona, the Orphan Lode mining claim is a 20.64-acre (original 1905 survey measured 20.26 acres but resurvey in 1961 measured 20.64 acres) site approximately 2-1/2 miles west of Grand Canyon Village and several hundred yards north of West Rim Drive between the Maricopa Point and Powell Memorial viewing areas. The mining claim consists of approximately 5-6 acres on the rim, the remainder extending down the precipitous and desolate canyon walls to the north end of the claim some 1,100 feet below the rim. Located and filed in 1893 and patented in 1906, the mine yielded minimal amounts of copper and traces of gold and silver during the next 45 years. Because of its unprofitable production, a 2-3 acre section in the southwest corner of the claim on the rim was developed and operated as a tourist resort facility between the late 1930s and the mid-1960s. All of the structures associated with this building complex were razed by the National Park Service in 1967-68. The discovery of anomalous radioactivity on the property in 1951 led to speculation that the Orphan Mine contained uranium deposits. As a result of exploration and development of the claim between 1953-69, the Orphan Mine achieved its greatest period of significance, becoming one of the leading producers of high-grade uranium ore on the Colorado Plateau and of some of the richest uranium ore in the United States.

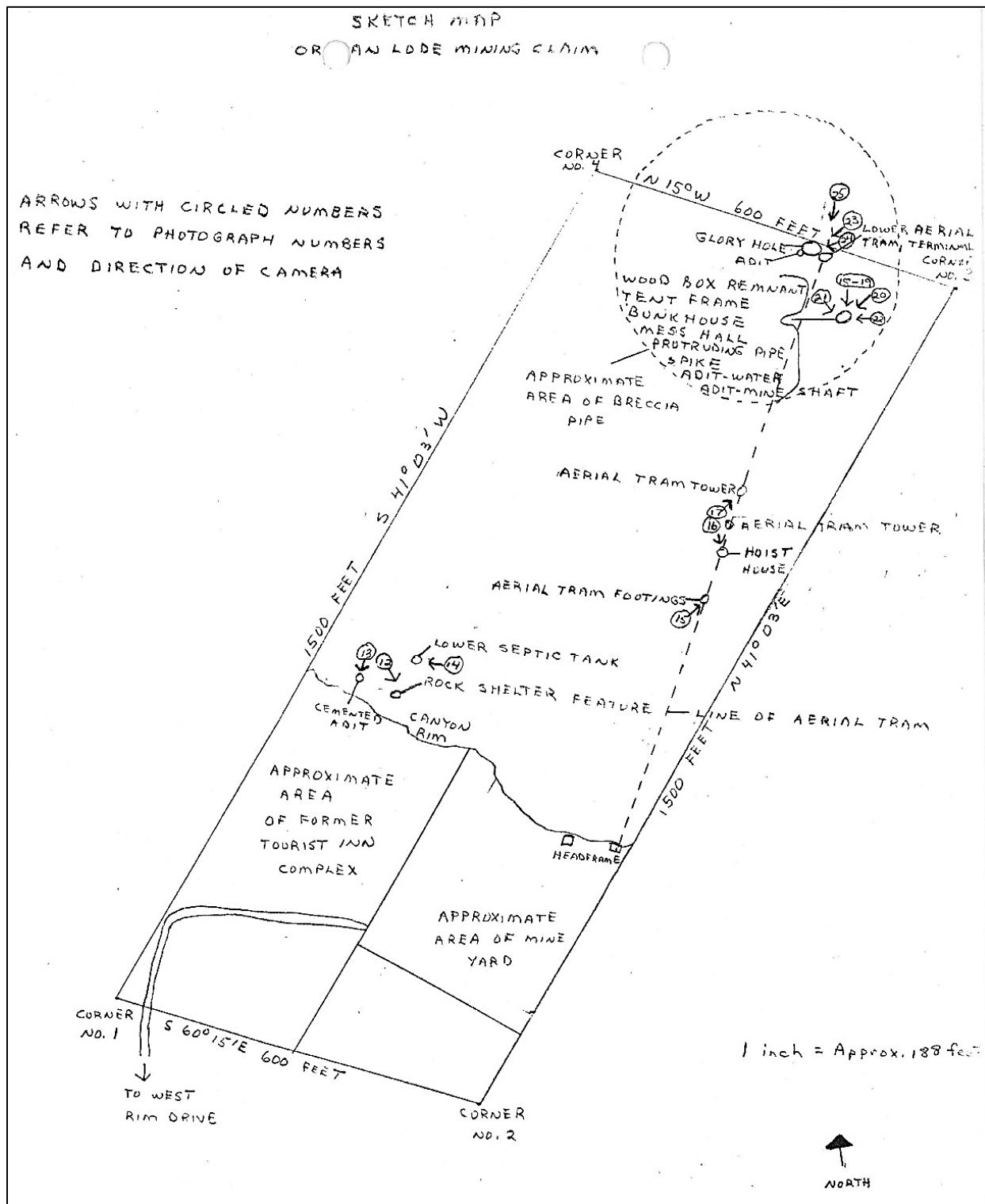
"With the possible exception of remnants of an early trail from the rim to the lower mine workings and portions of several adits in the lower workings there are no known extant resources on the claim that date from the pre-1950s mining operations. The extant features on the rim, which date from the uranium mining period, include an 80-foot-high steel headframe over the *mine* shaft and associated surface structures/foundations/debris in a fenced enclosure covering slightly less than 3 acres in the southeast corner of the claim. Most of the buildings in this enclosure were razed by the National Park Service in 1987. A series of extant remnant foundation and superstructure elements and a surviving hoist house, all associated with an aerial tramway that operated between the rim and the lower mine workings during the mid-to-late 1950s, dot the steep canyon walls on the claim. The lower mine workings include several structures and two adits approximately 150 feet uphill and to the southeast of the extant lower tramway terminal remains, an adit leading to the mine shaft, and the so-called 'glory-hole' near the north edge of the claim. Portions of the three adits may date to the late 19th or early 20th centuries.

"The Orphan Lode Mine property has been abandoned since 1969. While many of the structures, buildings, and objects associated with the mine have either been razed or removed and many of its extant remains are in a state of significant deterioration, *the* mining property, as a whole, retains a fair degree of integrity since the principal elements of its operation during the 1950s and 1960s remain intact and visible. Each of the 45 extant resources on the claim was present during the uranium mining period from 1953 to 1969 when the Orphan Mine achieved its documented significance and thus contribute to the overall historical significance of the property."

See map on next page, which delineates the tram line.

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South Rim Trams



Sketch map of the Orphan Lode mining claim. (From the "Orphan Lode Mine" nomination to the National Register of Historic Places, prepared May 28, 1993, by Harlan D. Unrau, Denver.)

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South Rim Trams

Hermit Camp Tram

Katonak, Tom

2005 16.1015 From the First Past President. *Drip Points* (National Insulator Association), 32(4) (Summer): 4.

► Notes regarding a hiking trip into Grand Canyon and observations of remains of galvanized phone wire and porcelain insulators along the Tonto Trail, and "several pieces of McLaughlin CD 162s and 164s [glass insulators] in a light sage green color" amidst aerial tram debris at the Hermit Camp site. No specific details, nor illustrations.

Thune, Margaret Nelson

1991 2.6299 My father's trip on the tram. *Grand Canyon Pioneers Society, Newsletter*, 2(2): 5.

► Elmer Nelson's ride on the tram to Hermit Camp.



Hermit Camp tram headframe at Pima Point, November 27, 1936.

National Park Service, Wikimedia Commons,

[https://commons.wikimedia.org/wiki/File:00768_Grand_Canyon_Historic_Hermit_Trail_\(7421680596\).jpg](https://commons.wikimedia.org/wiki/File:00768_Grand_Canyon_Historic_Hermit_Trail_(7421680596).jpg);

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South Rim Trams

Unspecified Locations

Unsigned

- 1903 12.3981 [News note.] *Engineering News*, 50(5) (Construction News Supplement) (July 30): 69.
- ▶ "Power Plant.—Reports from Monterey state that the Grand Canyon Copper Co., operating near Grand View, Ariz., has had estimates made for a power plant at Mooney Falls, on Cataract Creek, 40 miles from mine. Company also proposes to build a tramway into the canyon." (ENTIRE ITEM) [Specific location of proposed tram undetermined; likely for the Grandview mine.]

James, George Wharton

- 1912 2.13057 [General proposal for an "aerial railway from the rim to the river in the Grand Canyon of Arizona."] *In*: In the Editor's Den [SECTION]. *Out West*, 4(5) (November): 343.
- ▶ Comparing the "Cable Incline on the Mount Lowe Railway [in California], which has two cars, each carrying twenty passengers with "the one ascending as the other descends", James continues, "What a wonderful railway this would be at the Grand Canyon. To descend to the plateau from the rim takes about three miles of trail traveling, and an hour's ride. With a railway of this kind it would be as easy as rocking in a cradle and occupy perhaps five minutes. Gentlemen who cater to tourist travel, engineers who wish to keep ahead, here is a task for you—easy enough surely if you go about it—invent, build, install and run an aerial railway from the rim to the river in the Grand Canyon of Arizona, and to Glacier Point in the Yosemite Valley. Travelers will soon come and pay for it."
-

David Rust Cable Over the Colorado River

The first tram over the Colorado River (*see frontispiece herein*) was the entrepreneurial inspiration of E. D. “Uncle Dee” Woolley of Kanab, Utah, and David D. Rust, a one-time miner in Utah who became more successfully an outfitter and guide. The tram, not far upstream from the mouth of Bright Angel Creek, was a part of the larger effort of their Grand Canyon Transportation Co. to build a tourist trail from the North Rim to the Colorado River, and to link it with new trailing on the south side to the existing Bright Angel Trail. Rudimentary tourist camps were established by Rust on the North Rim and at the Bright Angel Creek (Rust’s Camp, which in the 1920s was replaced by the Santa Fe Railway’s Phantom Ranch). Rust’s idea was to attract South Rim tourists to visit the North Rim and the Kaibab forest; and the key, of course, was the tram across the river. Though the attraction saw little success, the extraordinary personal and financial efforts in building the trail—and even more greatly the problems in building the tram—comprise a story that is without question one of the more personally inspiring ones in the Grand Canyon, even if it is eclipsed by more well-known entrepreneurial efforts along the South Rim. The biography of David Rust by Frederick H. Swanson (2007) devotes a fair amount of coverage to the trail and tram, including liberal quotations from Rust’s diary that reveal the significant difficulties met in building the tram in the first place, and then in promoting its use. The Rust cable was replaced in 1921 by a “swinging” suspension bridge built by the National Park Service, which in turn was replaced in 1928 by the present “Black Bridge” that is a sturdier steel-framed suspension bridge. The bridges, technically, also comprise “cable” structures over the river.

EXPLORATORY BIBLIOGRAPHY

[*Note:* Early references to a North Rim tram (below) actually relate to what was to be the Rust cable over the Colorado River. The misconceptions were likely editorially inferred and were not misrepresentations by the companies or individuals mentioned.]

Unsigned

1905	2.16440	To span Grand Canyon. Talk of an aerial tramway over the world’s greatest gorge. <i>Deseret News</i> , (August 8): 5 [issue pagination].
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David Rust Cable Over the Colorado River

- 1905 2.16441 A game preserve in Grand Canyon. Proposition to establish one on its rim now under official consideration. Roosevelt has been invited. Expects to take a lion hunting trip on it that will entirely eclipse Colorado exploits. Utah man gives particulars. President Woolley came to Salt Lake today to order material for aerial tramway. *Deseret News*, (August 14): 1-2 [issue pagination].
- 1905 2.16442 Grand Canyon visit. Arrangements for Utah congressional party to go there next month. *Deseret News*, (August 19): 2 [issue pagination].
▶ Regarding congressional party led by Senator Reed Smoot (Republican-Utah). Also note of Woolley placing order for materials for aerial tram.
- 1905 2.14476 The Grand Cañon air line. *In*: With the Procession [SECTION]. *Everybody's Magazine*, 13(4) (October): 564-565.
▶ Grand Cañon Transportation Co., of Utah, newly incorporated; "to stretch a wire cable across the Grand Cañon, anchor it on the opposite side of the gorge, and run a car back and forth, eight thousand feet in the air." (p. 564) [sic!].
- 1905 2.23853 [North Rim tram.] *In*: In the Trail of the Traveler [SECTION]. *The Four-Track News* (New York), 9(4) (October): 321-322.
▶ "A scheme is well under way for spanning the gorge of the Grand Canyon of the Colorado, at its widest point, by an aerial tramway which will carry tourists from the bottom of the Bright Angel Trail to the top of the Buckskin Plateau, 8,000 feet in height. The view which will be obtained from this tram will surpass in grandeur anything that can be seen from the old, circuitous route up the gorge." (ENTIRE NOTE) [sic!].
- 1905 2.19221 Cage for passengers. *Railroad Men* (New York), 19(2) (November): 74.
▶ "A local machinery firm has turned out a 1,000-pound iron cage to be used in swinging passengers and horses across the river of the Grand Canon of the Colorado, near where the Santa Fé has built its fine hotel. The capacity is ten persons, or one horse.—*Salt Lake City Desert [sic] News*." (ENTIRE ITEM) Pertains to the Rust cable near the foot of Bright Angel Trail.
- 1905 2.15374 Eine Schwebbahn über dem Grand Canyon des Colorado [*transl.* 'A cableway over the Grand Canyon of the Colorado']. *In*: Kleine Mitteilungen aus allen Erdteilen ['Brief Notes From Around the World'] [SECTION]. *Deutsche Rundschau für Geographie und Statistik*, 28(2) (November): 91. [In German.]
- 1905 2.15319 Eine Schwebbahn über dem Grand Canon des Colorado [*transl.* 'A cableway over the Grand Canyon of the Colorado']. *In*: Miscellanea [SECTION]. *Schweizerische Bauzeitung (Wochenschrift für Bau-, Verkehrs- und Maschinentchnik)* (Schwizerische Ingenieur- und Architekten-Vereins und der Gesellschaft ehemaliger Studierender des eidgenössischen Polytechnikums in Zürich), 46(21) (November 18): 260. [In German.]
- 1905 2.30887 Eine Schwebbahn über dem Grand Canon des Colorado [*transl.* 'A cableway over the Grand Canyon of the Colorado']. *In*: Nachrichten ['News'] [SECTION]. *Vereins Deutscher Eisenbahnverwaltungen, Zeitung* (Berlin), 45(94) (December 2): 1396. [In German.]
- 1906 2.19159 Cage for passengers. *In*: Railway News [SECTION]. *The Railway Signal* (London), 26(1) (January): 9.
▶ "A local machinery firm has turned out a 1,000-pound iron cage to be used in swinging passengers and horses across the river of the Grand Canon of the Colorado,

