

MAPPING



GRAND CANYON

A Chronological Cartobibliography
AND CHOROGRAPHICAL STUDY

Puerto de Bucareli ▪ Big Canyon ▪ Great Canyon ▪ Grand Canyon

SECOND EDITION

Earle E. Spamer



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COVER ILLUSTRATION: *Detail from F. W. von Egloffstein, "Map No. 2. Rio Colorado of the West, Explored by 1st Lieut. Joseph C. Ives, Top^l Eng^{rs} under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Capt. Top^l Eng^{rs} in charge, by order of Hon. John B. Floyd, Secretary of War. 1858. drawn by Fr^{hr} F. W. v. Egloffstein. Topographer to the Expedition" (in Joseph C. Ives, Report upon the Colorado River of the West, explored in 1857 and 1858 by Lieutenant Joseph C. Ives, Corps of Topographical Engineers, under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Captain Topographical Engineers, in charge. By order of the Secretary of War. U.S. Government Printing Office, Washington, 1861, 1 sheet [volume is U.S. 30th Congress, 1st Session, House Document 90, Serial 1058]). Despite geographical irregularities, this is the first map of the Grand Canyon, labeled as "Big Cañon of the Colorado"*

MAPPING GRAND CANYON

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1974 50 YEARS 2024



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BIBLIOGRAPHICAL AND HISTORICAL RESOURCES ON THE
GRAND CANYON AND LOWER COLORADO RIVER REGIONS OF THE
UNITED STATES AND MEXICO

MAPPING GRAND CANYON

by Earle E. Spamer

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MAPPING GRAND CANYON

CONTENTS

[IN THE DIGITAL PDF, ALL LINES IN THE TABLE OF CONTENTS ARE HYPERLINKS]

List of Illustrations	iv
INTRODUCTION	1
Postscript: "Mapping Grand Canyon" Conference (ASU, 2019)	6
Naming the Grand Canyon [abstract]	10
Online Map Resources	11
Egloffstein, Dutton, and Matthes: A Bibliographical Review of Pioneer Mapping of Grand Canyon	15
 CHRONOLOGICAL CARTOBIBLIOGRAPHIES	
Explanation of the Item Numbers and Cross-Listings	26
Note Regarding the Typography of Author Names and Map Titles	28
Puerto de Bucareli (1777–1884)	29
Introduction	31
Puerto de Bucareli Cartobibliography	43
Big Canyon (1853–1910)	85
Introduction	87
The Egloffstein Model and Variants	93
Big Canyon Cartobibliography	125
Great Canyon (1853–1879)	147
Introduction	149
Great Canyon Cartobibliography	151
Grand Canyon (1868–present)	155
Introduction	157
The George Billingsley Maps	163
Grand Canyon Cartobibliography	183
Dates Undetermined	303
Non-Specific Dates	306
APPENDIX: RÍO COLORADO AND COLORADO RIVER NOMENCLATURE	309
COLOPHON	314
ABOUT THE AUTHOR	INSIDE BACK COVER

MAPPING GRAND CANYON

LIST OF ILLUSTRATIONS

[IN THE DIGITAL PDF, EACH "FIGURE" NOTICE IN THE LEFT COLUMN IS A HYPERLINK TO THAT ILLUSTRATION OR ITS LEGEND]

INTRODUCTION

- Figure A Map and detail. George H. Billingsley and Haydee M. Hampton, "Physiographic Rim of the Grand Canyon, Arizona", *U.S. Geological Survey, Open-File Report 99-30* (1999) x

PUERTO DE BUCARELI

Figures 1–9 illustrate different placements of the label Puerto de Bucareli (and variants)

- Figure 1 Manuscript (detail), likely the work of Bernardo de Miera y Pacheco, "*Derrotero hecho por Antonio Veléz y Escalante, Misionero para mejor conocimiento de las Misiones, pueblos de Indios y Presidios que se hallan en el Camino de Monterrey a Santa Fé de Nuevo Mexico. Laus deo Anno Domini 1777.*" 33
- Figure 2 Detail from Alexander von Humboldt's 1811 map (which reproduces the one originally published in 1808). 34
- Figure 3 Detail from Juan Segura's manuscript copy of Humboldt's original manuscript retains the placement of *Puerto de Bucareli* straddling the Colorado River between the Little Colorado and *Nabajoa* (San Juan) Rivers. 34
- Figure 4 Detail from Zebulon Pike's 1810 plagiarism of Humboldt, taken from a manuscript copy of Humboldt's own 1804 manuscript while the explorer-geographer was in Washington, D.C., sensibly shows *Puerto del Bacorelli* [*sic*] along the Colorado River, through today's Marble Canyon reach. 35
- Figure 5 Detail from the commercially produced 1823 map by H. S. Tanner, *A Map of North America* ("Southwest" sheet) displays *Puerto Bucarelli* straddling the Little Colorado River confluence. 35
- Figure 6 J. Dower's *Mexico and Guatemala* atlas sheet, [1834], squeezes *Puerto Bucarelli* into a space downstream from the Little Colorado confluence, but note also that a dot is placed there, supposing that the *puerto* is a spot-point as also are other places seen in this detail. 36
- Figure 7 James Wyld, in this post-John Wesley Powell map from *ca.* 1880, which plots Lee's Ferry and the route of the Atlantic & Pacific Railroad, repositions *Puerto de Bucarelli* to cover the entire region southwest of the Little Colorado River and east of Cataract Creek. 36

MAPPING GRAND CANYON

- Figure 8 The 1884 *Sohr-Berghaus Hand-Atlas* (published in Glogow, then a part of the German Empire) managed to complete obfuscate the spelling and position of the *puerto*, labeling it simply as a point-name, “*Bucaretty*,” at the confluence of the unlabeled Cataract Creek. 37
- Figure 9 Humboldt, Alexander von 1811 *Carte Générale du Royaume de la Nouvelle Espagne depuis la Parallele de 16° jusqu’au Parellele de 38° (Latitude Nord) Dressée Sur des Observations Astronomiques et sur l’ensemble des Matériaux qui existoient à Mexico, au commencement l’anée 1804. Par Alexandre de Humboldt. (“L^s. Aubert pere Scripsit”). In: Atlas géographique et physique du Royaum de la Nouvelle-Espagne, fondé sur des observations astronomiques, des mesures trigonométriques et des nivellemens barométriques. Paris: Chez F. Schoell (1811), folio. 39*
- Figure 10 Veléz y Escalante, Antonio 1777 *Derrotero hecho por Antonio Veléz y Escalante, Misionero para mejor conocimiento de las Misiones, pueblos de Indios y Presidios que se hallan en el Camino de Mon-terrey a Santa Fé de Nuevo Mexico. Laus deo Anno Domini 1777. [Manuscript.] 47*
- Figure 11 Villavicencio, Manuel de 1781 (sculpsit) *Carta geographica de la costa, y parte de la peninsula de la California naciones que comprehende hasta el Nuevo Mexico, y viàge q’ hizieron Fr. Fran^{co} Garces, y Fr. Pedro Font al Rio Colorado[,] S. Gabriel, y Moqui el año de 1777. [México] 51*
- BIG CANYON**
- Figure 12 Details from the two contemporary versions of Richard Kern’s 1852 map that accompanied the 1853 report of Lorenzo Sitgreaves’ expedition across New Mexico Territory. One names “Great Cañon”, the other “Big Cañon.” Which came first has not been established. 87
- Figure 13 Egloffstein, F. W. von 1861 *Map No. 2. Rio Colorado of the West, Explored by 1st. Lieut. Joseph C. Ives, Top^l. Eng^{rs}. under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Capt. Top^l. Eng^{rs}. in charge, by order of Hon. John B. Floyd, Secretary of War. 1858. drawn by Fr^{hr}. F. W. v. Egloffstein. Topographer to the Expedition. Scale of 12 miles to one Inch or 1:760320. In: Ives, Joseph C., Report upon the Colorado River of the West, explored in 1857 and 1858 by Lieutenant Joseph C. Ives, Corps of Topographical Engineers, under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Captain Topographical Engineers, in charge. By order of the Secretary of War. Washington, D.C.: U.S. Government Printing Office. (Volume: U.S. 30th Congress, 1st Session, House Document 90, Serial 1058.) 94*
- Figures 13a–13b Details of Fig. 13 95–97*

MAPPING GRAND CANYON

Figure 14	Egloffstein, F. W. von 1861 Map No. 1. Rio Colorado of the West, Explored by 1 st . Lieut. Joseph C. Ives, Top ^l . Eng ^{rs} . under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Capt. Top ^l . Eng ^{rs} . in charge, by order of Hon. John B. Floyd, Secretary of War. 1858. drawn by Fr ^{hr} . F. W. v. Egloffstein. Topographer to the Expedition. Scale of 6 miles to one Inch or 1:380160. <i>In: Ives, Joseph C., Report upon the Colorado River of the West, explored in 1857 and 1858 by Lieutenant Joseph C. Ives, Corps of Topographical Engineers, under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Captain Topographical Engineers, in charge. By order of the Secretary of War.</i> Washington, D.C.: U.S. Government Printing Office. (Volume: <i>U.S. 30th Congress, 1st Session, House Document 90, Serial 1058.</i>)	98
Figure 15	Panel 1 of Egloffstein’s “Map No. 1.” (Rio Colorado Limitrophe and Delta)	99
Figure 16	Diagram of the Egloffstein Model (Original)	100
Figure 17	Diagrams of Egloffstein Model (Variants)	101
<i>Figures 18–29</i>	<i>Examples of Variants of the Egloffstein Model</i>	103
Figure 18	Colton, J. H. [Colton, Joseph Hutchins] 1865 Colton’s Map of California, Nevada, Utah, Colorado, Arizona & New Mexico. Published by J.H. Colton 172 William St. New York. <i>In: Colton’s general atlas, containing one hundred and eighty steel plate maps and plans, on one hundred and eight imperial folio sheets, drawn by G. Woolworth Colton. Letter-press descriptions, geographical, statistical, and historical, by Richard Swainson Fisher.</i> New York: J. H. Colton Co., and London: Bacon and Co.	105
Figure 19	Goldthwait, J. H. [Goldthwait, Jonathan H.] 1865 Map of the Territories & Pacific States to accompany “Across the Continent” by Samuel Bowles. <i>In: Bowles, Samuel, Across the continent: A summer’s journey to the Rocky Mountains, the Mormons, and the Pacific States, with Speaker Colfax. By Samuel Bowles, Editor of The Springfield (Mass.) Republican.</i> Springfield, Massachusetts: Samuel Bowles and Co.; New York: Hurd and Houghton.	106
Figure 20	Hartley, William B. [1865?] Hartley’s map of Arizona from official documents. Office 32 Pine St. N.Y.	108
Figure 21	U.S. Army Corps of Engineers [Corps of Topographical Engineers] 1867 Old Territory and Military Department of New Mexico compiled in the Bureau of Topog ^l . Eng ^{rs} of the War Dep ^t . chiefly for military purposes under the authority of the Secretary of War 1859 Partially revised and corrected to 1867.	110
Figure 22	Lloyd, J. T. [Lloyd, James T.] 1868 Lloyd’s Topographical Railway Map of North America, or the United States Continent in 1900 J.T. Lloyd, Publisher; New York 23 Cortland St.; London, 83 Fleet Street 1868. (“Entered according to Act of Congress in the Year 1865 by J. T. Lloyd, in the Clerks Office of the District Court of the U. S. for the Southern District of New York.”)	112

MAPPING GRAND CANYON

- Figure 23 Freyhold, Edward 1868 Head Quarters Corps of Engineers. War Department. Territory of the United States from the Mississippi River to the Pacific Ocean: Originally prepared to accompany the Reports of the explorations for a Pacific Railroad Route; Made in accordance with the 10th. and 11th. sections of the Army Appropriation Act of March 3rd. 1853; Compiled from authorized explorations and other reliable data by Lieut. G. K. Warren, Top'l. Eng'rs, In the Office of Pacific R.R. Surveys, War Dept. under the direction of Bvt. Maj. W. H. Emory, Topl. Eng'rs, in 1854. Capt. A. A. Humphreys, Top'l. Eng'rs. in 1854-1858. Recompiled and redrawn under the direction of the Chief of Corps of Engineers by Edward Freyhold 1865-66-67-68. 114
- Figure 24 Palmer, William J. [1868] Map of the Route of the Southern Continental R.R. with connections from Kansas City Mo.[.] Ft. Smith Ark. and Shreveport La. Giving a general View of the Recent Surveys of the Kansas Pacific Railway Co[.], across the Continent Made in 1867 & 1868. under the direction of Gen. W^m. J. Palmer. On the Routes of the 32nd. and 35th. Parallels. *In: Report of surveys across the continent, in 1867-'68, on the thirty-fifth and thirty-second parallels, for a route extending the Kansas Pacific Railway to the Pacific Ocean at San Francisco and San Diego. By Gen. Wm. J. Palmer. December 1st, 1868.* [Privately printed, Philadelphia.] 117
- Figure 25 Freyhold, Edward 1869 Office of the Chief of Engineers War Department Military Map of the United States compiled and drawn by E. Freyhold 1869. 118
- Figure 26 A. L. Bancroft and Co. 1871 Bancroft's, Map of California, Nevada, Utah and Arizona, Published By A. L. Bancroft, & Comp^y. Booksellers & Stationers San Francisco Cal. 1871 119
- Figure 27 Lloyd, J. T. [Lloyd, James T.] 1871 Lloyd's Topographical Map of America 1871 Projected by J.T. Lloyd E. Lloyd, Publisher; New York 30 Cortlandt St., London, 83 Fleet Street. ("Entered according to Act of Congress in the Year: 186[*illegible*] by J. T. Lloyd, in the Clerks Office of the District Court of the U. S. for the Southern District of New York.") 120
- Figure 28 Powell, J. W. [Powell, John Wesley] 1878 Department of the Interior[.] U.S. Geographical and Geological Survey of the Rocky Mountain Region[.] J. W. Powell, in charge. Map of the United States exhibiting the grants of lands made by the general government to aid in the construction of railroads and wagon roads. 1878[.] For explanation see chapter on "Land Grants in aid of Internal Improvements"[.] (The base chart was engraved for the Statistical Atlas of the United States.) *In: Powell, J. W., Report on the lands of the arid region of the United States, with a more detailed account of the lands of Utah.* U.S. 45th Congress, 2nd Session, House Executive Document 73. (U.S. Geographical and Geological Survey of the Rocky Mountain Region.) 121

MAPPING GRAND CANYON

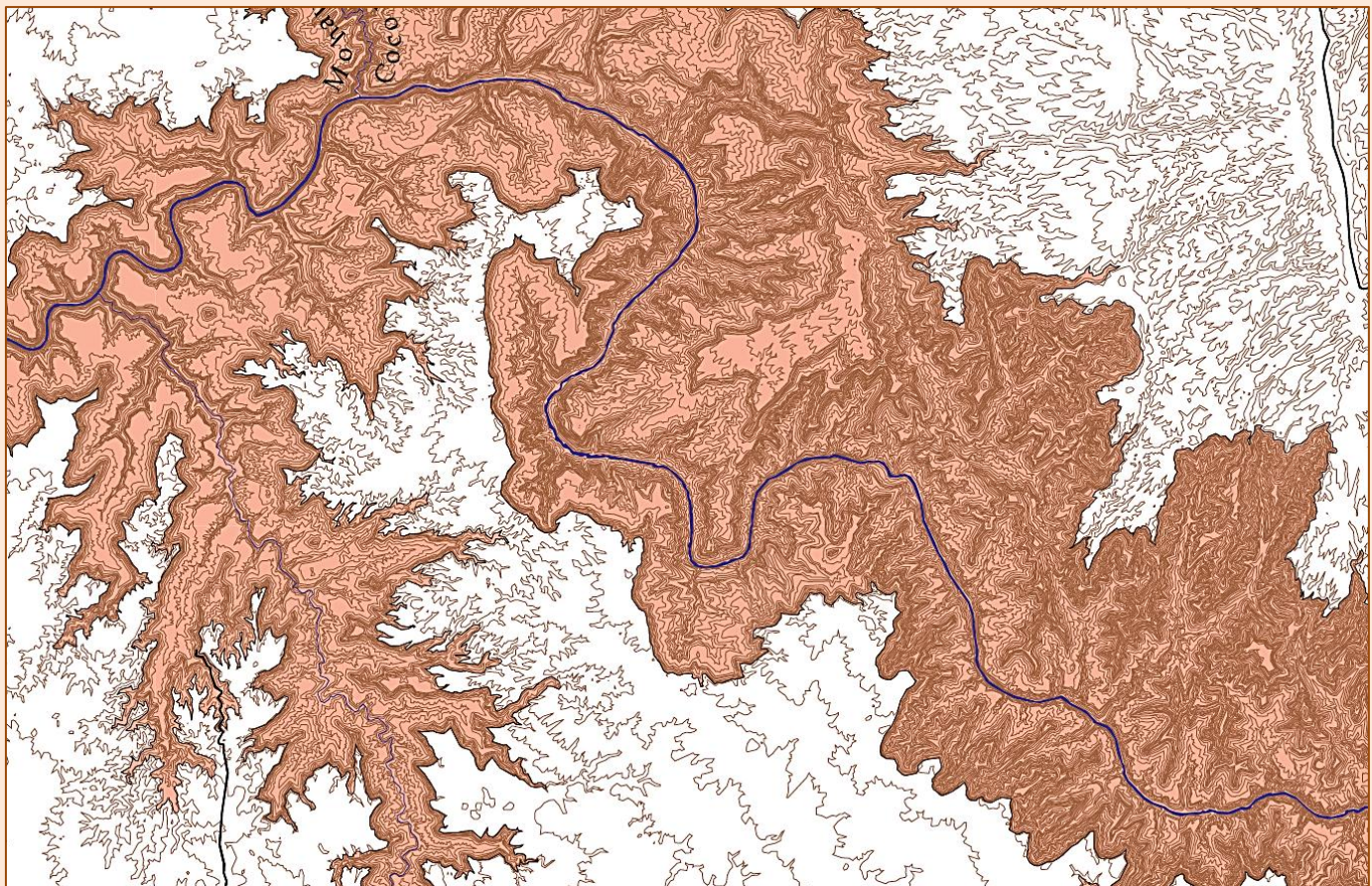
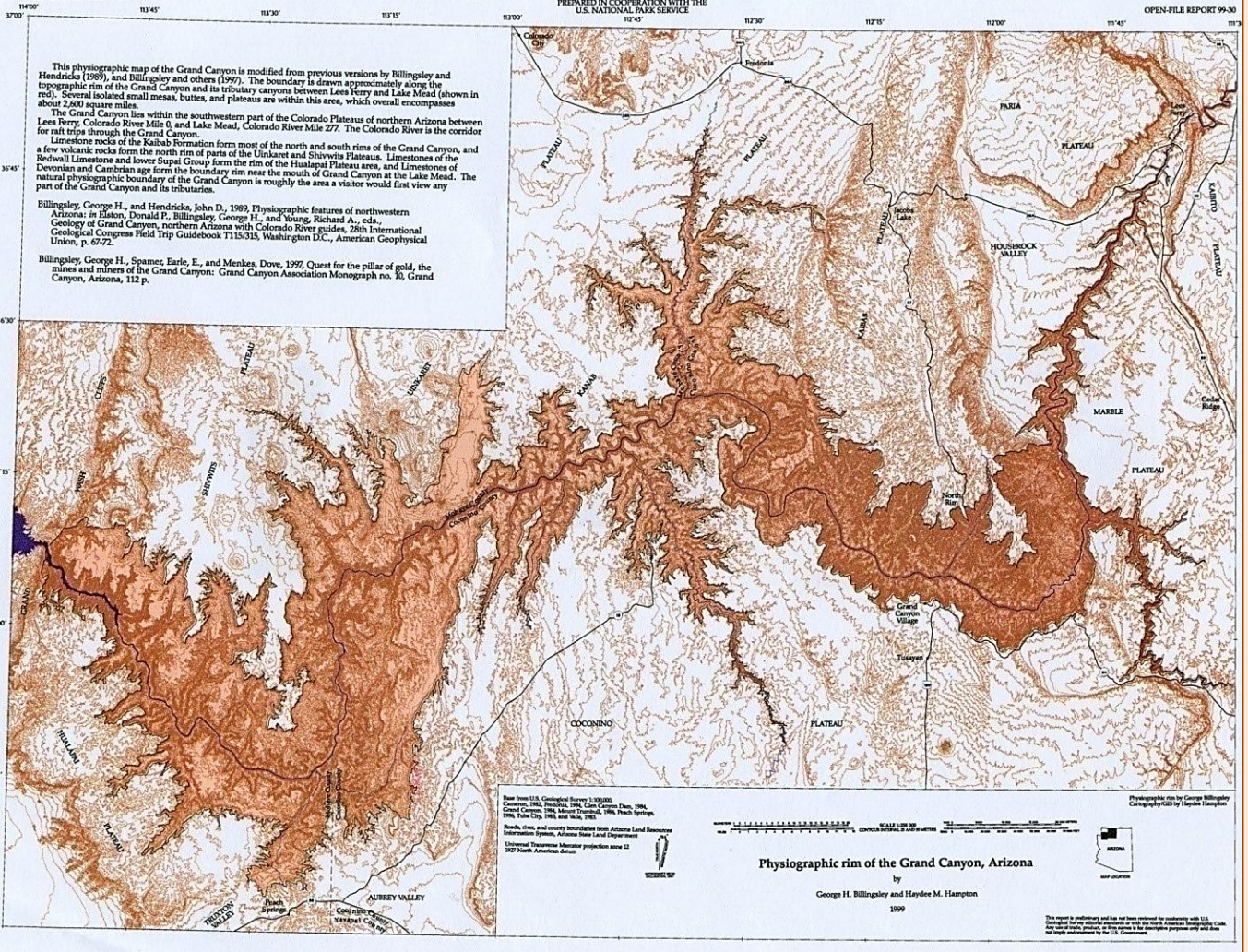
- Figure 29 Vallardi, Ant. 1885 *America Settentrionale* 1885 Stabto. dell' Editore Ant. Vallardi Via Sta. Margherita, 9. Milano G. B. Paravia e C. Torino-Roma-Milano-Firenze. 123

GREAT CANYON

- Figure 30 [same as Figure 12 for use in another section] 149

GRAND CANYON

- Figure 31 Palmer, William J. 1869 Detail from Map of the Route of the Southern Continental R.R. with connections from Kansas City Mo.[,] Ft. Smith Ark. and Shreveport La. Giving a general View of the Recent Surveys of the Kansas Pacific Railway Co[.], across the Continent Made in 1867 & 1868. under the direction of Gen. W^m. J. Palmer. On the Routes of the 32nd. and 35th. Parallels. [Second state.] In: *Report of surveys across the continent, in 1867-'68, on the thirty-fifth and thirty-second parallels, for a route extending the Kansas Pacific Railway to the Pacific Ocean at San Francisco and San Diego. By Gen. Wm. J. Palmer. December 1st, 1868.* [Privately printed, Philadelphia.] 186
- Figure 32 Edwin E. Howell's scarce, commercially produced geological relief map of the Grand Canyon region. U.S. Geological Survey, 3-dimensional map, topography with colored time-stratigraphic outcrop markings, vertical and horizontal scales 1 inch = 2 miles. 192
- Figure 33 Federally-Designated Boundaries of Grand Canyon National Park and Predecessor Units 1893–Present (*maps by* Stephanie Smith, Grand Canyon Trust, 2019) 209
- Figure 34 U.S. Geological Survey, Bright Angel Quadrangle. Scale 1:48,000, contour interval 50 feet. "E. M. Douglas, Geographer in charge. Topography by Francois E. Matthes. Triangulation by H. L. Baldwin, Jr. and J. T. Stewart. Surveyed in 1902–1903." [With detail, Fig. 34a.] 218
-



MAPPING GRAND CANYON

When we speak of “The Grand Canyon” it must be understood that the Canyon does not start at the edge of the precipice. Nor is it an arbitrary line on a map, but rather it is the sum-total of the entire area surrounding those edges.

— Stephen Verkamp¹

INTRODUCTION

MAPPING GRAND CANYON focuses on maps on which the Grand Canyon is labeled by one of its four Western-derived names during the past two and a half centuries, though without particular formality or consistency.² The four principal sections are Puerto de Bucareli (1777–1884), Big Canyon (1853–1910), Great Canyon (1853–1879), and Grand Canyon (1868–present). (For a general introduction to the evolution of these names, see *Naming the Grand Canyon*.³)

This compendium may ignore important interpretive and human-focused information on the maps that might be more significant to cartographical historians; for example, the revision of political geographies. Instead, most citations herein contain chorographical points that concern

◀ **FACING PAGE Figure A**, map and detail. George H. Billingsley and Haydee M. Hampton, “**Physiographic Rim of the Grand Canyon, Arizona**”, *U.S. Geological Survey, Open-File Report 99-30* (1999), 1 sheet (37½ x 27¾ inches), scale 1:250,000, contour intervals 25 and 50 m. [In 1999 a paper copy of this map could be ordered from the USGS. Today the map is available only as a downloadable PDF file, with digital-data files available (<https://pubs.er.usgs.gov/publication/ofr9930>; last accessed 3 January 2025). See chorographical notes, p. 258.]

¹ Stephen Verkamp, “Testimony to the Subcommittee on National Parks, Forests and Public Lands of the House Committee on Natural Resources, November 3, 2011” (originally a web resource of the U.S. House of Representatives, “www.naturalresources.house.gov/UploadedFiles/VerkampTestimony11.03.11.pdf”, 4 pp., but link was no longer valid in August 2021). See instead in the published record, “Statement of Stephen Verkamp, President, Verkamp’s Inc.”, pp. 100-109 in *H.R. 1980, H.R. 2070, H.R. 2621, and H.R. 3155 : legislative hearing before the Subcommittee on National Parks, Forests and Public Lands of the Committee on Natural Resources, U.S. House of Representatives, One Hundred Twelfth Congress, First Session, Thursday, November 3, 2021 : Serial No. 112-81* (U.S. Government Printing Office, Washington, D.C., 2012). Verkamp testified as a long-time Grand Canyon resident and president of the family interest, Verkamp’s, Inc. His grandfather was John G. Verkamp (1877–1944), a pioneer who in 1902 established an independent souvenir and curio shop in a tent at Grand Canyon. The firm that grew from it survived for more than a century before the family retired from the concessionaires’ business and turned the property over to the National Park Service. The building is now a historically focused visitors’ center and residence for participants in the “In Residence” artists and astronomers programs.

² Citations are extracted and further annotated from Earle Spamer’s *Cartobibliography of the Grand Canyon and Lower Colorado River Regions in the United States and Mexico* (5th Edition, 2025, Volume 2 of THE GRAND CANON series). Overall coverage in Volume 2 is far more comprehensive since it embraces a larger geographic region and includes more illustrations of unique or scarce maps.

³ Earle E. Spamer, *Naming the Grand Canyon* (Raven’s Perch Media, 2024). The abstract and links to this publication are on [p. 10 herein](#).

MAPPING GRAND CANYON

Introduction

the physical geography of the region; specifically, the Grand Canyon mapped by its various names, and its immediate surroundings. However, once maps of the 20th and 21st centuries are encountered in the chronological presentations, less focus is had on the descriptions of mapped physical features because by then the region is well mapped, correctly presented, and under one name (Grand Canyon), when this thus becomes a current cartobibliography for the canyon.

In my chorographical notes I use some specific terminology that describes the reach of the Colorado River shown on a map—usually *starting* at the Gulf of California. This is because the headwater or other upstream areas depicted between maps vary greatly; their labels may geographically deviate on generations of maps; and the inclusion or omission of tributary streams likewise varies. Thus, the head of the gulf serves as a generally fixed reference point (even where it is malformed on early plans), so the geographic order of the narrative “goes against the flow” of the river. At my discretion some descriptions follow the natural course of the river; these are clear in context, such as when the Colorado follows a cartographically imaginative course across the Grand Canyon region.

The creator credit for a map might differ significantly from the credit given by other cartographers and bibliographers because this cartobibliography generally uses the date of publication (and thus public availability) rather than an attributed date for the map’s delineation.

Regarding the dates of maps, I sometimes have had to rely on the interpretations made by library catalogers, especially when maps contain no evidence of a date on them. I only ask the user’s forbearance in light of the fact that specific information is not always to be had or is open to subjective interpretation given the passage of time. In any case, as much information as possible is given here in order to identify the works and to convey information by which they can be found, should they be needed for more in-depth study or to re-cite them.

Mapping Grand Canyon is a documentary effort, describing how the Grand Canyon region of North America was portrayed on published maps, correctly or incorrectly. This is less a contribution to cartobibliography in its strictest sense, although in a few instances it does correct or amplifies the work of earlier cartobibliographers. Some chorographical notes include brief descriptions of tributaries and other regional streams. One of particular note appears on numerous 19th century maps of the Southwest where there is delineated some variant or translation of the peculiarly named “River of the Sulfurous Pyramids”—for example, “Rio de las Piramides Sulfureas”, “R. de los Pyramides Sulfurcas” [*sic*], “R. de Pyramides”, and “R. Pyramid”, even the remarkably butchered “Rio de los Panami des surfurcas” (see THE GRAND CANON Volume 2 for additional and more complete citations than are indicated in *Mapping Grand Canyon*). This is a name derived from the 18th century Spanish cartographer Bernardo de Miera de Pacheco, who had accompanied the Domínguez–Escalante Expedition of 1776. His manuscript map(s) were among those that Alexander von Humboldt relied upon when he was in Mexico in 1803, where he sketched out his magnificent map of New Spain (formally published

MAPPING GRAND CANYON

Introduction

in 1808 and 1811). The river's name is a corruption, as masterfully explained by C. Gregory Crampton, who indicated that the Virgin River had been called the Rio Sulfureo (Sulphurous River) or the Rio Sulfureo de los Piramides (Sulfurous River of the Pyramids). Humboldt miswrote it as *Rio de las Piramides Sulphureas* that thereafter was translated as the river of the sulphurous pyramids! Crampton explained:

. . . it is clear that the word pyramid is intended to describe the mountainous towers and temples to the east of the [expedition's] trail at this point and to the north of it as they headed back toward New Mexico. This may be regarded as the first description of the intricately carved escarpments peculiar to the southern exposures of the High Plateaus of Utah which find classic expression in Zion National Park and Monument not far from the Spanish Trail of 1776.⁴

Some maps, particularly those of the first two-thirds of the 19th century, may be recognized as noteworthy for the display of frequently changed political boundaries; so one may wonder why note is not made of these in *Mapping Grand Canyon*. This cartobibliography focuses on the physical geography of the Colorado River country; the political boundaries displayed on these maps are not usually important in this context. In fact, the same base map might have been used by a publisher in order to issue a map on which only the political boundaries were revised (not the physical geography). This was only a matter of convenience for the cartographer or the atelier. New discoveries about physical geography, which might have called for a more wholesale revision of a map, either were not known to the map makers and sellers or were ignored for the sake of expedient sales. The reuse of severely outdated base maps simply to present redrawn political geographies, or those that were used indiscriminately for convenience—despite a publisher's trumpeting "the most recent authorities" and so forth—needlessly unleashed floods of misrepresented geographies that carried forward past their primes. In some cases, a single atlas may include maps that overlap geographically but which display obviously different information (examples are shown in THE GRAND CANON Volume 2). The commercial map publishers should have known better, though in some cases even the government cartographers are caught in the act.

If one pays close attention, one will see the onward representation of the same, often inaccurate, geographical elements along with the arrival of new elements (incorrectly and properly displayed alike). Of course, most representations of the courses of rivers on these older maps are diagrammatic, not the results of careful surveys (which was rarely the case). Many maps anyway had been prepared to display political boundaries and spheres of influence, more so than physical geography. Some depictions of river courses are honestly conjectural, perhaps delineated with dashed lines; many, though, are simply contrived. People generally understood that these areas were effectively—if not utterly—unknown to Western eyes and minds. What

⁴ C. Gregory Crampton, "Humboldt's Utah, 1811", *Utah Historical Quarterly*, Volume 26, no. 3 (July 1958), p. 275.

MAPPING GRAND CANYON

Introduction

were drawn onto maps, then, were simply indications that a river was known—or said—to be present there, somewhere. And so a line was drawn, its twists and turns we today are too eager to view superciliously, which were really for interpretive effect, that “here a river flows.” But, for an off-corner of the world such as the southwestern part of North America, copying and plagiarizing geographic information, especially in earlier times, was not only convenient, but expedient and largely unremarked.

Mapping Grand Canyon does not describe maps from the viewpoints of human history and the development of cartography, but expresses the nature of physical features of the Grand Canyon region in temporal perspective, following the usage of Grand Canyon’s variant names since the late 18th century.

Attentive users of this volume are bound to discover omissions, which are not intentional. Although a bibliographical list of maps provides a useful service, Carl I. Wheat clearly explained (specifically for his monumental work on the Transmississippi West of North America) that it is impossible, at least for one person, to pursue a perfect record of comprehensive listings:

Books about maps, . . . or indices, or bibliocartographies, or catalogues, or even the most learned discourses on the maps of related areas cannot be accepted or used as substitutes for personal examination of the maps themselves [. . .] To those familiar with the history of this vast western area, it will be obvious that no investigator could in his lifetime hope to see and list all the maps that in some fashion bear upon its complex story.⁵

Nonetheless, I hope that these citations, confined as they are geographically, temporally, and chorographically, also inspire some users to embark on reading journeys (made ever more possible by the numbers of maps accessible online) into the realms of always-evolving studies of cartography. The old never is outdated when its materials are looked at with refreshed vision.

Cross-listings to Wheat. Throughout this cartobibliography, informational cross-listings are made to the five-volume cartobibliographical compendium of Transmississippi West maps by Carl I. Wheat (1954–1963 and reprintings) that is a definitive checklist on the subject. Sometimes it may be awkward to use, given that Wheat’s sequential enumeration of maps in his cartobibliographies do not follow in order within his greatly informative narrative text, but the separate, chronologically ordered “Bibliocartography” (as he called it) in each volume is more suited to that purpose. Each volume also contains numerical indices.⁶

⁵ Carl I. Wheat, *Mapping the Transmississippi West, 1540-1861. Volume One. The Spanish entrada to the Louisiana Purchase, 1540-1804* (Institute of Historical Cartography, San Francisco, 1957), pp. 7, 9-10.

⁶ For a combined index to all volumes, see Seavey, Charles A. *Mapping the Transmississippi West, 1540-1861 : an index to the cartobibliography*. Winnetka, Illinois: Speculum Orbis Press, for Map and Geography Round Table, American Library Association, Map and Geography Round Table, Occasional Paper no. 3, 1992.