GRAND CANYON WIRED

David Rust Cable Over the Colorado River

near where the Santa Fé has built a fine hotel. The capacity is ten persons, or one horse.—*Salt Lake City Desert [sic] News.*" (ENTIRE ITEM)

- 1906 2.26240 [Proposed cableway.] *Engineering News*, 55(16) (April 19): 447.
▶ "An item has been sent out to the press by the publicity department of the Atchison, Topeka & Santa Fe relating to the Grand Canyon of the Colorado. We quote it in full as follows:
'It is proposed to stretch a heavy cable across the granite gorge of the Colorado River, from bank to bank, and attach to same a movable steel cage, in which passengers will be transported. The distance from rim to rim in mid air, as the crow flies, is thirteen miles. The distance going down the north wall, crossing the river on the cable and ascending the north wall, is fully twenty miles.'
Those of our readers familiar with the mathematics of the catenary curve may be interested to compute the total vertical drop of a cable with a length of 20 miles and its points of support 13 miles apart. Those who are not can easily see by a roughly approximate computation that the lowest point of such a cable would be several miles lower than the Colorado River at the bottom of the gorge. It may be added that as a cable of such a span, even if made of high-grade steel wire, would barely support its own weight, no passengers are likely to take the dizzy ride for some time to come."
(ENTIRE ITEM)
[Note that there is some confusion in this *Engineering News* statement, which seems that the proposed cableway would be from rim to rim. This was clarified by the Santa Fe's advertising agent, W. H. Simpson (1906, ITEM NO. 2.26241) (see farther below).]
- 1906 2.16454 Kanab [NEWS]. Roadway to Grand Canyon. Now under construction. *Deseret News*, (June 30): 13 [issue pagination].
▶ "President E. D. Woolley left Kanab last night with a gang of laborers to make a trail into the Grand canyon. Work on the trail and the tramway across the canyon will now be pushed to completion. It is expected the game preserve created by Congress on the Buckskin mountain [Kaibab Plateau] will attract swarms of tourists."
(ENTIRE NOTE)
- 1906 2.16457 Grand Canyon. The canyon of canyons. Its glories and grandeur now accessible to the tourist. *Deseret News*, (August 29): 3 [issue pagination].
▶ Notice of availability of trail into Bright Angel Canyon, and cable car over Colorado River. Article begins with lengthy quotation from John Wesley Powell.
- 1906 2.16458 Kanab [NEWS]. Trail and aerial tramway over Colorado nearly completed. *Deseret News*, (August 29): 9 [issue pagination].
- 1907 2.16463 Kanab [NEWS]. *Deseret News*, (July 4): 7 [issue pagination].
▶ "A very interesting conference of the Relief societies of this stake has just closed. Mesdames Dusenberry and King were in attendance. Today they are starting to the Grand canyon, accompanied by President E. D. Woolley and others, who go to complete the tramway across the Colorado river." (ENTIRE NOTE)
- 1908 2.19160 Kanab, at the gateway of the Grand Canyon. *Deseret News*, (December 19): 97.
▶ Includes photo, "Grand Canyon Transportation Co. Tramway Across Colorado River at Bright Angel Trail, Connecting North Side of Grand Canyon With South Side and Santa Fear Hotel Eltooar." [sic!, Santa Fe Hotel El Tovar] and photo, "Camp Wooley at Bright Angel" (three men on horses, Kaibab Plateau).

GRAND CANYON WIRED

David Rust Cable Over the Colorado River

- 1913 3.422 Roosevelt in electrical storm. *The New York Times*, (July 17): 7.
▶ "A terrific electrical storm, the worst experienced in this region in several years, raged about Col. Theodore Roosevelt and his party yesterday as they crossed the Colorado River in Bright Angel Cañon, on the way to the Bad Lands hunting grounds. The crossing was made in the cage suspended from a cable 800 feet [*sic*] above the river. Lightning played about the cage. The Colonel and his sons, Archie and Quentin, were drenched, but suffered no other mishap." (ENTIRE NOTE)
- 1917 2.13558 Cableway at bottom of world's greatest gorge. *Popular Mechanics Magazine*, 28(4) (October): 573.
▶ Cableway over Colorado River near foot of Bright Angel Trail.
- 1967 28.824 Brighty gets a lift. *Popular Mechanics*, 128(4) (October): 149.
▶ Photo with legend only. Cable tramway recreated over Colorado River near Bright Angel Trail, used for filming the motion picture, *Brighty of the Grand Canyon* (Fleetwood Films, 1966, ITEM NO. 26.109).



Brighty gets a lift

A primitive, hand-powered cable tramway that once spanned the Colorado River in the Grand Canyon was recreated near the original site for the motion picture, *Brighty of the Grand Canyon*. Building it was easier this time; the moviemakers used helicopters instead of kites to get the cables across the river.

Fleetwood Films

- 1966 26.109 *Brighty of the Grand Canyon*. Norman Foster, director, writer; Joseph Cotten and Dick Foran, cast). Mt. Vernon, New York: Fleetwood Films, Inc. 16-mm film, in three parts. 30:00, 30:00, 29:00.
▶ Based on the young-reader novel by Marguerite Henry. Includes a cable car over the Colorado River built specifically for this film (see Unsigned, 1967, ITEM NO. 28.824, above).

GRAND CANYON WIRED

David Rust Cable Over the Colorado River

1968 26.125 *Brightly of the Grand Canyon*. Norman Foster, director, writer; from the novel by Marguerite Henry. Released by an independent studio. Color film. 93:00.

Lewis, Sylvia

1920 6.606 A dangerous venture. *In*: St. Nicholas League [SECTION]. *St. Nicholas*, 47(3) (January): 279-280.

► Crossing the Colorado River on a cable. ENTIRE ITEM is as follows:

"A Dangerous Venture
"by Sylvia Lewis (age 13)
"(Silver Badge)"

[i.e., awarded second prize for Prose in St. Nicholas League Prize Competition No. 239]

"Slowly we wound down 'Jacob's Ladder' at sunset. The Grand Cañon was a spot of unequalled beauty as the sun faded away in the west. But beautiful as the purples and gold were, they failed to thrill us, for on the morrow we were to undertake a trip known to all for its danger. When we reached the foot of the cañon, the roar of the angry Colorado made us realize what a perilous journey we were about to begin, for we were to cross the cañon in a 'skip,' or basket, which runs on a cable and is large enough to carry an animal and two or three people.

"Morning saw us ready for the crossing, and two men, myself, and the burro (which the guide refused to leave behind) climbed into the basket. It fell to me to sit on the donkey's back, as there was standing room for only two in the skip. All went well until we reached the center, when 'Bright Angel' (for such was the burro's name) began to kick and jump, as the roar of the river was so loud it frightened him. And I was nearly paralyzed with fright when I looked into the depths below me. I began to appreciate the outside world more than I had the night before. Slowly the skip approached land, and after a few terrible moments the burro began to recover from its terror. Finally we reached solid ground; and long after, as I gazed at the river from the rim of the cañon, I heard some bystander remark, 'I thought it was a *big* river!' as the Colorado looks small from the brink.

" I wish they could cross it, as I did; they would think it quite big enough."

[*Note*: U.S. census records for 1910 list a Sylvia M. Lewis, aged 4, in Globe, Arizona; daughter of Earnest W., a circuit judge, and Esther. —*E.E.S.*]

Paden, William M.

1903 2.16433 Straight to the Bright Angel amphitheater of the Grand Canyon. *Deseret News*, (August 29): 12 [issue pagination].

► Text of lecture in the First Presbyterian Church, regarding visit to Grand Canyon and brief note of descent into Bright Angel Canyon with "President Woolley" of the Kanab stake (Edwin D. Woolley, Jr.). Woolley is affiliated with a company to build a cable to cross the Colorado River, joining trails on both sides of the canyon.

Richmond, Al

1996 2.5395 Tram? What tram? *Nature Notes* (Grand Canyon National Park), 12(2) (Summer): 1-3.

► Principally about the Grand Canyon tramway surveyed by George K. Davol in 1919, but also includes brief remarks on the Orphan Mine tram, the Indian Garden tram (with two photos), the Marble Canyon damsite tram, the Bass cable across the Colorado River, the Rust cable over the Colorado near the site of present-day Black Bridge, the Bat Cave tram, and the USGS cable over the Colorado upstream from Phantom Ranch.

GRAND CANYON WIRED

David Rust Cable Over the Colorado River

Rust, Joseph

- 2006 2.10543 From Joseph Rust (Dave's grandson). *In*: Beck, Cliff, From the last newsletter. *Footprints*, (14) (February): 2.
- ▶ Comments on the Rust Trail (Old Bright Angel Trail).
- 2006 2.10544 [Excerpts from] From the Dirty Devil to the Bright Angel, the history of David D. and Ruth W. Rust. *Footprints*, (14) (February): 2-18.
- ▶ "Excerpt #1, The Grand Canyon Venture", pp. 2-3; "Excerpt #2, The Building of the Grand Canyon Trail and Tram", pp. 3-15. Includes extensive selections from the journal of David Rust.

Simpson, William Haskell

- 1906 2.26241 The aerial cable bridge across the Colorado River. *In*: Letters to the Editor [SECTION]. *Engineering News*, 55(18) (May 3): 501.
- ▶ "Referring to the editorial note in *Engineering News* of April 19 (p. 447) [*i.e.*, Unsigned, 1906, ITEM NO. 2.26240 (*see farther above*)] we will say that on again reading our news sheet you will note that the cable is to be stretched from *bank to bank across the granite gorge* of the Colorado River, and not from rim to rim of the Canyon itself. The Grand Canyon may be likened to a deep trough—the river runs through the bottom of the trough in a narrow gorge, through the granite, about 1,000 ft. deep and from 300 to 400 ft. wide.
- "In using this aerial ferry, the tourist will go down Bright Angel trail from the hotel, eight miles on horse back to the top of the granite wall, take the cable across about 400 ft. and then ascend the north wall about twelve miles. Of course a cable, stretched 18 miles from rim to rim would be impossible and absurd." (ENTIRE ITEM)

Swanson, Frederick H.

- 2007 2.11425 *Dave Rust : a life in the canyons*. Salt Lake City: University of Utah Press, 354 pp.
- ▶ A biography of Utah-based outfitter and guide David D. Rust. Includes information pertaining to his work in Grand Canyon, establishing a trail from the North Rim and building the first cable transport across the Colorado River [*refer to the frontispiece in the present volume*]. It includes liberal quotations from Rust's diary; and regarding the tram specifically, the technical mishaps and personal privations in constructing it appear on pp. 39-50. Although some mechanization was attempted later, with the installation of a gasoline engine to operate the tram, it never worked well (pp. 54-55). The tram, having fallen out of use by around 1919, was finally abandoned when the first suspension bridge was built over the river in 1921 (p. 147).

Thomas, Lowell

- 1976 2.31917 *Good evening everybody : from Cripple Creek to Samarkand*. New York: William Morrow and Co., Inc., 349 pp.
- ▶ Autobiography. Includes his 1915 visit to Grand Canyon when he crossed south to north, transiting the Rust cable car over the Colorado (pp. 104-106).
- 2003 2.9462 A trip across the Grand Canyon. *The Ol' Pioneer* (Grand Canyon Historical Society), 14(3) (July/September): 11-12.
- ▶ Excerpt from Thomas's autobiography.

W. W. Bass Cables Over the Colorado River

William Wallace Bass, one of the well-known entrepreneurial pioneers of the Grand Canyon, was a miner and tourist-business operator. Historical items about him and his businesses are profuse, and yet astonishingly there is only one production that contributes significantly to historical aspects of the cable crossings and trams that he constructed (see Anderson, 1991, who also includes discussions about later investigations of the remains of the cables and transport car).

The first cable crossing was put up in 1906 and upgraded in 1908, replacing Bass's small-boat ferry that had been first used by 1896. Here, at approximately River Mile 108.7 (downstream from Bass Rapid and upstream from the right-bank Bass Camp [a present-day river-runners' campsite]), crossings could be made to reach Shinumo Creek on the north side. A second cable crossing was put up about two miles farther downstream at about River Mile 111 for better access to Bass's north-side asbestos mine in Hakatai Canyon, though no date seems to be mentioned (Anderson omits it as well). The Shinumo crossing connected Bass's trail from the South Rim (today's South Bass Trail) with a trail to his north-side mines and a camp on Shinumo Creek (established in 1899). The north side trail (today's North Bass Trail), from which several spur trails of various dates reached mining sites, was roughly extended to the North Rim for the benefit of occasional though infrequent tourists. The cables were deemed hazards by the National Park Service and were removed; the Shinumo crossing cable in 1968. Cables can still be seen draping to the river.

The Bass tram is likely most popularly known for an accident that had occurred when a horse kicked itself out from the transport car and was suspended in the air (*the photo on the next page is frequently reproduced*).

GRAND CANYON WIRED
W. W. Bass Cables Over the Colorado River

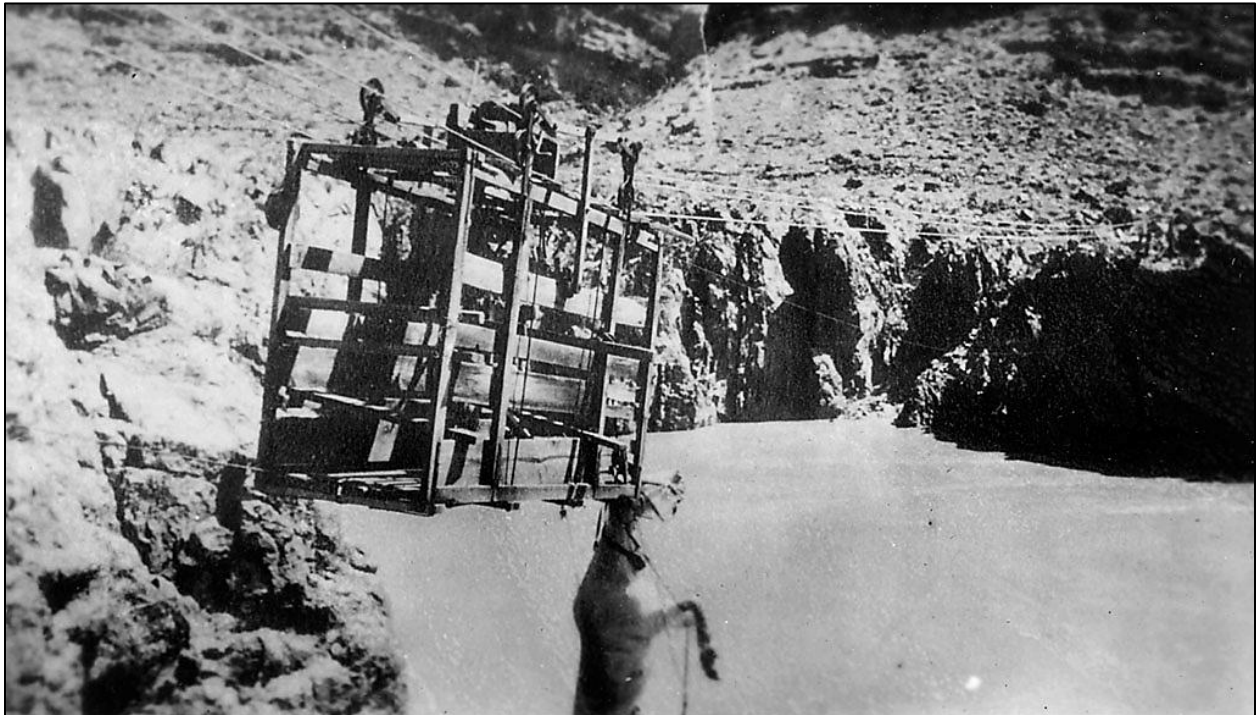
EXPLORATORY BIBLIOGRAPHY

Anderson, Michael F.