MAPPING GRAND CANYON

Introduction

The Wheat cross-listings refer to volume number, then, following convention, the map number as listed in Wheat's "Bibliocartography." If a map is illustrated, a separate notation is appended to the cross-listing, which indicates its page placement in the volume. For example, *WHEAT I:170 [with illustration facing p. 92]* would usually be cited only as "Wheat 170", but I add the volume number (Roman numeral "I" in this example) as a matter of convenience for users who may not be familiar with the cut-off points of enumeration through Wheat's five volumes in six books; and the illustration, sometimes pages away, is cited as a more complete bibliographical assist. Wheat's numbers are consecutive, 1–1302, though with an omission or two and a few expansions by the use of suffixed letters. The separate volumes that are cited in *Mapping Grand Canyon*, and their cross-listing identifiers, are as follows:

Wheat, Carl Irving. 1954–1963. *Mapping the Transmississippi West, 1540–1861* San Francisco: The Institute of Historical Cartography, 5 volumes in 6 (1957–1963). (Vol. 1 printed by the Grabhorn Press, Vols. 2–4 by Taylor and Taylor, and Vol. 5 by the James Printing Co.)

WHEAT I:___ 1957. *Mapping the Transmississippi West, 1540–1861. Volume One. The Spanish entrada to the Louisiana Purchase, 1540–1804.* San Francisco: Institute of Historical Cartography, xiv, 264 pp.

WHEAT II:___ 1958. *Mapping the Transmississippi West, 1540–1861. Volume Two. From Lewis and Clark to Fremont, 1804–1845.* San Francisco: Institute of Historical Cartography, xiii, 281 pp.

WHEAT III:___ 1959. *Mapping the Transmississippi West, 1540–1861. Volume Three. From the Mexican War to the boundary surveys, 1846–1854.* San Francisco: Institute of Historical Cartography, xiii, 349 pp.

WHEAT IV:___ 1960. *Mapping the Transmississippi West, 1540–1861. Volume Four. From the Pacific railroad surveys to the onset of the Civil War, 1855–1860.* San Francisco: Institute of Historical Cartography, xiii, 260 pp.

WHEAT V:___ 1963. *Mapping the Transmississippi West, 1540–1861. Volume Five. From the Civil War to the Geological Survey. Part One [and] Part Two.* San Francisco: Institute of Historical Cartography, *Part One*, pp. i–xviii, 1–222; *Part Two*, pp. 223–487. [The "bibliocartography" for both parts appears in Part Two.] [Wheat notes further: "Although the limiting dates for the whole work are 1540–1861, as set forth on the title page, I have found it desirable . . . to consider a number of maps published after the stated dates. In fact, this volume contains a rather extended discussion of significant maps published all through the 1860's, and a final chapter touches upon various notable maps of the 1870's—and even a few of still later date, down to 1884—which one way or another round out the work." (Volume V, Part One, p. xi)]

Given that Wheat's volumes are relatively difficult to access outside of specialized libraries, and that they command steep prices in the bookseller's market, they have also been reprinted in facsimile, in reduced size and without benefit of the few fold-out plates. (None of the fold-out plates are, incidentally, pertinent to the present cartobibliography.) As a matter of convenience, I list these special and on-demand reprints here:

MAPPING GRAND CANYON

Introduction

- NO DATE Storrs-Mansfield, Connecticut: Maurizio Martino, and Parsippany, New Jersey: About Books, 5 volumes in 6. [1995?] ["This reprint is strictly limited to 350 copies" (title-page verso).]
- 2004 Mansfield Centre, Connecticut: Martino Publishing; two states: 6 volumes in 3, and 6 volumes in 2. [Omits fold-outs.]

When referring to the cross-listings to Wheat, bear in mind that he has arranged items chronologically according to the dates they were created, not necessarily the dates of publication (publication dates are usually referred to in the present cartobibliography). Sometimes, several (even many) years can separate the dates. Herein, a modified style of citation may record differently from Wheat, particularly in the attribution of creator. The differences are imposed by Wheat, who relied (as a cartobibliographer) on the aspects of origin and historical order rather than to the aspects of publication. Further, this cartobibliography cites information as it appears in the publication, whereas some cartobibliographers, like Wheat, may cite interpreted information. Often, particularly with early maps, information is ambiguous and a bibliographer must in the end defer to interpretation. (Recall, too, that Wheat includes manuscript materials in his cartobibliography. Only a few significant manuscripts are cited in the present cartobibliography; these are specially flagged in their appropriate places, by year of creation.)

POSTSCRIPT

"Mapping Grand Canyon" Conference (Arizona State University, 2019)*

This conference was held at Arizona State University February 28–March 1, 2019, organized by Matthew Toro, Director of Maps, Imagery, and Geospatial Services, ASU Hayden Library, Map and Geospatial Hub (<https://lib.asu.edu/geo>). There is no printed conference proceedings volume, but videos of presentations at the conference have been posted online (<https://lib.asu.edu/mapping-grand-canyon-conference/program> [March 2019; last accessed 18 December 2024]).

Arizona State University

- 2019 2.27858 **Mapping Grand Canyon Conference** : February 28-March 1, 2019 : Arizona State University, Tempe. [Tempe, Arizona: Arizona State University], 44 pp. [including covers]. [Program available only in digital format from the Map and Geospatial Hub website. A "Gold Sustainability Certified Event".]

Titles of the presentations are indicated in the citations of abstracts below, to which have been added other related publications by some of these authors. The citations have been copied from topically distinct parts of THE GRAND CANON Volume 1, Part B, or references are made to other citations therein, as indicated by the prefixes to the Item Numbers.

*Spamer's *Mapping Grand Canyon*, independently titled, was not associated with the ASU conference.

MAPPING GRAND CANYON

Introduction

Avila, Theresa

- 2019 17.2321 Tracing the history of Native American communities in relation to the Grand Canyon [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 15.

Field, Kenneth

- 2019 15.1053 Mapping death in Grand Canyon [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 25.
[NOTE: See the online map, "Over the Edge: Death in Grand Canyon", by Kenneth Field, <http://carto.maps.arcgis.com/apps/webappviewer/index.html?id=9359a0790ffe4bc09edd6b9c17a43b90> (accessed 9 March 2019; last accessed 9 December 2024). Inspired by the book, *Over the Edge: Death in Grand Canyon* (Michael P. Ghiglieri and Thomas M. Myers, 2012, 2nd ed., Puma Press, Flagstaff, Arizona [a 3rd ed. is available, 2024]). A print version of an earlier rendition of the map, "Over the Edge in 3D: Death in Grand Canyon", by Kenneth Field and Damien Demaj, is online at http://downloads.esri.com/MappingCenter2007/blog/Jul12Images/GrandCanyon_EsriUC2012.pdf (accessed 9 March 2019; last accessed 9 December 2024).]

Fry, Michael

- 2019 21.7745 How Washburn mapped the "Heart of the Grand Canyon" [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 12.

Griffin, Dori

- 2010 2.24687 *Reading maps, writing landscapes: Cartographic illustration in Arizona, 1912-1962.* Doctoral dissertation, Arizona State University, 358 pp.
- 2011 2.16032 Mapping an imaginary Arizona: George Avey, *Arizona Highways*, and illustrated cartography. *Journal of Arizona History*, 52(3) (Autumn): 245-270.
- 2013 2.18606 *Mapping wonderlands : illustrated cartography of Arizona, 1912-1962.* Tucson: University of Arizona Press, 219 pp.
- 2019 2.27856 Cartoon maps of canyonland [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 21.

Kaplinski, Matt A.

- NO DATE 22.862 *Mapping the channel of the Colorado River in Grand Canyon.* [No place]: Teledyne Reson, Inc., [5] pp. (SeaBat Case Stories.) [2013 or 2014.]
- 2019 22.1176 Mapping the Colorado River corridor in Grand Canyon for ecosystem monitoring [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 23.

Karlstrom, Karl E.

- 2019 21.7746 Geologic mapping of Grand Canyon, 150 years and counting [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 14.

MAPPING GRAND CANYON

Introduction

Manone, Mark

- 2019 21.7747 The 1923 Birdseye Expedition: First maps of the Colorado River through Grand Canyon [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 22.

Oetting, Edward C. [Oetting, Ed]

- 2019 13.4290 Legislating the boundaries: Redrawing the map in 1925 [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 10.

Patterson, Tom

- 2019 21.8305 Mapping Grand Canyon National Park [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 9. [Keynote address.]
- 2021 21.8306 The Heart of the Grand Canyon. *International Journal of Cartography*, 7(2): 121-127. [Regarding the topographic map by Bradford Washburn (see National Geographic Society, Cartographic Division, 1978, [ITEM NO. 24.357](#); and slightly smaller variant for publication with the July 1978 issue of *National Geographic*, [ITEM NO. 24.145](#); also later eds.).

Quartaroli, Richard D.

- 2019 2.27855 John Wesley Powell and crew's 1869 Grand Canyon river mapping: What did they know and when did they know it? [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 16. [NOTE: At the time of presentation the title had been changed to "'The Great Unknown' of river mapping: What did Powell and the 1869 crew know and when did they know it?"]

Runge, Peter

- 2019 2.27854 Footprints on the sands of time: Retracing Harvey Butchart's exploration of the Grand Canyon through his annotated Matthes-Evans maps [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 13.

Semken, Steven [Semken, Steve]

- 2019 14.1395 Place-based teaching and learning at Grand Canyon: In-person and virtual [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 26.

Smith, Stephanie

- 2019 19.6083 Mapping Grand Canyon for conservation [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 27. [Grand Canyon Trust.]

Spindler, Robert

- 2019 2.27857 Celebrating with archives: Building "100 Years of Grand" [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 24. [Cursory abstract for Arizona State University Library's online presentation.]

MAPPING GRAND CANYON

Introduction

Toro, Matthew

- 2019 2.27859 Welcome. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 4. [Table of Contents (p. 2) lists this as "A Note from the Conference Director".]
- 2019 2.27851 Mapping Grand Canyon—over 150 years of cartographic change, Part 1 [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 8.
- 2019 2.27852 Mapping Grand Canyon—over 150 years of cartographic change, Part 2 [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 20.
- 2019 2.27968 Mapping the Grand Canyon—over 150 years of cartographic change [ABSTRACT]. *In: Minckley, Thomas (chair), John Wesley Powell and his legacy on American geography and future in the arid West [SESSION]. American Association of Geographers, Annual Meeting.* [Accessible online: <https://aag.secure-abstracts.com/AAG%20Annual%20Meeting%202019/abstracts-gallery/20949>; last accessed 9 December 2024.]
- 2019 2.29052 Rescaling geography: Grand Canyon exploratory and topographic mapping, 1777-1978. *In: Pearson, Byron E. (guest ed.), Grand Canyon National Park at 100. Journal of Arizona History, 60(4) (Winter): 621-654.*

Upchurch, Jonathan

- 2019 21.7744 Creation of the Matthes-Evans topographic map of the Grand Canyon [ABSTRACT]. *In: Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe.* [Tempe, Arizona: Arizona State University], p. 11.
- 2020 21.8208 Creation of the Matthes-Evans topographic map of the Grand Canyon. *In: Quartaroli, Richard D. (compiler, ed.), Celebrating 100 years of Grand Canyon National Park, February 2019 : a gathering of Grand Canyon historians : ideas, arguments, and first-person accounts.* Grand Canyon, Arizona: Grand Canyon Association [and Grand Canyon Historical Society], pp. 136-141.
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MAPPING GRAND CANYON

Introduction

Naming the Grand Canyon

by Earle E. Spamer (Raven's Perch Media, 2024)

[3 MB PDF, 48 pp.]

<https://ravensperch.org/wp-content/uploads/2024/12/Naming-GC.pdf>

or

https://www.academia.edu/126066343/Naming_the_Grand_Canyon

ABSTRACT — The origin of the name “Grand Canyon” is unknown. It was not the neological invention of John Wesley Powell in 1869, as is often retold. Earlier in the 19th century it was known as “Big Canyon” and “Great Canyon,” perhaps the translation of the term by which French-speaking mountain men may have described it—*un grand cañon*. Both appellations inattentively survived the coming of “Grand Canyon,” but only for a couple of decades. The earliest known non-Indigenous term, *Puerto de Bucareli*, was conferred in the diary of the Franciscan friar Francisco Garcés when he visited the Havasupai people in 1776, the first non-Native person known to have reached the Grand Canyon since a party of Spanish conquistadores arrived on the rim 236 years earlier, in 1540 (who are not recorded as having given it a name). Ingenious misspellings of the *puerto* appeared on manuscript and printed maps in the 18th and 19th centuries but its association as Garcés’s mountain pass for the Colorado River was never remembered, nor did it label an entire canyon. The origins for each “Canyon” name, though, remain mysteries, including the first known appearance of “Grand Canyon” in 1857 that disappointingly lacked an admission of neologism or credit to another source. This has not dissuaded travelers and writers from exploiting the name for other landscapes around the world or from exercising it in a superfluity of analogies and metaphors. In the end, an answer to the question, “Who named the Grand Canyon?” may be unessential, given that Native peoples have had words from time immemorial that affirm long spiritual and cultural associations with the canyon.

MAPPING GRAND CANYON

ONLINE MAP RESOURCES

A SIGNIFICANT NUMBER of maps can be found as digitized resources on institutional, organizational, agential, and commercial websites around the world. Bearing in mind that the content and accessibility of these web-based resources may continually change (or even disappear) it is a very worthwhile effort to spend some time (a lot of time, preferably) perusing these digitized offerings.

A substantial number of the maps cited herein were located and examined virtually. At no time was this more appreciated than during the COVID-19 pandemic, when many of these resources were key to this ongoing project, viewed comfortably from home. A surprising number of them were in resolutions sufficient for very close examination. Special acknowledgment and thanks must be extended to the institutions and agencies who had their websites up and running during that worrisome time; and more generally, to all of the repositories and online sources that over the past couple of decades have made their cartographical products and rare books accessible to remote users. All of it has been astonishingly helpful; a prospect that to me—now a digitally confident collections-based researcher, librarian, and archivist—was unimagined at the start of my career a half century ago when almost everything was examined in person or with less agreeable photographic reproductions.

Some important sources of digitally accessible maps are listed below—it is not implied to be a complete list, as online searches for specific maps will reveal numerous other sources. The major libraries offer digital access to printed and manuscript maps from past centuries as well as more contemporary productions. Agencial sources can provide maps that are pertinent during the range of the agencies' existence; they may display current maps as well as historical out-of-print and superseded maps, as is most dramatically shown in the U.S. Geological Survey sites online.

The websites listed here have been especially useful to my own research into maps of the American Southwest.

ALL LINKS WERE VALID AS OF 9 DECEMBER 2024

MAPPING GRAND CANYON

Online Resources

MAJOR LIBRARIES

Library of Congress

<https://www.loc.gov/maps/>

Beinecke Rare Book and Manuscript Library, Yale University

<https://beinecke.library.yale.edu/>

Bibliothèque nationale de France

<https://www.bnf.fr/fr/bnf-catalogue-general>

or more specifically the BnF digital collections

<https://www.bnf.fr/en/gallica-bnf-digital-library>

MAJOR COLLECTIONS

The David Rumsey Map Collection

(at the David Rumsey Map Center, Stanford University Libraries)

<https://www.davidrumsey.com/>

Smithsonian Institution Libraries

<https://library.si.edu/digital-library>

or this particular boolean-search focus

https://www.si.edu/search?edan_q=library%2BAND%2Bmap&

U.S. GOVERNMENT AGENCIES

U.S. Bureau of Land Management maps

<https://www.blm.gov/maps>

U.S. Geological Survey (USGS) National Map

<https://www.usgs.gov/the-national-map-data-delivery/topographic-map-access-points>

USGS Geologic Map Database

https://ngmdb.usgs.gov/ngmdb/ngmdb_home.html

U.S. National Archives

<https://catalog.archives.gov/advancedsearch>

MAPPING GRAND CANYON

Online Resources

INTERAGENCY RESOURCES

National Cooperative Geologic Mapping Program
(U.S. Geological Survey, Association of American State Geologists, and
individual state geological surveys)

<https://www.usgs.gov/programs/national-cooperative-geologic-mapping-program/about>

OTHER ACADEMIC RESOURCES

Arizona State University Library, Map and Geospatial Hub

<https://lib.asu.edu/geo>

University of Arizona

Article “The Arizona Electronic Atlas: A New Reference and Instructional Tool” by Jeanne Pfander and Danielle Carlock in *Issues in Science and Technology Librarianship* (Fall 2004)

<https://journals.library.ualberta.ca/istl/index.php/istl/article/view/1996>

with the interactive text reposted to

<https://journals.library.ualberta.ca/istl/index.php/istl/article/view/1996/1907>

The *Arizona Electronic Atlas* was superseded by *Arizona Geospatial Data and Maps*

<https://uair.library.arizona.edu/item/292543/browse-data>

COMMERCIAL WEBSITES OF ANTIQUARIAN MAP DEALERS

Some firms retain digital presentations of their past sales in addition to current offerings, although the illustrations of their stock are both opportunistic and perhaps short-lived. While a number of these websites host images at sufficient resolution for close scrutiny, other websites do not. While these businesses are not “collection-based” as a whole like those of academic institutions, such sites are worthwhile sources for the inspection of particular maps when they show up in the market. Established firms also may have well-researched information about the historical significance of a map with notes on cartographers and ateliers.

Egloffstein, Dutton, and Matthes

A Bibliographical Review of Pioneer Mapping of Grand Canyon

THREE MEN, neatly a generation apart, provided the most significant, pioneering maps of the Grand Canyon.

Friedrich Wilhelm von Egloffstein (1824–1885) delineated the first map of the canyon (1861), stunningly embracing its entire extent but later widely discussed for its improbable depiction of the main portion of the canyon (see [Figure 13](#) [p. 94] herein). The shortcomings are not the tricks of geographical invention but because he was not able to properly survey the territory during a relatively brief dash across the northern tier of New Mexico Territory in 1858; in fact, he never saw the eastern Grand Canyon. Egloffstein also delineated a number of scenic views taken during the expedition, which also have been the subject of discussion. The effort was nonetheless masterful. (John Strong Newberry had produced the first geological map of the Grand Canyon region using Egloffstein’s map as a base, also published in the 1861 report of the Ives expedition, but the geology thereon is superficial.) (See also herein the section on the [Egloffstein model](#) of the Grand Canyon map and later variants; *p. 93 and following.*)

Clarence Edward Dutton (1841–1912) is acclaimed for producing the magnificent *Atlas* that accompanied his *Tertiary History of the Grand Cañon District* (1882), which includes the first comprehensive geological maps for the canyon.

François Émile Matthes (1874–1948) surveyed most of the eastern portion of Grand Canyon in 1902–1903 to produce the first large-scale topographical map quadrangles. Particularly well known to generations of geologists and map enthusiasts is the Bright Angel quadrangle (see [Figure 34](#) [p. 218] herein), which with later-produced geological maps of the quadrangle are used to this day in introductory geology courses.

Egloffstein

Anonymous

- | | | |
|------|---------|---|
| 1860 | 21.5084 | [Notice of maps by F. W. von Egloffstein from the Ives expedition.] <i>In</i> : Journal of Proceedings [SECTION]. <i>Academy of Science of St. Louis, Transactions</i> , 1: 712. |
| 1862 | 21.5085 | [Notice of maps by F. W. von Egloffstein from the Ives expedition.] <i>In</i> : Proceedings of the Stated Monthly Meeting, May 15, 1862. <i>Franklin Institute, Journal</i> (Philadelphia), Series 3, 43 (June): 414-415. |
| 1862 | 21.5086 | New mode of map engraving. <i>Mechanics’ Magazine</i> (London), New Series, 8 (July 25): 49. [Notice of maps by F. W. von Egloffstein from the Ives expedition.] |

MAPPING GRAND CANYON

Bibliographical Review of Pioneer Mappers Egloffstein, Dutton, and Matthes

- 1863 21.5088 New mode of map-engraving. *In*: Timbs, John, *The year-book of facts in science and art* [for 1862]. London: Lockwood and Co. [Notice of maps by F. W. von Egloffstein from the Ives expedition.]
- 1863 21.5087 New method of map construction. *In*: Wells, David A. (ed.), *Annual of scientific discovery: or, Year-book of facts in science and art for 1863*. Boston: Gould and Lincoln, pp. 185-186. [Notice of maps by F. W. von Egloffstein from the Ives expedition.]

Delesse, AND Laugel (Messieurs) [Delesse, Achille, AND Laugel, Auguste]

- 1862 21.5082 Extraits de géologie pour l'année 1861. *Annales des Mines* (Paris), Series 6, Mémoires, 2: 427-590. [See pp. 431-432, "Cartes topographiques"; maps by F. W. von Egloffstein from the Ives expedition.] [In French.]
- 1862 21.5083 *Revue de géologie pour l'année 1861*. Paris: Dunod. [See pp. 5-6, "Cartes topographiques"; maps by F. W. von Egloffstein from the Ives expedition.] [In French.]

Demhardt, Imre Josef

- 2011 21.5690 Friedrich Wilhelm von Egloffstein, the Ives-expedition to the Grand Canyon (1857-58), and the first shaded relief maps of a portion of the United States. *In*: *25th International Cartographic Conference, Paris, Proceedings, 3-8 July 2011*, paper CO-453, [5] pp.
- 2012 21.5725 "An approximation to a bird's eye view, and is intelligible to every eye [. . .]". Friedrich Wilhelm von Egloffstein, the exploration of the American West, and its first relief shaded maps. *In*: Liebenberg, Elri, and Demhardt, Imre Josef (eds.), *History of Cartography : International Symposium of the ICA Commission, 2010*. Heidelberg, Dordrecht, London, and New York: Springer, pp. 57-74. (Volume series: Lecture Notes in Geoinformation and Cartography, 6; Subseries: Publications of the International Cartographic Association (ICA).) [Square brackets and ellipsis are part of title.]
- 2013 21.6778 Die Pionierkarten des Colorado River in Schummerungsmanier von Friedrich Wilhelm von Egloffstein. *Cartographica Helvetica* (Fachzeitschrift für Kartengeschichte) (Schweizerische Gesellschaft für Kartographie, Arbeitsgruppe Geschichte der Kartographie) (Murten), (47): 13-26. [In German.]

Hudson, Alice

- 2002 2.9541 Joseph Ives' exploration of the Grand Canyon; von Egloffstein's fanciful Colorado River. *In*: Cohen, Paul E., *Mapping the West : America's westward movement, 1524-1890*. New York: Rizzoli International Publications, pp. 176-177.

Krygier, John B.

- 1990 2.11580 *The landscape images of Baron Frederick W. von Egloffstein, topographic artist in the American West, 1853-1859*. Master's thesis, University of Wisconsin at Madison, 209 pp. [Friedrich Wilhelm von Egloffstein.]
- 1997 2.9492 Envisioning the American West: Maps, the representational barrage of 19th century reports, and the production of scientific knowledge. *Cartography and GIS*, 24(1): 27-50. [Cartography and Geographic Information Systems.] [One of the main focuses of the paper is on the maps and illustrations by Friedrich W. von Egloffstein.]

MAPPING GRAND CANYON

Bibliographical Review of Pioneer Mappers Egloffstein, Dutton, and Matthes

L—w

- 1861 30.622 "Rio Colorado of the West, explored by Lieut. Jos. C. Ives, under the Direction of the Office of Explorations and Surveys A. A. Humphreys, by order of the Hon. John B. Floyd, Secretary of War 1858, drawn by Frhr. F. W. v. Egloffstein. Map. No. 1. M. 1: 380,160. Map. No. 2. M. 1: 760,320. New-York. gr. fol." *Zeitschrift für Allgemeine Erdkunde*, New Series, 10: 477-478. [Review of the two Egloffstein maps (see [ITEM NOS. 25.493, 25.494](#)) that accompany J. C. Ives (1861, [ITEM NO. 2.3584](#))] [Signed, "L—w" [*sic*]; Oscar Loew?] [[In German.](#)]

Madsen, Steven K.

- 2010 2.17061 *Exploring desert stone : John N. Macomb's 1859 expedition to the canyonlands of the Colorado*. Logan, Utah: Utah State University Press, 273 pp., map. [Map reprinted in facsimile, loose in rear pocket: *Map of explorations and surveys in New Mexico and Utah made under the direction of the Secretary of War by Capt. J. N. Macomb Top^l. Eng^{rs}. assisted by C. H. Dimmock, C. Eng^r.* (Lettering by John L. Hazzard. Ruling by Samuel Sartain.) New York: Geographical Institute, Baron F. W. von Egloffstein, 1 sheet, scale 1:760,320.] [[NOTE](#): The region explored is extralimital to this Cartobibliography, but the map does include the region of the easternmost Grand Canyon and Marble Canyon, which also depicts the "Supposed junction of the Rio Colorado & Flax River" (*i.e.* Little Colorado River). See remarks on the map in Madsen's chapter, "The Bones and the Map" (pp. 108-116). The 1876 Macomb map is cited in the present volume in the "Grand Canyon" section, [ITEM NO. 25.871](#).]

Miller, David

- 2013 2.19709 Baron von Egloffstein and the first published images of Grand Canyon. *In*: Quartaroli, Richard D. (compiler, ed.), *A rendezvous of Grand Canyon historians : ideas, arguments, and first-person accounts : proceedings of the Third Grand Canyon History Symposium, January 2012*. Flagstaff, Arizona: Grand Canyon Historical Society, pp. 171-177. [Friedrich Wilhelm von Egloffstein.]

Miller, Jeremy, AND Herzog, Lena

- 2012 2.16493 The long draw; on the trail of an artistic mystery in the American West. *Harper's Magazine*, 324(1940) (January): 50-59. [Regarding the "unrecognizable" illustrations by Friedrich von Egloffstein in J. C. Ives' 1861 report on exploration of the Colorado River and Grand Canyon; they possibly depict Black Canyon of the Gunnison River.]

Newberry, John Strong

- 1861 24.378 *Geological Map No. 2 : prepared by J. S. Newberry M.D. geologist of the expedition. Accompanying*: Newberry, John S., Geological report [Newberry, 1861, [ITEM NO. 21.2455](#)]. *In*: Ives, Joseph C., *Report upon the Colorado River of the West, explored in 1857 and 1858 by Lieutenant Joseph C. Ives, Corps of Topographical Engineers, under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Captain Topographical Engineers, in charge. By order of the Secretary of War*. Washington, D.C.: U.S. Government Printing Office, 4 maps on 1 sheet, scale 1:760,320. (Volume: *U.S. 36th Congress, 1st Session, Senate Executive Document [no number], Serial 1058*.)
[NOTE](#): The geologic map portrays geology by Newberry, **overprinted in color on shaded-relief map by F. W. von Egloffstein**, *Map No. 2, Rio Colorado of the West, Explored by 1st. Lieut. Joseph C. Ives, Top^l. Eng^{rs}. under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Capt. Top^l. Eng^{rs}. in charge, by order of Hon. John B. Floyd, Secretary of War. 1858.* (Egloffstein, 1861, [ITEM NO. 25.494](#)) [from head of navigation of Colorado River to Fort Defiance, including Grand Canyon]. The

MAPPING GRAND CANYON

Bibliographical Review of Pioneer Mappers Egloffstein, Dutton, and Matthes

geologic map accompanies only the Senate Executive Document variant (Ives, 1861, [ITEM NO. 2.3585](#)) (*vide* [WAGNER-CAMP 375](#), p. 648).

NOTE on collation of maps. Although some sources may indicate that the maps are laid in loose, the copy of the Senate variant held in the American Philosophical Society, presented by J. S. Newberry, is in its original binding, wherein the two Egloffstein topographic maps are fold-outs following the second free leaf of the volume, preceding the plate titled "General Report; Profile" and the frontispiece. The two Newberry geologic maps are fold-outs following Part III.]

- 1876 21.2458 Geological report. *In*: Macomb, J. N., *Report of the exploring expedition from Santa Fé, New Mexico, to the junction of the Grand and Green Rivers of the Great Colorado of the West, in 1859, under the command of Capt. J. N. Macomb, Corps of Topographical Engineers (now Colonel of Engineers) : with Geological Report by Prof. J. S. Newberry, geologist of the expedition.* Washington: Government Printing Office, pp. 9-118, map (fold-out sheet following p. 148, scale 1:760,320). [Farquhar (1953) gives imprint for volume as Government Printing Office (as denoted by imprint on title-page); U.S. Geological Survey, Bulletin 746 gives imprint as Washington, U.S. Army Engineer Department (as is denoted by masthead on the title-page).] **[The map contains a separate imprint: "Geographical Institute, Baron F. W. von Egloffstein, No. 164 Broadway, N. York. 1864."** The 1864 date is the date of engraving. Publication was delayed until 1876, in part due to the Civil War and post-war administrative and financial difficulties.] *[NOTE: The region explored is extralimital to this Cartobibliography, but the map does include the region of the easternmost Grand Canyon and Marble Canyon, which also depicts the "Supposed junction of the Rio Colorado & Flax River" (i.e. Little Colorado River).]*

Rowan, Steven

- 2012 2.17340 *The baron in the Grand Canyon : Friedrich Wilhelm von Egloffstein in the West.* Columbia (Missouri) and London: University of Missouri Press, 208 pp.

U.S. Science Advisory Board

- 1934 2.15317 Standards of American cartography as a graphic art need elevation. *[1st] Report of the Science Advisory Board, July 31, 1933 to September 1, 1934.* Washington, D.C.: U.S. Science Advisory Board, p. 179. (U.S. Science Advisory Board, Report.) [Includes note of Egloffstein [*sic*, Egloffstein] maps and Ives Expedition.]

Dutton

Numerous contemporary notices and abstracts of Dutton's *Tertiary History* (1882) will be found in Parts 2 and 21 of [THE GRAND CANON](#) Volume 1, Part B; and reviews of Dutton's publication as well as its later reprintings will be found in Part 30. Some of the contemporary notices are by prominent American and European geologists of the day. Many of these likely take note of Dutton's maps, although the citations in Volume 1 do not generally indicate the content of those notices. A few citations of specific interest are included in the list below.

Anonymous

- 1885 2.19433 "*United States Geographical and Geological Survey of the Rocky Mountain Region.* Contributions to North American Ethnology. Vol. 5." *The Bookseller* (London), (335) (October 8): 981. [Includes note: "The series of Government publications now issuing from the Department of the Interior of the United States promises to form a most valuable and instructive national monument. The volumes already published show that no pains or expense have been spared in their preparation, as may be seen in the really

MAPPING GRAND CANYON

Bibliographical Review of Pioneer Mappers Egloffstein, Dutton, and Matthes

magnificent work of Captain Dutton on the 'Tertiary History of the Grand Canon District' with its fine collection of plates of that region."

Anderson, Robert Stewart

1977 2.9517 *A biography of Clarence Edward Dutton (1841-1912), 19th century geologist and geographer.* Master's thesis, Stanford University, 126 pp.

Aalto, K. R.

2017 21.7712 Clarence Dutton's geology. *In*: Mayer, W., Clary, R. M., Azuela, L. F., Mota, T. S., and Wołkowicz, S. (eds.), *History of geoscience : celebrating 50 years of INHIGEO. Geological Society (London), Special Publication 442*, pp. 229-238. [International Commission on the History of Geological Sciences.]

Coles, J.

1884 21.4115 New maps. *Royal Geographical Society, Proceedings, and Monthly Record of Geography, New Monthly Series*, 6(4) (April): 237-244. [See pp. 243-244: "United States.—Atlas to accompany the Monograph on the Tertiary History of the Grand Canon District, by Captain Clarence E. Dutton, U.S.A., Department of the Interior, United States Geological Survey. J. W. [sic] Powell, Director, Washington 1882. Julius Bien and Co. Lith. New York." Itemizes all sheets and adds (from Dutton's "List of Atlas Sheets"): "It is to be regretted that the survey of this portion of the country is not yet sufficiently advanced to admit of the construction of two additional sheets required to complete the cartography of the Grand Cañon District. It was desired that this atlas should contain the two sheets lying west of sheets XXII. and XXIII. of this atlas, but although much material has been obtained for their construction, much more is still required. No attempt to supply the defect has, therefore, been made in the present work".]

Dana, James D.

1882 30.66 "Tertiary History of the Grand Cañon District; by Clarence E. Dutton". *American Journal of Science*, Series 3, 24: 81-89.

Dutton, Clarence E.

1882 21.6855 The Tertiary history of the Grand Cañon district; with atlas. *U.S. Geological Survey, Monograph 2*, 264 pp. [quarto]; Atlas, 23 sheets [double folio].

Geikie, Archibald

1883 30.108 "The Tertiary History of the Grand Cañon District". *Nature* (February 15): 357-359. [Review of Dutton (1882).]

Halliday, William R.

2008 21.4352 Clarence Edward Dutton (1841-1912); geologist, major of ordnance, man of letters. *GSA Today* (Geological Society of America), 18(6): 48-49. [Rock Stars feature.]

Lakes, Arthur

1913 21.6148 Freehand sketching in the mining and engineering field. *Mining Science*, 68 (August): 73, 74 [frontispiece], 92-96. [See p. 95: "How the art of pictorial sketching may combine with that of geological research is well shown in the line sketches of Mr. W. H. Holmes, artist and geologist on the Hayden survey, who excelled in both capacities. His drawing

MAPPING GRAND CANYON

Bibliographical Review of Pioneer Mappers Egloffstein, Dutton, and Matthes

of the Grand Canyon of the Colorado in Hayden's atlas is the most wonderful geological sketch, we believe, on record." (ENTIRE NOTE) Confused with Holmes' affiliation and C. E. Dutton's atlas, a product of the Powell survey.]

Margerie, Emm. de [Margerie, Emmanuel de]

- 1883 21.4305 Sur la monographie du Grand Cañon du Colorado, par le Capitaine Dutton. *Société Géologique de France, Bulletin*, Series 3, 11: 529-539. [A summary of Dutton (1882).] [In French.]

Merrill, George P.

- 1889 21.6720 Report on the Department of Lithology and Physical Geology in the U.S. National Museum for the year ending June 30, 1886. *From*: Report of the United States National Museum under the direction of the Smithsonian Institution for the year ending June 30, 1886. *In*: *Annual Report of the Board of Regents of the Smithsonian Institution, showing the operations, expenditures, and condition of the institution for the year ending June 30, 1886. Part II.* Washington, D.C.: U.S. Government Printing Office, pp. 239-244. [Smithsonian Institution, Annual Report, 1886.] [See pp. 243-244: "Other miscellaneous materials on exhibition are . . . fifteen geological views, including the large plates from Dutton's atlas of the Grand Cañon of the Colorado of the West; seventeen relief models, or relief maps. These last are given in detail below: * * * XI. The Grand Cañon of the Colorado of the West and Cliffs of Southern Utah. Scale: vertical, 1 inch=5,000 feet; horizontal, 1 inch=2 miles. Modeled by E. E. Howell. Size, 6 feet 6 inches by 6 feet 7 inches. Issued by Ward and Howell. U.S. Geological Survey."] [Regarding the model (relief map), see Howell (no date [1875], ITEM NO. [24.309](#)).]

Orme, Antony R.

- 2007 21.7718 Clarence Edward Dutton (1841-1912): soldier, polymath and aesthete. *In*: Jackson, P. N. Wyse (ed.), *Four centuries of geological travel; the search for knowledge on foot, bicycle, sledge and camel. Geological Society (London), Special Publications*, (287): 271-286. [See also cover of volume.]

Renevier, E.

- 1885 21.5854 Capt Clarence E. Dutton, U. S. A.—Atlas accompagnant la monographie du Grand Canon District, Washington, 1882, publié par le U. S. Geological Survey. *In*: *Bulletin Scientifique [SECTION]. Archives des Sciences Physiques et Naturelles* (Genève), Series 3, 13: 435-437. [In French.]

Stegner, Wallace

- NO DATE 2.5989 *Clarence Edward Dutton, an appraisal.* Salt Lake City: University of Utah Press, 19, [3] pp. [1935.] [Five copies known.] [See also 2006.]
- 1978 2.6003 The scientist as artist: Clarence E. Dutton and the Tertiary history of the Grand Cañon District. *In*: "The most sublime of all earthly spectacles"; the Grand Canyon and two of its most eminent biographers. *American West*, 15 (May/June): 17-19, 61.
- 2006 2.10706 *Clarence Edward Dutton : an appraisal.* (Foreword by Philip L. Fradkin.) Salt Lake City: University of Utah Press, xvi, 23 pp. [Stegner's text, pp. 1-23, reproduced in facsimile.]

MAPPING GRAND CANYON

Bibliographical Review of Pioneer Mappers Egloffstein, Dutton, and Matthes

Trautschold, H. [Trautschold, Gustav Heinrich Ludwig Hermann]

- 1884 21.4943 Ueber die neuesten arbeiten der Nordamerikanischen Staatsgeologen. *Société Impériale des Naturalistes de Moscou, Bulletin*, 58 [for 1883] (Part 2) (4): 337-346. [Article signed with date of "April 1884".] [Overview of Dutton (1882, [ITEM NO. 21.918](#)).] [In German.]

Matthes

Various biographical and memorial notices of Matthes, taken from Parts 2 and 4 of [THE GRAND CANON](#) Volume 1, Part B, take note of his Grand Canyon mapping work. Matthes's own publications relate to field work during the 1902-1903 Grand Canyon survey.

Anonymous

- 1902 21.13844 [Note from G. H. Matthes.] *In*: News From the Classes [SECTION]. *The Technology Review* (Massachusetts Institute of Technology), 4(1) (January): 392-393. ["G. H. Matthes [Class of 1895] writes 'that his brother, F. E. Matthes, was recently selected commence a topographic map of the Grand Cañon of the Colorado River in Arizona. He left for the cañon March 17, and is now (April 27) making good progress. His work covers the Grand Cañon forest Reserve, which comprises the most beautiful section of the Grand Cañon.'" (ENTIRE NOTE) Regarding François E. Matthes.]
- 1902 21.17 Map of the Colorado Cañon. *American Geographical Society, Bulletin*, 34: 366-367. [Regarding the topographic mapping project by François E. Matthes.]
- 1903 21.5128 New survey of the Grand Cañon. *The Pacific Unitarian*, 11(3) (January): 100-101. [François E. Matthes mapping.]
- 1903 21.7673 The map of the Grand Canyon. *The School Journal*, 76(2) (January 10): 56. [François E. Matthes mapping.]
- 1903 21.6620 Grand Canyon map. *The American Inventor* (Washington, D.C.), 10(6) (February 1): 99. [Regarding the topographic mapping project by François E. Matthes.]
- 1903 21.5497 Survey of the Grand Canyon. *National Geographic Magazine*, 14(4) (April): 162-163. [Regarding the topographic mapping project by François E. Matthes.]
- 1903 21.5143 Eine Neuaufnahme des Cañons des Colorado. *In*: Kleine Nachrichten [SECTION]. *Globus* (Illustrierte Zeitschrift für Länder- und Völkerkunde) (Braunschweig), 83(14) (April 9): 227. [Credited to "Bull. of the American Geogr. Soc. 1902, 4." (i.e., Anonymous, 1902, [ITEM NO. 21.17](#)).] [Regarding the topographic mapping project by François E. Matthes.] [In German.]
- 1903 21.5068 Un nuovo rilevame to del cañon del Colorado. *In*: Notizie ed Appunti [SECTION]. *Società Geografica Italiana, Bollettino*, Series 4, 4(4/5) (April/May) [anno 38, volume 40]: 421. [Credited to "Globus, Brunsvik, n. 14, 1903" (i.e., Anonymous, 1903, [ITEM NO. 21.5143](#)).] [Regarding the topographic mapping project by François E. Matthes.] [In Italian.]
- 1903 21.5144 Nord-Amerika. *In*: Geographische Neuigkeiten [SECTION]. *Geographische Zeitschrift* (Leipzig), 9(6): 347-348. [New topographic map of Grand Canyon from U.S. Geological Survey; i.e., the topographic mapping project by François E. Matthes. Credited to *National Geographic Magazine*, 1903: 162 (Anonymous, 1903, [ITEM NO. 21.5497](#)).] [In German.]

MAPPING GRAND CANYON

Bibliographical Review of Pioneer Mappers Egloffstein, Dutton, and Matthes

- 1903 21.6123 Der Grand Canon. *In*: Notizen [SECTION]. *Zeitschrift für Schul-Geographie*, 24(12): 386. [New topographic map of Grand Canyon from U.S. Geological Survey; *i.e.*, the topographic mapping project by François E. Matthes. Credited to *National Geographic Magazine*, 1903: 162 (Anonymous, 1903, ITEM NO. 21.5497) and *Geographische Zeitschrift*, 1903(6) (Anonymous, 1903, ITEM NO. 21.5144).] [In German.]
- 1906 21.6635 Map of Bright Angel quadrangle, Arizona. *The Mining World* (Chicago), 25(2) (July 14): 32-33. [Regarding the U.S. Geological Survey topographic sheet by F. E. Matthes.]
- 1906 21.7037 Map of the Bright Angel quadrangle, Grand Canyon of the Colorado River, Arizona. *Mineral Wealth* (Redding, California), 8(9) (July 15): 4-5. [Regarding the U.S. Geological Survey topographic sheet by F. E. Matthes.]
- 1911 21.6612 Government geologist gives university course. *Michigan Alumnus* (University of Michigan), 17(8) (May): 495. [F. E. Matthes presents twelve lectures in topographical mapping; "Grand Canon" noted.]
- 1911 21.6613 [Note.] *In*: Scientific Notes and News [SECTION]. *Science*, New Series, 33 (May 19): 766-767. ["Mr. F. E. Matthes, of the U. S. Geological Survey, is delivering a course of twelve illustrated lectures with accompanying laboratory work before the students of the University of Michigan, the subject of the lectures being, 'Topographic Mapping.' On May 3, by invitation of the Michigan Chapter of Sigma Xi, Mr. Matthes told in a popular lecture 'How the Map of the Grand Canyon was made.' The maps of the Grand Canyon, Yosemite Valley and the new Glacier National Park have all been prepared by Mr. Matthes, who is now engaged upon the map of the new Mt. Ranier [*sic*] National Park." (ENTIRE NOTE)]
- 1911 21.6614 Past events. *In*: Campus Calendar [SECTION]. *Michigan Alumnus* (University of Michigan), 17 (June): 533-. ["Wednesday, 3 [May] * * * F. E. Matthes [*sic*], of the U. S. Geological Survey, addressed Sigma Xi on 'How the Map of the Grand Canon was Made.'" (ENTIRE NOTE)] [F. E. Matthes.]
- 2019 2.28439 Unlocking secrets: Old maps reveal forgotten trails. *Canyon Views* (Grand Canyon Conservancy), 26(2) (Summer): 5. [François Matthes topographic maps of the Bright Angel and Vishnu quadrangles, as studied by Dennis Foster.]

Austin, Noah

- 2020 21.8018 Putting the Canyon on the map. *Arizona Highways*, 96(1) (January): 45. [The Bright Angel quadrangle by François Matthes.]

Brown, E. H.

- 1962 2.11869 [Review of] "François Matthes and the Marks of Time. Yosemite and the High Sierra." By Fritiof Fryxell. *Geographical Journal*, 128(4) (December): 537. [The reviewed item does not pertain to Grand Canyon, but the reviewer includes note of Matthes's Grand Canyon work.]

Desimini, Jill, AND Waldheim, Charles

- 2016 2.29967 *Cartographic grounds : projecting the landscape imaginary*. New York: Princeton Architectural Press, 266 pp. [Grand Canyon, see pp. 68, 70-71: p. 70 illustrates in color the 1903 1:48,000-scale Bright Angel quadrangle (François E. Matthes *et al.*) (ITEM NO. 24.709), which actually depicts a later ed. not identified by Desimini and Waldheim; and p. 71 illustrates to the same scale the National Geographic map, *The Heart of the Grand*

MAPPING GRAND CANYON

Bibliographical Review of Pioneer Mappers Egloffstein, Dutton, and Matthes

Canyon (see variants under "National Geographic Society, Cartographic Division" in this Cartobibliography).]

Foster, Dennis

- 2020 9.1739 Old maps and forgotten trails in Grand Canyon. *In*: Quartaroli, Richard D. (compiler, ed.), *Celebrating 100 years of Grand Canyon National Park, February 2019 : a gathering of Grand Canyon historians : ideas, arguments, and first-person accounts*. Grand Canyon, Arizona: Grand Canyon Association [and Grand Canyon Historical Society], pp. 62-66. [Not guides *per se*, but includes reproduction of map details from the Matthes "Bright Angel" and Vishnu" quadrangles, with brief descriptions and notes.]

Fryxell, Fritiof

- 1955 4.87 Memorial to Francois Emile Matthes (1874-1948). *Geological Society of America, Proceedings*, (July): 153-168.

Matthes, François E.

- 1904 21.5627 [Extracts from letter of February 29, regarding topographical mapping in Grand Canyon.] *From*: Hayden, George W., 1895 [SUBSECTION]. *In*: News from the Classes [SECTION]. *The Technology Review* (Massachusetts Institute of Technology), 6(2) (April): 288-290.
- 1904 21.2080 Topographic methods used for the new detail maps of the Grand Canyon of the Colorado [ABSTRACT]. *In*: *58th Congress, 3rd Session, House Document 460*, p. 801. [Seen also as an offprint, without imprint or pagination, (1 p.).]
- 1905 21.2081 Mapping the Grand Canyon. *The Technology Review* (Massachusetts Institute of Technology), 7(1) (January): frontispiece, 1-25.
- 1905 21.2082 Topographic methods used for the new detail maps of the Grand Canyon of the Colorado [ABSTRACT]. *In*: *Report of the Eighth International Geographic Congress : held in the United States 1904*. Washington, D.C.: U.S. Government Printing Office, p. 801. [8th International Geographical Congress.]
- 1927 2.4386 Breaking a trail through Bright Angel Canyon. *Grand Canyon Nature Notes*, 2(6) (November 21): cover, 1-4 [entire issue].
- 1928 2.27578 Breaking a trail through Bright Angel Canyon. *Arizona Highways*, (January):.
- 1935 2.4387 Breaking a trail through Bright Angel Canyon. *In*: History and exploration of the Grand Canyon region. *Grand Canyon Natural History Association, Natural History Bulletin 2*, pp. 18-22.
- 1962 21.7624 The Grand Canyon of the Colorado River. [Text on verso of: *Bright Angel, Ariz.* U.S. Geological Survey, 1 sheet, scale 1:62,500, 15' quadrangle.] [NOTE: Not a reproduction of the 1906 Matthes map (see [ITEM NO. 24.133](#)); recto of 1962 ed. indicates, "Topography by photogrammetric methods from aerial photographs taken 1954 and 1960. Field checked 1962." 1962 ed. available with or without shaded relief.] [The text on the verso of the 1906 map is by Levi F. Noble.]
- 1994 2.4388 Breaking a trail through Bright Angel Canyon. *In*: Lamb, Susan (ed.), *The best of Grand Canyon Nature Notes*. Grand Canyon, Arizona: Grand Canyon Natural History Association, pp. 2-4. [Reprinted from *Grand Canyon Nature Notes*, November 1927, [ITEM NO. 2.4386](#).]

MAPPING GRAND CANYON

Bibliographical Review of Pioneer Mappers Egloffstein, Dutton, and Matthes

- 2018 2.27579 Breaking a trail through Bright Angel Canyon. *In*: Stieve, Robert (ed.), *Grand Canyon National Park : 10 decades of stories and photographs from Arizona Highways : 1919-2019*. Phoenix: Arizona Highways, pp. 11-18. [Reprinting of Matthes (1928, ITEM NO. 2.27578).]

Matthes, François E., AND Evans, Richard T.

- 1926 21.2086 Map of Grand Canyon National Park. *The Military Engineer*, 18(99): 188-201. [Mapping in Grand Canyon.]

Oppel, Alwin [Oppel, Edmund Alwin Guido]

- 1905 21.5200 Der achte internationale Geographische Kongress in den Vereinigten Staaten. *Deutsche Geographische Blätter*, 28(1): 43-56. [8th International Geographical Congress. See p. 49, note of F. E. Matthes' map of Grand Canyon.] [In German.]

Upchurch, Jonathan

- 2019 21.7744 Creation of the Matthes-Evans topographic map of the Grand Canyon [ABSTRACT]. *In*: *Mapping Grand Canyon Conference : February 28-March 1, 2019 : Arizona State University, Tempe*. [Tempe, Arizona: Arizona State University], p. 11. [NOTE: Video recordings of each presentation at this conference were posted online at this website: <https://lib.asu.edu/mapping-grand-canyon-conference/program> (March 2019).]
- 2020 21.8208 Creation of the Matthes-Evans topographic map of the Grand Canyon. *In*: Quartaroli, Richard D. (compiler, ed.), *Celebrating 100 years of Grand Canyon National Park, February 2019 : a gathering of Grand Canyon historians : ideas, arguments, and first-person accounts*. Grand Canyon, Arizona: Grand Canyon Association [and Grand Canyon Historical Society], pp. 136-141.

Visher, S. S.

- 1948 4.259 Francois Emile Matthes, 1874-1948. *Association of American Geographers, Annals*, 38(4) (December): 301-304.
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CHRONOLOGICAL CARTOBIBLIOGRAPHIES

MAPPING GRAND CANYON

EXPLANATION OF THE ITEM NUMBERS AND CROSS-LISTINGS

EXAMPLE

Wyld, James

1825 25.1217 **Map of North America Exhibiting the recent Discoveries, Geographical and Nautical; Drawn chiefly from the Authorities of M. de Humboldt, Lieut. Pike, Mess^{rs} Lewis and Clarke, Sir Alex. Mackenzie, M. Hearne, Col. Bouchette, Capt^{ns} Vancouver, Ross, Parry & Franklin, also describing the Boundary Lines between the Territories of Great Britain[,] the United States, and the Mexican and Central States. London Published by Ja^s Wyld, (successor to W. Faden) N^{os}, Charing Cross. Geographer to His Majesty; and to H.R.H. the Duke of York. March 1st 1825. [4 sheets.]**

▶ "California" and "Sonora" are separated by "Gulf of California". "Rio Colorado" is depicted on a more or less straight northeast-southwest course between the head of the gulf and the confluence of "R. Nabajoa" (San Juan River) and "R. Zaguanas". "R. Jagüesila" (Little Colorado River) is a tributary from the east, and at its confluence with the Colorado is the label "**Puerto de Bucarelli**" (Puerto de Bucareli). A river (not labeled; Bill Williams River) is tributary to the lower Colorado River from the east. A river (not labeled) with headwater forks is tributary to the lower Colorado farther south. "R. Gila" is tributary to the Colorado from the east just before the Colorado reaches the gulf.

WHEAT II:366

Each citation in THE GRAND CANON has a unique, but arbitrary, serial number referred to herein as an **ITEM NUMBER**—in the example above the number is 25.1217. It is composed of the number of the part of THE GRAND CANON in which it had been cited (Part "25." in the example), suffixed with a unique number within that part ("1217" in the example). An ITEM NUMBER is assigned when a citation is added to the bibliography, or when a citation is transferred from one part to another. ITEM NUMBERS did not appear in the 1981 and 1990/1993 print editions of the bibliography.

The symbol ▶ with text in dark blue indicates a chorographical analysis provided for some maps. In this example, taken from the section that focuses on *Puerto de Bucareli*, the name is highlighted for attention. All such highlighted names in the four principal sections of this special cartobibliography are as published; there variants to each name.

CROSS-LISTINGS to "Wheat", which appear at the top of some citations, indicate the map's listing in the five-volume cartobibliographical compendium of Transmississippi West maps by Carl I. Wheat (1954–1963, and reprintings), a definitive study and checklist on the subject. (For more information see the section on [Wheat](#) in the Introduction [p. 4].)

The Item Numbers displayed in the cartobibliography divulge their original topical placements in Volumes 1 or 2 of THE GRAND CANON. Originally, Part 25 of Volume 1 was consigned to listing "general maps", but these all were transferred to Volume 2 when the *Cartobibliography of the Grand Canyon and Lower Colorado River Regions* was created, in 2021. Also copied (not transferred) to Volume 2 were all specialized maps, such as geological maps, which also now remain in different parts of Volume 1, Part B (Bibliography) in order to maintain their placement in the topical parts to which

MAPPING GRAND CANYON

they belong. (See more about this in Volume 2 of [THE GRAND CANON](#).) Thus the Item Numbers displayed in *Mapping Grand Canyon* will also indicate their topical placement in [THE GRAND CANON](#) overall.

Prefixes are:

2. copied from Part 2 (general works)
 9. copied from Part 9 (travel and trail guides)
 10. copied from Part 10 (Colorado River guides)
 11. copied from Part 11/Section 2A (separately published geologic maps and special topographic maps in the lower Colorado River region, which complement the geology citations for the Lower Colorado River region separate-coverage group of the bibliography) [some have overlapping coverage of the Grand Canyon region]
 24. copied from Part 24 (separately published geologic maps and special topographic maps in the Grand Canyon region, which complement the geology citations for the Grand Canyon region)
 25. transferred from the original Part 25 (general maps), which is now [THE GRAND CANON](#) Volume 2
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NOTE REGARDING THE TYPOGRAPHY OF AUTHOR NAMES AND MAP TITLES

Among the maps of the 16th, 17th, and 18th centuries, many author attributions and map titles appear with unusual spellings and typographical presentations. Wherever possible, the original typography of a map's author (or acknowledged creative source) and title have been reproduced precisely as printed. Some author names (as printed) vary from formulaically standardized names. Typographical conventions like the interchanging of certain characters (such as "u" and "v", and "I" and "J") are followed precisely; similarly reproduced here are special characters, unconventional ligatures, and super- and subscripts, some with basal dots. However, titles in all-capital letters are not usually reproduced because reading long runs of words printed in that fashion is difficult and with many instances on a page is distracting; instead, initial capitals are employed.

The original context of names and titles thus displayed is historically and cartobibliographically precise. In this specialized publication it is not the intention to employ a standardized authority list nor to follow a formulaic homogeneity of names and titles. The purpose of this is to allow readers who do not have any access to the originals, or to a satisfactory illustration, to discern the exact display of names, words and phrases as put to paper.

This device of course defeats the ability to search the digital PDF for some phrases using the basic keystrokes of the keyboard, but I have thought it important to convey information directly from the map, which is further helpful if this cartobibliography is presented in a non-digital medium. This format also unleashes the typographical practices used by cartographers and those who lettered maps over the centuries, customs that might be unknown (and thus novel) to some users. This may also rivet the interest of some readers who might become all the more fascinated by the comportment of old maps, to encourage them to delve more deeply into the rich histories of cartography, the cartographers, and the ateliers who turned out these products.

Puerto de Bucareli (1777-1884)

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

INTRODUCTION TO THE “PUERTO DE BUCARELI” SECTION

NOTICEABLE ON MANY maps particularly from the 19th century is a name usually placed at the confluence of the Colorado and Little Colorado Rivers. It originates with padre Francisco Tomás Garcés soon after he had visited the Havasupai on Cataract Creek in 1776. Viewing the expanse of the canyon carved in the plateau, he bestowed on it the name *Puerto de Bucareli*, honoring then-Viceroy of New Spain, Antonio María de Bucareli y Ursúa. It was a “pass” for the Colorado River’s journey to the sea.

When Alexander von Humboldt worked on his geographical researches in New Spain in 1803, he examined various maps of the territory and took up the name that had first been set down in 1777 by Bernardo de Miera y Pacheco, who had adopted Garcés’s honorific. Although in the Geographical Introduction to his *Political Essay* on New Spain⁷ Humboldt devotes several pages of discussion to the astronomic location of the confluence of the Colorado and Gila Rivers, and mentions source information for specific locales in what today are northern Sonora and southern Arizona, he did not mention anything about places farther to the north, leaving such information solely to his map. He provided a lengthy annotated list of the maps that he had consulted, principally manuscripts, to create his entire map of New Spain.⁸ When he passed through Washington, D.C., on his way home to Europe in 1804, Humboldt’s map was copied with his permission, which in turn was plagiarized with introduced errors for inclusion in Zebulon Pike’s 1810 publication on his western explorations.

Humboldt’s map of New Spain was first published in 1808 (twice pirated in London in 1810, only once offering a credit to Humboldt) before Humboldt’s better-known reprint edition of 1811. He was the first to alter the Bucareli honorific, as “Puerto de Bucarelli”. Later copyists continued to offer up even more variant spellings (listed below). From Humboldt’s map of New Spain, the name was simply repeated based on the fundamental authority of Humboldt without knowledge of the intent of Miera’s label, Garcés’s physiographical neologism. Even Humboldt had had no understanding of its special context. Some labels that appeared on subsequently copied maps were rearranged or misleadingly accompanied by

⁷ Alexander von Humboldt, *Essai politique sur le royaume de la Nouvelle Espagne : ouvrage qui présente des recherches sur la géographie du Mexique . . .* (Chez F. Schoell, Paris, 1808). (Numerous reprintings and translations.)

⁸ The maps included: “*Mapa de la California, carte manuscrite des pères Francisco Garces et Pedro Font, 1777*. Elle a aussi été gravée à Mexico, mais avec une erreur de trois minutes en moins pour toutes les latitudes. Elle est intéressante pour la Pimeria alta et pour le Rio Colorado.” (p. 104 in the 1811 ed.). (Transl.: ‘*Mapa de la California, manuscript map by Fathers Francisco Garces and Pedro Font, 1777*. It was . . . engraved in Mexico City, but with a diminution error of three minutes for all latitudes. It is interesting for the Pimeria alta and for the Rio Colorado.’)

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

point place-name symbols. The result of the latter was to group the name among Miera's cartographical plotting of many ecclesiastically named campsites of the Domínguez–Escalante expedition of 1776, with Miera accompanying them, that circumambulated a good portion of the Colorado Plateau.

All variants of *Puerto de Bucareli* that have been found on maps (manuscript and published alike), and occasionally in other matter, are listed here for historical completeness (as compiled by Spamer):

Bucarelli	P. Bucaretti
Bucaretti	Puerto Bucarelli
Bucaretty	Puerto Bucarello
Bucuretti	Puerto de Bucareli
de Bucareli	Puerto de Bucarelli
P. Bacarelli	Puerto del Bacorelli
P. Bucarette	Puerto del Bacorilli

S. Bacarelli [perhaps thought to have been a mission, but this and other place names were actually the Domínguez–Escalante campsites as recorded on Miera's maps]

*On the following pages, Figures 1–8 are details from manuscript and printed maps on which Puerto de Bucareli was labeled. See the full citations and notes in the chronological cartobibliography that follows farther below. The illustrations show principal variations of the puerto's placement. For some of these illustrations and other citations see also the broader-scoped *Cartobibliography of the Grand Canyon and Lower Colorado River Regions in the United States and Mexico* (Raven's Perch Media, 3rd ed., 2025, <https://ravensperch.org>).*

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)



Figure 1. Manuscript (*detail*), likely the work of Bernardo de Miera y Pacheco, “*Derrotero hecho por Antonio Veléz y Escalante, Misionero para mejor conocimiento de las Misiones, pueblos de Indios y Presidios que se hallan en el Camino de Monterrey a Santa Fé de Nuebo Mexico. Laus deo Anno Domini 1777.*” The placement of the label **Puerto de Bucareli** is at the confluence of the Rio Colorado and Rio Jaquesita (Little Colorado River), amidst rocky symbols that signify encanyoned reaches of these rivers. (Library of Congress)

“*Puerto de Bucareli*” seems to label a gap in the encanyoned reach of the Colorado River (see just to the left of the word “*Puerto*”), an observation apparently not specifically noticed before. However, it does not convey Garcés’s nomenclatural application of the *puerto* to the chasm as a whole, as a pass for the river through the plateau. Instead, it shows a discrete gap, such as would be familiar in mountains; here it is an interruption in canyon walls. Given that Miera was personally aware of some of the Colorado River’s canyons from his travels with the Domínguez–Escalante expedition of 1776, it seems odd that he would have made such an interpretation—unless through a misunderstanding he thought that Garcés had identified a place similar to what became known as *El Vado de los Padres* (The Crossing of the Fathers) where the Domínguez–Escalante party had found a place to cross the encanyoned Colorado in today’s southern Utah, an experience that would have been fresh in Miera’s memory. Note also that the positioning of the *puerto* is about where today’s Lee’s Ferry is located, at the break between Glen and Marble Canyons, a locale visited by the expedition although they could not cross the river there. Miera also marked *El Vado de los Padres* as a gap, though without a label (see **INSET** above with pictorial symbols for campsites to either side of the river; the obvious vertical stripe is a crease in the map.) See also in the context of the full map in Figure 10 (p. 47).

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

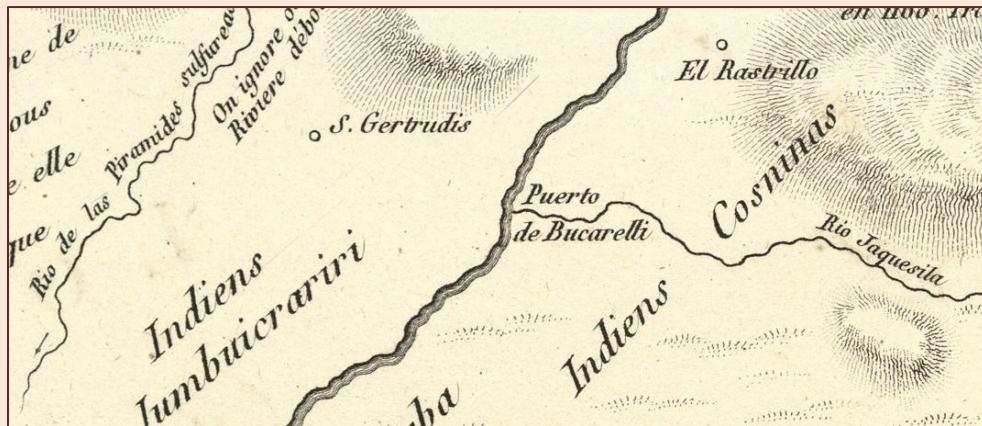


Figure 2. Alexander von Humboldt's 1811 map (which reproduces the one originally published in 1808). The *puerto* is neatly inscribed at the confluence of the Colorado and Little Colorado Rivers. Without indications of canyon topography, it already has lost its topographical interpretation as a “pass” and in fact seems to imply that it relates to the Little Colorado River. However, Figure 3 (below) may show that Humboldt's original manuscript had a more sensible placement.

(American Philosophical Society)

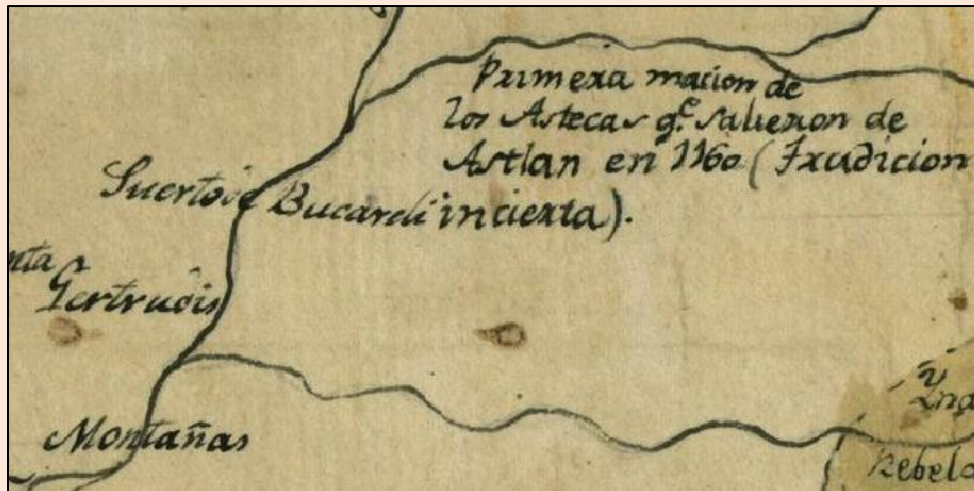


Figure 3. Juan Segura's 1804 manuscript copy of Humboldt's original manuscript retains the placement of *Puertode Bucareli* [sic] straddling the Colorado River between the Little Colorado and Nabajoa (San Juan) Rivers. Accordingly, it is not clear whether the engravers of Humboldt's map of 1808/1811 had any influence upon the position of the *puerto* label at the Little Colorado confluence. [The adjacent word “*incierta*” continues the legend of the text above it.]

(Biblioteca Digital Real Academia de la Historia, Madrid. Creative Commons Public Domain Mark 1.0)

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)



Figure 4. Zebulon Pike's 1810 plagiarism of Humboldt, taken from a manuscript copy of Humboldt's own 1804 manuscript while the explorer-geographer was in Washington, D.C., sensibly shows *Puerto del Bucorelli* [sic] **along the Colorado River, through today's Marble Canyon reach.** (The rubber stamp, seen as a bleed-through in reverse, is on the back side of this printed copy of Pike's map in the *Library of Congress*, indicates that it was transferred to the U.S. War Department Chief Engineer's Office.)



Figure 5. The commercially produced 1823 map by H. S. Tanner, *A Map of North America* ("Southwest" sheet) displays *Puerto Bucarelli* **straddling the Little Colorado River confluence.**

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)



Figure 6. J. Dower's *Mexico and Guatemala* atlas sheet, [1834], squeezes *Puerto Bucarelli* into a space **downstream from the Little Colorado confluence**, but note also that a dot is placed **there**, supposing that the *puerto* is a spot-point as also are other places seen in this detail.



Figure 7. James Wyld, in this post-John Wesley Powell map from ca. 1880, which plots Lee's Ferry and the route of the Atlantic & Pacific Railroad, **repositions *Puerto de Bucarelli* to cover the entire region southwest of the Little Colorado River and east of Cataract Creek** (not labeled here but shown with its supposed upstream tributaries "Parke Cr." and "Cedar Cr."). Note as well that the Little Colorado is labeled differently on two branches: "R. Jaguesila" and "R. de Lino" (label partly seen here), the latter actually being the main course of the river and on which this map labels the course farther upstream as "Colorado Chiquito." All of these names, in variant spellings, have historically been applied to the Little Colorado.

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)



Figure 8. The 1884 *Sohr-Berghaus Hand-Atlas* (published in Glogow, then a part of the German Empire) managed to complete obfuscate the spelling and position of the *puerto*, labeling it simply as a point-name, “*Bucarety*,” at the confluence of the unlabeled Cataract Creek with the Colorado River. Ironically, although the *puerto* was not intended to be a point-place, the presentation here is closer geographically to Garcés’s original observations while he was leaving the Cataract Creek area en route to the Hopi mesas. “*S. Bartolome*,” at the Little Colorado confluence where the *puerto* is often displayed, seems to be retained from maps that recorded the campsites of the Domínguez–Escalante expedition as plotted originally by Miera—although here it is misplaced as well. Note that the Colorado is displayed with encanyoning hachures to the west of “*Bucarety*”, while northeast of there the hachures seem to display a tableland on the northern side of the river. Also note that Kendrick Peak of the San Francisco Peaks has somehow been misconstrued as a separate mountain range, *Kendricks Burge*, of which the single *San Francisco Burg* is a part.