- 1991 2.1108 *North and South Bass Trails historical research study. Historical resource study, Grand Canyon National Park.* U.S. National Park Service, Grand Canyon National Park, 148 pp.

Richmond, Al

- 1996 2.5395 Tram? What tram? *Nature Notes* (Grand Canyon National Park), 12(2) (Summer): 1-3.
► Principally about the Grand Canyon tramway surveyed by George K. Davol in 1919, but also includes brief remarks on the Orphan Mine tram, the Indian Garden tram (with two photos), the Marble Canyon damsite tram, the Bass cable across the Colorado River, the Rust cable over the Colorado near the site of present-day Black Bridge, the Bat Cave tram, and the USGS cable over the Colorado upstream from Phantom Ranch.



Ambrose Means's horse hanging from the Bass cable car cage, ca. 1917 (photo by Bert Lauzon). The horse survived.

([https://commons.wikimedia.org/wiki/File:06000_Grand_Canyon_Historic_Bass_Trails_River_Ferry_\(7315489884\).jpg](https://commons.wikimedia.org/wiki/File:06000_Grand_Canyon_Historic_Bass_Trails_River_Ferry_(7315489884).jpg); with Creative Commons Attribution 2.0 Generic license; last accessed April 16, 2026).

A colored lantern slide made of this photo by F. H. Maude is online at the Arizona Memory Project at <https://azmemory.azlibrary.gov/nodes/view/22985>.

GRAND CANYON WIRED
W. W. Bass Cables Over the Colorado River

There is a second photo of the horse in the Otis R. Marston papers at The Huntington Library, which is accessible online at <https://hdl.huntington.org/digital/collection/p16003coll5/id/21223/> (last accessed April 16, 2026).

Colored lantern slides by F. H. Maude depicting the Bass cable in operation can be viewed at the Arizona Memory Project online at (all accessed April 16, 2026):

<https://azmemory.azlibrary.gov/nodes/view/22959>

<https://azmemory.azlibrary.gov/nodes/view/23070>

<https://azmemory.azlibrary.gov/nodes/view/22937>

<https://azmemory.azlibrary.gov/nodes/view/23106>

<https://azmemory.azlibrary.gov/nodes/view/23083>

USGS Hydrographic Cables Over the Colorado River

The first U.S. Geological Survey cables on the Colorado River in the greater Grand Canyon area were established in 1923 at Lees Ferry and just upstream from the mouth of Bright Angel Creek, from which resident gaugers measured streamflow and sediment content of the river. In the early 1990s, through the Marble–Grand Canyon reach of the Colorado River the USGS installed a number of cables as a means to deliver in-stream hydrographical equipment (and their operators) out over the river. These were used during the time when hydrographic and sedimentological studies were being conducted largely as a part of the Glen Canyon Environmental Surveys, a program under the U.S. Bureau of Reclamation implemented to study the effects of, and to contribute to administrative and programmatic plans for, the operation of Glen Canyon Dam as affecting downstream environmental and cultural resources through lower Glen, Marble, and Grand Canyons. Five cables were operated—the old cables at Lees Ferry and upstream from the Bright Angel Creek confluence, with new cables upstream from the Little Colorado River confluence, upstream from the National Canyon confluence, and upstream from the Diamond Creek confluence—which were removed following the GCES program. Remote satellite-linked monitoring systems have replaced routine human involvement in data collecting.



Late 20th-century gauge car and orange aircraft warning ball on the USGS cable at Lees Ferry.
(U.S. Geological Survey)

GRAND CANYON WIRED
USGS Hydrographic Cables

EXPLORATORY BIBLIOGRAPHY

Unsigned

1984 4.322 Charlie Houser, Interior Department expert, dies. *In*: Census [SECTION]. *Jet*, 65(21) (January 30): 18.

► Houser was an African-American, hence the notice of his death in *Jet*, a news, culture, and entertainment magazine for the African-American community.

[Houser sustained injuries in a helicopter accident when it struck the USGS cable over the Colorado River at National Canyon, December 8, 1983. He died in Washington, D.C., December 31. The helicopter was flying an unsanctioned route following work at higher elevations in the area. The cable was not severed.]

1995 2.603 It's not pretty—it's beautiful. *Boatman's Quarterly Review*, 8(2): 2.

► Includes note of the removal of the National Canyon cable and additional note that the "Little Colorado cable remains, for a bit longer".

Anderson, Mark

1994 2.1102 About those cableways . . . *Boatman's Quarterly Review*, 8(1): 7. [Ellipsis is part of title.]

► Reproducing a letter to Shane Murphy of Grand Canyon River Guides, from Anderson (Chief, Hydrologic Investigations and Research, U.S. Geological Survey), regarding USGS cables over the Colorado River, their uses and planned removals.

McCain, John

1984 4.753 Family tribute to Charles Lee Houser, 1933-83. Hon. John McCain of Arizona in the House of Representatives, Monday, April 2, 1984. *In*: Extensions of Remarks [SECTION]. *Congressional Record—House*, (April 2): 7422.

► McCain's remarks begin: "Charles Houser, Congressional Affairs Officer for the Bureau of Land Management, was injured in a helicopter crash while looking at some of the wilderness areas proposed in H.R. 4707. He later died on December 31, 1983, as a result of the accident." His remarks are a preamble to entering into the Record "the family's tribute to Charlie". [Refer to Unsigned, 1984, [ITEM NO. 4.322](#).]

Stevens (Mr.) [Stevens, Theodore Fulton (Ted)]

1984 4.726 Charlie Houser of Alaska. *Congressional Record—Senate*, (March 26): 6513-6514.

► Obituary by Sen. Stevens of Alaska. [Refer to Unsigned, 1984, [ITEM NO. 4.322](#).]

Wolf, Frank R.

1984 4.725 Tribute to the late Charles Lee Houser; Hon. Frank R. Wolf of Virginia in the House of Representatives, Monday, January 23, 1984. *Congressional Record—House—Extensions of Remarks*, (January 23): 162-163.

► Obituary, adding to the record (p. 163) "Family Tribute of Charles Lee Houser 1933-1983", from the program of services conducted at St. Martin's Catholic Church (apparently St. Martin of Tours Catholic Church, Washington, D.C.). [Refer to Unsigned, 1984, [ITEM NO. 4.322](#).]

Grand Canyon Cableway Survey – 1919

In 1916, George K. Davol approached the Santa Fe Railway and National Park Service administrators (though Grand Canyon was not yet a national park) to propose constructing a cableway across the Grand Canyon, from rim to rim. More than an audacious scheme, it was met with interest by the Santa Fe (the potential tourism sponsor) and (at first) encouragement by the park service. In 1919, a field survey was conducted across the canyon, which is recorded in four somewhat different photo albums (*see also the cover of the present bibliography*). While the surveys followed rambling directions across the canyon and used their own temporary cabling and ropes (*see illustrations farther below*), the cableway was planned to follow a zig-zag route from Hopi Point on the South Rim to Tiyo Point on the North Rim by way of Dana Butte, Tower of Set, Osiris Temple, and Shiva Temple. In the end, the park service declined to approve the plan in 1920. The most comprehensive historical overviews of the cableway survey are those of Jim Ohlman (1994, 2005).

EXPLORATORY BIBLIOGRAPHY

Burak, Gale

- 1996 2.1748 Hooray for the red white and blue. *The O' Pioneer* (Grand Canyon Pioneers Society), 7(10): 1.
 ▶ Regarding the cross-canyon tramway survey, and American and Japanese flags atop The Battleship. Notes that the surveyors had planted a ten-foot pole at the northern summit of The Battleship on which an American flag had been placed. Simply an introductory note to a short item regarding later uses of the pole. [See also photo on next page.]

Ohlman, Jim

- 1994 2.4925 Dana Butte. *O' Pioneer* (Grand Canyon Pioneers Society), 5(7): 6-7.
 1994 2.4927 [Photograph of bin mentioned on Dana Butte.] *O' Pioneer* (Grand Canyon Pioneers Society), 5(9): 6.
 2005 2.10671 The 1919 transcanyon aerial tramway survey. *In*: Anderson, Michael F. (compiler, ed.), A gathering of Grand Canyon historians; ideas, arguments, and first-person accounts; proceedings of the inaugural Grand Canyon History Symposium, January 2002. *Grand Canyon Association, Monograph 13*, pp. 7-14. [Note: The so-called "Spamer album" cited with others in this article is no longer in his possession; it was donated to the Grand Canyon National Park Museum Collection in 2015. —E.E.S.]

GRAND CANYON WIRED
Grand Canyon Cableway Survey

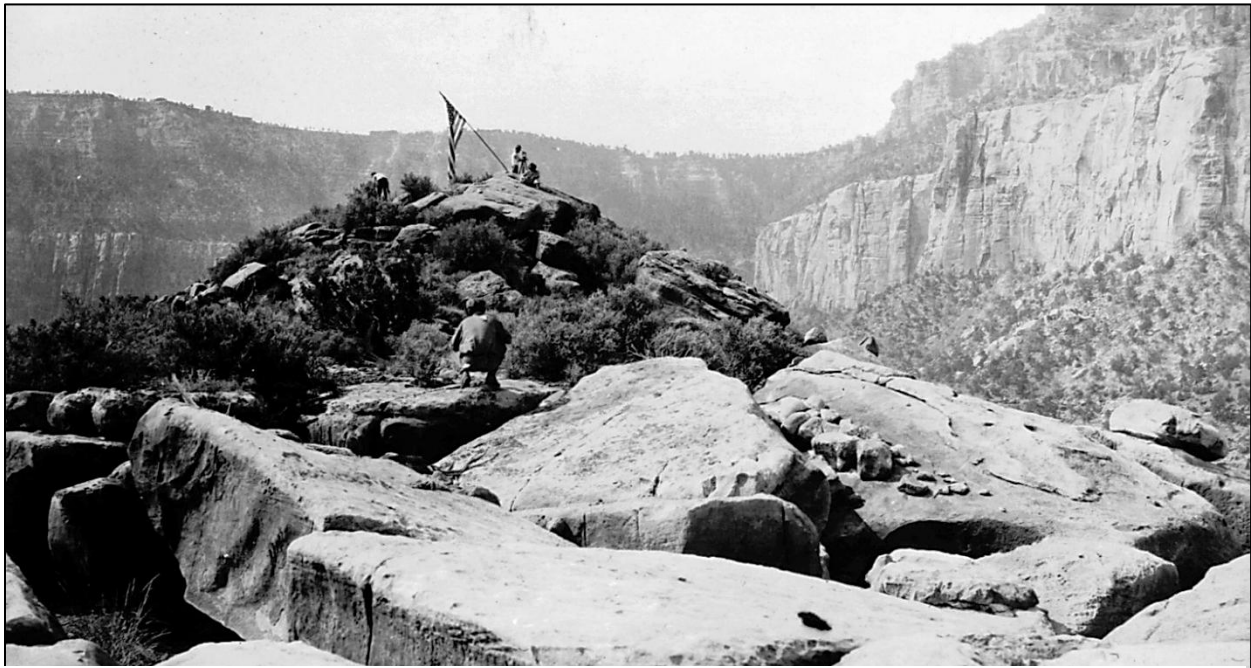
- 2015 2.22758 The 1919 trans-canyon aerial tramway survey. *The Ol' Pioneer*, 26(2) (Spring): 1, 3-16 [19]. ("Portions of this article were previously published by Grand Canyon Association in the '2005 Grand Canyon History Symposium Monograph, Volume 1.'" [i.e., Ohlman, 2005]. "Endnotes are included with the online version of this issue in the 'Ol' [sic] Pioneer archives found online at GrandCanyonHistory.org." [same layout, paginated 17-19].) [Includes some previously unpublished photographs.]

Richmond, AI

- 1996 2.5395 Tram? What tram? *Nature Notes* (Grand Canyon National Park), 12(2) (Summer): 1-3.
► Principally about the Grand Canyon tramway surveyed by George K. Davol in 1919, but also includes brief remarks on the Orphan Mine tram, the Indian Garden tram (with two photos), the Marble Canyon damsite tram, the Bass cable across the Colorado River, the Rust cable over the Colorado near the site of present-day Black Bridge, the Bat Cave tram, and the USGS cable over the Colorado upstream from Phantom Ranch.