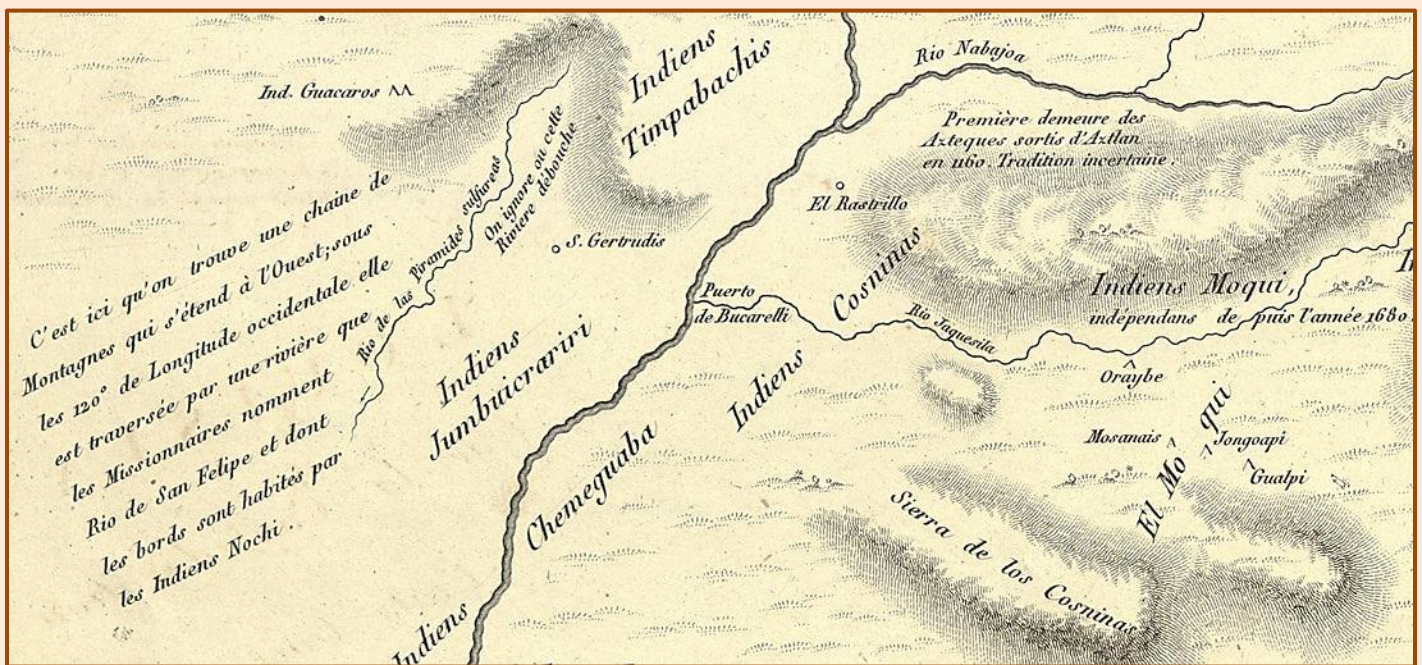
MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

Figure 9. Humboldt, 1811 (*see also endnote to this figure legend*)

◀ Alexander von Humboldt published what was for years the definitive atlas of New Spain (1808, the same published in 1811); the first editions are in French because he had settled in Paris upon returning from America. The map is based on a manuscript map he had prepared in 1804. The published map is on two double-folio sheets separating northern and southern halves of the region. The northwestern quadrant is reproduced here. The region shown is the present-day Four Corners region of Arizona, New Mexico, Colorado, and Utah, and the upper Gulf of California principally in Sonora. (The “Rio Colorado” is at left; the “Rio grande del Norte” at right is the Rio Grande.) This map is especially significant as including the Grand Canyon by name, although the canyon itself is not otherwise specially defined on the map. Humboldt mislabeled “Puerto de Bucarelli,” the name originally given by padre Francisco Garcés in 1776 as “Puerto de Bucareli” when he saw the Grand Canyon during his missionary visit to the Havasupai and Hopi people (see Garcés’s diary in Elliott Coues, *On the trail of a Spanish pioneer* (Francis P. Harper, New York, 1900). With that name Garcés had honored his patron, Antonio María Bucareli y Ursúa, then the viceroy of New Spain.

▼ (*detail*) This portion of the northwestern quadrant clearly shows the label at the center, “Puerto de Bucarelli,” positioned at the **confluence of the Rio Colorado (a name that appears farther to the south on the map [see the whole quarter at left] and Rio Jaquesila (which is the Little Colorado River).** (“Rio Nabajoa” is the San Juan River.)



MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

ENDNOTE FOR FIGURE 9.

Regarding Humboldt’s “Carte Générale du Royaume de la Nouvelle Espagne,” Stony Brook University (State University of New York) Map Librarian (emeritus) David Y. Allen (2014, p. 78, *note* 1) ascertains that

“The earliest printed edition of this map appeared in 1808, and was published as two sheets of his *Atlas géographique et physique du royaume de la Nouvelle-Espagne, fondé sur des observations astronomiques, des mesures trigonométriques et des nivellemens barométriques* (Paris: F. Schoell and Tübingen: J.G. Cotta). The 1808 edition is available online from the University Complutense (Madrid) at http://dioscorides.ucm.es/proyecto_digitalizacion/index.php?doc=b23177585&y=2010&p=1. An 1811 printing of the atlas by Schoell, which is sometimes cited as the first edition of this work, is available in its entirety from the David Rumsey Collection.”

(The link given by Allen is no longer valid; the volume has been relocated (accessed 19 March 2024; last accessed 24 December 2024), at <https://patrimoniodigital.ucm.es/s/patrimonio/item/83651>.)⁹

Regarding the 1804 manuscript map of Humboldt, copied in Washington, D.C., Hébert and Mullan (1999, no. 540) noted, “We believe that this map was traced in ca. 1846 by J. G. Bruff from an 1804 original by Alexander von Humboldt.” However, there is no further documentary remark and they do not comment on the disposition of the original copy. The Library of Congress’s catalog record for the map is not annotated to this effect. There also are no pertinent records in LOC online under Joseph Goldsborough Bruff. Allen (2014, p. 81, *note* 6), however, is more clear: “In 1804 Humboldt presented a copy of his map to Thomas Jefferson, but that manuscript appears to be lost. The Library of Congress has a copy of Humboldt’s map dated 1804 on its Web site . . . , but this appears to be a manuscript copy of the printed 1811 version of Humboldt’s map made during the Mexican-American war by American military cartographer Joseph Goldsborough Bruff.” Wheat (1959, Volume III, p. 97) notes that “maps Bruff drew languished unused in government archives” Bruff had gone West in 1849 to the gold fields, where he kept diaries and made maps, so his interest and involvement in this region is documented (see Wheat, pp. 97-102). Perhaps he also recopied the 1804 Washington, D.C., copy of Humboldt (a

⁹ I referred to the 1811 edition in the American Philosophical Society, Philadelphia, where I was Reference Archivist. While after discovering the link in Allen’s paper was outdated, the 1808 digitized edition in Madrid was located again online early in 2024 at another link—one which in turn is also not now valid—but it was not in a resolution satisfactory for detailed examinations. *The newest link to the 1808 edition provided in the text above does now provide higher resolution for closer examination* (advance to image 8 [of 23]); loading is slow and very fine details remain blurred. (Allen also refers to the David Rumsey Map Collection, <https://www.davidrumsey.com>, which is in the Stanford University Library.)

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

postulation *added here*; that is, if Hébert and Mullan’s supposition is correct). Harvey (2020, pp. 69, 81 *note* 122) observes, “There appear to have been two copies of the map, one commissioned by [Albert] Gallatin from Mr. Kraft [*sic*, identified only as a Washington, D.C., cartographer; likely F. C. de Krafft of the District of Columbia Surveyor’s Office; this would be the 1804 copy of Humboldt’s original] the other made surreptitiously by General James Wilkinson for use by Zebulon Pike.”

Humboldt was aware of the unsanctioned 1810 copies of his “great map of New Spain” (Humboldt, 1808). He criticized Arrowsmith’s 1810 production (Humboldt, 1811, 1812; see also Allen, 2016, 2017), where he appended remarks on the Pike copy. In 1814, specifically noting his manuscript map, he commented on the pirated editions by Arrowsmith and Pike, wherein he specially noted Pike’s map, “Les cartes du Mexique qui se trouvent annexées à la relation de son voyage, sont des *réductions* de ma grande carte de la Nouvelle-Espagne, dont une copie étoit restée en 1804 à la Secrétairerie d’État de Washington.” The comment was also noted in English translation (1814, p. xxx [second series]; 1815, p. xxi *note*): “The maps of Mexico, which are annexed to the narrative of his journey, are reduced from my great map of new Spain, of which I left a copy, in 1804, at the secretary of state’s office at Washington.” Humboldt did not remark on the 1810 map produced by the London firm of Longman, Hurst, Rees, Oreme and Brown, which although it, too, includes errors, does credit Humboldt.

References for the Endnote:

Allen, David Y.

- 2014 Alexander von Humboldt and the mapping of Mexico. *e-Perimtron*, 9(2): 79-96.
- 2016 Alexander von Humboldt’s critique of Aaron Arrowsmith’s 1810 map of Mexico. *Imago Mundi*, 68(2): 232-236.
- 2017 Mapping in Humboldt’s shadow: Aaron Arrowsmith and the cartography of Mexico, 1802-1825. *Terrae Incognitae*, 49(1) (April): 50-67.

Arrowsmith, A. [Arrowsmith, Aaron]

- 1810 *A new map of Mexico and adjacent provinces compiled from original documents By A. Arrowsmith 1810. London. Published 5th October 1810. by A. Arrowsmith 10 Soho Squ^e. Hydrographer to H.R.H. the Prince of Wales. Engraved by E. Jones.*

Harvey, Eleanor Jones

- 2020 *Alexander von Humboldt in the United States : Art, Nature, and Culture.* Washington D.C.: Smithsonian American Aert Museum, in association with Princeton University Press, Princeton (New Jersey), and Oxford, 442 [444] pp.

Hébert, John R., and Mullan, Anthony P.

- 1999 *The Luso-Hispanic world in maps : a selective guide to manuscript maps to 1900 in the collections of the Library of Congress.* Washington, D.C.: Library of Congress, 282 pp. [This resource is also online at <https://www.loc.gov/rr/geogmap/luso/> (last accessed 9 December 2024).

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

Humboldt, Alexander von

- 1808 Carte Générale du Royaume de la Nouvelle Espagne depuis la Parallele de 16° jusqu'au Parellele de 38° (Latitude Nord) Dressée Sur des Observations Astronomiques et sur l'ensemble des Matériaux qui existoient à Mexico, au commencement l'anée 1804. Par Alexandre de Humboldt. [2 sheets] *In: Atlas géographique et physique du Royaume de la Nouvelle-Espagne, fondé sur des observations astronomiques, des mesures trigonométriques et des nivellemens barométriques.* Paris, Chez Fr. Schoell, rue des Fossés-S.-Germain-l'Auxerrois, N°. 29; et a Tübingue, chez J. G. Cotta, libraire, folio.
- 1810 *A map of New Spain, from 16°. to 38°. North latitude reduced from the large map : drawn from astronomical observations at Mexico in the year 1804, by Alexandre de Humboldt, and comprecending the whole of the information contained in the original map, except the heights of the Mountains.* [London]: "Published as the Act directs, Oct^r. 25, 1810, by Longman, Hurst, Rees, Oreme and Brown, Paternoster Row."
- 1811 Carte Générale du Royaume de la Nouvelle Espagne depuis la Parallele de 16° jusqu'au Parellele de 38° (Latitude Nord) Dressée Sur des Observations Astronomiques et sur l'ensemble des Matériaux qui existoient à Mexico, au commencement l'anée 1804. Par Alexandre de Humboldt. ("L^s. Aubert pere Scripsit".) *In: Atlas géographique et physique du Royaum de la Nouvelle-Espagne, fondé sur des observations astronomiques, des mesures trigonométriques et des nivellemens barométriques.* Paris: Chez F. Schoell, folio.
- 1811 *Sur une carte de la Nouvelle-Espagne: publiée par Mr. Arrowsmith, en 1810.* Paris: [no imprint]. [Critique of Arrowsmith's pirated copy of Humboldt (1808).]
- 1812 Über eine Karte von Neuspanien, herausgegeben von Hrn. Arrowsmith, im J. 1810. *Montatliche Correspondenz zur beförderung der Erd- nd Himmels-Kunde*, 25 (March): 265-272. [Critique of Arrowsmith's pirated copy of Humboldt (1808).]
- 1814 *Voyage aux régions équinoxiales du nouveau continent, fait en 1799, 1800, 1801, 1802, 1803 et 1804, par Al. de Humboldt et A. Bonpland, rédigé par Alexandre de Humboldt; avec un atlas géographique et physique. Tome Premier.* Paris: Chez F. Schöll, 643 pp. [Author's name published as Alexandre de Humboldt.]
- 1814 *Personal narrative of travels to the equinoctial regions of the new continent, during the years 1799-1804. By Alexander de Humboldt, and Aimé Bonpland; with maps, plans, &c. Written in French by Alexander de Humboldt, and translated into English by Helen Maria Williams. Vol[.] I.* London: Printed for Longman, Hurst, Rees, Oreme, and Brown; J. Murray; and H. Colburn, xi, li, 289 [291] pp.
- 1815 *Personal narrative of travels to the equinoctial regions of the new continent, during the years 1799-1804. By Alexander de Humboldt and Aimé Bonpland. Written in French by Alexander de Humboldt, and translated into English by Helen Maria Williams.* Philadelphia: M. Carey. Dec. 23 1815, pp. i-xxxii, 33-432.

Pike, Zebulon

- 1810 *An account of expeditions to the sources of the Mississippi, and through the western parts of Louisiana, to the sources of the Arkansaw, Kans, La Platte, and Pierre Jaun, rivers : performed by order of the government of the United States during the years 1805, 1806, and 1807. And a tour through the interior parts of New Spain, when conducted through these provinces, by order of the Captain-General, in the year 1807.* Philadelphia: C. and A. Conrad, and Co.; Petersburg (New York): Somervell and Conrad; Norfolk (Virginia): Bonsal, Conrad, and Co; and Baltimore (Maryland): Fielding Lucas, Jr. (John Binns, Printer.)

Wheat, Carl Irving

- 1959 *Mapping the Transmississippi West, 1540-1861. Volume Three. From the Mexican War to the boundary surveys, 1846-1854.* San Francisco: Institute of Historical Cartography, xiii, 349 pp.

MAPPING GRAND CANYON

PUERTO DE BUCARELI CARTOBIBLIOGRAPHY (1777–1884)

Variant “Puerto de Bucareli” labels on maps are indicated by **bold red** lettering in the chorographical notes.

1777

Font, Pedro

WHEAT I:169

1777 25.1046

Mapa del viage que hizo el P.F. Pedro Font á Monterey y Puerto de San Francisco; y del viage que hizo el P.F. Francisco Garcés por el rio Colorado hasta su desemboque, y para arriba hasta el Moqui. (“P.F. Petrus Font fecit. Tubutama anno 1777.”) [In Spanish.]

MANUSCRIPT, Archivo General de Indias, MP-MEXICO,537; digitized online at <http://pares.mcu.es/ParesBusquedas20/catalogo/show/21492> (©MECD. Archivos Estatales (España); last accessed 9 December 2024).

- As a manuscript this would not be cited in this Cartobibliography, but it is of importance to the history of the Grand Canyon and the Southwest. Charles E. Chapman, *Catalogue of materials in the Archivo General de Indias for the history of the Pacific coast and the American Southwest* (University of California Press, Berkeley, 1919), p. 441, notes that this map had accompanied Charles’ item-no. 3001 [square brackets are part of the quotation], “1775. Oct.1 [21?]-Jan.3. 1777. Fr.Francisco Garcés”.

- Compare also the manuscript maps cited herein, by Garcés (1777, [ITEM NO. 25.1045](#)), Veléz y Escalante (1777, [ITEM NO. 25.602](#)), Font (1778, [ITEM NO. 25.1047](#)), and Miera y Pacheco (1777, [ITEM NO. 25.1115](#); 1778, [ITEM NO. 25.1048](#)). As a result of varied citations made of these maps over the years, all are cited in this Cartobibliography with clarified information provided as closely as possible based on examinations of all of these maps and information with their catalog records.

- ▶ On this map is figured one of the first notations of what we know now as the Grand Canyon: “**Puerto de Bucareli**” is labeled at the confluence of “Rio Colorado” and “R. Jaquesita” (*i.e.*, Little Colorado River). This earliest non-Indigenous name for the canyon was given by Padre Francisco Garcés in 1776 during his visit to the Havasupai, honoring the Viceroy of New Spain, Antonio María Bucareli y Ursúa. Garcés’s journal was not published until 1900 (see Elliott Coues, *On the trail of a Spanish pioneer* [Francis P. Harper, New York, 1900]). See also as well the published woodcut map by Manuel Villavicencio (1781, [ITEM NO. 25.510](#)), which, credited to Garcés and Font in 1777, likewise includes “Puerto de Bucareli” and which is the first printed map to include a name for the Grand Canyon. The Colorado River is shown with its outlet at a somewhat broadened head of “Mar de California”.

NOTE: The diary mentioned here is “Expediente sobre la expedición del padre fray Francisco Garcés y su compañero fray Pedro Font, desde la misión de San Javier del Bac hasta los ríos Colorado y Gila, por la provincia del Moqui”, Archivo General de Indias, GUADALAJARA,516,N.36, digitized online at <http://pares.mcu.es/ParesBusquedas20/catalogo/show/12788670> (©MECD. Archivos Estatales (España); last accessed 9 December 2024); cataloged with a note reading in part, “Iniciado por carta fray Diego Jiménez Pérez, padre guardián del Colegio de Santa Cruz de Querétaro. Incluye: Copia del Diario de fray Francisco Garcés del viaje que hizo junto con fray Pedro Font hasta la junta de los ríos Colorado y Gila, y provincia del Moqui, escrito en Tubutama, el 3 de enero de 1777. Comprende desde el 1 de octubre de 1775 al 17 de septiembre de 1776.”

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

Garcés, Francisco Tomás Hermenegildo

WHEAT I:170 [with illustration facing p. 92]

1777 25.1045

Mapa formado sobre el diario de viage que hizo el P.F. Fran^{co} Garcés al Rio Colorado, S^o Gabriel y Moqui en 1777. Baquioba. [In Spanish.]

MANUSCRIPT, Archivo General de Indias, MP-MEXICO,535; digitized online at <http://pares.mcu.es/ParesBusquedas20/catalogo/show/21490> (©MECD. Archivos Estatales (España); last accessed 9 December 2024).

- As a manuscript this would not be cited in this Cartobibliography, but it is of importance to the history of the Grand Canyon and the Southwest. Charles E. Chapman, *Catalogue of materials in the Archivo General de Indias for the history of the Pacific coast and the American Southwest* (University of California Press, Berkeley, 1919), p. 441, notes that this map had accompanied Charles' item no. 3527, "1777. Apr. 18. Queretaro. Fr. Diego Ximenez Perez to [José de Gálvez]." [square brackets are part of the quotation]. This map includes the paths of journeys taken by Padre Francisco Garcés. (Garcés's journal was not published until 1900; see Elliott Coues, *On the trail of a Spanish pioneer* [Francis P. Harper, New York, 1900].)

- Compare also the manuscript maps cited herein, by Font (1777, **ITEM NO. 25.1046**; 1778, **ITEM NO. 25.1047**), Veléz y Escalante (1777, **ITEM NO. 25.602**), and Miera y Pacheco (1777, **ITEM NO. 25.1115**; 1778, **ITEM NO. 25.1048**). As a result of varied citations made of these maps over the years, all are cited in this Cartobibliography with clarified information provided as closely as possible based on examinations of all of these maps and information with their catalog records.

- The map includes one of the first notations of what we know now as the Grand Canyon: "**Puerto de Bucareli**" is labeled at the confluence of "R. Colorado" and "R. Jaquesila" (Little Colorado River). This earliest non-Indigenous name for the canyon was given by Garcés in 1776 during his visit to the Havasupai, honoring the Viceroy of New Spain, Antonio María Bucareli y Ursúa. Interestingly, the confluence is shown west-northwest of "Oraibi", with "R. Jaquesila" passing by the "Moqui" pueblos just to their northwest, dipping southwestward before turning northwestward to reach the Colorado along a west-trending reach of that river. It is there that the Colorado, having come generally from the northeast, again resumes a southwesterly course at the entrance to a very mountainous region. Just to southwest of the confluence another, shorter tributary (not labeled) reaches the Colorado from the southeast; this is Cataract Creek, Garcés's path is shown reaching it not far upstream from its confluence with the Colorado. The only other tributaries to the Colorado are (upstream from the Little Colorado) and unlabeled river from the northeast that is likely the San Juan River; "R. de S^{ta} Maria" (Bill Williams River) from the east-northeast; and "R. Gila" from the east-northeast. Between the Gila confluence and the somewhat broadened head of "Mar de California", the Colorado follows a southwesterly course. To the west of the mouth of the Colorado is an interestingly shown embayment with hints of several tributaries reaching it from the north and northwest.

See also as well the published woodcut map by Manuel Villavicencio (1781, **ITEM NO. 25.510**), which, credited to Garcés and Font in 1777, likewise includes "Puerto de Bucareli" and which is the first printed map to include a name for the Grand Canyon.

NOTE: The diary noted in the map title is "Expediente sobre la expedición del padre fray Francisco Garcés y su compañero fray Pedro Font, desde la misión de San Javier del Bac hasta los ríos Colorado y Gila, por la provincia del Moqui", Archivo General de Indias, GUADALAJARA,516,N.36, digitized online at <http://pares.mcu.es/ParesBusquedas20/catalogo/show/12788670> (©MECD. Archivos Estatales (España); last accessed 9 December 2024); cataloged with a note reading in part, "Iniciado por carta fray Diego Jiménez Pérez, padre guardián del Colegio de Santa Cruz de Querétaro. Incluye: Copia del Diario de fray Francisco Garcés del viaje que hizo junto con fray Pedro Font hasta la junta de los ríos Colorado y Gila, y provincia del Moqui, escrito en Tubutama, el 3 de enero de 1777. Comprende desde el 1 de octubre de 1775 al 17 de septiembre de 1776."

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

Miera y Pacheco, Bernardo de

WHEAT I:173

1777 25.1115 **Plano Geografico de la tierra descubierta, y demarcada, por D^ñ Bernardo de Miera y Pacheco al rumbo del Noroeste, y oeste del nuevo Mexico, quien fue en compañía de los RR.^s PP.^s Fr. Fran.^{co} Atanacio Dominguez, Visitador Comisario y Custodia de esta, y Fr. Silvestre. Velez de Escalante, siendo una del numero de las diez personas que acompañaron a dichos RR. PP.^s [In Spanish.]**

MANUSCRIPT, British Museum, Additional Manuscripts 17661-C.

A photographic reproduction of this map is in the University of California at Berkeley, digitized online at <https://www.lib.berkeley.edu/EART/maps/g4300-1777-m5.html> (last accessed 9 December 2024).

• As a manuscript this would not be cited in this Cartobibliography, but it is of importance to the history of the Grand Canyon and the Southwest. **Puerto de Bucareli is *not* indicated on this map**, but the map is cited here because of its significant cross-references and contemporary overlapping of geographical coverage.

Compare also the manuscript maps cited herein, by Garcés (1777, **ITEM NO. 25.1045**), Font (1777, **ITEM NO. 25.1046**; 1778, **ITEM NO. 25.1047**), and Veléz y Escalante (1777, **ITEM NO. 25.602**). As a result of varied citations made of these maps over the years, all are cited in this Cartobibliography with clarified information provided as closely as possible based on examinations of all of these maps and information with their catalog records.

► On the British Museum copy cited here, “Rio Grande Colorado” is depicted to the confluence of “Rio de Nabajo”, north of which the river is labeled “R. de los Saguaganas” (with some apparent correction to its course). The southwestern part of the map adjacent to the Colorado bears the notation, “Este Rio Colorado desde la fuente de los dos Riuos de Zaguaganas, y Nabajo para abajo vamui encasonado de Redra colorada, y mui profundo, y escarpado su cajon sin Arboles.”

• Note that there are variants of Miera’s map from the Domínguez-Escalante expedition; this one is cited as an example without getting into the issues of historical cartography, which are beyond the purpose of this Cartobibliography. For a helpful commentary, refer to Wheat (1957, Volume I, pp. 94-116), who devotes an entire chapter to the Miera manuscript variants produced during 1777-1778, noting (p. 99) that there are “at least six distinct manuscript copies, each exhibiting some differences from the others”. The map referred to in this citation (25.1115) is Wheat’s “Type A”, specifically “1777 Miera, I”. Wheat further observes that the British Museum manuscript, “Additional Manuscripts No. 17,661-C . . . bears at least some evidence of being the original map that accompanied Escalante’s *Diario Derrotero* when in May of 1777 it was sent on its way from Santa Fe to the Viceroy of New Spain at the direction of Colonel Pedro Fermín de Mindinueta, then Governor of New Mexico” (p. 100). (This was acquired by the British Museum in 1848, listed then as “Plano geografico de la tierra descubierta y demarcada por Don Bernardo de Miera y Pacheco al rumbo del Noroeste y Oeste del Nuevo Mexico’ [1771-1779]” (square brackets are part of quotation; in *Catalogue of Additions to the Manuscripts in the British Museum, in the years MDCCCXLVIII-MDCCCLIII* (Printed by Order of the Trustees, 1868), p. 43.) See also a fuller description in *Catalogue of the Manuscript Maps, Charts, and Plans, and of the Topographical Drawings in the British Museum. Volume III*. (Printed by Order of the Trustees, 1871), p. 504: “Plano geografico de la tierra descubierta y demarcada por Don Bernardo de Miera y Pacheco, al rumbo de noroeste y oeste del Nuevo Mexico, quien fue en compania de los RR. PP. Fr. Francisco Atanacio Dominguez, visitador comisario y custodio de esta, y Fr. Silvestre Velez de Escalante, siendo uno del numero de las diez personas que acompañaron a dicho RR. PP.;’ drawn on a scale of 6¾ leagues (of 20 to a degree) to an inch: 2 f. 8 in. × 2 f. 4 in. [Add. 17,661.c.]” (square brackets are part of quotation). The item title as given in the present bibliography is as read precisely from the map itself.

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

Veléz y Escalante, Antonio

1777 25.602 **Derrotero hecho por Antonio Veléz y Escalante, Misionero para mejor conocimiento de las Misiones, pueblos de Indios y Presidios que se hallan en el Camino de Mon-terrey a Santa Fé de Nuevo Mexico. Laus deo Anno Domini 1777. [In Spanish.]**
MANUSCRIPT, Library of Congress, map collection, call number G4300 1777.V4, 1 sheet, pen-and-ink and watercolor; digitized online at <https://www.loc.gov/item/96686648/> [last accessed 9 December 2024; see also illustration on next page].

On this map is figured the first ever nomenclatural notation of what we know now as the Grand Canyon. See Figure 10 (next page). The map is likely the work of Bernardo de Miera y Pacheco.

- As a manuscript this would not be cited in this Cartobibliography, but it is of importance to the history of the Grand Canyon and the Southwest.

- Compare also the manuscript maps cited herein, by Garcés (1777, [ITEM NO. 25.1045](#)), Font (1777, [ITEM NO. 25.1046](#); 1778, [ITEM NO. 25.1047](#)), and Miera y Pacheco (1777, [ITEM NO. 25.1115](#); 1778, [ITEM NO. 25.1048](#)). As a result of varied citations made of these maps over the years, all are cited in this Cartobibliography with clarified information provided as closely as possible based on examinations of all of these maps and information with their catalog records.

- ▶ **“Puerto de Bucareli”** is labeled at the confluence of Rio Colorado and Rio Jaquesita (*i.e.*, Little Colorado River). This earliest non-Indigenous name for the canyon was given by Padre Francisco Garcés in 1776 during his visit to the Havasupai, honoring the Viceroy of New Spain, Antonio María Bucareli y Ursúa. Garcés’s journal was not published until 1900 (see Elliott Coues, *On the trail of a Spanish pioneer* [Francis P. Harper, New York, 1900]). See also as well the woodcut map by Manuel Villavicencio (1781, [ITEM NO. 25.510](#)), which, credited to Garcés and Font in 1777, likewise includes “Puerto de Bucareli” and which is the first printed map to include a name for the Grand Canyon.¹⁰

¹⁰ Special note is made here that relates to other important manuscript holdings, in the Archivo General de Indias (Seville), that place this map in contemporary perspective (see in Chapman, Charles E., *Catalogue of materials in the Archivo General de Indias for the history of the Pacific coast and the American Southwest* (University of California Press, Berkeley, 1919). These could indicate the possibility of timely communication of information during and after Garcés’s expedition to Hopi. Chapman’s calendar includes the following seven items (all items quoted thus; *square brackets are Chapman’s*; ellipses, and notes within *{braces}* are introduced *here*):

(p. 422) 3265. 1776. July 3. Moqui. Fr. Francisco Garcés to the missionary at Zuñi. [Announces his journey from the Colorado River to Moqui] Cer. of Cer. Dec. 27, 1776, Mexico. 3pp. 1. 104-6-18. Enc. w. 3416.

(p. 439) 3416. 1776. Dec. 27. México. Antonio Bucarely y Ursua to Josef de Glaves. No. 2640. . . . y acompaña copia de carta del P. Fr. Francisco Garces que acredita haber hallado camino á la del Moqui por los Rios Gila y Colorado. Or. 6pp. 1. 104-6-18. Acc. 3518. Enc. 3265.

(p. 441) 3432. 1777. Baquioba. Mapa formado sobre el Diario del viage que hizo el P. F. Francisco Garcés al Rio Colorado, S. Gabriel y Moqui. C. 1p. 46 by 31 cm. 104-6-18. Enc. w. 3527. {See p. 450.} {NOTE: This manuscript map is WHEAT I:170 (also illustrated in Wheat, Vol. 1, facing p. 92); also online from Spanish government website, Portal de Archivos Españoles, webpage <http://pares.mcu.es/ParesBusquedas20/catalogo/show/21490> (last accessed 9 December 2024), credited to Archivo General de Indias.} {Cited in this cartobibliography, [ITEM NO. 25.1045](#)}

(p. 444) 3465. 1777. Jan. 27. México. Antonio Bucarely y Ursua to Joseph de Galves. No. 2705. Remite copia de carta del Padre Fr. Francisco Garcés en que describe sus últimas peregrinaciones por entre Naciones desconocidas y la situación industria y manejo de los Moquinos con otras noticas apreciables. Or. 6 pp. 1. 104-6-18. Acc. 3540. Enc. 3110.

(p. 450) 3527. 1777. Apr. 18. Queretaro. Fr. Diego Ximenez Perez to [José de Gálvez]. [Forwarding 3001 and 3432 {see p. 441}] Or. 2pp. 1. 104-6-18. Enc. 2001, 3432.

(p. 454) 3562. 1777. May 27. México. Antonio Bucarely y Ursua to Joseph de Galvez. No. 2968. Remite copia del Diario de las ultimas preregiraciones del P. Fr. Francisco Garces hasta la Provincia del Moqui, acompaña Plano que demuestra las naciones exploradas. Or. 7pp. 1. 104-6-18. Acc. 3463. Enc. 3001.

(p. 461) 3630. 1777. Aug. 14. S. Ildefonso. [José de Gálvez] to Fr. Diego Ximenez Perez. He recibido el Diario y Mapa de las peregrinaciones del Padre Garcés desde S. Juan del Bac, en la Primería alta, hasta la población de Oraive en el Moqui. Dft.1p. 1. 104-6-18. Acc. by 3527.

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)



(Library of Congress)

Figure 10

“Derrottero hecho por Antonio Veléz y Escalante, Misionero para mejor conocimiento de las Misiones, pueblos de Indios y Presidios que se hallan en el Camino de Mon-terrey a Santa Fé de Nuevo Mexico. Laus deo Anno Domini 1777”. The map is likely the work of Bernardo de Miera y Pacheco. The meandering pale red line delineates the route followed by the Domínguez-Escalante expedition of 1776 which departed from and returned to Santa Fé (not shown on this map). (Solid-lined box delineates detail area shown in Figure 10a. Red dashed-lined box delineates the unlabeled El Vado de los Padres [refer to inset on Figure 1 [p. 33] and notes with the legend for Figure 10a.)

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)



Figure 10a (detail of map shown on previous page)

The name, “Puerto de Bucareli”, appears at the confluence of the Colorado and Little Colorado Rivers. The markings alongside the streams delineate canyons. This is the first appearance on any map of the name given to the Grand Canyon by padre Garcés in 1776.

“*Puerto de Bucareli*” seems to label a gap in the encanyoned reach of the Colorado River (see just to the left of the word “Puerto”), an observation apparently not specifically noticed before. However, it does not convey Garcés’s nomenclatural application of the *puerto* to the chasm as a whole, as a pass for the river through the plateau. Instead, it shows a discrete gap, such as would be familiar in mountains; here it is an interruption in canyon walls. Given that Miera was personally aware of some of the Colorado River’s canyons from his travels with the Domínguez–Escalante expedition of 1776, it seems odd that he would have made such an interpretation—unless through a misunderstanding he thought that Garcés had identified a place similar to what became known as *El Vado de los Padres* (The Crossing of the Fathers) where the Domínguez–Escalante party had found a place to cross the encanyoned Colorado in today’s southern Utah, an experience that would have been fresh in Miera’s memory. Note also that the positioning of the *puerto* is about where today’s Lee’s Ferry is located, at the break between Glen and Marble Canyons, a locale visited by the expedition although they could not cross the river there. Miera also marked *El Vado de los Padres* as a gap, though without a label (see inset on Figure 1 [p. 33]).

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

1778

Font, Pedro

- 1778 25.1047 **Plano Que conti^e las Provincias de Sonora, Pimerías, Papaguería, Apachería, Rios Gila y Colorado y tierras descubiert^s hasta el Puerto de S^a Fran^{co} en la California Septentrional y hasta el Pueblo de Oraybe en la Provincia de el Moqui, con arreglo a los diarios de el Coronel D^o Ant^o Crespo y de los P.P. Misioner^o Fr Pedro Font y Fr Fran^{co} Garcés de q^ue los viajes desde la nacion Jabajaba en el Rio Colorado hasta la mision de S^a Gabriel, alas Naciones que estan al Norte de esta Mision, su regreso a los Jamajabas, y camino que hizo al Moqui están Señalados con lineas de puntos: con cuia Señal se manifiesta tambien la linea de Presidios de esta frontera. [In Spanish.]** WHEAT I:171 [attributed to Garcés, 1777]
- [Plano que conti[en]e las Provincias de Sonora, Pimerías, Papaguería, Apachería, Rios Gila y Colorado y tierras descubiert[a]s hasta el Puerto de S[a]n Fran[cis]co en la California Septentrional y hasta el Pueblo de Oraybe en la Provincia de el Moqui, con arreglo a los diarios de el Coronel D[o]n Ant[oni]o Crespo y de los P.P. Misioneros Fr[ray] Pedro Font y Fr[ay] Francisco Garcés de q[ui]e[n], los viajes desde la nación Jabajaba en el Río Colorado hasta la misión de S[a]n Gabriel, a las Naciones que están al Norte de esta Misión, su regreso a los Jamajabas y camino que hizo al Moqui, están señalados con lineas de puntos: con cuia señal se manifiesta también la línea de Presidios de esta frontera.]
- MANUSCRIPT**, Archivo General de Indias, MP-MEXICO,349; digitized online at <http://pares.mcu.es/ParesBusquedas20/catalogo/show/21218> (©MECD. Archivos Estatales (España); last accessed 9 December 2024).
- The catalog records notes, “El autor es fray Pedro Font. La mención de autoría se localiza en la documentación asociada.”
- As a manuscript this would not be cited in this Cartobibliography, but it is of importance to the history of the Grand Canyon and the Southwest. Even though **Puerto de Bucareli is not indicated on this map**, it is included herein because of its significant cross-references and contemporary overlapping of geographical coverage.
 - Compare also the manuscript maps cited herein, by Garcés (1777, [ITEM NO. 25.1045](#)), Font (1777, [ITEM NO. 25.1046](#)), Veléz y Escalante (1777, [ITEM NO. 25.602](#)), and Miera y Pacheco (1777, [ITEM NO. 25.1115](#); 1778, [ITEM NO. 25.1048](#)). As a result of varied citations made of these maps over the years, all are cited in this Cartobibliography with clarified information provided as closely as possible based on examinations of all of these maps and information with their catalog records.
 - ▶ While this map portrays much of the same region as the other two maps, it notably omits the notation of Puerto Bucareli at the confluence of “R. Colorado” and “R. de S. Pedro Jaquesila” (Little Colorado River). Somewhat confusingly, just to the south of that confluence is another, that of “R. de S. Anton^o Jabesua” from the southeast, and just to the north of the Jaquesila is a short tributary (not labeled), also from the southeast. There are numerous other variations between the maps. The Colorado River is shown with its outlet at a somewhat broadened head of “Golfo de Californias”.

Miera y Pacheco, Bernardo de

- 1778 25.1048 **Plano Geografico de los Descubrimientos hecho por D^o Bernardo Miera y Pacheco y los RR^s P^s Fr. Francisco Atanasio Dominguez y Fr. Silvestre Vele^s S. Felipe R^l de Chiguagua Año de 1778. [In Spanish.]**
- MANUSCRIPT**, Beinecke Rare Book and Manuscript Library, Yale University, WA MSS S-2856; digitized online at <https://brbl-dl.library.yale.edu/vufind/Record/3432520> (last accessed 9 December 2024).

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

- As a manuscript this would not be cited in this Cartobibliography, but it is of importance to the history of the Grand Canyon and the Southwest. **Puerto de Bucareli is *not* indicated on this map**, but it is included herein because of its significant cross-references and contemporary overlapping of geographical coverage.

On the Beinecke Library copy cited here:

- ▶ “Rio Colorado” is depicted to the confluence of “R^o Nabajoo”, north of which the river is labeled “rio de los Zaguaganas”. The southwestern part of the map displays the confluence of “Rio de las Coninas”.

- Note that there are variants of Miera’s map from the Domínguez-Escalante expedition; this one is cited as an example without getting into the issues of historical cartography, which are beyond the purpose of this Cartobibliography. See examples cited in Wheat (1957, Volume 1, pp. 94-116), who notes that there are “at least six distinct manuscript copies, each exhibiting some differences from the others” (p. 99). Wheat further observes (p. 100, [WHEAT I:173](#)) that the British Museum manuscript, “Additional Manuscripts No. 17,661-C . . . bears at least some evidence of being the original map which accompanied Escalante’s *Diario Derrotero*” when it was sent to the Viceroy of New Spain in May 1777. (This was acquired in 1848, listed then as “Plano geografico de la tierra descubierta y demarcada por Don Bernardo de Miera y Pacheco al rumbo del Noroeste y Oeste del Nuevo Mexico’ [1771-1779]” (square brackets are part of quotation; in *Catalogue of Additions to the Manuscripts in the British Museum, in the years MDCCCXLVIII-MDCCCLIII* (Printed by Order of the Trustees, 1868), p. 43.) See also a fuller description in *Catalogue of the Manuscript Maps, Charts, and Plans, and of the Topographical Drawings in the British Museum. Volume III*. (Printed by Order of the Trustees, 1871), p. 504: “Plano geografico de la tierra descubierta y demarcada por Don Bernardo de Miera y Pacheco, al rumbo de noroeste y oeste del Nuevo Mexico, quien fue en compania de los RR. PP. Fr. Francisco Atanacio Dominguez, visitador comisario y custodio de esta, y Fr. Silvestre Velez de Escalante, siendo uno del numero de las diez personas que acompañaron a dicho RR. PP.;’ drawn on a scale of 6¾ leagues (of 20 to a degree) to an inch: 2 f. 8 in. × 2 f. 4 in. [Add. 17,661.c.]” (square brackets are part of quotation).

Compare also the manuscript maps cited herein, by Garcés (1777, [ITEM NO. 25.1045](#)), Font (1777, [ITEM NO. 25.1046](#); 1778, [ITEM NO. 25.1047](#)), and Veléz y Escalante (1777, [ITEM NO. 25.602](#)). As a result of varied citations made of these maps over the years, all are cited in this Cartobibliography with clarified information provided as closely as possible based on examinations of all of these maps and information with their catalog records.

1781

Villavic^o, Manuel [Villavicencio, Manuel] [Villavicencio, Manuel de]

- | | | |
|------|--------|--|
| 1781 | 25.510 | (SCULPST) Carta geographica de la costa, y parte de la peninsula de la California naciones que comprehende hasta el Nuevo Mexico, y viàge q’ hizieron Fr. Fran^{co} Garces, y Fr. Pedro Font al Rio Colorado,] S. Gabriel, y Moqui el año de 1777. [México]: [no imprint], 1 sheet, “Escala de 60 Leguas de à 5000. baras.” [scale ca. 1:9,000,000]. [<i>In Spanish.</i>] <ul style="list-style-type: none">▶ Map labels the lands of Native American groups. “R. Colorado” is delineated up into present-day Utah, passing through a mountainous terrain in the vicinity of Grand Canyon. The river enters the Gulf of California (not labeled) at its northeastern head. The routes of travel followed by Padres Francisco Garcés and Pedro Font are delineated. <p>Notes found in descriptions of this map indicate that it may have been prepared for a book that was never published. This is the first map to portray the landscape of the entire lower Colorado River (with the expected geographical faults). Also of note is the label, “Puerto de Bucareli” at the confluence of “R. Colorado” and “R. Jaquesia” (Little Colorado River). This is the first printed</p> |
|------|--------|--|

MAPPING GRAND CANYON

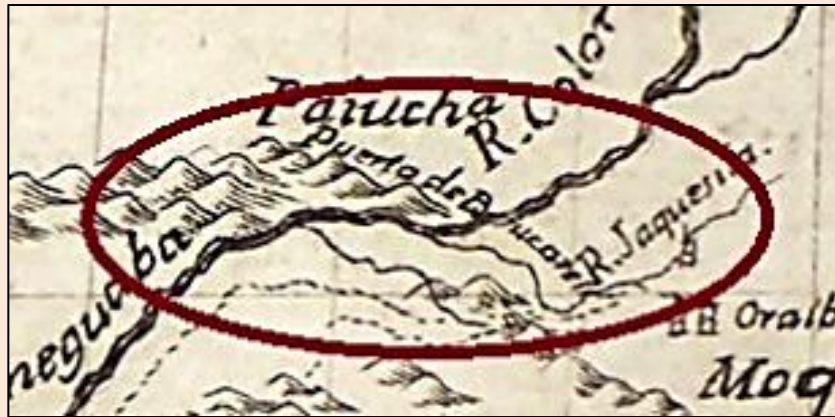
Puerto de Bucareli (1777-1884)

map to label what later became known as the Grand Canyon. (The first manuscript map to note a name appears to have been the one specially cited herein as Veléz y Escalante [1777, ITEM NO. 25.602]; and see also that map illustrated there.)



Figure 11

Brown University, John Carter Brown Library;
<https://jcb.lunaimaging.com/luna/servlet/workspace/handleMediaPlayer?lunaMediaId=JCBMAPS~1~1~2621~101204>
(last accessed 9 December 2024)



MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

1804

Humboldt, Alexander von ¹¹ (citations begin on next page)

¹¹ Regarding the 1804 manuscript map of Humboldt, copied in Washington, D.C., Hébert and Mullan (1999, no. 540) noted, "We believe that this map was traced in ca. 1846 by J. G. Bruff from an 1804 original by Alexander von Humboldt." However, there is no further documentary remark and they do not comment on the disposition of the original copy. The Library of Congress's catalog record for the map is not annotated to this effect. There also are no pertinent records in LOC online under Joseph Goldsborough Bruff. Allen (2014, p. 81, *note* 6), however, is more clear: "In 1804 Humboldt presented a copy of his map to Thomas Jefferson, but that manuscript appears to be lost. The Library of Congress has a copy of Humboldt's map dated 1804 on its Web site . . . , but this appears to be a manuscript copy of the printed 1811 version of Humboldt's map made during the Mexican-American war by American military cartographer Joseph Goldsborough Bruff." Wheat, 1959, Volume III, p. 97, notes that "maps Bruff drew languished unused in government archives" Bruff had gone West in 1849 to the gold fields, where he kept diaries and made maps, so his interest and involvement in this region is documented (see Wheat, pp. 97-102). Perhaps he also made a copy of the 1804 copy of Humboldt (a postulation added here; that is, if Hébert and Mullan's supposition is correct). Harvey (2020, pp. 69, 81 *note* 122) observes, "There appear to have been two copies of the map, one commissioned by [Albert] Gallatin from Mr. Kraft [*sic*, identified only as a Washington, D.C., cartographer; likely F. C. de Krafft of the District of Columbia Surveyor's Office; this would be the 1804 copy of Humboldt's original] the other made surreptitiously by General James Wilkinson for use by Zebulon Pike."

Humboldt was aware of the unsanctioned 1810 copies of his "great map of New Spain" (1808). He criticized Arrowsmith's 1810 production (Humboldt, 1811, 1812; see also Allen, 2016, 2017), where he appended remarks on the Pike copy. In 1814, specifically noting his manuscript map, he commented on the pirated editions by Arrowsmith and Pike, wherein he specially noted Pike's map, "Les cartes du Mexique qui se trouvent annexées à la relation de son voyage, sont des *réductions* de ma grande carte de la Nouvelle-Espagne, dont une copie étoit restée en 1804 à la Secrétairerie d'État de Washington." The comment was also noted in English translation (1814, p. xxx [second series]; 1815, p. xxi *note*): "The maps of Mexico, which are annexed to the narrative of his journey, are reduced from my great map of new Spain, of which I left a copy, in 1804, at the secretary of state's office at Washington." Humboldt did not remark on the 1810 map produced by the London firm of Longman, Hurst, Rees, Oreme and Brown, which although it, too, includes errors, does credit Humboldt.

Allen, David Y.

2014 Alexander von Humboldt and the mapping of Mexico. *e-Perimetron*, 9(2): 79-96.

2016 Alexander von Humboldt's critique of Aaron Arrowsmith's 1810 map of Mexico. *Imago Mundi*, 68(2): 232-236.

2017 Mapping in Humboldt's shadow: Aaron Arrowsmith and the cartography of Mexico, 1802-1825. *Terrae Incognitae*, 49(1) (April): 50-67.

Arrowsmith, A. [Arrowsmith, Aaron]

1810 *A new map of Mexico and adjacent provinces compiled from original documents By A. Arrowsmith 1810. London. Published 5th October 1810. by A. Arrowsmith 10 Soho Squ^e. Hydrographer to H.R.H. the Prince of Wales. Engraved by E. Jones.*

Harvey, Eleanor Jones

2020 *Alexander von Humboldt in the United States : Art, Nature, and Culture.* Washington D.C.: Smithsonian American Aert Museum, in association with Princeton University Press, Princeton (New Jersey), and Oxford, 442 [444] pp.

Hébert, John R., and Mullan, Anthony P.

1999 *The Luso-Hispanic world in maps : a selective guide to manuscript maps to 1900 in the collections of the Library of Congress.* Washington, D.C.: Library of Congress, 282 pp. [This resource is also online at <https://www.loc.gov/rr/geogmap/luso/>; last accessed 9 December 2024.]

Humboldt, Alexander

1808 Carte Générale du Royaume de la Nouvelle Espagne depuis la Parallele de 16° jusqu'au Parellele de 38° (Latitude Nord) Dressée Sur des Observations Astronomiques et sur l'ensemble des Matériaux qui existoient à Mexico, au commencement l'année 1804. Par Alexandre de Humboldt. 2 sheets. *In: Atlas géographique et physique du Royaume de la Nouvelle-Espagne, fondé sur des observations astronomiques, des mesures trigonométriques et des nivellemens barométriques.* Paris: Chez Fr. Schoell, rue des Fossés-S.-Germain-l'Auxerrois, N°. 29; et a Tübingue, chez J. G. Cotta, libraire.

1810 *A map of New Spain, from 16°. to 38°. North latitude reduced from the large map : drawn from astronomical observations at Mexico in the year 1804, by Alexandre de Humboldt, and*

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

Humboldt, Alexander von [Humboldt, Friedrich Alexander von] [Humboldt, Alexander de] [Humboldt, Alexandre de]

1804 25.1877 **[Carta geográfica general del reino de Nueva España.]** [Copy by Juan Segura, 1804?] [In Spanish.]

MANUSCRIPT, Real Academia de la Historia, Madrid; digitized online at <https://bibliotecadigital.rah.es/es/consulta/registro.do?id=12462> (last accessed 9 December 2024).

• As a manuscript this would not be cited in this Cartobibliography, but it is of importance to the history of the Grand Canyon and the Southwest. This is a copy of Humboldt's manuscript map, which copy was made apparently by Juan Segura of Guanajuato while Humboldt was working in Mexico.

► This map portrays the name, "**Puerto de Bucareli**", labeled at the confluence of unlabeled rivers, but obviously the Colorado and Little Colorado Rivers. (The Colorado is not labeled anywhere on the map; upstream from the puerto is the confluence of "Rio Saguananas" and "Rio de los Animas", as shown here.)

Compare this map against the 1804 manuscript copy made in Washington, D.C. (ITEM NO. [25.627](#)); and notes therewith. Another copy, in the University of Texas at Arlington, is titled "Carta Geografica Gral del Reyno N.E. Sacada de la Original hecha en 1803 por el Sor. Baron de Humboldt. Y Dedicada al Sor. Conde de la Valenciana",

compreending the whole of the information contained in the original map, except the heights of the Mountains. [London]: "Published as the Act directs, Oct. 25, 1810, by Longman, Hurst, Rees, Oreme and Brown, Paternoster Row."

1811 *Sur une carte de la Nouvelle-Espagne: publiée par Mr. Arrowsmith, en 1810.* Paris: [no imprint]. [Critique of Arrowsmith's pirated copy of Humboldt (1808).]

1812 Über eine Karte von Neuspanien, herausgegeben von Hr. Arrowsmith, im J. 1810. *Montatliche Correspondenz zur beförderung der Erd- und Himmels-Kunde*, 25 (March): 265-272. [Critique of Arrowsmith's pirated copy of Humboldt (1808).]

1814 *Voyage aux régions équinoxiales du nouveau continent, fait en 1799, 1800, 1801, 1802, 1803 et 1804, par Al. de Humboldt et A. Bonpland, rédigé par Alexandre de Humboldt; avec un atlas géographique et physique. Tome Premier.* Paris: Chez F. Schöll, 643 pp. [In French. Author's name published as Alexandre de Humboldt.]

1814 *Personal narrative of travels to the equinoctial regions of the new continent, during the years 1799-1804. By Alexander de Humboldt, and Aimé Bonpland; with maps, plans, &c. Written in French by Alexander de Humboldt, and translated into English by Helen Maria Williams. Vol[.] I.* London: Printed for Longman, Hurst, Rees, Oreme, and Brown; J. Murray; and H. Colburn, xi, li, 289 [291] pp.

1815 *Personal narrative of travels to the equinoctial regions of the new continent, during the years 1799-1804. By Alexander de Humboldt and Aimé Bonpland. Written in French by Alexander de Humboldt, and translated into English by Helen Maria Williams.* Philadelphia: M. Carey. Dec. 23 1815, pp. i-xxxii, 33-432.

Pike, Zebulon

1810 *An account of expeditions to the sources of the Mississippi, and through the western parts of Louisiana, to the sources of the Arkansaw, Kans, La Platte, and Pierre Jaun, rivers : performed by order of the government of the United States during the years 1805, 1806, and 1807. And a tour through the interior parts of New Spain, when conducted through these provinces, by order of the Captain-General, in the year 1807.* Philadelphia: C. and A. Conrad, and Co.; Petersburg (New York): Somervell and Conrad; Norfolk (Virginia): Bonsal, Conrad, and Co; and Baltimore (Maryland): Fielding Lucas, Jr. (John Binns, Printer.)

Wheat, Carl Irving

1959 *Mapping the Transmississippi West, 1540-1861. Volume Three. From the Mexican War to the boundary surveys, 1846-1854.* San Francisco: Institute of Historical Cartography, xiii, 349 pp.

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

which “is possibly the earliest surviving version of Alexander von Humboldt’s personal manuscript map of New Spain”.¹²

- 1804 25.627 **General Chart of the Kingdom of New Spain Betⁿ parallels of 16 & 38° N. From materials in Mexico at commencement of year 1804. by Humboldt.**
MANUSCRIPT, Library of Congress, map collection, call number G4410 1804.H8, 1 sheet; digitized online at <https://www.loc.gov/item/2001622416/>.
- As a manuscript this would not be cited in this Cartobibliography, but it is of importance to the history of the Grand Canyon and the Southwest. This is a copy of Humboldt’s manuscript map, which copy was made (or ordered made) by Albert Gallatin, then Secretary of the Treasury under President Thomas Jefferson when Humboldt passed through Washington, D.C., en route to Europe after his Central American tour. The copy now in the Library of Congress seems to be a separate copy probably made by Joseph Goldsborough Bruff later in the 19th century, the Gallatin copy apparently no longer extant.
 - ▶ This map portrays the name, “**Puerto de Bucarelli**”, labeled at the confluence of Rio Colorado and Rio Jaquesita (Little Colorado River). The name was noted in contemporary correspondence, but Garcés’s journal was not published until 1900 (see Elliott Coues, *On the trail of a Spanish pioneer* [Francis P. Harper, New York, 1900]). Also, a river without defined headwater or confluence runs parallel to and west of the Colorado between the San Juan and Little Colorado, labeled “Rio de las Piramides Sulfureas”.
- Humboldt did not publish this map until 1808, and redrawn versions were published in 1810 by two London publishers and in the U.S. by Zebulon Pike (1810, **ITEM NO. 25.560**, copied from the Gallatin copy of Humboldt’s manuscript map without credit). Note that the woodcut map by Manuel Villavicencio (1781, **ITEM NO. 25.510**), which, with credit to Padres Garcés and Font in 1777, likewise includes “Puerto de Bucareli” and is the first printed map to include a name for the Grand Canyon.

1808

Humboldt, Alexander von [Humboldt, Friedrich Alexander von] [Humboldt, Alexander de] [Humboldt, Alexandre de]

- 1808 25.2104 **Carte Générale du Royaume de la Nouvelle Espagne depuis la Parallele de 16° jusqu’au Parellele de 38° (Latitude Nord) Dressée Sur des Observations Astronomiques et sur l’ensemble des Matériaux qui existoient à Mexico, au commencement l’anée 1804. Par Alexandre de Humboldt.** [2 sheets] **[In French.]**
In: Atlas géographique et physique du Royaume de la Nouvelle-Espagne, fondé sur des observations astronomiques, des mesures trigonométriques et des nivellemens barométriques. Paris: Chez Fr. Schoell, rue des Fossés-S.-Germain-l’Auxerrois, N°. 29; et a Tübingue, chez J. G. Cotta, libraire.
- ▶ Includes “**Puerto de Bucarelli**” (Puerto de Bucareli) at the confluence of Rio Colorado and Rio Nabajoa [*sic*, duplicate name on this map, which on the manuscript map and in other reproductions is correctly “R. Jaquesila” (Little Colorado River).
 - In this edition, author given on title-page as “Al. de Humboldt”.
 - This atlas is digitized online at Universidad Complutense Madrid, <https://patrimoniodigital.ucm.es/s/patrimonio/item/83651> (last accessed 9 December

¹² Paula Rebert, “A Map Meeting at the University of Texas at Arlington, October 2008”, *Investigaciones Geográficas* (Instituto de Geografía, México), no. 68 (2009), pp. 149-152. For details regarding the collection of Humboldt maps in the Real Academia de la Historia, see Carmen Manso Porto, “La colección cartográfica de América de Alexander von Humboldt conservada en la Real Academia de la Historia”, *Real Academia de la Historia, Boletín* (Madrid), Vol. 205, no. 3 (September-December 2008), pp. 537-589.

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

2024). The digital copy of the map is not at a sufficient resolution to examine very fine details.

1810

Arrowsmith, A. [Arrowsmith, Aaron]

WHEAT II:295

1810 25.1054 **A new map of Mexico and adjacent provinces compiled from original documents By A. Arrowsmith 1810. London. Published 5th October 1810. by A. Arrowsmith 10 Soho Squ^e Hydrographer to H.R.H. the Prince of Wales. Engraved by E. Jones.**

This map is copied without credit from Humboldt (1808), showing "Rio Colorado" generally, and at the confluence of "R. Jaquesila" the label "**Puerto de Bucarelli**" (Puerto de Bucareli).

Clark, William

1810 25.1882 **A Map of part of the Continent of North America.**

MANUSCRIPT, Yale University, last accessed 9 December 2024 (https://collections.library.yale.edu/catalog/2012144?child_oid=1053073).

• As a manuscript this would not be cited in this Cartobibliography, but it is of importance to the history of the Grand Canyon and the Southwest.

This is a *draft* of an 1811 manuscript map of the Lewis & Clark expedition by William Clark, which in its published version did not embrace the Colorado River headwaters (in *History of the Expedition Under the Command of Captains Lewis and Clark: To the Sources of the Missouri, thence Across the Rocky Mountains and down the River Columbia to the Pacific Ocean*, Prepared for the Press by Paul Allen, Esquire [*historically known to have been edited by* Nicholas Biddle], Bradford and Inskeep, Philadelphia, 1814).

► The 1810 draft map includes "Rio Colorado" to the "G of California", which includes along the Colorado River between the confluences of "Rio Languanans" and "Rio Jasquevilla" the label "**Puerto del Bacorilli**" (Puerto de Bucareli) and its position that belie its having been copied, at least in this part, from Pike's 1810 map, which was there mislabeled as "Puerto del Bacrelli".)

Humboldt, Alexander von [Humboldt, Friedrich Alexander von] [Humboldt, Alexander de] [Humboldt, Alexandre de]

WHEAT I:273*, II:303* [which refers back to I:273*]

1810 25.567 **A map of New Spain, from 16°. to 38°. North latitude reduced from the large map : drawn from astronomical observations at Mexico in the year 1804, by Alexandre de Humboldt, and comprecending the whole of the information contained in the original map, except the heights of the Mountains. [London]: "Published as the Act directs, Oct^r. 25, 1810, by Longman, Hurst, Rees, Oreme and Brown, Paternoster Row.", 1 sheet. ("Alex. MacPherson, del." "Cooper Sculp.")**

Reproduced from Humboldt 1808.

► Includes "**Puerto de Bucarelli**" (Puerto de Bucareli) at the confluence of Rio Colorado and Rio Nabajoa [*sic*, duplicate name on this map, which on the manuscript map and in other reproductions is correctly "R. Jaquesila" (Little Colorado River)].

Pike, Z. M. [Pike, Zebulon Montgomery]

WHEAT II:299 [with illustration facing p. 25]

1810 25.560 **A Map of the Internal Provinces of New Spain. The Outlines are from the Sketches of but corrected and improved by Captain Zebulon M. Pike, who was conducted through that Country, in the Year 1807, by Order of the Commandant General of those Provinces.**

In: Pike, Z. M., *An account of expeditions to the sources of the Mississippi, and through the western parts of Louisiana, to the sources of the Arkansaw, Kans, La Platte, and Pierre Jaun, rivers : performed by order of the government of the United*

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

States during the years 1805, 1806, and 1807. And a tour through the interior parts of New Spain, when conducted through these provinces, by order of the Captain-General, in the year 1807. Philadelphia: C. and A. Conrad, and Co.; Petersburg (New York): Somervell and Conrad; Norfolk (Virginia): Bonsal, Conrad, and Co; and Baltimore (Maryland): Fielding Lucas, Jr. (John Binns, Printer.)

Cartographic historians understand that this map was taken largely from Humboldt, without credit.

► “Ancient California” is separated from “Province of Senora” [*sic*] by “Gulf of California”. “Rio Colorado” is shown on a mostly direct course from the northeast, from the confluence of “Rio Zanguananos” and an unlabeled river (San Juan River), arriving at the head of the gulf with “Rio Gila”. En route it receives “Rio Jasquevilla” (Little Colorado River, misspelling Humboldt’s Rio Jaquesila) from the east and “Rio S^ñ Maria” (Bill Williams River) from the east. A river without defined headwater or confluence runs parallel to and west of the Colorado between the San Juan and Little Colorado, labeled “Rio de los Panami des surfurcas on ignore l[’]Embouchure” (mispelling and making even more nonsensical Humboldt’s “Rio de las Piramides Sulfureas”); and “Rio de los Martires”, another river that often appears tangled in some fashion with the Colorado on some maps, is shown to the west of the confluence of the Bill Williams, striking west-southwestward off the map. Of note is the label “**Puerto del Bacorelli**” (misspelling Humboldt’s “Puerto de Bucareli”, which is correctly Garcés’s original Puerto de Bucareli). Pike’s map thus has significance as the first American-published map to apply a name to what we know as the Grand Canyon, despite having been taken without credit from Humboldt.

1811

Humboldt, Alexander von [Humboldt, Friedrich Alexander von] [Humboldt, Alexander de] [Humboldt, Alexandre de]

[1]: WHEAT I:272* (“Carte Générale”; with illustration between pp. 134/135), II:302* [which refers back to I:272*]

[2]: WHEAT I:275*, II:305* [which refers back to I:275*] (“Carte du Mexique”)

1811 25.547

Carte Générale du Royaume de la Nouvelle Espagne depuis la Parallele de 16° jusqu’au Parellele de 38° (Latitude Nord) Dressée Sur des Observations Astronomiques et sur l’ensemble des Matériaux qui existoient à Mexico, au commencement l’anée 1804. Par Alexandre de Humboldt. (“L^s. Aubert pere Scripsit”.) [In French.]

In: Atlas géographique et physique du Royaum de la Nouvelle-Espagne, fondé sur des observations astronomiques, des mesures trigonométriques et des nivellemens barométriques. Paris: Chez F. Schoell, folio.

One map on two double-folio plates, which depict northern and southern halves). The bottom-left of the southern-half sheet notes: “Dessiné à Mexico par l’Auteur en 1804, perfectionné par le même, par MM. Friesen, Oltmanns et Thuillier 1809.”; and in the lower-right: “Gravé par Barriere—et l’Ecriture par L. Aubert pere, à Paris.”

In this edition, author given on title-page as “Al. de Humboldt”. This folio atlas complemented the *Political Essay* on New Spain that had been published in sections during 1808-1811 (see Humboldt, 1808, [ITEM NO. 2.21363](#) in Volume 1, Part B of [THE GRAND CANON](#)); the original editions are in French. The first English translation made by John Black, 1811; German edition, 1809-1814; Spanish edition, 1822; and numerous others thereafter.

► “Vieja California” is separated from “Intendencia de Sonora” by “Golfe de Californie ou Mar de Cortes (Mer Vermeille)”. “Rio Colorado” is depicted following a generally uniform southwesterly course from the confluence of “Rio Zaguuananas” and “Rio Nabajoa” (San Juan River) to the head of “Mer de Cortes”. *Of note:* On the northern half (specifically, the northwestern quadrant), the

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

confluence of Rio Colorado and Rio Jaquesila is marked, "**Puerto de Bucarelli**" (Puerto de Bucareli). It is this map that is occasionally mis-cited as the first to portray this name for the Grand Canyon (see instead Manuel Villavicencio, 1781, [ITEM NO. 25.510](#)). Also on this map is the first appearance of a disjointed river to the west of the Rio Colorado, paralleling it between the confluences of the Nabajoa and Jaquesila, which is labeled "R. de las Pyramides Sulfureas", as well as another disjointed river west of and paralleling the lower Colorado, here somewhat separated by mountains, "R. de los Martires". What is further significant in this map and its contemporaries is that it publishes the geography of the Domínguez-Escalante expedition of 1776, before known only in manuscript by the cartographer Miera y Pacheco as redrawn by others.

See also **Carte du Mexique et des Pays Limitrophes Situés au Nord et à l'Est, Dressée d'après la Grande Carte de la Nouvelle-Espagne de M^r. A. de Humboldt, et d'autres Matériaux, par J. B. Poirson. 1811.** The bottom-left of the sheet notes, "Gravé par Barriere"; bottom-right notes, "et l'écriture. [*large space*] par L. Aubert."

► This broader view of southern North America is less detailed in the Southwest and does not label "Puerto de Bucarelli" at the confluence of "R. Jaquesila. "Vieja California" is separated from "Intendencia de Sonora" by "Mer de Cortes". "Rio Colorado" is depicted following a generally uniform southwesterly course from the confluence of "Rio Zaguánas" and "R. Nabajoa" (San Juan River) to the head of the gulf.

NOTE: This second map also appears at the end of Volume 1 of Humboldt's (1811) *Essai politique sur le royaume de la nouvelle Espagne* (Paris: Chez F. Schoell).

1817

John Thomson and Co.

WHEAT II:320 [with 1814 date]

1817 25.1200

Spanish North America. ("Drawn and Engraved for Thomsons New General Atlas 1814.")

In: *A new general atlas, consisting of a series of geographical designs, on various projections, exhibiting the form and component parts of the globe; and a collection of maps and charts, delineating the natural and political divisions of the empires, kingdoms, and states in the world. Constructed from the best systematic works, and the most authentic voyages and travels. With a memoir of the progress of geography, a summary of physical geography, and a consulting index to facilitate the finding out of places.* Edinburgh: Printed by George Ramsay and Co. for John Thomson and Co., Edinburgh; Baldwin, Cradock, and Joy, London; and John Cumming, Dublin.

The 1817 ed. is the first ed. of this completed atlas.

► This map is adapted from Humboldt and Pike. The Colorado River region is decidedly different from the portrayal on the "North America" map in this atlas. "California" is separated from "Sonora" by "Gulf of California". "Colorado R." is portrayed between the head of the gulf and the confluence of "R. Nabajoa" (San Juan River) and "R. Zaguánas". At the confluence of "R. Jaquesila" is the label "**Puerto de Bucarelli**" (Puerto de Bucareli). "R. Gila is a tributary from the east directly to the northeastern part of the gulf.

1818

Pinkerton, John

1818 25.1919

Spanish Dominions in North America Northern Part. ("Drawn under the direction of M^r. Pinkerton by L. Hebert." "Published by Dobson Philad?" "Neele sculpt. 35₂ Strand.")

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

In: Pinkerton, John, *A modern atlas : from the latest and best authorities exhibiting the various divisions of the world, with its chief empires, kingdoms, and states : in sixty maps, carefully reduced from the largest and most authentic sources.* Philadelphia: Thomas Dobson and Son.

► "Colorado R." is depicted between the head of "Gulf of California" and the confluence of "R. Zaguuanas" (Green River, from the north) and "R. Nabajoa" (San Juan River, from the east), having followed a generalized southwestward course. The confluence with "R. Jasquesila" (Little Colorado River, from the east) is labeled "**Puerto de Bucareli**" (Puerto de Bucareli). The only confluences downstream are "R. de S. Maria" (Bill Williams River) from the east and "R. Gila" from the east. Also depicted in the area of interest are two rivers, both without defined headwaters or confluence: "R. de los Pyramides sufurcas", which runs parallel to and west of the Colorado, and "R. de los Martines", which runs for a short distance west of and about parallel to the lower Colorado River.

1819

Arrowsmith, A. [Arrowsmith, Aaron]

1819 25.1993 **A New Map of Mexico and Adjacent Provinces Compiled from Original Documents by A. Arrowsmith 1810.** ("London. Published 5th October 1810. by A. Arrowsmith 10 Soho Squ^e. Hydrographer to H.R.H. the Prince of Wales.") ("Engraved by E. Jones".)

In: Arrowsmith, A., *Atlas to Thompson's Alcedo; or dictionary of America and West Indies; collated with all the most recent authorities, and composed chiefly from scarce and original documents, for that work, by A. Arrowsmith, Hydrographer to His Royal Highness the Prince Regent.* London: Printed by George Smeeton.

► "Rio Colorado" is depicted between the Gulf of California and the confluence of "R. Zaguuanas" and "R. Nabajoa", following an effectively straight southwesterly course until shortly before reaching the gulf, where it turns to the south-southeast where it also receives "R. Gila" from the east. At the confluence of "R. Jaguesila" (Little Colorado River) is the label "**Puerto de Bucareli**" (Puerto de Bucareli). It also receives "R. S. Maria" (Bill Williams River) in its lower course. Paralleling part of the lower course, with an arrow indicating a northeastward flow, is "R. de los Martires, without source or confluence.

1822

H. C. Carey and I. Lea [firm] [Henry Charles Carey and Isaac Lea]

1822 25.710 **Geographical, Historical, and Statistical Map of Mexico.**

In: *A complete historical, chronological, and geographical American Atlas : being a guide to the history of North and South America, and the West Indies, exhibiting an accurate account of . . . their various kingdoms . . . together with the wars, celebrated battles, and remarkable events, to the year 1822. According to the plan of Le Sage's Atlas and intended as a companion to Lavoisne's improvement of that celebrated work.* Philadelphia: H. C. Carey and I. Lea, [143] pp., 53 maps. [This is map 38.]

► "Mouth of the R. Colorado" is labeled at the head of "Gulf of California"; the river is labeled "Rio Colorado" between there and the confluence of "Rio Zaguuanas" (Green River) and "Rio Nabajoa" (San Juan River). The Little Colorado River is mis-labeled "Rio Nabajoa" (again); at its confluence with the Colorado is the label "**Puerto de Bucareli**" (Puerto de Bucareli).

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

Tanner, H. S. [Tanner, Henry Schenck]

- 1822 25.552 **A map of North America, constructed according to the latest information.** Philadelphia: H. S. Tanner, 1 sheet. WHEAT II:350 [with cropped illustration facing p. 81]
- Includes "**Puerto Bucareli**" (Puerto de Bucareli) straddling the confluence of the Rio Colorado and Rio Jaquesila. Paralleling the main stream some 80 miles westward is a fragmentary portrayal of "R. of the Sulphurous Pyramids", which may (or may not) connect farther southwest with "R. de los Martires" that goes to the Pacific north of San Diego. Both the Colorado and the Rio Gila converge at the very head of the Gulf of California.