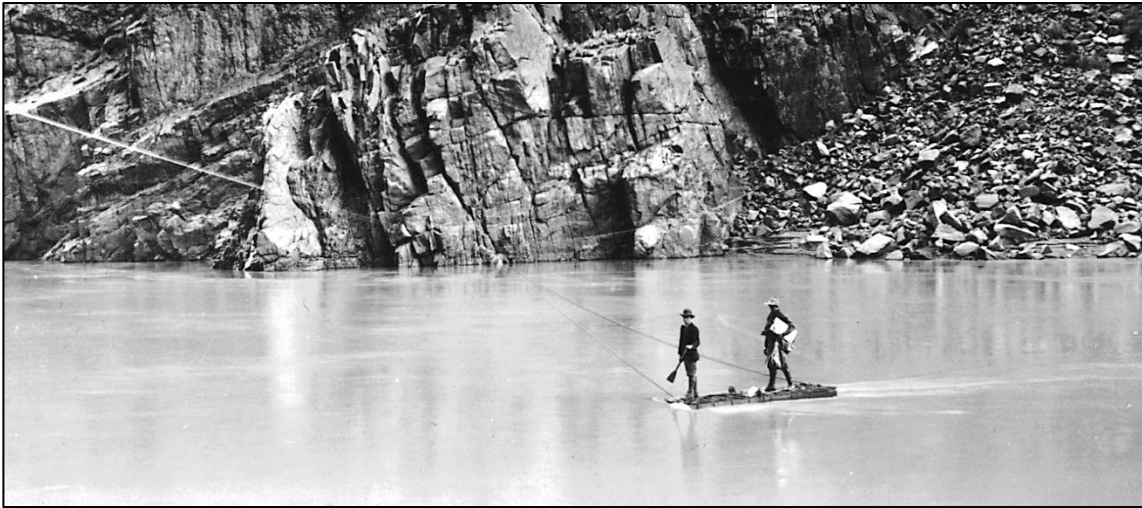
SELECTED PHOTOS FROM ALBUM GRCA-05781

All reproductions here are details. Legends do not accompany photos; scenes and individuals are not identified. Picture are from the so-called Spamer Album acquired by Earle Spamer in 2000 and donated in 2015 to the Grand Canyon National Park Museum Collection (Grand Canyon Cableway Survey Photographs, part of Accession No. GRCA-05781). The four albums are discussed by Ohlman (*cited above*). The photos on the following two pages feature cabling employed during the survey.



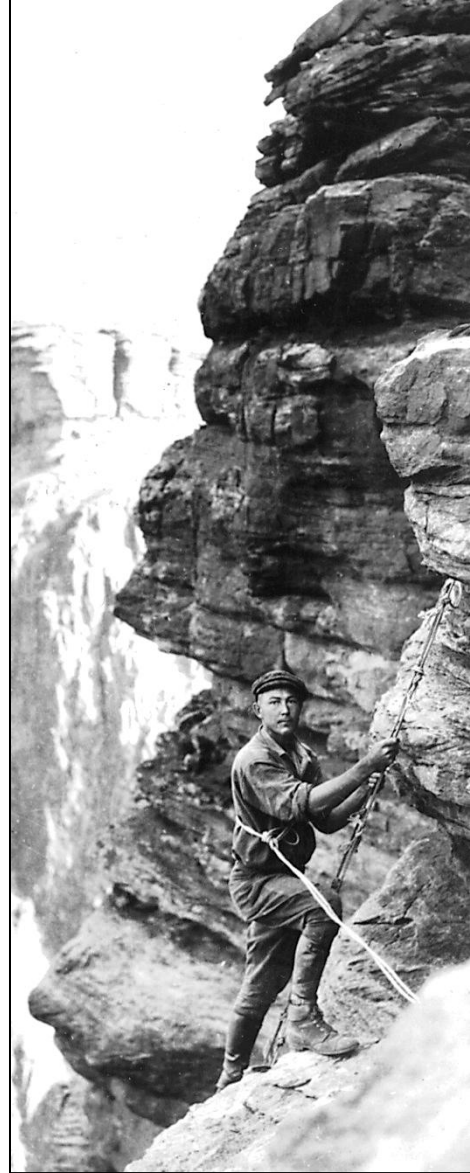
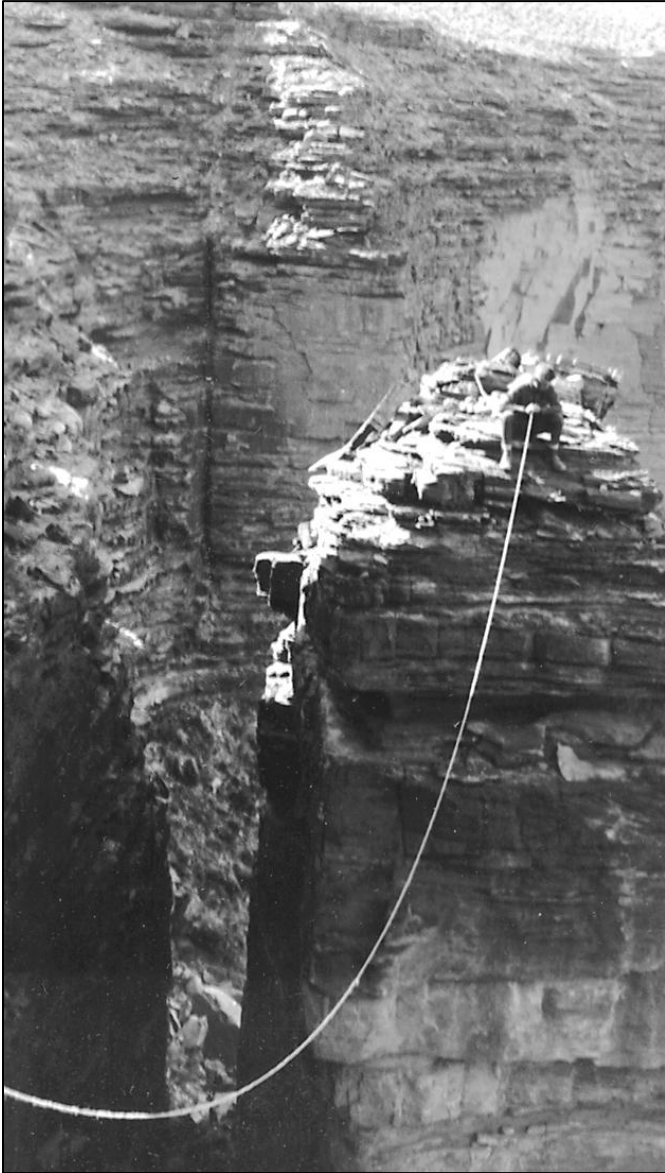
[American flag posted atop The Battleship during the Trans-Canyon Cableway Survey of 1919 (noted in Burak, 1996, *cited above*).]

GRAND CANYON WIRED
Grand Canyon Cableway Survey



[Drifting across the Colorado River guided by a cable; river current provides the oblique motive force.]

GRAND CANYON WIRED
Grand Canyon Cableway Survey



Bat Cave Tram

Bat Cave is a well-known location in western Grand Canyon along the Colorado River at Mile 266 Right. First discovered in the 1930s when the Lake Mead impoundment was filling behind Hoover Dam, the cave's bat-guano deposits were recognized as commercially valuable. Early efforts mined the guano in relatively small amounts, removing the material by barge across the lake. In 1958, the U.S. Guano Corporation purchased the claim and invested \$3.5 million to construct a tram across the Grand Canyon to reach the mouth of the cave 9,850 feet away and a half mile lower in elevation. The following year the tram was used in filming the climax of the crime-adventure film, *Edge of Eternity* (Columbia Pictures, 1959).

The story is well known now that the amount of guano present came to only one percent of the estimated 100,000 tons believed to be in the cave (the remainder was only decomposed limestone and a thinning of deposits at a rise in the middle). In addition, difficulties in operating the tram—including one cable accidentally dropped into the canyon and the failure of another when a splice was discovered coming undone—came to a final end when a U.S. Air Force jet flying an unauthorized route through the canyon struck the replacement cable, losing a wing tip. The pilot flew the craft safely back to base and the government paid U.S. Guano for the damage. Though the mine had been worked out and there was no need to replace the cable, the payment somewhat defrayed the losses incurred by underestimating the supply of guano. In 1994, to comply with a proposed designation of the remote part of the canyon as Wilderness, the National Park Service planned to explosively demolish the tram towers that were on park service land, below the mouth of the cave on the north side of the river; but the proposal met with opposition. The tram towers survive—one not far below the rim on the south side, and two beneath the Bat Cave entrance on the north side of the Colorado River. The cave is off limits to visitation.

Since virtually the entire story of Bat Cave revolves around the history of the cross-canyon tram, the bibliography farther below in some measure touches on various aspects of that history. Omitted are some publications that are scientific investigations of the bat colony and paleoecological perspectives of the guano deposits.

GRAND CANYON WIRED

Bat Cave Tram



Bat Cave tram headframe. The yellow object is the transport car (*see next page*).

(Author's photo, October 3, 2007)

GRAND CANYON WIRED

Bat Cave Tram



Underside of Bat Cave tram headframe with view of transport car and dump chute on its bottom. View faces toward the canyon. The black-bat livery was painted for the 1959 film, *Edge of Eternity*.

(Author's photo, October 3, 2007)

See [inside back cover](#) for a detail view.

GRAND CANYON WIRED

Bat Cave Tram

EXPLORATORY BIBLIOGRAPHY

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- 1948 2.17311 Bat cave discovered. *In*: Here and There on the Desert [SECTION]. *Desert Magazine*, 12(2) (December): 35.
▶ Murl Emery reports discovery of Bat Cave, Grand Canyon. Reported from the *Tucson Citizen*.
- 1957 3.194 Helicopter builds an aerial span to guano cave in Grand Canyon. Big vacuum cleaner to be used to mine deposit left by giant, meat-eating bat millions of years ago. *The New York Times* (March 27): 43.
- 1957 2.13056 Copter lays aerial-tram cable. *In*: Picture News [SECTION]. *Popular Science Monthly*, 170(6) (June): 97.
- 1957 21.40 Tramway and vacuum cleaner solve unusual mining problems. *Engineering and Mining Journal*, 158(6): 112.
- 1957 2.251 'Copter in the canyon; tramway from South Rim to Bat Cave of Grand Canyon will transport bat guano. *Santa Fe Magazine*, 50(8) (July): 28-29.
- 1957 21.6012 Treasure of Granite Gorge. *Time*, 70(13) (September 23): 89.
- 1957 2.30291 Grand Canyon caves reveal vast bat guano deposits. *Pacific Coast Nurseryman and Garden Supply Dealer*, (November):.
▶ Specifically about Bat Cave.
- 1957 2.253 A bounty from ancient bats. *Life*, 43(20) (November 11): 103-104, 106.
- 1958 2.258 It comes from here . . . and ends up here. *Good Packaging*, (November): 14-15. [Ellipsis is part of title.]
▶ Bat guano from Bat Cave.
- 1968 2.29589 Fabulous folks. *Meadview Monitor* (Meadview, Arizona), (April/June):.
▶ Includes Jimmie Jordan and his work at the Bat Cave guano operation.
- 1988 2.363 [Undocumented quotation about Bat Cave tram.] *Hibernacle News*, 1988: 28.
- 1996 13.278 County threatens NPS with arrest at Grand Canyon. *National Parks*, 70(1/2) (January/February): 22.
▶ Mohave County; regarding the proposed removal of tram towers at Bat Cave.
- 2018 2.29590 Fabulous folks. *In*: Blast From the Past [SECTION]. *Meadview Monitor* (Meadview, Arizona), (March/April): 9.
▶ Includes Jimmie Jordan and his work at the Bat Cave guano operation. Reprinted from the April/June 1968 issue.

Austin, Noah

- 2023 21.8452 The Grand Canyon guano mine. Most adventures associated with the Grand Canyon involve river runners and rock climbers, but at least one involved "man-sized

GRAND CANYON WIRED

Bat Cave Tram

carnivorous bats”—and it’s not what you think. *In*: The Journal [SECTION]. *Arizona Highways*, 99(3) (March): 6.

- Bat Cave. See also letter from Ricardo Small, 99(5) (May): 4.

Beatty, W. B.

1962 21.189 Geology and mining operations in U.S. Guano cave, Mohave County, Arizona [ABSTRACT]. *Cave Notes*, 4: 40-41.

Bersy, Éric

2010 2.23914 Roadtrip électrique [*transl.* ‘Electrical roadtrip’]. *L’Écho* (Syndicat Professionnel des Ingénieurs d’Hydro-Québec, Montréal), 46(6) (October/November): 31. [*In French.*]

► An electrical engineer on holiday. Item comprises three photographs with legends, from views taken during a trip in the western U.S. One photo shows: “Pylône du Grand Canyon, près de la Havasupai [*sic*]. Photo prise d’un hélicoptère.” [*transl.* ‘Grand Canyon pylon, near the Havasupai. Photo taken from a helicopter.’], which shows the Bat Cave tram tower positioned below the South Rim on the Hualapai reservation. Note that it is doubly misidentified, as an electrical transmission tower on the Havasupai Reservation.

Billingsley, George H.; Spamer, Earle E.; AND Menkes, Dove

1997 21.297 *Quest for the pillar of gold; the mines and miners of the Grand Canyon*. Grand Canyon Association, Monograph 10, 114 pp., fold-out map, and map on inside rear cover.

- See “Bat Cave” (pp. 29-34).

Brown, Jackie

2016 2.25382 Blast from the past; Quatermaster Lookout—Bat Mine. *Meadview Monitor*, (September/October): 6-8.

► From May 1967 *Meadview Monitor*. Report of an “Auto Caravan trip taken to the Bat Cave Tower and Quartermaster Lookout points”.

Columbia Pictures

1959 26.298 *Edge of eternity*. Don Siegel, director; starring Cornel Wilde and Victoria Shaw. Color motion-picture. 80:00.

► Includes Grand Canyon and area locations, notably a concluding scene filmed on the Bat Cave cableway. *Note*: This film was released in foreign markets under other titles: *Der Mann aus Arizona* (Austria and West Germany), *Covil da Morte* (Brazil), *Afgrundens Hemmelighed* (Denmark), *Kuulu Ikuisuuteen* (Finland), *Le Secret du Grand Canyon* (France), *Κάπου Εδώ Γυρίζει ο Δολοφόνος* [Καρου Edo Gyryzei o Dolofofonos] and *Ός Την Αιωνιότητα* [Os Tin Aioniotita] (Greece), *Sull’orlo dell’Abisso* (Italy), and *Al Borde de la Eternidad* (Spain).

Crumbo, Kim

1994 13.546 Bat Cave restoration project proposed. *Boatman’s Quarterly Review*, 8(1): 28.

► Regarding the proposed demolition of Bat Cave tram towers near the cave entrance.

GRAND CANYON WIRED

Bat Cave Tram

DeWald, Bud

1958 2.2357 Canyon cable to riches. Two-mile tram hauls ancient guano from Grand Canyon cave. *Arizona Days and Ways (Arizona Republic)*, (January 12):.

Ford, Brian J.

2018 2.29519 Feces, from start to finish. Excrement may be repulsive, but the study of dung casts light on many ostensibly unrelated aspects of civilization, including a fascinating microscopical view of bacterial communities. *The Microscope*, 66(4): 169-180.

► See p. 174, photo and remarks on the Bat Cave guano-mining operation in Grand Canyon. "It is an unusual reminder of an industry founded on bat crap."

Grater, Russell K.