1823

Tanner, H. S. [Tanner, Henry Schenck]

- 1823 25.2018 **A map of North America, constructed according to the latest information: by H. S. Tanner.** ("N. America S. W. Sheet.") ("American Atlas".)
- In: A new American atlas containing maps of the several states of the North American Union* Philadelphia: H. S. Tanner.
- "Rio Colorado" is delineated along an essentially direct southwesterly course from the confluence of "R. Zaguanas"- "Rio Nabajoa" and the head of the Gulf of California. Includes "**Puerto Bucareli**" (Puerto de Bucareli) straddling the confluence of the Rio Colorado and Rio Jaquesila. "R. S. Maria" is a tributary from the east. Paralleling the main stream some 80 miles westward is a fragmentary portrayal of "R. of the Sulphurous Pyramids", which may (or may not) connect farther southwest with "R. de los Martires" that goes to the Pacific north of San Diego. Both the Colorado and the Rio Gila converge at the very head of the Gulf of California.

Wyld, James

- 1823 25.2065 **Map of North America from 20 to 80 Degrees North Latitude Exhibiting the recent Discoveries, Geographical and Nautical; Drawn chiefly from the Authorities of M. de Humbolt, Lieut^t Pike, Mess^{rs} Lewis and Clarke, Sir Alex^t Mackenzie, M^r Hearne, Col^t Bouchette, Capt^{ns} Vancouver, Ross, Parry & Franklin. also describing the Boundary Lines between the Territories of Great Britain & Spain with the United States.** London Published by Ja^s Wyld, successor to W. Faden. N^o 5 Charing Cross. Geographer to His Majesty; and to H.R.H. the Duke of York. June 1st 1823.
- "California" and "Sonora" are separated by "Gulf of California". "Rio Colorado" is depicted on a more or less straight northeast-southwest course between the head of the gulf and the confluence of "R. Nabajoa" (San Juan River) and "R. Zaguanas". "R. Jaquesila" (Little Colorado River) is a tributary from the east, and at its confluence with the Colorado is the label "**Puerto de Bucareli**" (Puerto de Bucareli). A river (not labeled; Bill Williams River) is tributary to the lower Colorado River from the east. A river (not labeled) with headwater forks is tributary to the lower Colorado farther south. "R. Gila" is tributary to the Colorado from the east just before the Colorado reaches the gulf.

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

1825

Tanner, H. S. [Tanner, Henry Schenck]

- 1825 25.553 **A map of North America, constructed according to the latest information : improved to 1825.** Philadelphia: H. S. Tanner, 1 sheet.
▶ Includes "**Puerto Bucarelli**" (Puerto de Bucareli) straddling the confluence of the "Rio Colorado" and "Rio Jaquesila". Both the Colorado and the Rio Gila converge at the very head of the Gulf of California.

Wyld, James

- 1825 25.1217 **Map of North America Exhibiting the recent Discoveries, Geographical and Nautical; Drawn chiefly from the Authorities of M. de Humboldt, Lieut^t Pike, Mess^{rs} Lewis and Clarke, Sir Alex^d. Mackenzie, M^r. Hearne, Col^l Bouchette, Capt^{ns} Vancouver, Ross, Parry & Franklin, also describing the Boundary Lines between the Territories of Great Britain[,] the United States, and the Mexican and Central States.** London Published by Ja^s Wyld, (successor to W. Faden) N^o5, Charing Cross. Geographer to His Majesty; and to H.R.H. the Duke of York. March 1st 1825. [4 sheets.] WHEAT II:366
▶ "California" and "Sonora" are separated by "Gulf of California". "Rio Colorado" is depicted on a more or less straight northeast-southwest course between the head of the gulf and the confluence of "R. Nabajoa" (San Juan River) and "R. Zaguananas". "R. Jaguesila" (Little Colorado River) is a tributary from the east, and at its confluence with the Colorado is the label "**Puerto de Bucarelli**" (Puerto de Bucareli). A river (not labeled; Bill Williams River) is tributary to the lower Colorado River from the east. A river (not labeled) with headwater forks is tributary to the lower Colorado farther south. "R. Gila" is tributary to the Colorado from the east just before the Colorado reaches the gulf.

1826

Tanner, H. S. [Tanner, Henry Schenck]

- 1826 25.1055 **A map of the United States of Mexico, As organized and defined by the several Acts of the Congress of that Republic, Constructed from a great variety of Printed and Manuscript Documents, by H. S. Tanner.** 1826. Philadelphia: H. S. Tanner, 1 sheet. ("Entered according to Act of Congress, the 10th day of June, 1825, by H.S. Tanner, of the State of Pennsylvania.") WHEAT II:364 ["1825" cited]
▶ The northwestern portion of the country (today's American Southwest) is simplified from Humboldt's maps (without specific credit). "Rio Colorado" is shown generally, and at the confluence of "Rio Jaquesila" is the label, "**Puerto Bucarello**" (Puerto de Bucareli).

1827

Vandermaelen, Ph. [Vandermaelen, Philippe]

- 1827 25.584 **Atlas universel de geographie physique, politique, statisique et mineralogique, sur l'echelle de 1/1641836 ou d'une ligne par 1900 toises, dresse par Ph. Vandermaelen Quatrieme partie. Amér. sept.** Bruxelles: Ph. Vandermaelen. [An atlas issued by subscription, in 76 parts, 1825-1827.] **Tableau Provisoire d'Asemblage d'une Partie de l'Amérique sep^{le} & d'une Partie de l'Amérique Meridionale.** [In French.] WHEAT II:378

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

► The southwestern part of North America is clearly reproduced from the map by Alexander von Humboldt (see for example Humboldt, 1811, [ITEM NO. 25.547](#)). The confluence of “Rio Colorado de Occidente” and “Rio Jaquesila” (Little Colorado River) is labeled “**Puerto de Bucarelli**” (Puerto de Bucareli).

See also map 53, “**Amér. Sep. Partie de la vieille Californie**”, which displays the region bounding the upper Gulf of California. The map displays “Rio Colorado de Occidente” and “Rio Gila” converging at the head of the gulf, which is labeled “Emb. de Rio Colorado”. Also shown is “R. de los Martires” paralleling the Colorado to the west and striking southwestward to the Pacific.

1830

Brué, A. H. [Brué, Adrien-Hubert]

WHEAT II:361

1830 25.1682

Carte Générale des États-Unis Mexicains et des Provinces-Unies De l'Amérique Centrale. Redigée par Brué Géographe. Paris. 1825. Chez L'Auteur Rue des Maçons-Sorbonne N° 9. et chez les principaux M^{ds} de cartes Géographiques. (“Gravée sous la direction de l'Auteur.” “Atlas, en 65 feuilles N° 59.”) [In French.]

In: Atlas universel de géographie physique, politique, ancienne et moderne contenant les cartes générales et particulières de toutes les parties du monde : rédigé conformément aux progrès de la science pour servir à l'intelligence de l'histoire, de la géographie et des voyages. Paris: L'Auteur, 2nd ed., 1830.

► “Vieille Californie” is separated from “Sonora” by “Golfe de Californie ou Mer de Cortes”. “R. Colorado *de Occidente*” follows a generally northeast-southwest course from headwaters to the head of the gulf. Among the headwaters neither the Green nor Grand rivers are portrayed. Tributaries en route to the gulf are “R. Nabajoa” (San Juan River) from the east (with tributaries to it in turn from the northeast), “R. Jaquesila” (Little Colorado River) from the east-northeast, “R. S. Maria” (Bill Williams River) as a minor tributary from the east, and “R. Gila, the confluence of which is in the Colorado north of the head of the gulf. At the confluence of Jaquesila is the label “**Puerto Bucarelli**” (Puerto de Bucareli). Paralleling the Colorado to its west, between headwaters at the latitude of R. Nabajoa and eventually reaching the Pacific at “S. Luis Rey” is a river labeled in its headwater “R. de las Piramides”, joined by a dotted line to “R. de los Martires” farther downstream, which then is depicted by another dotted line progressing toward the coast before being drawn again as a solid line without label.

Hall, Sidney

WHEAT II:381 [with date 1828]

1830 25.1219

Mexico. and Guatemala. Corrected from original information communicated by Simon A. G. Bourne Esq. By Sidney Hall. (“London, Published by Longman, Rees, Orme, Brown & Green, Paternoster Row, March, 1828.”)

In: A new general atlas, with the divisions and boundaries carefully coloured: constructed entirely from new drawings, and engraved by Sidney Hall. London: Printed for Longman, Rees, Orme, Brown and Green. [This is map 46/XLVI.]

► “California” and “Sonora” are separated by “Gulf of California”. “R. Colorado” is drawn on a mostly straight northeast-southwest course between the gulf and confluence of “R. Nabajoa” (San Juan River) and “R. Zaguanas”. “R. Jaquesila” (Little Colorado River) is a tributary from the east, with at its confluence the place marker for “**Puerto Bucarelli**” (Puerto de Bucareli). “R. S. Maria” (Bill Williams River) is a tributary from the east, and “R. Gila” joins the Colorado just above the head of the gulf.

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

1832

Colton, J. H. [Colton, Joseph Hutchins]

- NO DATE 25.2215 **Mexico & Guatemala.** ("London: Published by Orr and Smith, Amen Corner, Paternoster Row.") ("Drawn and Engraved by J. Dower, Pentonville, London.")
In: Higgins, W. M., *A general descriptive atlas of the earth, containing separate maps of the various countries and states, from original drawings. With a short account of each country, descriptive of its geographical features, chief towns and cities, populaton, and general statistics.* London: W. S. Orr and Co.; and Edinburgh: W. and R. Chambers. [1832.] [Map no. 40.]
▶ "R. Colorado" is delineated between the head of "Gulf of California" and headwaters; its course is effectively straight to the southwest to the head of the gulf; enroute it receives "Riv. Nabajoa" (San Juan River) from the east, "Jaquesila Riv." (Little Colorado River) from the east (at the confluence of which is the label "**Puerto Bucarelli**" [Puerto de Bucareli]), "R. S. Maria" (Bill Williams River) from the ast, and "R. Gila" from the east. West of and parallel to the Colorado is "R. de las Piramides", which is continued by a dotted line that joins with "R. de los Martires" that is implied by solid and dotted lines to continue southwestwardly to the Pacific.

Tanner, H. S. [Tanner, Henry Schenck]

- 1832 25.1736 **Map of the United States and Mexico, Drawn & Engraved under the direction of H. S. Tanner. For the Atlas, to accompany Tho^s. T. Smiley's Easy Introduction to the Study of Geography. 1832.** ("Engraved for the Atlas, to accompnay Smiley's Easy Introduction to the Study of Geography. 1832".) ("Entered according to act of Congress. Feb^y 1st 1830, by Thomas T. Smiley of the State of Pennsylvania.")
In: Smiley, Thomas T., *A new atlas, exhibiting the elevation of mountains, length of rivers, and population of cities, to accompany An Easy Introduction to the Study of Geography, for the Use of Schools* Philadelphia: Printed for the Author, and for sale at Grigg and Elliott's Bookstore, No. 9, North Fourth Street, and by Booksellers and Country Merchants generally in the United States. (J. Harding, Printer.)
▶ "Lower California" is separated from "Sonora and Sinaloa" by "Gulf of California". "Rio Colorado" is depicted between the head of the gulf and the confluence of "R. Zaguana" (the upper Colorado) and "Rio Nabajoa" (San Juan River). Its course is essentially directly to the southwest, turning due south just before striking the head of the gulf. Not far below the San Juan it receives "Rio Jaquesila" (Little Colorado River) from the east; at that confluence is the label "**Puerto Bucarelli**" (Puerto de Bucareli). West of the Colorado at the latitude of the San Juan and Little Colorado, "R. of the Sulphurs. Pyramids", without defined headwater or confluence, parallels the Colorado. West of the lower Colorado, "R. de los Martires" begins without definite headwater, flowing southwest, before becoming depicted by a dotted line passing to the west-southwest. "Rio Gila" enters the head of the gulf independently, from the east, just below the mouth of the Colorado.

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

1834

Arrowsmith, J. [Arrowsmith, John]

- 1834 25.1211 **Mexico, by J. Arrowsmith.** ("London, Pub^d 15 Feb^y 1834, by J. Arrowsmith, 33 East St^e Red Lion Square.") [An atlas sheet, no. "44".]
▶ "R. Colorado" is depicted on a more or less straight northeast-southwest course between the head of "Gulf of California" and headwaters east of "Youta or G. Salt L." Tributaries are "R. Nabajoa" (San Juan River), "J. Jaquesila" (Little Colorado River), a short tributary (not labeled) from the northwest between the San Juan and Little Colorado, "Pyramid or Adams R." from the north and northwest, "R. S. Maria" (Bill Williams River), and "R. Gila", which reaches the head of the gulf independently of the Colorado. At the confluence of the Little Colorado is the label "**P^{to} Bucarelli**" (Puerto de Bucareli).

1836

Dower, J. [Dower, John James]

- 1836 25.2285 **Mexico and Guatemala.** ("London, Published by Henry Teesdale & C^o 302 High Holborn." [apparently reengraved on an earlier notation]) ("Drawn & Engraved by J. Dower, Pentonville, London.")
In: A new general atlas of the world, compiled from the latest authorities both English and foreign; containing separate maps of its various countries and states, and exhibiting their boundaries and divisions, also the chains of mountains, rivers, lakes and other geographical fetures, comprehended in forty-sev^d maps, including ancient maps of Greece, the Roman and Persian empires and Palestine, from drawings made expressly for this work. London: Henry Teesdale and Co. [Map no. 38.]
▶ "R. Colorado" is delineated between the head of "Gulf of California" and the confluence of "R. Zaguanas" (Green River) and "R. Nabajoa" (San Juan River); enroute tributaries are "R. Jacquesita" (Little Colorado River), at the confluence of which is labeled "**Puerto Bucarelli**" (Puerto de Bucareli), an unlabeled tributary from the east (Bill Williams River), and "Gila R." from the east. Paralleling the Colorado to its west is a river system delineated first at its headwater by a solid line labeled "R. de la Pirmaides", which becomes a dotted line before reaching a solid line labeled "R. de los Martires", after which the line is dotted again and heads off toward the Pacific Ocean.

1837

Rosa

- 1837 25.739 **Mapa de los Estados Unidos Mejicanos arreglado a la distribucion que en diversos decretos ha hecho del territorio el Congreso General Mejicano. Paris, 1837. Publicado por Rosa.** [No imprint], 1 sheet. [In Spanish.]
Wheat (1958, Volume II, p. 248) calls this map a "palpable plagiarism of Tanner's Mexico, translated into the Spanish Language." Refers to Tanner (1826, [ITEM NO. 25.1055](#)).
▶ Mexico includes that portion of what is now the southwestern United States, its northern border with "Oregon Tierra". "Rio Colorado" is portrayed along a fairly straight course between "Golfo de California" and the confluence of "Rio Zaguanas" (Green River) and "Rio Nabajoa" (San Juan River). At the confluence of "Rio Jaquesila" (Little Colorado River) and the Colorado is labeled

WHEAT II:429

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

"**Puerto Bucarelo**" (Puerto de Bucareli). Not far to the west of this confluence is a disconnected river, without headwater or confluence, running parallel to the Colorado, "C. de las Pyramides Sulfureas". Southwest from there, at the latitude of the tributary "R. S^{ta} Maria" (Bill Williams River), is another disconnected river, "R. de los Martires".

1840

Arrowsmith, J. [Arrowsmith, John]

- 1840 25.1212 **Mexico, by J. Arrowsmith.** ("London, Pub^d 15 Feb^y 1840, by J. Arrowsmith, 10 Soho Square.")
- ▶ "R. Colorado" is depicted on a more or less straight northeast-southwest course between the head of "Gulf of California" and headwaters east of "Youta or G. Salt L." Tributaries are "R. Nabajoa" (San Juan River), "J. Jaquesila" (Little Colorado River), a short tributary (not labeled) from the northwest between the San Juan and Little Colorado, "Pyramid or Adams R." from the north and northwest, "R. S. Maria" (Bill Williams River), and "R. Gila", which reaches the head of the gulf independently of the Colorado. At the confluence of the Little Colorado is the label "**P^{to} Bucarelli**" (Puerto de Bucareli).

Brué, A. H. [Brué, Adrien-Hubert]

- 1840 25.1332 **Carte Générale des États-Unis Mexicains de la République du Texas et des États de l'Amérique Centrale. par A. Brué Géographe du Roi.(1825). Revue et augmentée par Ch. Picquet, Géographe du Roi et de M^{gr} le Duc D'Orléans. Paris, 1840. Chez Ch. Piquet, Quai Conti, 17, près du Pont des Arts.** ("Atlas, en 65 feuilles N^o 59.") [In French.]
- In: Atlas universel de géographie physique, politique, ancienne & moderne, contenant les cartes générales et particulières de toutes les parties du monde; rédigé conformément aux progrès de la science pour servir à l'intelligence de l'histoire, de la Géographie et des Voyages. Nouvelle Édition composée de Soixante cinq feuilles. Par A. Brué, Géographe du Roi. revue et augmentée par Ch^{les} Picquet, Géographe du Roi et de M^{gr} le Duc d'Orléans. Paris: Chez Ch. Piquet Géographe du Roi et de S.A.R. Mgr. le Duc d'Orléans, propriétaire des cartes et atlas de fonds de M^r Brué.*
- ▶ "Vieille Californie" is separated from "Sonora et Cinaloa" by "Golfe de Californie ou Mer de Cortes". The remainder of the area of interest to this Cartobibliography is the same as that described in Brué's 1825 ed. (ITEM NO. 25.1330 in THE GRAND CANON Volume 2), with the exception of the course of "R. de los Martires": "R. Colorado de Occidente" follows a generally northeast-southwest course from headwaters to the head of the gulf. Among the headwaters neither the Green nor Grand rivers are portrayed. Tributaries en route to the gulf are "R. Nabajoa" (San Juan River) from the east (with tributaries to it in turn from the northeast), "R. Jaquesila" (Little Colorado River) from the east-northeast, "R. S. Maria" (Bill Williams River) as a minor tributary from the east, and "R. Gila, the confluence of which is in the Colorado north of the head of the gulf. At the confluence of Jaquesila is the label "**Puerto Bucarelli**" (Puerto de Bucareli). Paralleling the Colorado to its west, is a river labeled in its headwater "R. de las Piramides", joined by a dotted line to "R. de los Martires" farther downstream, which then is depicted by another dotted line that turns to the southeast to reach the lower Colorado River north of the confluence of the Gila.

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

1841

Hall, Sidney

- 1841 25.2280 **Mexico.** ("Engraved by S. Hall, Bury Str^t Bloomsb^y")
In: *Black's general atlas: A series of fifty-four maps from the latest and most authentic sources. Engraved on steel, in the first style of the art, by Sydney [sic] Hall.* Edinburgh: Adam and Charles Black; London: Longman & Co., Simpkin, Marshall, & Co., Whittaker & Co., and Hamilton, Adams, & Co.; and Dublin: John Cumming. Map XLIX.
▶ "R. Colorado" follows an effectively straight southwesterly course from headwaters to the head of "Gulf of California", receiving en route "R. Nabajoa" (San Juan River) from the east, "R. Jaquesila" from the east (at the confluence of which is a place-name, "**P. Bucarelli**" (Puerto de Bucareli), and "Pyramid R." from the northwest. "R. Gila" arrives independently at the head of the gulf from the northeast.

1842

Arrowsmith, J. [Arrowsmith, John]

WHEAT II:459

- 1842 25.1213 **Mexico, by J. Arrowsmith.** ("London, Pub^d 15 Feb^y 1842, by J. Arrowsmith, 10 Soho Square.")
In: *The London Atlas of Universal Geography, Exhibiting the Physical and Political Divisions of the Various Countries of the World, Constructed from Original Materials. Is most respectfully dedicated to his venerable Friend John Middleton Esq^r. As a testimony of Gratitude and Esteem, By his much Obliged & Humble Servant, John Arrowsmith, F.R.G.S[.]. & R.A.S. 10, Soho Square, London.* ("London, Pub^d by J. Arrowsmith, 10 Soho Square, 1842.")
▶ "R. Colorado" is depicted on a more or less straight northeast-southwest course between the head of "Gulf of California" and headwaters east of "Youta or G. Salt L." Tributaries are "R. Nabajoa" (San Juan River), "J. Jaquesila" (Little Colorado River), a short tributary (not labeled) from the northwest between the San Juan and Little Colorado, "Pyramid or Adams R." from the north and northwest, "R. S. Maria" (Bill Williams River), and "R. Gila", which reaches the head of the gulf independently of the Colorado. At the confluence of the Little Colorado is the label "**P^{to}: Bucarelli**" (Puerto de Bucareli).

Chapman and Hall [firm]

WHEAT II:460

- 1842 25.1369 **Central America II. Including Texas, California and the Northern States of Mexico.** ("Published under the Superintendence of the Society for Diffusion of Useful Knowledge".) ("Published by Chapman & Hall 186 Strand 15 Oct. 1842.") ("J. & C. Walker Sculp^t")
The same map as Charles Knight and Co. (1842, [ITEM NO. 25.1367](#)).
▶ "California Vieja" is separated from "Sonora" by "Gulf of California Discovered in 1534 and called the Sea of Cortes". "R. Colorado" is depicted most generally on an essentially straight northeast-to-southwest course between headwater and the head of the gulf. The only tributaries are "R. Nabajoa" (San Juan River) from the east, "R. Yaquesila" (Little Colorado River) from the east, "Pyramid or Adams R." (Virgin River) from the northwest, "R. S. Maria" (Bill Williams River) from the northeast, and "R. Gila" from the east. At the confluence of the Little Colorado is the place name "**P^{to}: Bucarelli**" (Puerto de Bucareli).

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

Charles Knight and Co.

- 1842 25.1367 **Central America II. Including Texas, California and the Northern States of Mexico.** ("Published under the Superintendence of the Society for Diffusion of Useful Knowledge".) ("J. & C. Walker".)
The same map as Chapman and Hall [firm] (1842, [ITEM NO. 25.1369](#)).
► "California Vieja" is separated from "Sonora" by "Gulf of California Discovered in 1534 and called the Sea of Cortes". "R. Colorado" is depicted most generally on an essentially straight northeast-to-southwest course between headwater and the head of the gulf. The only tributaries are "R. Nabajoa" (San Juan River) from the east, "R. Yaquesila" (Little Colorado River) from the east, "Pyramid or Adams R." (Virgin River) from the northwest, "R. S. Maria" (Bill Williams River) from the northeast, and "R. Gila" from the east. At the confluence of the Little Colorado is the place name "**P^{to} Bucarelli**" (Puerto de Bucareli).
NOTE: Map does not include publisher's information. A variant of this map includes at bottom: "London. Cha^s Knight & Co. 22, Ludgate Street." and "J. & C. Walker Sculp^t."

1844

Dower, J. [Dower, John James]

- 1844 25.2014 **Mexico and Guatemala.** ("London, Published by Henry Teesdale & C^o") ("Drawn & Engraved by J. Dower. Pentonville. London.")
In: *A new general atlas of the world, compiled and constructed with the greatest care from the latest government and other approved modern surveys and authorities, both English and foreign; containing separate maps of its various countries and states, and exhibiting their boundaries and divisions, chains of mountains, rivers, lakes, also the British and foreign railways, completed and projected: comprehended in forty-seven maps, including ancient maps of Greece, the Roman and Persian empires, and Palestine, from drawings made expressly for this work by the most eminent draftsmen, and executed by first-rate engravers.* London: Henry Teesdale and Co. [This is map no. 38.]
The same as Dower (1836).
► "R. Colorado" is delineated between the head of "Gulf of California" and the confluence of "R. Zaguanas" (Green River) and "R. Nabajoa" (San Juan River); enroute tributaries are "R. Jacquesita" (Little Colorado River), at the confluence of which is labeled "**Puerto Bucarelli**" (Puerto de Bucareli), an unlabeled tributary from the east (Bill Williams River), and "Gila R." from the east. Paralleling the Colorado to its west is a river system delineated first at its headwater by a solid line labeled "R. de la Pirmaides", which becomes a dotted line before reaching a solid line labeled "R. de los Martires", after which the line is dotted again and heads off toward the Pacific Ocean.

Falconer, Thomas

- 1844 25.1089 **North America. Published under the Superintendence of the Society for the Diffusion of Useful Knowledge.** ("London, Cha^s Knight & C^o 22, Ludgate Street." "Engraved by J. & C. Walker.")
In: *On the discovery of the Mississippi, and on the south-western, Oregon, and north-western boundary of the United States. With a translation from the original ms. of memoirs, etc. relating to the discovery of the Mississippi, by Robert Cavalier de la Salle and the Chevalier Henry de Tonty.* London: Samuel Clarke, pp. i-iv, 5-96, 1-100, 97-99 [sic], [1], map.
[WHEAT II:479 \[1845 ed. = II:493\]](#)

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

► "R. Colorado" is depicted mostly along a straight line between the "Gulf of California" and headwaters in "Sierra Madre" east of "L. Youla" (Great Salt Lake). The only tributaries along its entire length are "R. Nabajoa" (San Juan River), "R. Jaquesila" (Little Colorado River), "R. Pyramid" (the Virgin River, also confused with the so-called, misrepresented and mistranslated, river of the "sulfurous pyramids"), "R. S. Maria" (Bill Williams River), and "R. Gila". At the confluence of the Jaquesila is a place marker for "**P^{to} Bucarelli**" (Puerto de Bucareli).

1845

Morse, Sidney E., AND Breese, Samuel

WHEAT II:469

1845 25.1328

Mexico.

In: Morse, Sidney E., and Breese, Samuel, *The cerographic atlas of the United States*. New-York: Sidney E. Morse and Co. ("Supplement to the New-York Observer.") Notation on title-page, in square brackets: "[Entered, according to act of Congress, in the year 1841, by Sidney E. Morse and Samuel Breese, in the Clerks Office of the Southern District of New-York.]"

Wheat (Volume 2, p. 270) remarks: "[The] *Atlas* was published in sheets, showing various copyright dates. * * * This shows how misleading these dates can be."

► "Old California" is separated from "Sonora" by "Gulf of California". "R. Colorado" is depicted between the head of the gulf and headwaters at the northern boundary of "New California Generally called Upper California". Through its entire course the Colorado follows a generally and continuously direct southwesterly course before gently arcing to the south-southeast at the gulf. It receives en route a tributary (not labeled) from the east (apparently the San Juan River), "R. Yaquesila" (Little Colorado River) from the east, a tributary (not labeled) from the northwest and northeast (Virgin River), "R. S. Maria" (Bill Williams River) from the northeast), and "R. Gila" with its confluence some distance north of the gulf. At the confluence of the Little Colorado is the place name "**P^{to} Bucarelli**" (Puerto de Bucareli). The river that is identified here as the Virgin River has a tributary (not labeled) from the west, heading in a lake, which may be taken for Las Vegas Wash and the springs area of "Vegas", a place name identified on other maps.

1846

Charles Knight and Co.

1846 25.1368

Central America II. Including Texas, California and the Northern States of Mexico.

("Published under the Superintendence of the Society for Diffusion of Useful Knowledge".) (London. Cha^s Knight & Co. 22, Ludgate Street.") ("J. & C. Walker Sculp^t")

► "California Vieja" is separated from "Sonora" by "Gulf of California Discovered in 1534 and called the Sea of Cortes". "R. Colorado" is depicted most generally between the head of the gulf and the confluence of "Green R." and "R. Grand". The only tributaries are "R. Nabajoa" (San Juan River) from the east, "R. Yaquesila" (Little Colorado River) from the east, "Sevier R." from the north (after having looped from a north-flowing course some distance to the west, and with its middle part depicted by a dashed line labeled "Probable Course"), "Rio Virgen" from the northwest with headwaters shared with the Sevier, "R. S. Maria" (Bill Williams River) from the northeast, and "R. Gila" from the east. At the

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

confluence of the Little Colorado is the place name "**P^{to} Bucarelli**" (Puerto de Bucareli).

Disturnell, J. [Disturnell, John]

- 1846 25.1714 **Mapa de los Estados Unidos de Méjico, segun lo organizado y definido por las varias actas del Congreso de dicha República: y construido por las mejores autoridades. Lo publican J. Disturnell, 102 Broadway. Nueva York. 1846. Revised Edition. [In Spanish.]**
- "Rio Colorado" is drawn unsteadily along a generally southwesterly course between "Golfo de California" and the confluence of "Green R." and "Rio de N^a S^a de los Dolores", where the headwaters of the Green and other tributaries are peculiarly depicted. Upstream from the confluence with Rio Nabajoa (San Juan River) the Colorado is labeled "Rio Zaguananas". The only other tributaries to the Colorado are "Rio Jaquesita" (Little Colorado River) from the east, "Rio Virgin" from the west-northwest, "R. S. Maria" (Bill Williams River) from the east, and "Rio Gila" from the east-northeast. A short stream without defined headwater or confluence, "R. de los Martires" flows southwest some distance west of the lower Colorado. Within the area of interest to this Cartobibliography, only minor points vary in this Revised Edition compared to the earlier ed. of 1846 (ITEM NO. 25.1067 in THE GRAND CANON Volume 2), including the addition here of the label "**P. Bucaretti**" (Puerto de Bucareli) at the Little Colorado confluence, and the place name "S. Pedro" at the Gila confluence.

Tanner, H. S. [Tanner, Henry Schenck]

WHEAT III:528

- 1846 25.1068 **A map of the United States of Mexico, As organized and defined by the several Acts of the Congress of that Republic, Constructed from a great variety of Printed and Manuscript Documents, by H. S. Tanner. Second edition, 1846.** Philadelphia: H. S. Tanner, 1 sheet. ("Entered according to Act of Congress, the 2nd day of April, 1832, by H.S. Tanner, of the State of Pennsylvania.")
- The northwestern portion of the country (today's American Southwest) is simplified from Humboldt's maps (without specific credit). "Rio Colorado" is shown generally, and at the confluence of "Rio Jaquesila" is the label, "**Puerto Bucarello**" (Puerto de Bucareli).
- NOTE:* The principal features of the frequent new editions of this map were to display changing political boundaries.
- 1846 25.1069 **A map of the United States of Mexico, As organized and defined by the several Acts of the Congress of that Republic, Constructed from a great variety of Printed and Manuscript Documents, by H. S. Tanner. Third edition, 1846.** New York: H. S. Tanner, 1 sheet. ("Entered according to Act of Congress in the year 1846, by H.S. Tanner, in the Clerks Office of the District Court for the Southern District of New York.") ("Published by H. S. Tanner," [*Philadelphia address mostly obliterated on plate*].)
- The northwestern portion of the country (today's American Southwest) is simplified from Humboldt's maps (without specific credit). "Rio Colorado" is shown generally, and at the confluence of "Rio Jaquesila" is the label, "**Puerto Bucarello**" (Puerto de Bucareli).
- NOTE:* The principal features of the frequent new editions of this map were to display changing political boundaries.

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

Wyld, James

- 1846 25.2066 **Mexico[,] the British Possessions in North Ameica and the United States. London. Published by J^{as} Wyld, Geographer to the Queen, Charing Cross East. 1846.** ("James Wyld, Geographer to the Queen and to H.R.H. Prince Albert, Charing Cross, East, four doors from Trafalgar Square, London".) (London, James Wyld Charing Cross.") ("London, James Wyld, 5 Charing Cross.")
- ▶ "California" and "Sonora" are separated by "Gulf of California". "Rio Colorado" is depicted on a more or less straight northeast-southwest course between the head of the gulf and the confluence of "R. Nabajoa" (San Juan River) and "R. Zaguuanas". "R. Jaguesila" (Little Colorado River) is a tributary from the east, and at its confluence with the Colorado is the label "**Puerto de Bucarelli**" (Puerto de Bucareli). A river (not labeled; Bill Williams River) is tributary to the lower Colorado River from the east. A river (not labeled) with headwater forks is tributary to the lower Colorado farther south. "R. Gila" is tributary to the Colorado from the east just before the Colorado reaches the gulf. Unusually, "R. de las Pyramides" is depicted as a southwest-flowing stream (west of "R. Jaguesila"), turning to the west to become "R. de S: Felipe" that enters one of the "Tule Lakes" west of the "Californian Mountains", although the lakes seem to be added without much correcting or removal of preexisting stream courses.

1847

Disturnell, J. [Disturnell, John]

WHEAT III:540

- 1847 25.36 **Mapa de los Estados Unidos de Méjico, segun lo organizado y definido por las varias actas del Congreso de dicha República: y construido por las mejores autoridades. Lo publican J. Disturnell, 102 Broadway. Nueva York. 1847. Revised Edition. [In Spanish.]**
- ▶ "Rio Colorado" is drawn in uncertainly; upstream from the confluence with "Rio Jaquesita" (Little Colorado River) its name is shown as "Rio Zaguuanas". At the confluence of Jaquesita is a place symbol labeled "**P. Bucaretti**" (Puerto de Bucareli). Between Jaquesita and "R. S. Maria" (Bill Williams River), the Colorado's course is foreshortened along a south-southwest heading and receives mid-way "Rio Virgin", which flows some distance from the west-northwest to the Colorado (after having turned from a southwesterly course at the confluence of an unnamed tributary (Las Vegas Wash) that heads at "Vegas". At the latitude of the confluence of "R. S. Maria" and some distance west of it, a short, disjointed river, without definite headwater or confluence, "R. de los Martires", flows parallel to the Colorado.

Doolittle and Munson [firm] [Doolittle, Curtis Miller, AND Munson, Samuel Bishop]

WHEAT III:542

- 1847 25.1292 **New map of the United States and Mexico exhibiting the whole country from the Atlantic to the Pacific Ocean together with the Canadas & West India Islands. Published by Monk & Sherer College Buildings Cincinnati. 1847.** ("Drawn & Engraved by Doolittle and Munson. Lettering by Ed. O. Reed [Edwin O. Reed], Cincinnati, O.")
- ▶ The Gila River boundary between the U.S. and Mexico is shown. The head of the "Gulf of California" is drawn on a north-south line, tapering as like a simple estuary with the "Rio Colorado" coming directly to it on a straight course from the north. A very prominent, north-south oriented "I. de Ignacio" is shown at the head of the gulf. The Colorado is depicted from the confluence of "R. Gila" along a slightly meandering course crossing the Southwest from the northeast, from the confluence of the "Green R." and a short river (not labeled) coming from the south and east. "Grand R." is shown as a tributary to the Green coming due west from "Old Park" in northern "Texas". The Colorado receives as

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

tributaries "R. Nabajoa" (San Juan River) and "Jaquesila R." (Little Colorado River), with at the confluence of the latter is the place name "**P. Bacarelli**" (Puerto de Bucareli). Between that confluence and the confluence of "Virgin R." (which comes to the Colorado from the northwest) are a short river (not labeled) from the north-northwest and a short river (not labeled) from the east. "R. Maria" (Bill Williams River) is also shown.

Ensigns and Thayer [firm]

- 1847 25.2221 **Pictorial Map of the United States 1847 Published by Ensigns, & Thayer, 36 Ann Street, New York.** ("Drawn & Engraved by J. M. Atwood, New York.") ("Entered according to Act of Congress in the year 1847 by Phelps, Ensigns & Thayer, in the Clerks Office of the District Court for the southern District of New York.")
- BROADSIDE format wall map, with the map centered and pictorial vignettes of U.S. history surrounding it. The sheet notes, "Printed by Miller & Boyle, N^o 102[?] Broadway, N.Y."
- "Rio Colorado" (labeled on its lower course) and "Rio Colorado of California" (labeled on its upper course) is delineated between the head of "Gulf of California" and the confluence of "Green R." and "Grand R." Its course follows an effectively straight southwest course, receiving the tributaries "R. San Juan" from the east, "Sevier R." from the north-northwest, "Rio Jaquesita" (Little Colorado River) from the east (with "**Bucaretti**" [Puerto de Bucareli] positioned as a point-place at the confluence, which was so shown presumably mistaking it as one of the campsites of the Domínguez-Escalante expedition in as much as "St Bartolomo" is shown as a point-place just upstream and "concepcion" at the San Juan confluence). Farther downstream the Colorado receives "Rio Virgin" from the north and northwest, an unlabeled river from the east (Bill Williams River), "Mohave R." from the west-northwest, and "R. Gila" from the east and northeast. At the confluence of the Gila are "S. Pedro" on the west and "S. Pablo" on the east.

Hutawa, Julius

- 1847 25.1304 **Map of Mexico[,] New Mexico, California & Oregon Compiled for Chambers & Knapp from the latest authorities and revised and corrected by Officers of the U.S. Army, engaged in the various expeditions against Mexico, and Lith^o expressly for the Missouri Republican, by Jul^s Hutawa Lithographic Estbl^t Second St N 45 St. Louis, Mo.** ("Supplement to the Missouri Republican Oct. 1st 1847 S^t Louis, Mo".)
- WHEAT III:547
- "Lower California" is separated from "Sonora" and "Sinaloa" by "Gulf of California". "Rio Colorado" is shown between the head of the gulf and headwater rivers, the only one of which labeled is "Green R." After receiving two tributaries (not labeled), one of them being the Grand River, the Colorado turns sharply to the south and follows a mostly south-southeastward course to the confluence of a river from the east (not labeled; Bill Williams River?, although depicted as heading near the pueblo of Zuni) before turning southwestward directly to the gulf. "R. Nabajoa" (San Juan River) and "R. Jaquesila" (Little Colorado River" are shown as tributaries from the east. At the confluence of R. Jaquesila is the label "**Puerto Bucarello**" (Puerto de Bucareli). "Rio Virgin" is shown as a disjointed stream without definite headwater or confluence, and a stream (not labeled) heading at "Vegas" (Las Vegas Wash) is shown on an eastward course before turning north toward the Rio Virgin and for a while flowing parallel to it. Both of these latter streams are a considerable distance from the Colorado. Between them and the Colorado is another short, disjointed stream on a northeast-southwest course, likewise without definite headwater or confluence. "Rio Gila" is a tributary from the east some distance north of the head of the gulf.

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

Tanner, H. S. [Tanner, Henry Schenck]

WHEAT III:554

- 1847 25.1231 **A Map of the United States of Mexico, As organized and defined by the several Acts of the Congress of that Republic, Constructed from a great variety of Printed and Manuscript Documents by H. S. Tanner. Fourth edition, 1847.** New York: H. S. Tanner.
▶ "Lower California" and "Sonora" are separated by "Gulf of California". "Rio Colorado" is depicted between the head of the gulf and the confluence of "R. Zaguánas" and "Rio Nabajoa" (San Juan River). Other tributaries are "Rio Jaquesila" (Little Colorado River), "R. S. Maria" (Bill Williams River), and "Rio Gila". The confluence of the Little Colorado is marked "**Puerto Bucarello**" (Puerto de Bucareli).

NOTE: The principal features of the frequent new editions of this map were to display changing political boundaries.

WHEAT III:555

- 1847 25.1232 **A Map of the United States of Mexico, As organized and defined by the several Acts of the Congress of that Republic, Constructed from a great variety of Printed and Manuscript Documents by H. S. Tanner. Fifth edition, 1847.** New York: H. S. Tanner.
▶ "Lower California" and "Sonora" are separated by "Gulf of California". "Rio Colorado" is depicted between the head of the gulf and the confluence of "R. Zaguánas" and "Rio Nabajoa" (San Juan River). Other tributaries are "Rio Jaquesila" (Little Colorado River), "R. S. Maria" (Bill Williams River), and "Rio Gila". The confluence of the Little Colorado is marked "**Puerto Bucarello**" (Puerto de Bucareli).

NOTE: The principal features of the frequent new editions of this map were to display changing political boundaries.

1848

Colton, J. H. [Colton, Joseph Hutchins]

- 1848 25.2213 **Map of the United States of America, the British Provinces, Mexico and the West Indies. Showing the Atlantic to the Pacific Ocean. Published by J. H. Colton No. 86 Cedar St. New York 1848.** ("Drawn and Engraved by Sherman & Smith New-York".) ("Entered according to Act of Congress, December, in the year 1846, by Joseph H. Colton, in the Clerks Office of the District Court for the Southern District of New York.")
Case map.

▶ The Colorado River, labeled "R. Colorado" on its lower course, "Rio Colorado of the Gulf of California" on its upper course, is delineated in an effectively straight course between the "Gulf of California" and the confluence of "Green R." and "Grand or Colorado R.", although by the labeling it is difficult to ascertain that the Green continues through the reaches where it receives numerous tributaries, the larger ones of which could be construed to be the main stream that meets the Grand. En route to the gulf from the Green-Grand confluence the Colorado receives an unlabeled tributary from the north-northwest, "Sevier River" from the northwest, "R. Nabajoa" (San Juan River) from the east, "R. Yaquisilla" from the east (with at its confluence the label "**Pto Bucarelli**" [Puerto de Bucareli]), an unlabeled tributary from the north (which has a tributary to it in turn that extends from an unlabeled lake to the west), "R. San Maria" (Bill Williams River) from the east-northeast, "Rio Virgen" from the north and northwest (the confluence far too far south), and "R. Gila" from the east-northeast.

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

1849

Colton, J. H. [Colton, Joseph Hutchins]

1849 25.1547 **Map of the United States of America, The British Provinces, Mexico, the West Indies and Central America with part of New Granada and Venezuela. New York, Published by J. H. Colton, No. 86 Cedar St. 1849.** ("Map Drawn by Geo. W. Colton.} Engraved by John M. Atwood.} Border Desig^d & Eng^d by W. S. Barnard.} New York." [George Woolworth Colton, Joseph Hutchins Colton, William S. Barnard].) ("Entered according to Act of Congress in the year 1848 by J. H. Colton in the Clerks Office of the District Court for the Southern District of New York.")

▶ "Rio Colorado of the Gulf of California" is depicted effectively on a straight southwesterly course through "Upper or New California", from the confluence of "Green R." (though labeled only on its farthest headwater) and "Grand or Colorado R." to the head of "Gulf of California" that separates "California" from "Sonora". "R. Gila" arrives independently from the east-northeast at the same point as which the Colorado arrives at the gulf. The head of the gulf there is depicted rather peculiarly, with two heads to accommodate the two rivers, between which is a small "I. Tomas". The narrow gulf then reaches a short distance to the south-southwest before turning due east for a short distance before reaching "I. Gore" and "Montagu I." at the proper mouth of the Colorado. The gulf itself correctly extends northwest-southeast. En route to the gulf, the Colorado receives the tributaries "R. Nabajoa" (San Juan River) from the east-southeast, "R. Yaquisilla" (Little Colorado River) from the east, a river (not labeled) from the northwest (which in turn shows two forks, one from the north-northeast, the other from the west that heads in a lake), "R. San Maria" (Bill Williams River) from the east-northeast, and (downstream from the Bill Williams) "Rio Virgen" from the north and northwest (which itself receives three tributaries from the northwest). At the Yaquisilla confluence is the label "**p^{to} Bacarelli**" (Puerto de Bucareli).

Ensigns and Thayer [firm]

WHEAT II:609 [with illustration facing p. 69]

NO DATE 25.698 **Map of the Gold Regions of California. Showing the Routes via Chagres and Panama, Cape Horn, &c.** ("Published by Ensigns & Thayer, 50 Ann Street New-York.") [1849.]

▶ This is a large sheet with much textual material in its lower part. The map area is divided between a map of the Americas and a detail map of the western portion of the continental United States. In "Upper or New California", which embraces much of today's California, Nevada, Utah, and Arizona, the Colorado River is shown only generally, tracing northeast to southwest; in its lower course it is labeled "Rio Colorado", in its upper course below the confluence of "Green R." and "Grand R." it is labeled "Rio Colorado of California". The Colorado passes off the map to the south at the confluence of "R. Gila" at "S. Pedro" and "S. Pablo". "R. San Juan" and "Rio Jaquesita" (Little Colorado River) are tributaries from the east. Between these two confluences is the confluence of "Sevier R", which is shown striking the Colorado from the northeast after having looped wholly around from where it is shown as a north-flowing river with headwaters at "Vegas de Sa. Clara". These headwaters are also the headwaters of the southwest-flowing "Rio Virgen", which in turn arcs to the southeast to join the Colorado. At the confluence of "Rio Jaquesita" is the place name, "**Bucuretti**" (Puerto de Bucareli). On the separate map of the Americas, in "California", "R. Colorado" is shown very generally on a southwesterly flowing course; its only headwater is "S. Raphael R.", with tributaries "R. Nabajoa", "R. Jaguesila", and "R Gila" (labeled in its headwater "Gila R."

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

Lowry, J. Wilson

- 1849 25.2020 **Central America.** ("Engraved by J. Wilson Lowry".) ("London—Published by Chapman and Hall 186 Strand—1848".) ("Continental Series".)
In: Sharpe's corresponding atlas, comprising fifty-four maps, constructed upon a system of scale and proportion, from the most recent authorities. Engraved on steel by Joseph Wilson Lowry. With a copious consulting index. London: Chapman and Hall. [Map No. 44.]
Despite its title, the map also includes the entirety of the (modern) United States and southernmost Canada.
▶ "R. Colorado" is delineated between "G. of California" and a single-streamed headwater southwest of "Utah L."; its course is effectively straight to the south-southwest. Enroute it receives the tributaries "R. Nabajoa" (San Juan River) from the east, "R. Jaquesila" (Little Colorado River) from the east, "R. Pyramid" from the northwest (with "R. Virgen" a tributary to it in turn with the Virgin's lower course depicted by a dashed line), "R. S. Martin" (Bill Williams River) from the east-northeast, and "R. Gila" from the east-northeast. At the confluence of the Little Colorado is a labeled place-name, "**P. Bucarelli**" (Puerto de Bucareli). Regarding the Rio Pyramid, this is a most unusual depiction even of that mythical stream, the so-called and misunderstood river of the sulfurous pyramids, made all the more peculiar in that the Virgin River is supposed to be a tributary to it.

Rapkin, J. [Rapkin, John]

- NO DATE 25.1656 **Mexico, California and Texas.** ("The Illustrations by H. Warren, & Engraved by J. Rogers.") ("J. & E. Tallis, London, Edinburgh & Dublin.") ("The Map Drawn & Engraved by J. Rapkin.") [1849.]
▶ The peninsula, "Lower California", is separated from "Sonora" by "Gulf of California". "R. Colorado" is depicted between the head of the gulf and the confluence of "Green R." and "R. Grand", although the Green is labeled only on a headwater branch. From the confluence of "R. Nabajoa" (San Juan River) from the east, the river follows a southwestward course to the supposed confluence of the "Sevier R." (depicted by a dotted line) from the north-northeast, where it turns south-southwest to the confluence of "R. Yaquesila" (Little Colorado River) from the east, following that course to the confluence of "R. Virgen" from the northwest", then turning more southward toward the gulf, receiving en route "R. S. Maria" (Bill Williams River) from the east-northeast and, closer to the gulf, the supposed course of the "Mohave R." (depicted by a dashed line) from the northwest, the finally "R. Gila" from the east-northeast. At the confluence of Yaquesila is a place-name symbol labeled "**P^{to} Bucarelli**" (Puerto de Bucareli).
NOTE: There are variants of this map, which although different only in notational elements and ornamental vignettes, may be noted in catalogs or online offerings as 1849, 1850, or 1851, not always with assurance that the cited version is the correct date.

Schmölder, B. [Schmölder, Bruno]

- NO DATE 25.1018 **Neueste Special-Karte der westlichen u. südlichen Theile von Nord Amerika. Die neuesten Gebiete der Union und die Vereinigten Staaten von Mexico. aus den neuesten Quellen veröffentlicht durch M^o Landrath Cap^t B. Schmölder in Californien.** ("Lithogr. bei M. Frommann in Darmstadt.") [In German.]
WHEAT III:566 [1848]
Caption: "Zumpract. Wegweiser für Auswanderernach Nord-Amerika. *Zuhaben-in Darmstadt bei M. Frommann, in Worms bei Steinkühl & Schmith, in New-York in der Redaction der „Deutschen Schmeltpost“ in New-Orleans i. d. R. d. „Deutschen Couriers“ in S^t Louis i. d. R. d. „Anzeiger des Westen“ und bei Franksen & Wösselhöf in San Francisco Ober Californien bei der Germania-Compagnie.*" [1849.]

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

This map accompanied various eds. of Schmölder's *Neuer praktischer Wegweiser für Auswanderer nach Nord-Amerika in drei Abtheilung mit Karten, Plänen und Ansichten* (Mainz: Le Roux'sche Hofbuchhandlung).

► "Rio Colorado" is depicted along an essentially straight course between "Golf von Californien" and "Rio Jaquesito" (Little Colorado River). Upstream from that confluence the river is labeled "Rio Zaguunanas" [sic], to which "Green R." is a tributary. The confluence of the Little Colorado and Colorado is labeled "**P. Bucaretti**" (Puerto de Bucareli). "Rio Virgin" is depicted as a tributary to the Colorado from the west. "Rio de los Martires" is depicted west of and nearly parallel to the Colorado as a short river without headwater or confluence.

Tanner, H. S. [Tanner, Henry Schenck]

WHEAT III:647 [with illustration facing p. 85]

1849 25.700 **Map of California[,] New Mexico[,] Texas &c**: New York: H. S. Tanner, folded map in case with case title, **Tanner's Travelling Map of California &c[.]**

► "Rio Colorado" is labeled for that part of the river between "Gulf of California" and the confluence of either "Rio Jaquesila" (Little Colorado River) or "Rio Nabajoa" (San Juan River). Between Rio Nabajoa and the confluence of "Green R." and "Grand R." the river is labeled "R. Zaguunanas". At the confluence of Rio Jaquesila is marked "**Puerto Bucarello**" (Puerto de Bucareli).

Wilkes, Charles

WHEAT II:458 [with illustration between pp. 176/177]

1849 25.947 **Map of Upper California by the U.S.Ex.Ex. and best authorities 1841**. *In: United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Vol. V.* Philadelphia: [Lea and Blanchard], 558 pp., plates. [Map faces p. 151.]

► This map portrays the "R. Colorado" imaginatively and notes "**Pto. Bucarelli**" (*i.e.* Puerto de Bucareli) at the confluence of "R. Yaquesila" (*i.e.* Little Colorado River). Below the confluence of "R. Gila" the river divides to pass around "Algodones I." (*i.e.* at the river delta) but the gulf is not shown.

Wyld, James

WHEAT III:657

1849 25.699 **Map of the gold regions of California compiled from original surveys by James Wyld geographer to the Queen and Prince Albert**. London: James Wyld.

► "Rio Colorado" is shown only conjecturally between an area north of "R. Nabajoa" (San Juan River) and the head of the Gulf of California (not labeled). Near the confluence of "R. Yaquesila" (Little Colorado River) is labeled "**Pto. Bucarelli**" (Puerto de Bucareli).

1850

Colton, J. H. [Colton, Joseph Hutchins]

1850 25.1548 **Map of the United States of America, The British Provinces, Mexico, the West Indies and Central America with part of New Granada and Venezuela**. New York, Published by J. H. Colton, No. 86 Cedar St. 1850. ("Map Drawn by Geo. W. Colton.} Engraved by John M. Atwood.} Border Desig^d & Eng^d by W. S. Barnard.} New York." [George Woolworth Colton, Joseph Hutchins Colton, William S. Barnard].) ("Entered according to Act of Congress in the year 1848 by J. H. Colton in the Clerks Office of the District Court for the Southern District of New York.")

► This map is significantly revised from the 1849 ed. (ITEM NO. 25.1547). "Rio Colorado" is shown between the head of "Gulf of California" (that separates "California" from "Sonora") and the confluence of "Rio Virgin" following an effectively due south course until reaching the confluence of "R. Gila" (from the east), whereafter it flows southeast to the head of the gulf. The head of the gulf

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

remains the same as in the 1849 ed.: The head of the gulf there is depicted rather peculiarly, with two heads, between which is a small "I. Tomas". The narrow gulf then reaches a short distance to the south-southwest before turning due east for a short distance before reaching "I. Gore" and "Montagu I." at the proper mouth of the Colorado. The gulf itself correctly extends northwest-southeast. In the area more toward headwaters, the principal confluence of the Grand and Green Rivers is confused by correctly labeling "Grand R." but labeling the Green as "Rio Colorado", even though the label "Green R." still appears on its farthest headwater. The Colorado still flows through the area labeled "Upper or New California". En route to the gulf, the Colorado receives the tributaries "S^t Johns R. from the east (San Juan River, of which one of its two headwater forks is labeled "R. S. Juan), "R. Yaguisilla" (Little Colorado River) from the east (the label for Puerto de Bucareli has been removed), a river (not labeled) from the northwest that at its headwater comes from a lake to the west, "Rio Virgen" (which flows southward before turning due east to the Colorado, still receiving tributaries from the northwest), and "R. San Maria" (Bill Williams River) from the northeast.

Disturnell, J. [Disturnell, John]

WHEAT III:669

1850 25.1325 **Mapa de los Estados Unidos de Méjico, California &c. Segun lo organizado y definido por las varias actas del Congreso de dicha República: y construido por las mejores autoridades. Lo publican J. Disturnell, 157 Broadway. (Nueva York.) 1850. Revised Edition. [In Spanish.]**

► "Rio Colorado" is drawn in uncertainly; upstream from the confluence with "Rio Jaquesita" (Little Colorado River) its name is shown as "Rio Zaguuanas". At the confluence of Jaquesita is a place symbol labeled "**P. Bucaretti**" (Puerto de Bucareli). Between Jaquesita and "R. S. Maria" (Bill Williams River), the Colorado's course is foreshortened along a south-southwest heading and receives mid-way "Rio Virgin", which flows some distance from the west-northwest to the Colorado (after having turned from a southwesterly course at the confluence of an unnamed tributary (Las Vegas Wash) that heads at "Vegas". At the latitude of the confluence of "R. S. Maria" and some distance west of it, a short, disjointed river, without definite headwater or confluence, "R. de los Martires", flows parallel to the Colorado.] [Note that this map, in the area of interest here, replicates the 1847 Disturnell ed. (ITEM NO. 25.36) but varies substantially from the 1850 Disturnell map cited as ITEM NO. 25.1324 in THE GRAND CANON Volume 2.

Magnus, Charles

WHEAT III:679

1850 25.1322 **Map of the United States of America[,] The British Provinces, Mexico, the West Indies and Central America. Published by Charles Magnus. New York.**

► "Rio Colorado" is depicted very generally between the head of "Gulf of California" and the confluence of "Green" and "Grand R." (likely mislabeled). South of that confluence, to a tributary coming from the east labeled "Red R.", the main stream is labeled both "Zaguuanas" [*sic*] and "Rio Colorado". South of there the San Juan River enters from the east, labeled both "Nabajoa" and "S^t Juan R." South of there in turn is the tributary "Jaquesito" (Little Colorado River), and a short distance downstream from that point is a place marker labeled "**P. Bucarette**" (Puerto de Bucareli). The Colorado turns from the Little Colorado to the southwest until receiving "Virgin R." and turning again southward and follows an effectively straight course to the gulf, receiving on the way "R. S. Maria" (Bill Williams River), which comes from the northeast, and "Rio Gila".

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

Rapkin, J. [Rapkin, John]

- NO DATE 25.1960 **Mexico, California and Texas.** ("The Illustrations by H. Warren, * Engraved by J. Rogers.") ("The Map Drawn & Engraved by J. Rapkin.") ("John Tallis & Company, London & New York.") [1850.]
- The peninsula, "Lower California", is separated from "Sonora" by "Gulf of California". "R. Colorado" is depicted between the head of the gulf and the confluence of "Green R." and "R. Grand", although the Green is labeled only on a headwater branch. From the confluence of "R. Nabajoa" (San Juan River) from the east, the river follows a southwestward course to the supposed confluence of the "Sevier R." (depicted by a dotted line) from the north-northeast, where it turns south-southwest to the confluence of "R. Yaquesila" (Little Colorado River) from the east, following that course to the confluence of "R. Virgen" from the northwest", then turning more southward toward the gulf, receiving en route "R. S. Maria" (Bill Williams River) from the east-northeast and, closer to the gulf, the supposed course of the "Mohave R." (depicted by a dashed line) from the northwest, the finally "R. Gila" from the east-northeast. At the confluence of Yaquesila is the label "**Pto. Bucarelli**" (Puerto de Bucareli).
- NOTE:* There are variants of this map, which although different only in notational elements and ornamental vignettes, may be noted in catalogs or online offerings as 1849, 1850, or 1851, not always with assurance that the cited version is the correct date.

Tanner, H. S. [Tanner, Henry Schenck]

WHEAT III:695

- 1850 25.1233 **A Map of the United States of Mexico, As organized and defined by the several Acts of the Congress of that Republic, Constructed from a great variety of Printed and Manuscript Documents by H. S. Tanner. N^o201 Broadway, N. York. 1850.**
- "Lower California" and "Sonora" are separated by "Gulf of California". "Rio Colorado" is depicted between the head of the gulf and the confluence of "R. Zaguuanas" and "Rio Nabajoa" (San Juan River); farther north, "Grand R." is a tributary to the Zaguuanas, and "Green R." seems to be a tributary to the Grand. Other tributaries are "Rio Jaquesila" (Little Colorado River), "R. S. Maria" (Bill Williams River), and "Rio Gila". The confluence of the Little Colorado is marked "**Puerto Bucarello**" (Puerto de Bucareli).

Wyld, James

- NO DATE 25.2219 **Map of North America Exhibiting the recent Discoveries, Geographical and Nautical; Drawn chiefly from the Authorities of M. de Humbolt, Lieut! Pike, Mess^{rs} Lewis and Clarke, Sir Alex! Mackenzie, M! Hearne, Col! Bouchette, Capt^{ns} Vancouver, Ross, Parry, Franklin & Back. also describing the boundary lines between the Territories of Great Britain[,] the United States, and the Mexican and Central States. London Published by Jas^s Wyld, (successor to W. Faden) N^o 5 Charing Cross. Geographer to Her Majesty. [Ca. 1850.]**
- "Rio Colorado" is delineated between the head of the "Gulf of California" and the confluence of "R. Zaguuananos" (Green River) and "R. Nabajoa" (San Juan River). From there it receives the tributaries "R. Jaguesila" (Little Colorado River) from the east (at the confluence of which is labeled "**Puerto de Bucarelli**" (Puerto de Bucareli), an unlabeled tributary from the east (Bill Williams River?), an unlabeled tributary from the west-northwest (the supposed Mohave River?), and "R. Gila" from the east-northeast. At the confluence of the Gila are the place names "S. Pablo" on the west and "S. Parblo" [sic] on the east, just downstream from which is labeled "Ford", with a line crossing the Colorado. The map includes the route and campsites of the Domínguez-Escalante expedition.

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

1851

George Philip and Son [firm]

- 1851 25.1019 **Mexico & Texas.** ("Printed by J. Gellatly, Edin:.") *In: Philips' new general atlas : comprehending seventy four maps and charts, delineating the natural and political divisions of the empires, kingdoms, and states of the world : constructed from most recent authorities.* Liverpool: George Philip and Son. [This is map 58.]
- ▶ "Colorado R." is depicted more or less in a straight course between the "Gulf of California" and the confluence of "R. Nabojoa S. Juan". At the confluence of "R. Jaquesila" the Colorado is labeled "R. Colerado", where also is the label "**Puerto de Bucarelli**" (Puerto de Bucareli). "Virgin R." is shown as a tributary from the west, and, near its confluence with the Colorado, "R. de los Martyres is shown as a tributary to the Virgin. In the lower reach of the Colorado, a dashed line represents a tributary from the west labeled "Inconstant R."

Rapkin, J. [Rapkin, John]

- NO DATE 25.1657 **Mexico, California and Texas.** ("The Illustrations by H. Warren, & Engraved by J. Rogers.") ("J. & E. Tallis, London, Edinburgh & Dublin.") ("The Map Drawn & Engraved by J. Rapkin.") [1851.]
- ▶ The peninsula, "Lower California", is separated from "Sonora" by "Gulf of California". "R. Colorado" is depicted between the head of the gulf and the confluence of "Green R." and "R. Grand", although the Green is labeled only on a headwater branch. From the confluence of "R. Nabajoa" (San Juan River) from the east, the river follows a southwestward course to the supposed confluence of the "Sevier R." (depicted by a dotted line) from the north-northeast, where it turns south-southwest to the confluence of "R. Yaquesila" (Little Colorado River) from the east, following that course to the confluence of "R. Virgen" from the northwest", then turning more southward toward the gulf, receiving en route "R. S. Maria" (Bill Williams River) from the east-northeast and, closer to the gulf, the supposed course of the "Mohave R." (depicted by a dashed line) from the northwest, the finally "R. Gila" from the east-northeast. At the confluence of Yaquesila is the label "**Pto. Bucarelli**" (Puerto de Bucareli).
- NOTE:* There are variants of this map, which although different only in notational elements and ornamental vignettes, may be noted in catalogs or online offerings as 1849, 1850, or 1851, not always with assurance that the cited version is the correct date.

Rosa

- 1851 25.740 **Mapa de los Estados Unidos Mejicanos arreglado a la distribucion que en diversos decretos ha hecho del territorio el Congreso General Mejicano.** Paris, 1837. Publicado por Rosa. [No imprint], 1 sheet. [In Spanish.]
- ▶ Mexico includes that portion of what is now the southwestern United States, its northern border with "Oregon Tierra". "Rio Colorado" is portrayed along a fairly straight course between "Golfo de California" and the confluence of "Rio Zaguuanas" (Green River) and "Rio Nabajoa" (San Juan River). At the confluence of "Rio Jaquesila" (Little Colorado River) and the Colorado is labeled "**Puerto Bucarello**" (Puerto de Bucareli).
- In the area pertinent to this Cartobibliography, the geography on this map is identical to the 1837 ed. (ITEM NO. [25.739](#))

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

1852

Grässl, J.

- 1852 25.1081 **Vereinigte Staaten von Nord-America: Californien, Texas und die Territorien New Mexico u. Utah Nach den neuesten Hilfsmitteln gezeich. von J. Grässel. 1852. [In German.]**
Map caption: "Meyers Zeitungs-Atlas", "Nº 120".
▶ "Rio Colorado" is depicted only generally between "G. of California" (in English) and headwaters. Its upper reach is labeled "Rio Zagagnanas", to which "Green R." is a tributary from the north and east. A minor tributary (not labeled) to the Green from the east may be the Grand River. At the confluence of the "Rio Jaquesita" (Little Colorado River) is a place marker for "**P. Bucaretti**" (Puerto de Bucareli). A very prominent, but confused and unlabeled tributary to the Colorado from the northwest is the Virgin River; and trapped between it and the Colorado/Zagagnanas is a straight-lined river without discernable headwater or outlet, labeled "R. of the Sulphurous Pyramids" (in English).

Monk, Jacob

WHEAT III:757

- 1852 25.1268 **New map of that portion of North America, exhibiting the United States and territories, the Canadas, New Brunswick, Nova Scotia, and Mexico, also, Central America, and the West India Islands. Compiled from the most recent surveys, and authentic sources.** Baltimore, Maryland: Jacob Monk.
▶ "Rio Colorado" is depicted between "Gulf of California" and confluence of "Green River" and "Grand River", passing almost due-North/South between the confluence of "R. Virgen" and the gulf, and shown along a generalized arc through the Grand Canyon region between the Virgen and "Red River" (Little Colorado River). Just south of the confluence of the Little Colorado is the label, "**S. Bacarelli**", which is Puerto de Bucareli and which seems to have been relegated to the missionary place names that appear on many of the maps of this and earlier periods.

Society for the Diffusion of Useful Knowledge

- 1852 25.1073 **North America Sheet XV Utah, New Mexico, Texas, California, &c. and the northern states of Mexico.** ("Published under the Superintendence of the Society for Diffusion of Useful Knowledge". "J. & C. Walker Sculp!")
▶ Labels include "Gulf of California Discovered in 1534, and called the Sea of Cortes". "R. Colorado" is shown conjecturally between the gulf and the confluence of "Green R." and "R. Grand". Tributaries to the Colorado are, from north to south, "R. Nabajoa" (San Juan River) from the east, "Sevier R." (imaginary, reaching the Colorado from the north, including a dotted-line reach in its mid-course labeled "Probable Course"), "R. Yaquesila" (Little Colorado River, from the east), "Rio Virgin" (from the northwest), "R. S. Maria" (Bill Williams River, from the northeast), and "R. Gila" (from the east). At the confluence of the Colorado and Yaquesila is a point location labeled "**Pto. Bucarelli**" (Puerto de Bucareli).
NOTE: For 1853 ed. see Cox (ITEM NO. [25.1074](#)).

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

1853

Cox, George

WHEAT III:777

- 1853 25.1074 **North America Sheet XV Utah, New Mexico, Texas, California, &c. and the northern states of Mexico.** ("Published under the Superintendence of the Society for Diffusion of Useful Knowledge". "London, George Cox, Jan^y. 1st. 1853". "J. & C. Walker Sculp^t.")
- ▶ Labels include "Gulf of California Discovered in 1534, and called the Sea of Cortes". "R. Colorado" is shown conjecturally between the gulf and the confluence of "Green R." and "R. Grand". Tributaries to the Colorado are, from north to south, "R. Nabajoa" (San Juan River) from the east, "Sevier R." (imaginary, reaching the Colorado from the north, including a dotted-line reach in its mid-course labeled "Probable Course"), "R. Yaquesila" (Little Colorado River, from the east), "Rio Virgin" (from the northwest), "R. S. Maria" (Bill Williams River, from the northeast), and "R. Gila" (from the east). At the confluence of the Colorado and Yaquesila is a point location labeled "**P^{to} Bucarelli**" (Puerto de Bucareli).

NOTE: For 1852 ed. see Society for the Diffusion of Useful Knowledge (ITEM NO. [25.1073](#)). Only political boundaries vary.

Chapin, William

- 1853 25.1222 **The Western States and Territories.**
- INSET ON:** *Steel Plates. Chapin's Ornamental Map of the United States with the New Western Possessions.* ("New York, Published by Horace, Thayer & Co. 1853.")
 - ▶ "Lower Cali[ornia]" and "Mexico" are separated by "G. of [California]" (*the names are occluded by an oval ornamental portrait of Millard Fillmore*). "Rio Colorado" is drawn on a nearly north-south course between the head of the gulf and south of the New Mexico-Utah boundary, beyond which it traces a nearly straight northeast-southwest course from headwaters, of which only "Grand R." is labeled. "S^t. Johns R." (San Juan River) is shown as a relatively minor tributary from the northeast, with its Colorado confluence just north of the territorial boundary. The Little Colorado River is absent(!), although two place names (as missions?) are indicated in the general region, "Jaquestrele" [*sic*] and "**Bucaretti**" (Puerto de Bucareli). A river (not labeled) reaches the Colorado from the northeast arcing to the southeast, which is the Virgin River. "Mohavo R." [*sic*] is shown as a tributary to the lower Colorado from the northwest. "R. Gila" is shown as a tributary from the east, reaching the Colorado north of the gulf.

1854

Colton, J. H. [Colton, Joseph Hutchins]

- 1854 25.649 **Colton's map of the United States of America, the British provinces, Mexico and the West Indies. (Showing the country from the Atlantic to the Pacific Ocean.)** New York: J. H. Colton, 1 sheet.
- ▶ New Mexico (territory) southern boundary with Mexico shown at the Gila River. "Rio Colorado of the Gulf of California" is drawn in conjecturally in the Grand Canyon region and notes "**P^{to}. Bucarelli**" (Puerto de Bucareli) at the confluence of that river with "R. Yaquisilla" (Little Colorado River). The Green River in Utah is labeled "Rio Colorado", although farther upstream "Green R." and "Yampa River" are confusingly labeled on the same stream.]

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

Magnus, Charles

- 1854 25.1323 **Map of the United States of America[,] The British Provinces, Mexico, the West Indies and Central America. Published by Charles Magnus. New York. 1854.**
▶ In the region of interest to this Cartobibliography, this map is identical to the 1850 ed.: "Rio Colorado" is depicted very generally between the head of "Gulf of California" and the confluence of "Green" and "Grand R." (likely mislabeled). South of that confluence, to a tributary coming from the east labeled "Red R.", the main stream is labeled both "Zaguunanas" [*sic*] and "Rio Colorado". South of there the San Juan River enters from the east, labeled both "Nabajoa" and "S^t. Juan R." South of there in turn is the tributary "Jaquesito" (Little Colorado River), and a short distance downstream from that point is a place marker labeled "**P. Bucarette**" (Puerto de Bucareli). The Colorado turns from the Little Colorado to the southwest until receiving "Virgin R." and turning again southward and follows an effectively straight course to the gulf, receiving on the way "R. S. Maria" (Bill Williams River), which comes from the northeast, and "Rio Gila".