1951 21.6286 Black gold. *Arizona Highways*, 27(6) (June): 2-3, 26-27.

Greenawalt, Robert O.

1958 2.3025 Guano tramway in Granite Gorge. (Map and diagram by Norton Allen.) *Desert Magazine*, 21(1) (January): 19-22.

Hamilton, Andrew

1958 2.3149 Bat Cave bonanza. *Westways*, 50 (January): 4-5.

Heinrich, E. William

1957 21.4738 (ED.) [Bat Cave guano deposit to be mined.] *In*: The Ion Exchange Column. *Geochemical News* (University of Michigan, Department of Mineralogy), (8) (October): 7-8.

Huntoon, Peter W.

1989 21.1547 Bat Cave guano mine, western Grand Canyon, Arizona. *In*: Elston, Donald P., Billingsley, George H., and Young, Richard A. (eds.), *Geology of Grand Canyon, northern Arizona (with Colorado River guides)*. 28th International Geological Congress, Field Trip Guidebook T115/315. Washington, D.C.: American Geophysical Union, p. 228.

Ledbetter, Jeri

1996 13.828 Going to bat. *Boatman's Quarterly Review*, 9(1): 8.
► Regarding the proposed demolition of Bat Cave tram towers near the cave entrance.

Lera, Thomas, AND Lewis, Warren

2002 21.4183 Grand Canyon Bat Cave and tramway; America's most expensive cave venture. *NSS News* (National Speleological Society), 6(12) (December): 340-343.

GRAND CANYON WIRED

Bat Cave Tram

Martin, Tom, AND Grua, Kenton

- 1995 13.906 Guano! *Boatman's Quarterly Review*, 8(4): 21.
▶ Regarding a postponement to the proposed demolition of Bat Cave tram towers near the cave entrance. "The demolition, which had been scheduled for this October, was to be a cooperative operation between the NPS and the US Navy SEALS." Also includes a brief history of the mine and tram.

Poss, John R.

- 1982 2.9857 The Grand Canyon's hidden hoard. *Westways*, (June): 37-39, 73-74..
▶ Bat Cave.

Potts, Ben

- 1959 2.20627 Why does radio have to keep proving itself? *Broadcasting*, (January 26): 21.
▶ Includes note of a marketing test for "Bat Guano, a fabulous plant food hidden away in caves in the Grand Canyon by bats thousand[s] of years ago". In context refers to the Bat Cave operation.

Richmond, Al

- 1996 2.5395 Tram? What tram? *Nature Notes* (Grand Canyon National Park), 12(2) (Summer): 1-3.
▶ Principally about the Grand Canyon tramway surveyed by George K. Davol in 1919, but also includes brief remarks on the Orphan Mine tram, the Indian Garden tram (with two photos), the Marble Canyon damsite tram, the Bass cable across the Colorado River, the Rust cable over the Colorado near the site of present-day Black Bridge, the Bat Cave tram, and the USGS cable over the Colorado upstream from Phantom Ranch.

Segerblom, Gene

- 1949 21.4662 Fortune hunt in a cave. (Photos by Mark Swain.) *Popular Mechanics Magazine*, 91(6) (June): 160-163.
▶ Regarding the Bat Cave guano operation. Photos depict mining in progress, which then delivered guano to a barge that carried it across Lake Mead, prior to the construction of the tram towers. The photos include views of a cable used to deliver the guano from the cave mouth to a short narrow-gauge rail for final delivery to river level.

Sjöberg, Fredrik

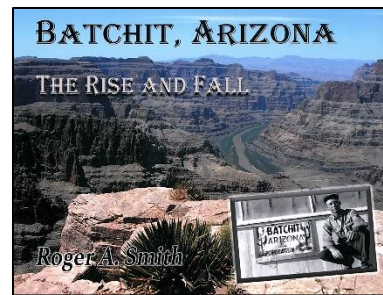
- 2016 2.24194 *Wozu macht man das alles? Geschichten und essays. [transl. 'Why do we do all this? Stories and essays.']* (Paul Berf, translator.) München: Carl Hanser Verlag, 224 pp. (Edition Akzente.) [In German.]
▶ See "Bing!", pp. 11-22 (specifically, pp. 13-14, regarding Grand Canyon and Bat Cave.
(Original text in Swedish credited thus (title-page verso): "Die schwedischen Originaltexte erschienen erstmals in *Den utbrände kronofogden som fann lyckan* (Nya Doxa, Nora 2008) und *Varför haller man pa?* (Albert Bonniers Förlag, Stockholm 2012).")

GRAND CANYON WIRED

Bat Cave Tram

Smith, Roger A.

- 2020 2.30292 *Batchit, Arizona : the rise and fall.* Kingman, Arizona: Batchit Books (BatchitAZ Books, LLC), 83 pp. [An on-demand publication.]
- ▶ A history and experiences from the Bat Cave guano mining operation, by a man who worked there. Includes substantial remarks concerning the tram, the ill-fated cables, and notes on the Air Force jet cutting the final cable. (ISBN 978-0578781822)



(Author's copy)

Spicer, Rocky

- 2004 2.9841 High wire; in one of the toughest construction jobs ever, steelworkers built a tramway across the Grand Canyon. *Invention and Technology*, 19(4) (Spring): 34-38.

Stein, Pat H.

- 2004 2.23498 *The treasure of Bat Cave.* Valentine, Arizona: Truxton Canon Agency, U.S. Bureau of Indian Affairs, 1 folded sheet.

Trennert, Robert A.

- 1977 21.7126 From gold ore to bat guano: Aerial mine tramways in the West. *Mining History Journal*, 4: 3-13.
- ▶ See p. 11, Bat Cave, Grand Canyon.
- 2001 21.7127 *Riding the high wire : aerial mine tramways in the West.* Boulder, Colorado: University Press of Colorado, 140 pp.

United States Guano Corporation

- [1990?] 26.240 *The treasure of Granite Gorge.* Wayne Steffner, producer; Don Henderson, director; Rick Mittleman, writer. VHS. 14:00.
- ▶ Video about the Bat Cave operation. Presented by United States Guano Corporation, a division of New Pacific Coal and Oils, Ltd., Toronto, Canada.

U.S. National Park Service, Grand Canyon National Park

- 1995 13.3812 *Draft environmental assessment : Bat Cave restoration, Grand Canyon National Park.* [No imprint], 8 pp.
- ▶ Unsigned; author Kim Crumbo; regarding the proposal to demolish the Bat Cave tram towers near the cave entrance.
- 1995 13.3813 *Finding of no significant impact : Bat Cave restoration : Grand Canyon National Park, Arizona.* [No imprint], [3] pp.
- ▶ Regarding the proposal to demolish the Bat Cave tram towers near the cave entrance.

GRAND CANYON WIRED

Bat Cave Tram

Valentry, Duane

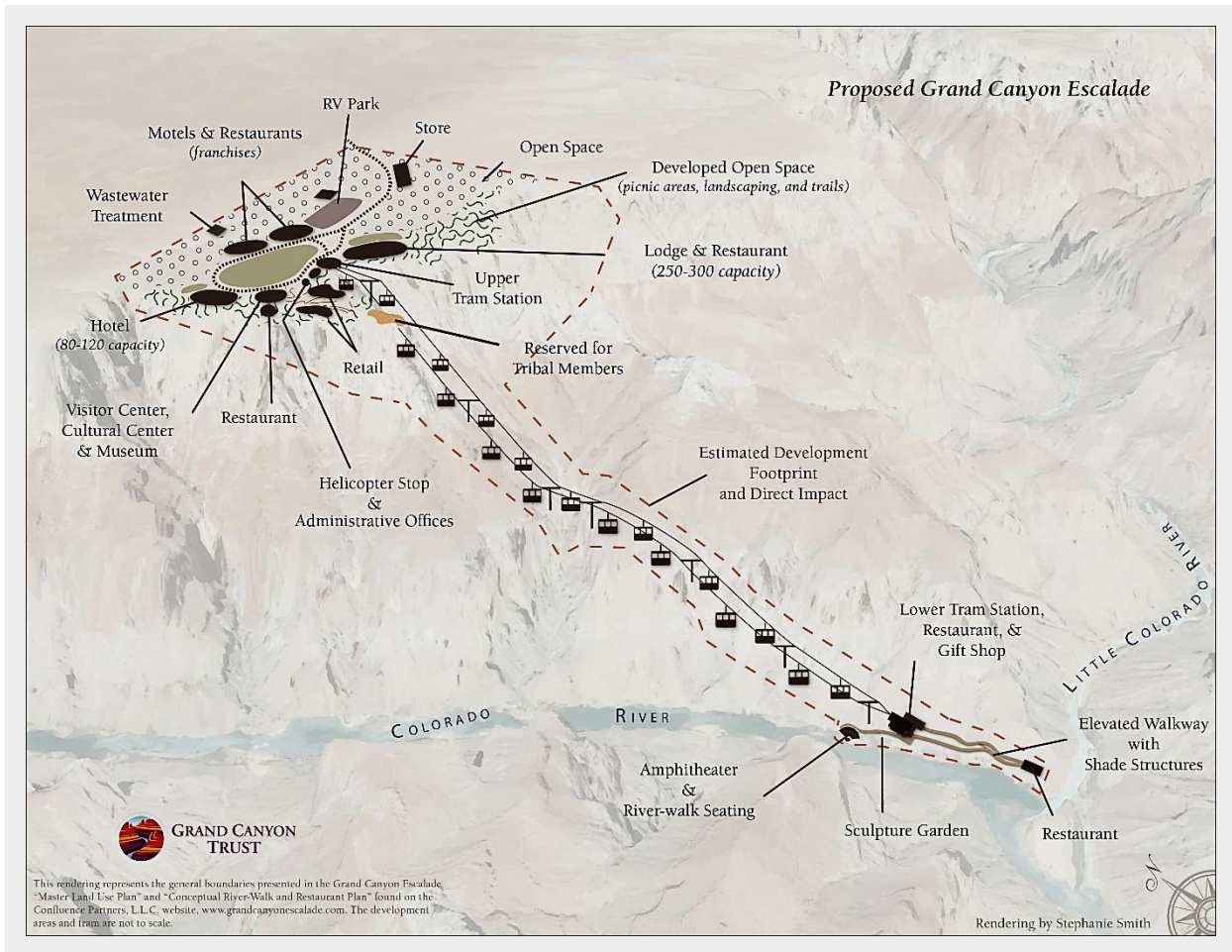
- 1958 2.22542 Spinning the time thread; after lying undisturbed for centuries, a fortune in fertilizer is being brought to market thanks to the helicopter and modern knowhow. *Flying*, 63(3) (September): 32-33, 66-67.
- ▶ Cable construction for Bat Cave tram.
-

The Proposed “Grand Canyon Escalade” (Navajo Nation)

This section is devoted to publications about the once-proposed Grand Canyon Escalade. First publicized in 2012 by Confluence Partners L.L.C., a non-Native developer in Scottsdale, Arizona, the Escalade was ostensibly to amplify the Navajo Nation’s financial and employment base by constructing a tourist center on the east rim of the Grand Canyon above the confluence of the Colorado and Little Colorado Rivers, but it met with widespread opposition. (Note that *Getting To the Bottom of It*, cited here, was the short-lived, self-interest newsletter produced by Confluence Partners.) As envisioned, a commercial resort on the rim would be the terminal for a gondola tram that would descend to the Colorado River upstream from the confluence, where a riverwalk would lead to a restaurant close by the confluence. Visitorship was projected at 10,000 people per day. The proposed project experienced considerable opposition for years, not the least from groups of the Diné themselves, but with added opposition from other Native American peoples and non-Natives alike. “Save the Confluence” was organized to combat the proposed development. After repeated votes of non-support by popular and administrative groups of the Navajo Nation, declaring a variety of concerns for cultural degradation, environmental effects, and uncertain social benefits, supported by messages of opposition by other Native American groups, the project was defeated in 2017.

GRAND CANYON WIRED

Grand Canyon Escalade



Proposed Grand Canyon Escalade (rendering by Stephanie Smith; not to scale).

Courtesy Grand Canyon Trust

For more information see <https://www.grandcanyontrust.org/resources/proposed-grand-canyon-escalade/>

GRAND CANYON WIRED

Grand Canyon Escalade

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- 2012 17.1419 Future New West trends? *Canyon Country Zephyr*, (October/November): 36.
▶ Regarding the Grand Canyon Escalade.
- 2013 17.1414 Local area medicine men endorse Grand Canyon Escalade. *Getting To the Bottom of It* (Grand Canyon Escalade Newsletter, Confluence Partners L.L.C., Scottsdale, Arizona), (1) (January): [2].
- 2013 17.1415 Escalade scholarships to begin next fall. *Getting To the Bottom of It* (Grand Canyon Escalade Newsletter, Confluence Partners L.L.C., Scottsdale, Arizona), (1) (January): [2].
- 2013 17.1416 About the no-sayers and the opposition. *Getting To the Bottom of It* (Grand Canyon Escalade Newsletter, Confluence Partners L.L.C., Scottsdale, Arizona), (1) (January): [2].
- 2013 17.1417 Opponents propose unrealistic Highway 89 alternative to Grand Canyon Escalade. *Getting To the Bottom of It* (Grand Canyon Escalade Newsletter, Confluence Partners L.L.C., Scottsdale, Arizona), (1) (January): [3].
- 2013 17.1910 Myndigheter lovar skydda Indianska heliga platser [*transl.* 'Authorities vow to protect Native American sacred sites']. *Indianklubbsnoteringar* (Indianklubben i Sverige, Ramlösa, Sweden), 2013(1) (January 11): [unpaginated]. [*In Swedish.*]
▶ Includes brief note of a Navajo Nation decision to build a tourist facility in Grand Canyon (*i.e.*, the proposed Grand Canyon Escalade project).
- 2013 17.1418 Who doesn't agree? That the Bennett Freeze devastated Western Navajo and the Bennett Freeze area needs jobs! *Getting To the Bottom of It* (Grand Canyon Escalade Newsletter, Confluence Partners L.L.C., Scottsdale, Arizona), (2) (February): [4].
- 2014 17.1643 Save the Confluence: What YOU can do to help. *Grand Canyon River Guides* (E-newsletter), (August): [3].
- 2014 17.1650 History and justice in the Southwest. *Field Report* (National Parks Conservation Association, Southwest Region, Salt Lake City), (Fall): 1, 4.
▶ Includes Escalade project.
- 2015 17.1809 FS ponders development permit just south of Grand Canyon. *Federal Parks and Recreation* (Arlington, Virginia), 33(9) (May 15): 6.
▶ Regarding U.S. Forest Service public review of special-use permit in Kaibab National Forest adjacent to Tusayan, Arizona. Also takes note of the proposed Escalade project at the Little Colorado River confluence.
- 2016 17.1827 Grand Canyon. *In*: Notes From the Field [SECTION]. *Colorado Plateau Advocate*, (Spring/Summer): 35.
▶ News note regarding the Escalade project.
- 2016 17.1866 Grand Canyon; Escalade escalates, again. *In*: Notes From the Field [SECTION]. *Colorado Plateau Advocate*, (Fall/Winter): 27.

GRAND CANYON WIRED

Grand Canyon Escalade

2017 17.3447 Grand Canyon; Navajo Council fails to approve tramway. *From:* Notes from the Field [SECTION]. *In:* Grand Canyon Issue. *Colorado Plateau Advocate*, (Fall/Winter): 27.

Adler, Moshe

2015 17.1718 This just in . . . *Beth El Newsletter* (The Heights Synagogue, Cleveland Height, Ohio), (April): 1. [Ellipsis is part of title.]
▶ Includes brief comments on the Escalade project.

Battle, Maryann

2012 17.2663 Tension in Navajo Nation over proposed Grand Canyon tourist attraction. *AZBEX* (Arizona Builder's Exchange, Phoenix), 3(81) (November 30): 1, 3.
▶ Syndicated item for ASU Cronkite News.

Ben, Deon

2013 17.1496 Local Navajos continue to oppose the Grand Canyon Escalade. *Boatman's Quarterly Review*, 26(3) (Fall): 19.

Bilagody, Rita

2017 17.1981 Escalade. *Boatman's Quarterly Review*, 30(3) (Fall): 8-10.
▶ "The following article appeared as a Letter to the Editor of the *Navajo Times* (July 6, 2017) and is reprinted here with permission of the author, Rita Bilagody, Tuba City, AZ resident and Save the Confluence member." A Grand Canyon Escalade project update; article is signed from Tohnaneezdizi, Arizona (*i.e.* Tuba City).

Building Communities, Inc.

2015 17.1803 *Navajo Nation rising: capitalizing on tourism for economic development : 2015-2019 Navajo Tourism Strategic Plan : prepared for the Navajo Tourism Department, March 2015.* Flagstaff, Arizona: Building Communities, Inc., for Navajo Nation, Tourism Department, 65 pp.
▶ Final plan. Includes notes on the Escalade project, *passim*.

Burnett, Tom

2013 17.1420 What does economic development mean in Indian Country? Grand Canyon Escalade will provide Navajos with much needed jobs, opportunities and benefits. *Getting To the Bottom of It* (Grand Canyon Escalade Newsletter, Confluence Partners L.L.C., Scottsdale, Arizona), (2) (February): [2].

Busch, Kyra

2015 17.1758 (WITH Grazia Borrini-Feyerabend and Tony Skrelunas)
Community conservation from Casamance to the Colorado Plateau; revitalizing landscapes, livelihoods and cultures. *Colorado Plateau Advocate*, (Fall/Winter): 10-13.
▶ Includes remarks on the Escalade project.

Carlos, Mari

2015 17.1712 Well said, Teddy! *Grand Canyon River Runner*, (18) (Winter): 3..
▶ Quotes from Theodore Roosevelt; with added remarks on the Escalade project.

GRAND CANYON WIRED

Grand Canyon Escalade

Clark, Roger

- 2012 17.1292 Tramway reignites boundary dispute. *Colorado Plateau Advocate*, (Fall/Winter): 18-19.
▶ Regarding the position of the boundary between the Navajo Nation and Grand Canyon National Park, along the Colorado River.
- 2012 17.1299 Navajo opposition to Escalade escalates. *Boatman's Quarterly Review*, 25(4) (Winter 2012-2013): 11.
- 2015 17.1748 Escalade . . . meet Earth Day. *Boatman's Quarterly Review*, 28(2) (Spring [sic, Summer]): 9. [Ellipsis is part of title.]
- 2018 17.2137 Turning a page on Escalade. *Colorado Plateau Advocate*, (Spring/Summer): 8-11.

Cooley, Nikki, AND Hamilton, Lynn

- 2012 17.1285 Tółchí'íkoooh—Little Colorado River. *Boatman's Quarterly Review*, 25(3) (Fall): 23.
▶ Regarding the proposed Escalade tram and riverwalk.

Dee, Crystal

- 2015 17.2095 Cultural Preservation Office presents update report on eagle collecting permits and the Grand Canyon Escalade project. *Hopi Tutuveni* (Kykotsmovi, Arizona), 23(7) (April 7): 5.

Eberle, Sinjin, AND Eginore, Stephen

- 2020 17.3199 Moving on from coal, a neighbors perspective. *The Gulch* (Durango, Colorado), (1) (February 2): 22-27.
▶ Regarding the Escalade project.

Fedarko, Kevin

- 2014 3.1744 A cathedral under siege. *The New York Times*, (August 10): SR1.
▶ Regarding development in Tusayan (south of Grand Canyon village) and the proposed Escalade project.
- 2015 17.1711 A cathedral under seige; two development projects threaten the Grand Canyon. *Grand Canyon River Runner*, (18) (Winter): 1-2, 14.
▶ Regarding development in Tusayan (south of Grand Canyon village) and the proposed Escalade project.

Flagstaff Live!, Staff

- 2016 2.25704 Editor's Choice Awards 2016; paying tribute to the year that nearly killed us. *Flagstaff Live!*, 22(52) (December 22-28): 1, 3, 14-17.
▶ Includes (p. 16): "Worst Thing That Should Never, Ever Become a Thing: The Escalade Project".

GRAND CANYON WIRED

Grand Canyon Escalade

Friederici, Peter

2012 17.1294 Conflict in the canyon; an audacious development proposal near the Grand Canyon divides a tribe and its neighbors. *High Country News*, 44(21) (December 10): 8-9.

Grand Canyon Trust

2014 17.1665 Defending the Grand Canyon from a tramway development. *In: Grand Canyon Trust : report to donors : 2014*. [Flagstaff, Arizona]: Grand Canyon Trust, pp. 2-3.

2016 17.1876 Thanks to you we are . . . keeping the canyon grand. *In: Grand Canyon Trust : report to donors : 2016*. [Flagstaff, Arizona]: Grand Canyon Trust, pp. 2-3. [Ellipsis is part of title.]

► Regarding the Escalade project.

Grand Canyon Trust, Save the Confluence and Native America Program

2014 17.1644 Save the Confluence campaign update: June-July, 2014. *Boatman's Quarterly Review*, 27(3) (Fall): 22-27.

► See also p. 48, "Parting Shot".

Green, Nancy Rivest

2015 17.1714 [Remarks.] *In: Comments on the Confluence issue [SECTION]*. *Grand Canyon River Runner*, (18) (Winter): 15.

Hale, Albert A.

2013 17.1421 Tourism and sacred sites. Can tourism and sacred sites coexist? *Getting To the Bottom of It* (Grand Canyon Escalade Newsletter, Confluence Partners L.L.C., Scottsdale, Arizona), (2) (February): [3].

Hale, Robert A.

2013 17.1413 Just saying "NO" and doing nothing are not options! *Getting To the Bottom of It* (Grand Canyon Escalade Newsletter, Confluence Partners L.L.C., Scottsdale, Arizona), (1) (January): [1], [4].

Hanneman, Paul

2015 17.1715 [Remarks.] *In: Comments on the Confluence issue [SECTION]*. *Grand Canyon River Runner*, (18) (Winter): 15.

► Regarding the Escalade project.

Hartley, Kevin

2016 17.3458 Major development south of Grand Canyon NP rejected. *The Alamo Sierran* (Sierra Club, Alamo Group), 50(3) (April): 3-4.

► Regarding development in Tusayan, Arizona. Also noted in passing is the proposed Escalade project in the Navajo Nation.]

GRAND CANYON WIRED

Grand Canyon Escalade

The Hopi Tribe

- 2013 17.2146 *Fact sheet : Grand Canyon Escalade Project : February 2013.* [Kykotsmov, Arizona]: The Hopi Tribe, 1 p.
▶ “Facts”, “Myths vs. Facts”, and “Hopi Tribe Stance” relating to the Escalade project in the Navajo Nation.

The Hopi Tribe, Office of the Chairman

- 2014 17.1840 Zuni Pueblo, Acoma Pueblo and Laguna Pueblo join the Hopi Tribe opposing the Grand Canyon Escalade project. *The Hopi Tutuveni* (Kykotsmovi, Arizona), 22(17) (September 2): 1.

Kiernan, Kevin

- 2019 17.3725 Mt Wellington Cable Car—lessons from the Grand Canyon (USA). *TNPA News* (Tasmanian National Parks Association, Hobart, Tasmania), (28) (Autumn/Winter): 16-18.
▶ “This article was first published in The Mercury on 28 Feb 2019”. Notes the rejection of the Grand Canyon Escalade project that had been proposed by non-Natives for the Navajo Nation at the Little Colorado River confluence. Also notes the opposition of that project by the Hopi and Havasupai people.

Kwain, Matt

- 2013 2.19729 Confluence; convergence of a pilgrim’s love story and activist’s plea to preserve the Grand Canyon. *Transitions* (Prescott College), (Fall): 18-19.
▶ “A version of this story was originally written for and printed in *The Raven Review*, a student publication of the Newspaper Journalism Practicum course at Prescott College.” Relates to the proposed Escalade project at the confluence of the Little Colorado and Colorado Rivers.

Loma’omvaya, Micah

- 2013 17.1412 Threatening Hopi ties to the Grand Canyon. *Hopi Tumalhoymuy Tutuveniam* (The Hopi Tribe), 3(2) (March): 1, 4.
▶ Regarding projected plans for the Grand Canyon Escalade by Confluence Partners LLC in collaboration with the Navajo Nation. Includes a reduced-scale reproduction of the “Grand Canyon Escalade Project” Fact Sheet distributed by the Hopi Tribe.
- 2013 17.1844 Threatening Hopi ties to the Grand Canyon. *The Hopi Tutuveni* (Kykotsmovi, Arizona), 21(5) (March 5): 1, 3.
▶ Regarding projected plans for the Grand Canyon Escalade by Confluence Partners LLC in collaboration with the Navajo Nation.

Magnanti, Paul

- 2014 17.1668 Trail News [SECTION]. *TrailGroove* (Lander, Wyoming), (17): 9-10.
▶ See p. 10, remarks on the Escalade project.

Manus, Mihio

- 2014 17.1619 Navajo Nation yet to consult with Hopi Tribe over Escalade project. *The Hopi Tutuveni* (Kykotsmovi, Arizona), 22(11) (June 3): 1, 6.

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Grand Canyon Escalade

Martin, Tom

2013 17.1463 Save the Confluence. *Canyon Echo* (Sierra Club, Grand Canyon Chapter), 49(2) (Spring): 8.

McCormac, Patty

2016 2.25238 Drone pilot capturing northland adventures; Chad de Alva follows skiers, climbers, semi trucks for captivating footage. *Flagstaff Business News* (Flagstaff, Arizona), 9(12) (December) 10, 27.

- ▶ Includes passing remarks of having worked with National Geographic in Grand Canyon; with the BBC that contributed to "a documentary about the proposed and controversial Grand Canyon Tramway" (Grand Canyon Escalade).

McDaniel, Douglas

2018 2.26784 This Disney biz. Theme parks as nature, and vice versa: the trend toward leaving it the hell alone. *Flagstaff Live!*, 24(4) (January 18-24): 10.

- ▶ Includes the proposed Grand Canyon Escalade.

Nagourney, Adam

2014 3.1766 (December 4) Where 2 rivers meet, visions for canyon clash. *The New York Times*, (December 4): A1, A19.

- ▶ Chiefly about the planned Escalade project on the Navajo Indian Reservation overlooking the confluence of the Little Colorado River. Also includes other concerns facing Grand Canyon National Park.

Nelson, Michael C.

2013 17.1635 Grand Canyon Escalade. It took 30 years to open Antelope Point Marina. 30 years of no tribal revenue and lost payrolls! Who paid for the delays? *Getting To the Bottom of It* (Grand Canyon Escalade Newsletter, Confluence Partners L.L.C., Scottsdale, Arizona), (2) (February): [1].

Pearson Family

2015 17.1713 [Remarks.] *In*: Comments on the Confluence issue [SECTION]. *Grand Canyon River Runner*, (18) (Winter): 15.

- ▶ Regarding the Escalade project.

Peterson, Jodi

2017 17.2055 [Grand Canyon Escalade.] *In*: The Latest [SECTION]. *High Country News*, 49(20) (November 27): 7.

- ▶ Navajo Nation Council votes against authorizing the Grand Canyon Escalade project.

GRAND CANYON WIRED

Grand Canyon Escalade

Podmore, Zak, AND Stauffer-Norris, Will

- 2016 2.27233 Confluence; taking the hard way into the sacred, threatened heart of the Grand Canyon. *Canoe and Kayak*, (Fall): 50-60.
- ▶ See also "Foreword: Earning It", p. 4. Kayaking Little Colorado River, Cameron to Colorado River confluence; with hike out (carrying kayaks) on the Salt Trail. Thematic focus is on the debate over the proposed Escalade project on Navajo Nation land at the Little Colorado River confluence.

Proctor, Katie

- 2015 17.1746 Prez blurb. *Boatman's Quarterly Review*, 28(2) (Spring [*sic*, Summer]): 3.
- ▶ Remarks on the Escalade project.
- 2015 17.1757 Prez blurb. *Boatman's Quarterly Review*, 28(3) (Fall): 2-3.
- ▶ Remarks principally about proposed developments and mining near Grand Canyon, particularly as affecting Native American interests.

Ranney, Wayne

- 2015 17.1751 (*ON BEHALF OF* the Board of Directors) Letter to new Navajo president supporting opposition to Escalade project. *The Bulletin* (Grand Canyon Historical Society), 19(3) (May/June): 1.
- ▶ To Navajo Nation President Russell Begaye.

Riggs, Sarana

- 2016 17.1867 Save the Confluence. *Boatman's Quarterly Review*, 29(3) (Fall): 9.
- 2017 17.1943 Pondering promises. *Boatman's Quarterly Review*, 30(1) (Spring): 20-21.
- ▶ See also "Confluence", p. 48, photographs of the Little Colorado River confluence, "1872" and "now". Regarding the proposed Escalade project.
- 2017 17.1993 Is Grand Canyon Escalade the next "savior"? *In*: Grand Canyon Issue. *Colorado Plateau Advocate*, (Fall/Winter): 4-9.
- 2020 17.2647 No dams, no trams near the Confluence. *Boatman's Quarterly Review*, 33(1) (Spring): 24-25.
- ▶ "Originally posted on www.grandcanyontrust.org, on their blog posted December 18, 2019." Regarding the proposed Escalade tram, and two proposals by Pumped Hydro Storage, LLC to build two dams in the Little Colorado River.
- 2020 12.8996 Grand Canyon; dam proposals threaten Little Colorado River. *In*: Postcards from the Field [SECTION]. *Colorado Plateau Advocate*, (Spring/Summer): 32.
- ▶ Regarding the proposed Escalade tramway, and two proposals by Pumped Hydro Storage, LLC to build two dams in the Little Colorado River.

Roberts, David

- 2015 17.1707 Grand Canon on the edge. A holy war is being fought over a proposal to build a \$500 million commercial development, including a high-tech gondola, on the rim of

GRAND CANYON WIRED

Grand Canyon Escalade

America's natural treasure. (Photographs by Bill Hatcher.) *Smithsonian*, 45(11) (March): 58-69, 92, 94.

► Regarding the Navajo Nation's proposed Grand Canyon Escalade at the confluence of the Little Colorado River. See also April issue for comments by Robert Arias and by Kay J. Mann. [Also seen with title, "Who Can Save the Grand Canyon? A holy war is being fought over a proposal to build a \$500 million commercial development, on the rim of America's natural treasure"; perhaps the web version.]

Save the Confluence [organization]

2015 17.1747 Begaye formally opposes Escalade project. *Boatman's Quarterly Review*, 28(2) (Spring [sic, Summer]): 3.

► Navajo Nation President Russell Begaye.

2017 17.2072 Let the healing begin—finally, NO Escalade development! *Boatman's Quarterly Review*, 30(4) (Winter 2017-2018): 24-25.

Shingoitewa, LeRoy

2013 17.1462 Grand Canyon State's namesake threatened. *The Hopi Tutuveni* (Kykotsmovi, Arizona), 21(4) (February 19): 1, 4.

► Regarding the Escalade project.

Skrelunas, Tony

2012 17.1293 What do the Navajo Nation's Bodaway/Gap Chapter elders want? *Colorado Plateau Advocate*, (Fall/Winter): 20.

► Regarding the Escalade tramway and development controversy.

Smithson, Shelley

2012 17.1295 Navajos considering Grand Canyon for economic development. *Flagstaff Business News* (Flagstaff, Arizona), 5(5) (May): 3, 25.

► Escalade project.

Thybony, Scott

2014 17.1607 The Confluence. *Colorado Plateau Advocate*, (Spring): 12-14.

► Escalade project.

Towne, Douglas C.

2013 17.1572 Aerial highways. *SCA Journal* (Society for Commercial Archeology), (Spring): 2-6.

► Regarding trams and cableways. See pp. 5-6, note of the Navajo Nation's proposed Grand Canyon Escalade.

Williams, Stu

2015 17.1802 Grand Canyon Escalade—Save the Confluence. *Canyon Echo* (Sierra Club, Grand Canyon Chapter), 51(3) (Summer): 15.

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Grand Canyon Escalade

Williamson, Maya

- 2016 17.1870 Opposing the Grand Canyon Escalade project: Navajos and river runners as cultural stakeholders. *In: Colorado College State of the Rockies : research, report, engage : 2016 State of the Rockies report : The Scales of Western Water.* Colorado Springs, Colorado: Colorado College, pp. 51-59.

Wisniewski, Andrew

- 2015 2.23526 Fighting the good fight; local filmmaker Justin Clifton knows no boundaries. *Flagstaff Live!*, 21(32) (August 6-12): 1, 3, 16-19.
▶ Principally regarding Utah's Canyonlands region, but notes the proposed Escalade project at the Little Colorado River confluence.

Yellowhorse, Renae, AND Clark, Roger

- 2014 17.1623 Grand Canyon Escalade update. *Boatman's Quarterly Review*, 27(2) (Summer): 9.
-

Other Cables, Trams and Wires

This section is devoted to a variety of wired systems of peculiar or partial notice.

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North Rim Tram

Unsigned

- 1940 2.11835 [North Rim water supply and tram.] *In*: Oddities [SECTION]. *Region III Quarterly* (U.S. National Park Service), 2(4) (October): 42.
- ▶ "The North Rim of Grand Canyon National Park, Arizona, is supplied by what is believed to be one of the highest lifts of water, for domestic purposes, in the world. The water comes from a spring in Bright Angel Creek, far down in the canyon, and is raised 3,800 feet through a four-inch pipeline. Part of the flow passes through turbines that generate power for electric pumps to furnish the "juice" for the lift. The machinery was lowered from the canyon rim on a four-mile tramway built for that purpose." (ENTIRE ITEM)
-

Marble Canyon and Bridge Canyon Damsite Trams

Muench, Joyce Rockwood, AND Muench, Josef

- 1951 12.4040 High ride on a cable. *Popular Mechanics Magazine*, 95(2) (February): 140-142.
- ▶ Marble Canyon damsite tram.

Pearson, Byron E.

- 2019 12.8674 *Saving Grand Canyon : dams, deals, and a noble myth*. Reno, Nevada: University of Nevada Press, 344 [345] pp.
- ▶ See p. 53, note *in passing*: "By July 1949 the Bureau of Reclamation had studied several townsite locations for construction workers and their families and the possibility of constructing a 2,270-foot elevator shaft to provide access from the south rim to the damsite for personnel and supplies." See p. 55, note *in passing*, that Michael Straus, Bureau of Reclamation Commissioner, "had also contracted with a construction firm to build a cableway for men and materials from the rim to the river at the Marble Canyon damsite".
- 2019 2.29047 "These dismal abysses": An environmental history of Grand Canyon National Park. *In*: Pearson, Byron E. (guest ed.), Grand Canyon National Park at 100. *Journal of Arizona History*, 60(4) (Winter): 395-436.
- ▶ Noted *in passing* (p. 414): ". . . the Bureau of Reclamation built construction camps and tramways at both places . . ." (crediting Pearson, *Saving Grand Canyon*, pp. 53-56, but compare annotations with the corresponding citation *above*).

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Richmond, AI

- 1996 2.5395 Tram? What tram? *Nature Notes* (Grand Canyon National Park), 12(2) (Summer): 1-3.
- Principally about the Grand Canyon tramway surveyed by George K. Davol in 1919, but also includes brief remarks on the Orphan Mine tram, the Indian Garden tram (with two photos), the Marble Canyon damsite tram, the Bass cable across the Colorado River, the Rust cable over the Colorado near the site of present-day Black Bridge, the Bat Cave tram, and the USGS cable over the Colorado upstream from Phantom Ranch.
-

A photo of an aerial tram in operation over the Colorado River at the Marble Canyon damsite in August 1952 is accessible online at the J. Willard Marriott Digital Library, University of Utah (P0819 George Barfoot Photograph Collection) at <https://collections.lib.utah.edu/ark:/87278/s6x35kbb>.

Another photo of the tram in operation, by Bill Belknap, is online through the Special Collections and Archives, Cline Library, Northern Arizona University at <https://archive.library.nau.edu/digital/collection/cpa/id/5699/>.

(Images accessed April 18, 2026.)

Colorado River Mid-Stream Electrical Wire

Unsigned

- 1893 2.16050 [Trolley boats.] *Western Electrician* (Chicago), 13(7) (August 12): 77.
- "A party of eastern capitalists, said to have some connection with the Santa Fe railroad system, is visiting the Grand Canyon of the Colorado river for the purpose of investigating the feasibility of laying an electric cable 500 miles in length along the river, with which to drive small boats through the Black canyon and other scenic points. The power is to be generated by water wheels driven by the current of the river, or the water will be diverted into canals and dropped into the river again. A copper wire cable will be suspended over the center of the river, which is for the most part about 300 feet in width and electric power will be conveyed to small boats similar to the manner of running electric railways." (ENTIRE ITEM; capitalizations thus)
- 1893 2.15983 Trolley boats. *The Electrician* (London), 31 (August 18) (796): 411.
- "A party of capitalists, says *Electricity* of Chicago, said to have some connection with the Santa Fé Railroad system, has been visiting the Grand Canyon of the Colorado River for the purpose of investigating the feasibility of laying an electric cable 500 miles in length along the river with which to drive small boats up through the Black Canyon and other scenic points, where the cliffs, over a mile in height, overhang the stream. Power is to be generated by water-wheels driven by the current of the river itself, or, wherever feasible, the water will be diverted into canals. A copper wire cable will be suspended over the centre of the river, which is, for the most part, about 300ft. in width, and electric power will be conveyed to small steamers as in the case of electric railways." (ENTIRE ITEM)
-

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USGS Hydrographic Cables Other Than Over the Colorado River

Condes, Al

- 2017 21.7820 Little Colorado River memories. *USGS Retirees Newsletter* (U.S. Geological Survey), (175) (May): 22.
- Recollections of work during summer 1957 when the author serviced streamflow gauging stations. Regarding access to the gauging station on the Little Colorado River near Cameron, "a hair raising experience" on an 800-foot cable 1,000 feet above the river in order to access a trail down to the gaging station.
-

Driftwood Cable Over the Colorado River

Anderson, Michael F.

- 2001 13.2350 *Polishing the jewel; an administrative history of Grand Canyon National Park*. Grand Canyon Association, Monograph 11, 116 pp. [Copyright 2000; released April 2001.]
- "NPS laborers strung a cable across the river [at Bright Angel Creek] in 1931 to acquire driftwood fuel for Phantom Ranch." Anderson's *note 19* (p. 96) credits and adds: "*Report of the Superintendent, 1931, 1935, 1939*. The cable was also used by the CCC to help move men and material during construction of the Colorado River Trail." [No further information in Anderson.]
-

Trans-Canyon Telephone Line

A rudimentary trans-canyon telephone line was in place by 1924, which crossed from the South Rim paralleling Bright Angel Trail and up Bright Angel Canyon on the north side to the Wylie Way tourist camp at Bright Angel Point. When Civilian Conservation Corps programs were engaged in the canyon in the 1930s, one task was to upgrade the 18-mile-long telephone line, which was accomplished with the installation of poles made with uniform parts of varying heights and running open-wire copper-weld lines throughout. A later upgrade increased some pole heights and ran additional wires. Though the line has been largely removed for special-air-flights safety, it is a historical feature that can still be examined.

Beck, Paul Ward

- 1909 2.12997 The wireless telegraph in the U. S. Army field work. *Overland Monthly*, New Series, 53(2) (February): 101-107.
- See p. 106, note that telephone and telegraph land lines "cannot be run across the Grand Canyon of the Colorado." (no further discussion)

Cleeland, Teri A.

- 1986 16.1414 *The Cross Canyon Corridor Historic District in Grand Canyon National Park: A model for historic preservation*. Master's thesis, Northern Arizona University, 152 pp., 3 maps.

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1986 16.1422 *History of the trans-canyon telephone line, Grand Canyon National Park.* [No imprint], for Mountain Bell, 22 pp.

► "This paper resulted from research I conducted for the National Register nomination of the Trans-Canyon Telephone Line in Grand Canyon National Park."

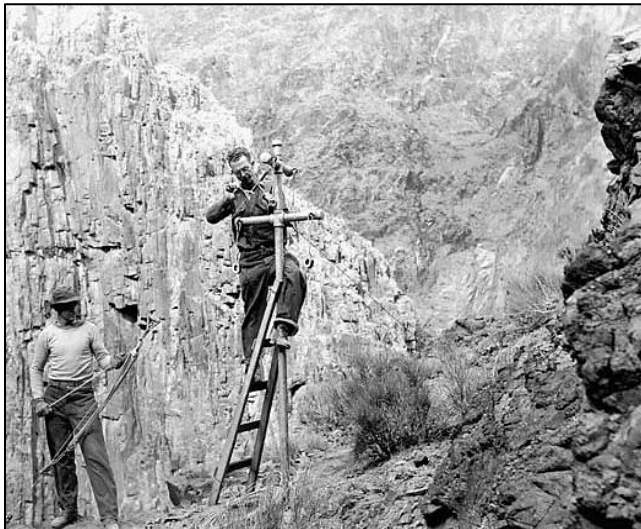
McFadden, Ralph R.

1991 2.23361 (COMPILER) "*From ground wire to microwave*" : a chronicle of fifty years of telephone and radio system development in our national park system. U.S. National Park Service, NPS-WASO-OE, 271 pp.

National Public Radio

2023 27.352 Phone lines in the Grand Canyon are being removed to improve aviation safety. *National Public Radio, Morning Edition*, (December 20, 5:04 a.m. Eastern time). 1:00.

► Hosts Michel Martin and A. Martínez's one-minute interview of Grand Canyon National Park Service Ranger Betsy Aurnou. Aurnou had been awarded the park service's Wright Brothers National Aviation Safety Award for her work in removing much of the Trans-Canyon Telephone Line, a hazard to search-and-rescue and special-operations flights in the canyon. Audio and transcript at <https://www.npr.org/2023/12/20/1220559023/>.



◀ Civilian Conservation Corps enrollees installing a pole for the Trans-Canyon Telephone Line, circa 1935.

(Grand Canyon National Park Museum Collection, [https://commons.wikimedia.org/wiki/File:00198_Grand_Canyon_Historic_Trans_Canyon_Phone_Line_c._1935_\(4680055540\).jpg](https://commons.wikimedia.org/wiki/File:00198_Grand_Canyon_Historic_Trans_Canyon_Phone_Line_c._1935_(4680055540).jpg))



► Trans-Canyon Telephone Line along the North Kaibab Trail, December 9, 2013. (Photo by Freddyfish4, from Wikimedia Commons, https://commons.wikimedia.org/wiki/File:Grand_Canyon_Telephone_Line.JPG, with Creative Commons license CC BY-SA 4.0, accessed April 18, 2026.)

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The following excerpt is from the National Register of Historic Places nomination for the telephone line:

Trans-Canyon Telephone Line (listed May 13, 1986; 12 pp. plus photos)

Grand Canyon National Park, Arizona. 1935, 1938-1939.

Nomination prepared March 1, 1986, Teri A. Cleeland, Williams, Arizona.

At time of nomination, owner of property was listed as "Mountain Bell, Phoenix, Arizona".

Summary: "The trans-canyon telephone line in Grand Canyon National Park was constructed by Civilian conservation Corps forces in 1935 to facilitate communication between the North and South Rims and from the inner canyon section of the Park. It is significant under criterion A for its association with the National Park Service and Civilian Conservation Corps and because of its importance as a communication link in a remote place. It is also significant under criterion C because the metal telephone poles represent a distinctive method of construction and the open-wire copper-weld line represents a vanishing type of telephone technology. The primary areas of significance for the line are politics/government, engineering, and communications, on a local level.

"The nomination boundary is limited to the poles and wire which constitute the structure. The line begins at the South Rim, terminates at the Colorado River, begins again at the Tipoff and terminates at Roaring Springs.

"The trans-canyon telephone line is located entirely within the Grand Canyon in northern Arizona. It is approximately eighteen miles long and roughly parallels the Bright Angel and North Kaibab Trails from the South Rim to Roaring Springs, with a spur line running two miles up the South Kaibab Trail to the Tipoff. The line consists of a series of 592 metal poles strung with copperweld wire. The poles, installed in 1935 and modified in 1938-1939, are unchanged from their original appearance. Although two small sections of the line have been removed in recent years, the line overall possesses a high degree of integrity.

"It runs from rim to river, descending nearly a mile from pine forest to desert. Over most of the way, the terrain is rough and rocky, with many steep cliffs; the landscape is generally desert-like, with sparse forest vegetation toward the rims. From the south, line begins in the vicinity of the Bright Angel Lodge. It descends one thousand feet down steep cliffs alongside the cross-canyon water line to Mile-and-a-Half Resthouse on the Bright Angel Trail, where an emergency telephone is located. The line drops another thousand feet in elevation on the east side of the trail to Three-Mile Resthouse, which also has an emergency telephone. After descending the Redwall escarpment, the line continues north to Indian Gardens. The ranger station there has a telephone extension. Below Indian Gardens, the line runs alongside the original Bright Angel Trail down Salt Creek Canyon to Pipe Creek. The line then rejoins the present trail and terminates at the River Rest House on the Colorado River, which has an emergency telephone. The other section of the line begins at the emergency telephone located at the Tipoff, above the Inner Gorge on the South Kaibab Trail. It drops about twelve hundred feet to the east side of the Kaibab Suspension Bridge, where it crosses the Colorado River, and runs along the North Kaibab Trail to Phantom Ranch. Here it serves both the National Park Service and Fred Harvey facilities. The line continues north alongside the trail to Cottonwood Camp, where the ranger station has an extension. It continues north for another two-and-a-half miles to Roaring Springs, the source of water for both rims, where it terminates."

Supai Telephone Line

Unsigned

- | | | |
|------|---------|--|
| 1931 | 2.12879 | Aerial fifty miles in length for Grand Canyon radio. <i>Popular Mechanics Magazine</i> , 55(5) (May): 802. <ul style="list-style-type: none">► Telephone wire between Supai and Grand Canyon serves as a radio aerial. |
| 1943 | 2.19967 | Easter services to be broadcast. <i>In:</i> Here and There on the Desert [SECTION]. <i>Desert Magazine</i> , 6(7) (May): 29. <ul style="list-style-type: none">► "Grand Canyon—At the Shrine of the Ages, overlooking the Grand Canyon, Easter Sunrise services were scheduled to be broadcast to the nation April 25, with Right Reverend E. L. Parsons, former Bishop of the Episcopal Church of California, |

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delivering the sermon and the A Capella choir of Arizona State Teachers' college of Flagstaff furnishing the music. J. Howard Pyle is to give a new and different picture of the Canyon from the floor of Havasupai canyon, by the only telephone line out of the Canyon's depths." (ENTIRE ITEM; capitalizations thus)

Hooper, Mildred, AND Hooper, C. R.

1966 2.23308 The telephone line to Supai village. *Arizona Days and Ways*, (February 20): 15-16.

Nik Wallenda's High-Wire Walk – Little Colorado River Gorge, 2013

The Grand Canyon has been attractive to many stunt performers and sports enthusiasts; sometimes seeking permission though not usually receiving it (for example, riding a rocket-powered motorcycle in a "jump" over the canyon), other times in unsanctioned activities (for example, hang-gliding illegally into the canyon, with arrest). The physiographical Grand Canyon, though, spans beyond the political boundaries of the national park, and activities have been sanctioned on adjacent Native American lands. One highly publicized event, televised live on June 13, 2013 on the Discovery Channel, was the high-wire walk of aerialist Nik Wallenda 1,500 feet above the Little Colorado River in the Navajo Nation—though consistently promoted as a walk over the "Grand Canyon." The claim is technically correct since the physiographical rim of the Little Colorado River Gorge, effectively a side-canyon to the Grand Canyon, continues the rim that circumscribes the more recognized "grand" canyon. Wallenda walked the two-inch-thick, 1,300 feet long cable in nearly 23 minutes, experiencing higher-than-expected winds.

Unsigned

- 2013 2.18497 World famous Nik Wallenda will perform at the Once in a Lifetime Gala. *Wyoming Living*, (April): 2.
► Includes note of forthcoming plan to walk a tightrope "across the Grand Canyon."
- 2013 2.18835 Nik Wallenda makes history; BSI brings heart-stopping views to millions around the world. *Broadcast Sports, Inc.: The POV*, 2(6) (June 27) [entire issue].
► Point of View cameras film Nik Wallenda highwire walk across the Little Colorado River gorge.
- 2013 2.28242 Lynu virš Didžiojo kanjono [*transl.* 'On a rope above the Grand Canyon']. *In*: Įvairenybės ['Varieties'] [SECTION]. *Bičiulystė* (Lietuvos neigaliųjų draugija, Vilnius), 2013(25)(1144) (June 27-July 3): 7. [*In Lithuanian.*]
- 2013 2.18874 Nik Wallenda tight rope walked across a gorge near the Grand Canyon with no safety net for 23 minutes and survived. *Light of the World* (Windsor Mill, Maryland, and Jamaica, New York), 10 (July) (127): 4.

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2013 2.22284 N.Y. linemen help make daredevil's jaw-dropping Grand Canyon stunt a success. *The Electrical Worker* (International Brotherhood of Electrical Workers, Washington, D.C.), 7(8) (August): 4.

2014 6.922 A death-defying tightrope walk. *Perspectives Magazine* (Cappelen Damm, Oslo, Norway), (Spring): 6-7. [In English.]

Deng, Tai [灯台]

2019 2.28681 你真的相信? [Nǐ zhēn de xiāngxìn?] [Do you believe?]. 家信 [jiā xìn] [*Family Letter*] (马六甲福音堂 基督徒聚会处 [mǎliùjiǎ fúyīn táng jīdū tú jùhuì chù] [*Assembly of Christians, Malacca Gospel Hall*], Malacca, Malaysia), (120) (January/March): 7-8. [In Chinese.]

- ▶ Inspirational piece focusing on high-wire artist Nik Wallenda, featuring his walk over the Little Colorado River Gorge.

Edwards, Cameron

2013 2.18896 The high-wire act of Christian living. *Bibleway Ministries* (Barrington, Illinois), 7(1) (August): [unpaginated].

- ▶ Begins with note about Nik Wallenda's recent high-wire walk over the Little Colorado River Gorge. Full article is posted online through a hyperlink, but the remainder is not pertinent to this bibliography.

Friedman, Alexander S.

2013 2.21318 Pause and balance. *UBS House View: Digest* (US Edition) (UBS AG [Union Bank of Switzerland], New York), (July): cover, 1.

- ▶ Cover depicts high-wire performer Nik Wallenda while crossing the Little Colorado River gorge. Friedman's item is an editorial note.

Hobbs, Jessica, AND Venditti, Lynda

2013 2.21272 On the edge with Nik Wallenda. *North Port Magazine* (North Port, Florida), (July): 51-53..

- ▶ High-wire performer Nik Wallenda training for walk over Grand Canyon (*i.e.*, Little Colorado River Gorge).

Jones, Cyndi

2016 2.25500 Nik Wallenda: Inspiring riggers worldwide. *Wire Rope News and Sling Technology* (Colonia, New Jersey), 38(1) (October): 16, 18, 20, 22.

- ▶ Includes Wallenda's high-wire walk over the "Grand Canyon" (*i.e.*, Little Colorado River gorge), 2013.

Kherlopian, Haig

2017 2.27775 Love destroys pride and fear. *Armenian Evangelical Church of New York, Monthly Bulletin / Հայ Աւետարանական Եկեղեցւոյ Նիւ Եորքի Անսաթերաիվ*, 106(1) (September): 3-5..

- ▶ Inspirational message begins with a note, *in passing*, of Nik Wallenda's tightrope walk "across the Grand Canyon" (*i.e.*, Little Colorado River Gorge). (Item is in English; serial, including title, is in English and Armenian.)

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Schaffer, Grayson

- 2014 2.21714 For his next trick, the spectacular Wallenda will defy death by dancing on a quarter-inch cable above the streets of Chicago. How does high-wire walker Nik Wallenda attract such massive TV audiences? Simple: He's one of this generation's greatest entertainers. *In*: Dispatches [SECTION]. *Outside*, (November): 26-28.
- Includes notes and photo of Wallenda wire-walking over Little Colorado River gorge in 2013.

Ursic, Ante

- 2018 2.28666 Towards a critical tight wire practice [ABSTRACT]. *In*: *Colloque dans le cadre de l'exposition ACROBATES : Du fil à la slackline une traversée des corps : organisé par la chaire ICIiMa, la plateforme CARP, le laboratoire TEC (Université Paris Descartes), la Faculté des sciences du sport de Nancy et les musées de la ville de Châlons-en-Champagne : en partenariat avec l'échangeur—CDCN Hauts-de-France et le PALC—Pôle national cirque en préfiguration Grand Est : 11, 12, 13 et 14 octobre 2018, Centre national des arts du cirque*. Châlons-en-Champagne: Centre National des Arts du Cirque, p. [13] [pagination count includes wraps].
- The author attempts to describe Nik Wallenda's Little Colorado River high-wire walk with a cultural evaluation. "I will bring into focus Nick Wallenda's recent high-wire crossings over the Grand Canyon Gorge and the Niagara Falls . . . [which] hyperbolize the white, male, heteronormative subject, which is the center of privilege in the colonial context."

Philippe Petit's Unrealized High-Wire Walk

Berg, Aimee, AND Petit, Philippe

- 2009 2.11800 Balancing act. *Outside*, (January): 27.
- Berg telephone interview with French aerialist Petit includes Petit's unrealized plan to "walk over the Grand Canyon".
- [*Note*: Petit is probably best known in America for his unauthorized high-wire walk between the two towers of New York's World Trade Center in 1974, though he is also remembered for unauthorized walks at Paris's Notre-Dame Cathedral (1971) and Australia's Sydney Harbour Bridge (1973).]

Unidentified Cable

Keton, Jeannette S.

- 2003 2.20451 Everything old is new again for retired Captain Robert Wilson; from war to furlough to flying again. *Flightline* (Allied Pilots Association, American Airlines), (Spring): 12-13, 29.
- See p. 12, note of Army Air Corps pilot Wilson assigned to the South Pacific during World War II. "They flew there [in the Southwest] together across the Grand Canyon, where, Wilson recalls, they ducked their new B-25 Mitchell aircraft under a cable stretched across one end." (ENTIRE NOTE)
- [*Note*: This is too early to refer to the Bat Cave cable. The described location and circumstances are undetermined.]

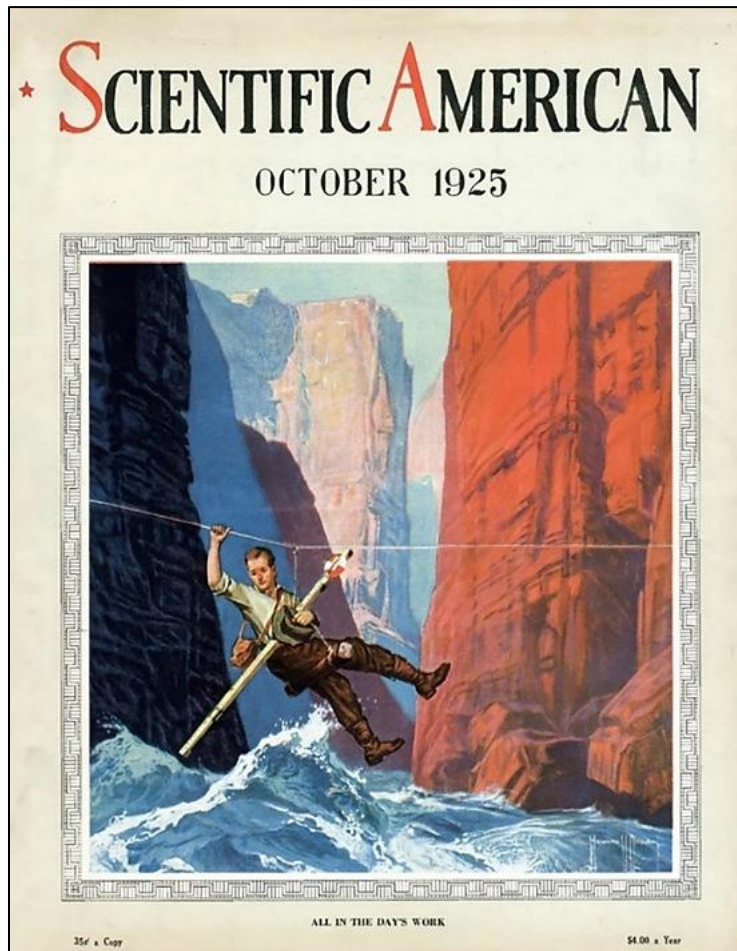
GRAND CANYON WIRED
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An Imaginary Instance – Birdseye Expedition, 1923

Mitchell, Guy Elliot

1925 2.4606 Heroes of mapmaking; from Alaska’s snows to dismal swamps, pluck and energy is completing the largest map in the world. *Scientific American*, 133(4) (October): cover, 219, 222-223.

This citation is included here for its artistic interest, prefiguring the use of USGS cables over the Colorado River. While the Grand Canyon is featured in the article, note particularly the cover illustration by the well-known pulp artist Howard V. Brown. It depicts a rodman daringly hanging from a rope over a rapid, with the legend, “All In the Day’s Work.” The engaging artwork surely is meant to portray the work of the Birdseye Expedition of 1923. This was a 76-day trip conducted by the U.S. Geological Survey, led by the survey’s chief topographical engineer, Claude H. Birdseye. They assessed potential dam sites and created a plan and profile of the Colorado River through the Grand Canyon. Brown’s scene, however, is imaginary—the expedition did not employ ropes or cables in its work.



INSIDE BACK COVER ►

Close view of the underside of the Bat Cave tram transport car and its dump chute. It could carry a ton of guano or six men. The black-bat livery was painted for the 1959 film, *Edge of Eternity*.

(Author's photo, October 3, 2007)



RAVEN'S PERCH MEDIA