1856

Gaston and Johnson [firm]

- 1856 25.1522 **A New Map of Our Country, Present and Prospective Compiled from Government Surveys and other Reliable Sources. Published by Gaston & Johnson, 115 & 117, Nassau Street, New York, 1856. [Variant.]**
▶ "Rio Colorado" is depicted between the "Gulf of California" and the confluence of "Green River" and "Grand River", with a great arc through the region where the Grand Canyon is situated. At the confluence of "Rio Jaquesito" (Little Colorado River) is the label, "**Bucaretti**" (Puerto de Bucareli).
- 1856 25.999 **A New Map of Our Country, Present and Prospective Compiled from Government Surveys and other Reliable Sources. Published by Gaston & Johnson, 115 & 117 Nassau St. New York 1856. ("Engr^d by L. Lipman N.Y.", "Dumcke & Keil, N^o. 12 Frankfort S^t. N.Y.") [Variant.]**
▶ "Rio Colorado" is depicted between the Gulf of California [not labeled] and the confluence of "Green River" and "Grand River". At the confluence of "Rio Jaquesito" (Little Colorado River) is the label, "**Bucaretti**" (Puerto de Bucareli).

1863

Hutawa, Julius

- 1863 25.715 **Map of Mexico & California Compiled from the latest authorities by Jul^s. Hutawa Lith^r. Second St. 45 St. Louis, Mo. 2nd Edition 1863. St. Louis, Missouri: Jul^s. Hutawa. [A reissue of the 1848 2nd ed.] [The date "1863." seems to have been stamped on the copy seen.]**
▶ "Rio Colorado" is drawn on a straight course between the head of the Gulf of California (not labeled) and "R. Jaquesila" (Little Colorado River). At the confluence of the Colorado and Jaquesila is the label "**Puerto Bucarello**" (Puerto de Bucareli). "Rio Virgen" is shown flowing from the northeast, then turning westward to "Vegas", where it ends.
NOTE: Another 1863 version is mentioned with **WHEAT III:562** (the 1848 2nd ed., see **ITEM NO. 25.1836** in **THE GRAND CANON** Volume 2). And a copy seen by Spamer from the Beinecke Library at Yale varies even from that description in that although it has the "1863" overprint it lacks the "New Mexico" overprint mentioned by

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

Wheat (seen by Spamer from another copy at Baylor University as "NEW MEXICO" [sic]). Neither of those copies seen lacks the St. Louis address described by Wheat as "imperfectly erased from the original plate". The political boundaries of the Beinecke map are significantly different as well, retaining the pre-New Mexico delineation. Thus, there are variants even of the 1863 release.

Wyld, James

1864 25.2210 **Republic of Mexico. and Texas.** [Map 48] ("London, James Wyld, Charing Cross.") ("J. W. del.") ("Stockley sc.")

In: An atlas of the world, comprehending separate maps of its various countries. Constructed and drawn from the latest astronomical and geographical observations. By James Wyld, Geographer to Her Majesty, and H. ^{late} R.H. Prince Albert. London: Published by James Wyld, Successor to Mr. Faden.

► "R. Colorado of the West" is delineated between the head of "Gulf of California" and headwaters in "Rocky Mountains"; following an effectively straight southwesterly course, receiving "R. Nabajoa" (San Juan River) from the east, "Jaquesila R." (Little Colorado River) from the east, "R. S. Maria" (Bill Williams River) from the east, and "R. Gila" from the east. At the Little Colorado confluence is the label "**Puerto Bucarelli**" (Puerto de Bucareli). West of the Colorado is a parallel river, which is labeled at its headwater "R. de las Piramides", then depicted by a dashed line until "R. de los Martires" is depicted by a solid line, after which it is again depicted with a dashed line.

1864

Wyld, James

1864 25.2028 **Republic of Mexico. and Texas.** [Map 48] ("London, James Wyld, Charing Cross.") ("J. W. del.") ("Stockley sc.")

In: An atlas of the world, comprehending separate maps of its various countries. Constructed and drawn from the latest astronomical and geographical observations. By James Wyld, Geographer to Her Majesty, and H. ^{late} R.H. Prince Albert. London: Published by James Wyld, Successor to Mr. Faden.

► "R. Colorado of the West" is delineated between the head of "Gulf of California" and headwaters in "Rocky Mountains"; following an effectively straight southwesterly course, receiving "R. Nabajoa" (San Juan River) from the east, "Jaquesila R." (Little Colorado River) from the east, "R. S. Maria" (Bill Williams River) from the east, and "R. Gila" from the east. At the Little Colorado confluence is the label "**Puerto Bucarelli**" (Puerto de Bucareli). West of the Colorado is a parallel river, which is labeled at its headwater "R. de las Piramides", then depicted by a dashed line until "R. de los Martires" is depicted by a solid line, after which it is again depicted with a dashed line.

1872

A. Fullarton and Co.

NO DATE 25.1146 **United States North America. By G. H. Swanston Edin!'** ("A. Fullarton & C^o Edinburgh, London & Dublin." "Eng^d by G. H. Swanston Edinburgh.")

In: The royal illustrated atlas, of modern geography : with an introductory notice by Dr. N. Shaw, Secretary to the Royal Geographical Society &c. London and Edinburgh: A. Fullarton and Co. [1872.]

► "R. Colorado" is depicted between the head of "Gulf of California" and the confluence of "Green R." and "Grand R." It is drawn generally along an arc

MAPPING GRAND CANYON

Puerto de Bucareli (1777–1884)

through the Grand Canyon region. Tributaries are “R. S. Juan”, “Little Colorado R.”, a tributary (not labeled) that is Cataract Creek, “Virgin R.”, “Bill Williams F^k”, and “R. Gila”. Certain point place names are given, including “S^t Bartolome” at the confluence of the Little Colorado River, and “**Bucarelli**” on the south side of the Colorado between the Little Colorado and Cataract Creek, which is of course an old label for Puerto de Bucareli.

1880

Wyld, James

NO DATE 25.2220

Map of North America Exhibiting the recent Discoveries, Geographical and Nautical; Drawn chiefly from the Authorities of Hudson Bay Company’s Officers, the Government Arctic Expedition, and the Surveys of the United Staes & Dominion Governments, also desribing the Boundary Lines between the Territories of Great Britain[,] the United States, and the Mexican and Central States. London Published by Jas^s Wyld, Geographer to the Queen, 11& 12 Charing Cross London, S.W. Geographer to Her Majesty. [Ca. 1880.]

► This post-John Wesley Powell map plots “Lee’s Ferry” and the route of the “Atlantic & Pacific” railroad, which assist dating it to ca. 1880. It also marks “Mineral P^k” (Mineral Park) north of F^t Mohave, which also help date the map later than the early 1870s. “Colorado River” is delineated between “Gulf of California” and the confluence of “Green R.” and “Grand R.” From that confluence the river’s course is southwest, receiving “R. S^t Juan” from the southeast and the Little Colorado River from the east-southeast. The Little Colorado is labeled differently on two branches: “R. Jaguesila” and “R. de Lino”, the latter actually being the main course of the river and on which this map labels the course farther upstream as “Colorado Chiquito.” In the area southwest of the Little Colorado River and east of Cataract Creek (that strikes the Colorado from the southeast, not labeled but shown with its supposed upstream tributaries “Parke Cr.” and “Cedar Cr.”) is the label “**Puerto de Bucarelli**” (Puerto de Bucareli) that implies that this broad part of the plateau is the *puerto*. At the Little Colorado confluence the main Colorado’s course turns to the northwest for some distance before turning again southwest, along which it receives the unlabeled Cataract Creek. At the great turn where would be Diamond Creek (not shown on this map) the river again turns northwest to reach the confluence of “R. Virgin”, before turning briefly southwest to “Colville”, thence south to the gulf. Despite this late date, the course of the Colorado through the Grand Canyon region, tentatively records the course as first implied by Egloffstein, then with suggestions of correction that would have stemmed from the Powell expeditions.

1884

Sohr-Berghaus [Sohr, Karl, AND Berghaus, Heinrich]

1884 25.2047

Sohr-Berghaus Hand-Atlas über alle Theile der Erde. Neu bearbeitet von F. Handtke. 7. Auflage. Ausgabe in 100 Blättern. Glogau: Verlag von Carl Flemming.

See **MAP, Vereinigte Staaten von Nord-Amerika** (4 sheets); specifically, **Vereinigte Staaten, südwest. Blatt.** (“Entw. u. gez. v. F. Handtke.”) [**In German.**]

► “Rio Colorado del Occidente” is labeled on its lower course, “Rio Colorado” on its upper course; delineated between “Meerb. v. Californien” and the confluence of “Green R.” and “Grand R.” Below that confluence the Colorado’s course arcs southwest to south, receiving enroute “San Juan” from the east and southeast, crosses the Utah-Arizona boundary (territories not labeled), then turns due southwest, receiving enroute “Colorado Chiquito” (Little Colorado River) from the southeast and an unlabeled tributary from the

MAPPING GRAND CANYON

Puerto de Bucareli (1777-1884)

southeast (Cataract Creek) that heads near "Bill Williams B." A mountain range, "Kendricks Bge" with "S. Francisco B." at its southern end, separates the Little Colorado from Cataract Creek. In an astonishing misplacement of the antiquated term of Puerto de Bucareli, the label "**Bucareddy**" appears as a *place name* at the Cataract confluence (supplanting the so-called Yampais Village [and variants] that appeared on some maps to identify today's Supai). Additionally, at the confluence of the Little Colorado, where Puerto de Bucareli should have been labeled (if at all) is the place-name "S Bartolome". From there, the Colorado turns due westward to the confluence of the Virgin River (not labeled), arriving from the north, then arcs south to southeast to the confluence of "Bill Williams Fk.", then turns south-southwestward to the gulf, receiving the river "Gila" at "Colorado City" and "Ft Yuma". In another peculiar misplacement, another stream, this one a tributary in the upper Gila basin, is also labeled "Williams Fk."

Big Canyon (1853–1910)

MAPPING GRAND CANYON

Big Canyon (1853–1910)

INTRODUCTION TO THE “BIG CANYON” SECTION

THE MAP DRAWN by Richard Kern in 1852 and published as part of the 1853 report of Lorenzo Sitgreaves’ 1851 exploration across northern New Mexico Territory seems to be the first appearance of “Big Canyon,” though it is conflated with the coincidental use of “Great Canyon” both on another state of the map and as referred to by Sitgreaves himself.¹³ One version labels a misplaced “Great Cañon” where the Virgin River reaches the Colorado— independently arriving at that point from beyond the map’s edge on the north!—and in the other version the same short reach is labeled “Big Cañon” (*Figure 12*). Unfortunately, which of the two states was produced first has not been determined, though they seem to be nearly contemporaneous. The reason for the change (one way or the other) is unknown, yet it is clear that *both* names were in use around 1851-1852. Unfortunately for us, Sitgreaves’ text only mentions “the great cañon” a few times, in lower case letters, so the capitalized “Big Cañon” on one map is seen to have dropped in unannounced.

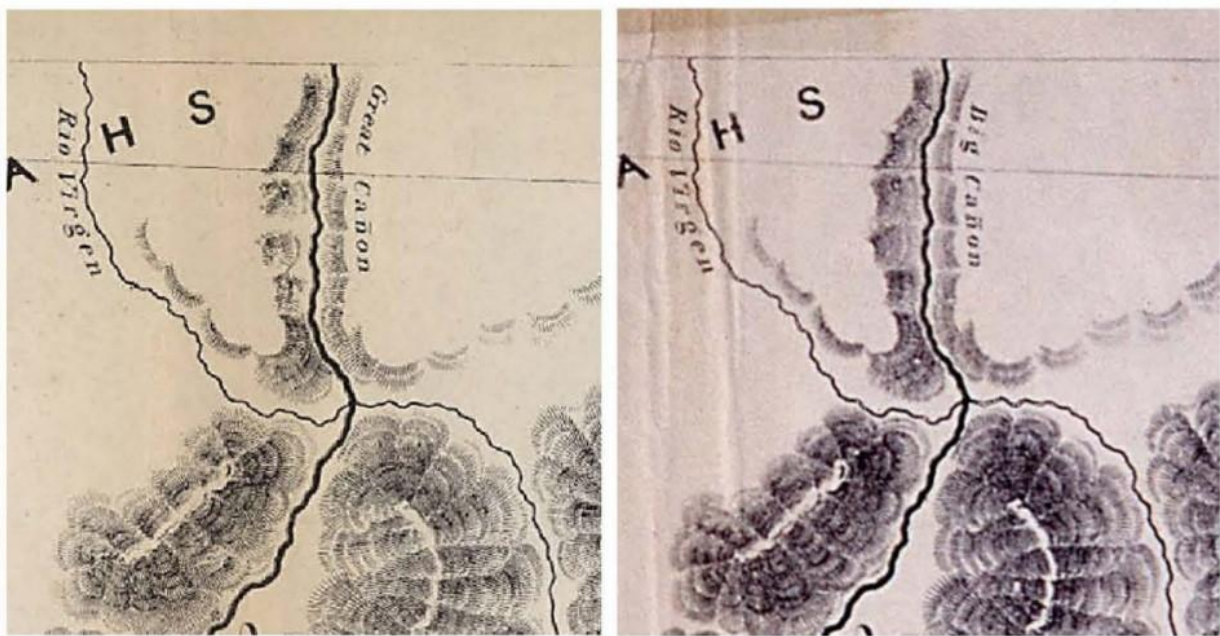


Figure 12. Details from the two contemporary versions of Richard Kern’s 1852 map that accompanied the 1853 report of Lorenzo Sitgreaves’ expedition across New Mexico Territory. One names “Great Cañon”, the other “Big Cañon.” Which came first has not been established. (Library of Congress and author’s collection.)

¹³ L. Sitgreaves, *Report of an Expedition Down the Zuñi and Colorado Rivers* (Robert Armstrong, Public Printer) (32nd Congress, 2nd Session, Senate Executive Document 59, 1853).

MAPPING GRAND CANYON

Big Canyon (1853–1910)

It was the trapper–guide Antoine Leroux, one of the St. Louis French-schooled mountain men, who clued Sitgreaves to the presence of the Grand Canyon. As they were following the Little Colorado River—originally intending to reach the great Colorado along it—the animals were flagging and supplies were dwindling, so on Leroux’s recommendation they broke from the Little Colorado to head more westerly, following the 35th parallel that later would be the main route of a wagon road and railroad. Sitgreaves wrote:

Having been informed by my guide and other experienced trappers that this cañon extends down the river to its junction with the Colorado, and the great cañon through which the latter flows, I regarded the attempt to follow the river to its mouth as too hazardous, considering the condition of the animals and the state of the supplies, and therefore, by the advice of the guide, turned off towards the mountains, with the purpose of striking the Colorado below the great cañon, and then exploring it upward as far as might be found practicable.¹⁴

By what name Leroux might have called the Grand Canyon is unknown; the reference to “other experienced trappers” might simply have been a literary convenience, relying upon Leroux’s circle of adventuresome trappers. The canyon might have been known amongst those French-speaking men as *un grand cañon*, which can translate into English as either “big” or “great.” He might actually have been at one part of the canyon, too, perhaps while traveling near the Grand Wash Cliffs having followed the Virgin River from the Rocky Mountain trappers’ rendezvous. As Army general Randolph Marcy mentioned in 1866, “Antoine Lereux [*sic*] . . . told me in 1858 that he had once been at a point of this cañon where he estimated the walls to be *three miles high*” (emphasis is Marcy’s).¹⁵

“Big Cañon” made its grand entry in print in 1852—the first of the “big” and “great” names to actually appear in print, even ahead of Sitgreaves’ maps. James A. McDougall, recently the Attorney General for California, made a long speech in San Francisco on August 24, strongly supporting the route of a proposed Pacific railroad to San Francisco. (He was also stumping for Congress, a seat he did win.) He favored what became the 35th parallel route, later so well known for the rails of the Santa Fe Railway, mentioning on the fly that part of the route was “thence to the Colorado below the mouth of the ‘big Canon.’” He also said, “I propose to strike the Colorado below the Canon.” It’s not clear whether he uses “big” as an adjective or a name he had heard, but there it is, with a capital Canon. He knew *of* the

¹⁴ Sitgreaves, pp. 8–9.

¹⁵ Randolph B. Marcy, *Thirty Years of Army Life on the Border* (Harper and Brothers, New York, 1866), pp. 278, 279. Care should be taken that “point” not be inferred to mean a rimside projection but rather as “a place” where he had been.

MAPPING GRAND CANYON

Big Canyon (1853–1910)

canyon at least, leaving us with the earliest known use of Big Canyon in print.¹⁶

One may quibble that, when lower case letters were used, as in “big cañon” or “great cañon,” it was only an adjective; but individual writing styles were imperfect in those days, and style guides were nonexistent. Modern readers should not place too much emphasis on the precision of typography that was set from manuscript copy. Either, both, or neither of the two words might be capitalized; italics might be whimsical, too. And a *virgulilla* on the “n”: user’s choice.

While “Big Canyon” seems to have been referred to as early as 1852 in print and 1853 on a printed map (though it was delineated in 1852), it was contemporaneous with “Great Canyon” for a while. The two names remained in competing use, just as on Sitgreaves’ maps. Even in the face of widespread recognition of “Grand Canyon” after Powell’s exploits, “Big” continued to appear through the 1880s (on blindly copied maps, mostly, which in turn perpetuated F. W. von Egloffstein’s prominent usage in 1861).

Following Sitgreaves’ spurious “Big Cañon” map label, with or without the *virgulilla* but capitalized, Big Cañon appeared twice in newsy literature in 1854: An anonymous writer noted, almost as an afterthought to the Great Basin that he was describing, “Another extraordinary feature of this country is the Big *Canon*, which has been traced for upwards of three hundred miles, running through perpendicular banks enormously high, and washing up against the walls, leaving not a slope between, as if the mountain had been cleft clear deep down to make a passage.”¹⁷ Edwin F. Johnson also took note of “Big *Cañon* of the Colorado,” but in a disparaging way so as to support a more northern rail route to the Pacific.¹⁸

In 1855, geologist Edward Hitchcock finished a manuscript, “Illustrations of Surface Geology,” that was published by the Smithsonian Institution in 1857. Crediting Sitgreaves’ 1853 report, Hitchcock made an exceedingly brief reference to “Big Cañon.” If it was not from Sitgreaves’ “Big Cañon” map variant (the lieutenant himself having called it “the great cañon”), then it had to have been from somewhere else, not identified. In this, the first notice of Grand Canyon in any scientific context, he had no idea of the vastness of “Big Cañon on the Rio Colorado of the West”: “I have not been able to find any detailed account of its extent.” Of course not; there was none. Based on Sitgreaves’ observation of the Little Colorado River gorge (near Grand Falls, which was illustrated in Sitgreaves’ report),

¹⁶ J. A. McDougall, “The Pacific Railroad. Great Speech of Gen. J. A. McDougall, Delivered at the Verandah, in San Francisco, on the 24th August, 1852. *The Western Journal and Civilian* (St. Louis), 9(2) (November 1852), pp. 90, 92.

¹⁷ “The Great Basin,” *Friends’ Intelligencer* (Philadelphia), 10(45) (January 28, 1854): 712.

¹⁸ Edwin F. Johnson, *Railroad to the Pacific. Northern Route. Its General Character, Relative Merits, etc.* (Railroad Journal Job Printing Office, New York, 2nd ed., 1854) (see the “Supplement to Second Edition,” pp. 165-166).

MAPPING GRAND CANYON

Big Canyon (1853–1910)

Hitchcock studiously supposed that the stated 120-foot depth (actually 175 feet there) was “less probably than that of the Big cañon.”¹⁹ And that was it. Still, this was new information to Hitchcock. Two years earlier (1853) he had taken note of “the *canons* on our western rivers, sometimes two hundred and fifty feet deep and several miles long,”²⁰ and in a New Edition of that work (1854) he only briefly discussed “*Canóns* [sic]” about which he noted only “The Grand Canon on the Canadian river” and “The Canon of Chelly, in New Mexico.”²¹ Only sometime in 1855, when he finished up his “Illustrations of Surface Geology,” had he caught up to Sitgreaves’ report.

In 1858, the world’s most prominent explorer–geographer, Alexander von Humboldt (the same who had saved *Puerto de Bucareli* from obscurity in 1803), at least twice mentioned the canyon, although by name only and not as a part of any study.²² From correspondence, he reported that his friend Balduin Möllhausen, who was attached to the expedition on the Colorado River led by Lt. Joseph C. Ives, had reached the mouth of “Big Canon.” The term communicated by Möllhausen was the name for the canyon as used by Ives and party. Interestingly, Möllhausen did not use “Great Cañon,” which was the name favored by the expedition’s geologist, John Strong Newberry, with whom Möllhausen worked as a field assistant.²³

It was the Ives expedition of 1858 that brought “Big Cañon” to worldwide attention.²⁴ The name appeared also on the fantastic maps produced by the expedition’s meticulous cartographer, Friedrich Wilhelm von Egloffstein (see following). The German baron’s delineation of the lower Colorado River country was impeccable, but across the middle and eastern Grand Canyon, where he could not get a good fix (or any fix) on important geographical features, including the river, the map is a miserable one; not for lack of trying, though.

¹⁹ Edward Hitchcock, “Illustrations of Surface Geology,” *Smithsonian Contributions to Knowledge*, Vol. 9, 155 pp. (1857) [separately paginated and dated paper within the volume]. [Big Cañon, p. 116.]

²⁰ Edward Hitchcock, *Outline of the Geology of the Globe, and of the United States in Particular* (Phillips, Sampson and Co., Boston, 1853), p. 115.

²¹ Edward Hitchcock, *Outline of the Geology of the Globe, and of the United States in Particular* (Phillips, Sampson and Co., Boston, new ed., 1854), p. 218.

²² A. v. H—t. [Alexander von Humboldt], “Balduin Möllhausen,” *Berlinische Nachrichten von Staats- und gelehrten Sachen* (Berlin), (August 29, 1858): [4]; “Balduin Möllhausen,” *Allgemeine Zeitung* (Augsburg), (September 6, 1858): 4033.

²³ John S. Newberry, “Geological Report,” in Joseph C. Ives, *Report upon the Colorado River of the West, explored in 1857 and 1858 . . .* (Government Printing Office, Washington, 1861), Part III (separately paginated part within the volume).

²⁴ Joseph C. Ives, *Report upon the Colorado River of the West, explored in 1857 and 1858 . . .* (Government Printing Office, Washington, 1861) (published separately as House of Representatives and Senate documents, with the House variant accompanied by two maps by Egloffstein, and the Senate variant with two additional geological maps prepared by expedition geologist John Strong Newberry that used the same Egloffstein maps as base maps).

MAPPING GRAND CANYON

Big Canyon (1853–1910)

Ives' formal report (1861), with its maps by Egloffstein and illustrations (most drawn by Möllhausen and Egloffstein), was distributed widely in America and Europe; its information, color illustrations of Native Americans, and its more peculiar landscapes were copied and republished for years. Attention to "Big Cañon" startled readers everywhere, like a cannon's salute, and people had their first inkling of the canyon's superspectacular scenery. Thereafter it appeared in news items, reports, school geographies, and particularly on maps that usually plotted a wildly inaccurate course of the Colorado River, based on Egloffstein's interpretation and more liberal imaginations. This continued right through and beyond the time of John Wesley Powell's Colorado River expeditions between 1869 and 1872, ignoring Powell's successful promotion of "Grand Canyon" and his own, more correct mapping of the river.

MAPPING GRAND CANYON

Big Canyon (1853–1910)

The Egloffstein Model and Variants

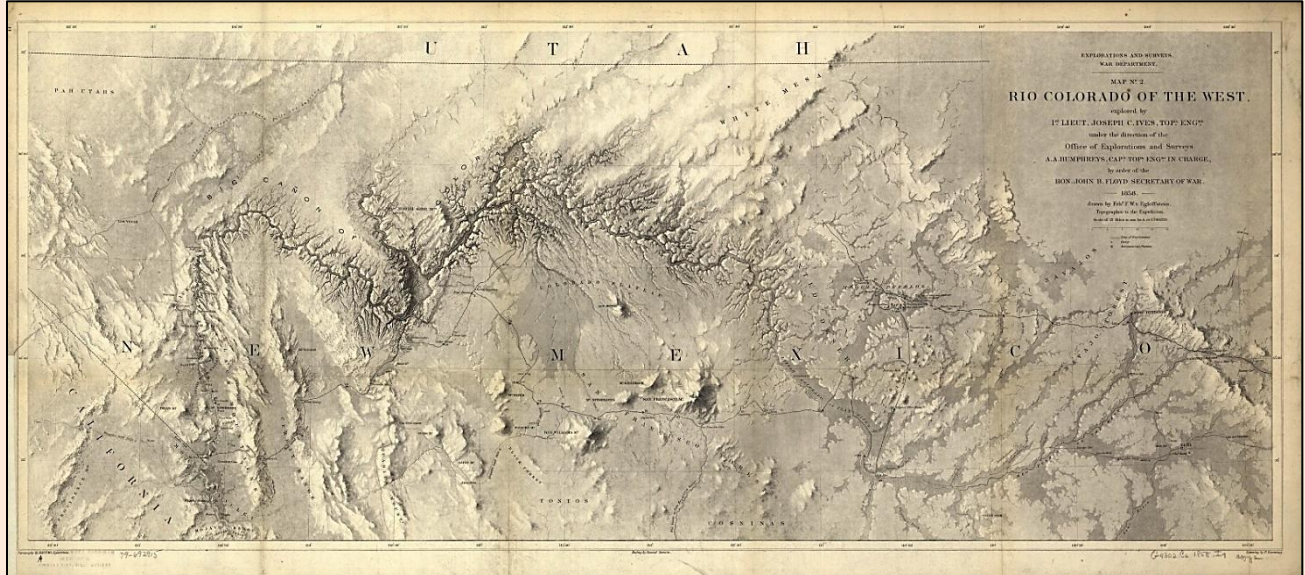
(Examples 1861–1885)

IN 1858, the Colorado River Exploring Expedition commanded by Army lieutenant Joseph C. Ives ascended the Colorado in a small, purpose-built steamboat from the Gulf of California nearly to where today is Las Vegas Wash in the lower Lake Mead area. A land expedition set out from Beale's Crossing, which reached the Grand Canyon (descending to the Colorado River on Peach Springs Wash and again at Cataract Creek where a descent to the river was aborted). The cartographer of the expedition, Friedrich Wilhelm von Egloffstein, produced the first fairly accurate maps of the lower Colorado River and (less reasonably) the Grand Canyon region. The maps were published in Ives' formal report, a U.S. congressional document, in 1861. The Grand Canyon map is largely conjectural in the central and eastern parts of the canyon because it was impossible for the explorers to reach the Colorado River nor the geographically significant confluence of the Little Colorado River. They never saw the main, now world-famous, part of the South Rim.

Egloffstein's delineation of the Colorado and its tributaries in the Grand Canyon region became the standard model for years. Accordingly, various reinterpretations of these relationships appeared on maps, even stubbornly long after the more definitive explorations made by John Wesley Powell on the Colorado River in 1869 and again on the river 1871–1872 and afterward on the adjacent plateaus to the north. Powell's river expeditions produced no published maps for the river course, but his years-long geological and geographical surveys on the High Plateaus did finally generate accurate area maps at least at small scales (generally 1:250,000). The course of the Colorado was firmly established by Powell's surveys, as was also the geographical position of the Little Colorado confluence (though as yet still not astronomically pinpointed), facts that were not always conveyed on newer, commercially produced maps.

MAPPING GRAND CANYON

Big Canyon (1853–1910)



▲ **Figure 13.** Egloffstein, F. W. von [Egloffstein, Friedrich Wilhelm von] 1861 Map No. 2. Rio Colorado of the West, Explored by 1st Lieut. Joseph C. Ives, Top^l Eng^{rs}. under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Capt. Top^l Eng^{rs} in charge, by order of Hon. John B. Floyd, Secretary of War. 1858. drawn by Fr^{hr}. F. W. v. Egloffstein. Topographer to the Expedition. Scale of 12 miles to one Inch or 1:760320. *In:* Ives, Joseph C., *Report upon the Colorado River of the West, explored in 1857 and 1858 by Lieutenant Joseph C. Ives, Corps of Topographical Engineers, under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Captain Topographical Engineers, in charge. By order of the Secretary of War.* Washington, D.C.: U.S. Government Printing Office. (Volume: *U.S. 30th Congress, 1st Session, House Document 90, Serial 1058.*) (Spamer 25.944)

This map is well known for its highly conjectural depiction of the greater Grand Canyon region. It served as the authoritative, standard model for some time. *Big Cañon of the Colorado* is labeled prominently. *Colorado Plateau* is labeled on the south side of the Colorado. Notably, *Cataract Creek* is a tributary to *Little Colorado or Flax River*, which in turn reaches the *Colorado River* nearly at longitude 113° W. At the Little Colorado confluence the main Colorado is depicted arriving from the northeast, although that course is shown only a short distance before it fades into unmapped territory to the north. A short distance northeast of the confluence of *Diamond River* a prominent tributary (not labeled) arrives from the northwest; this is Parashant Canyon. Between the Colorado and the Parashant tributary the features of the plateau are labeled *North Side M^{ts}*.

Next three pages (Figs. 13a-c): Details of the central and eastern Grand Canyon areas, and of the confluences area of the Little Colorado River, Cataract Creek, and Colorado River (on which note the labels for “Cataract Creek” and “Yampais Village”).

MAPPING GRAND CANYON

Big Canyon (1853–1910)



Figure 13a. Detail of the central Grand Canyon area. The confluence of *Diamond River* (Diamond Creek) is shown at bottom center. Just upstream from there, the awkwardly drawn open space is the Parashant Canyon area (on the north side), as it might be interpreted in distant views from the south-side plateau. The noticeable thin lines on the south side are the routes traveled by the Ives expedition in 1858, which Egloffstein accompanied.

Some later cartographers have forced the Colorado River, in its course from Utah, into the Parashant Canyon position, even though Egloffstein displays the Colorado arriving from the northeast to reach the supposed confluence of the Little Colorado River. The Little Colorado is seen in this detail (*see also further details on the next two pages*) arriving from the southeast, turning to the southwest and receiving the tributary *Cataract Creek* from the southeast, before continuing west-southwest to its confluence with the main Colorado. Some later cartographers retained Egloffstein's course for the Colorado coming from Utah. They occasionally retained the Parashant Canyon tributary (but never labeled it separately), while other times they eliminated it altogether.

MAPPING GRAND CANYON

Big Canyon (1853–1910)



Figure 13b. Detail of the Diamond Creek–Parashant Canyon area. The noticeably bulbous space is the confluence area of Parashant Wash; its openness is exaggerated by the cartographer not having filled in the intricate canyon walls there while superimposing a landscape of faint, narrowly spaced tributaries. The generalities of the open space is a topographical interpretation likely influenced by long, horizontal sight lines from the plateau.

In addition to the dashed lines of the routes of the Ives expedition, note the solid line delineating a supposed *Ind[ian]. trail* between *Diamond River* and an undefined minor Colorado tributary independent of the nearby Cataract Creek (no doubt it was meant to join with the *Yampais Village*; see Fig. 13c).

MAPPING GRAND CANYON

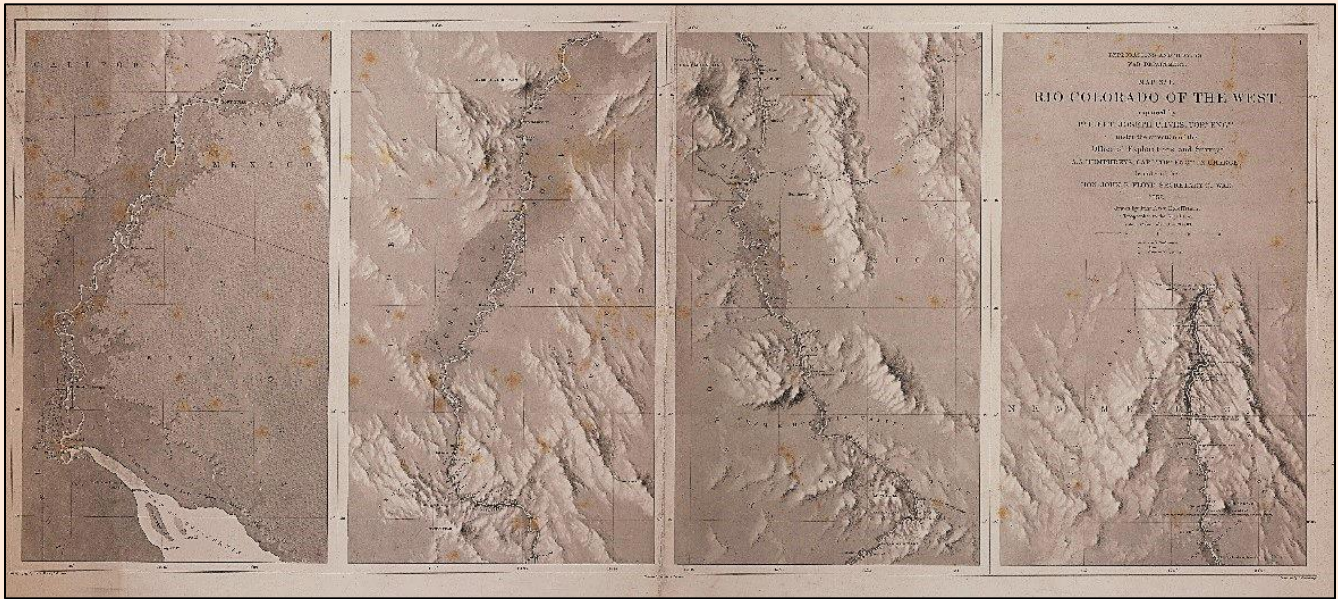
Big Canyon (1853–1910)



Figure 13c. Detail of the confluences of the Little Colorado River, Cataract Creek, and Colorado River (on which here note the labels for *Cataract Creek* and *Yampais Village*, the latter being the village of the Havasupai tribe known today as Supai). The stream arriving from the northeast is the Colorado River; the one from the east is the Little Colorado River; and Cataract Creek (labeled) from the southeast. All of these interpretations by Egloffstein were the result only of distant views, not on detailed ground-based surveys except on the west side of Cataract Creek. What he interpreted as the Little Colorado River coming from the east and southeast was in fact the main Colorado; the stream from the northeast possibly mismapped as an extension of Kanab Creek. The Ives expedition never saw the easternmost part of the Grand Canyon, nor the actual Little Colorado confluence, the definitive location of which remained unknown until John Wesley Powell's first Colorado River expedition of 1869. The crenulated system of tributaries is conceptually stylized rather than precise.

MAPPING GRAND CANYON

Big Canyon (1853–1910)



▲ ► **Figure 14. Egloffstein, F. W. von [Egloffstein, Friedrich Wilhelm von] 1861 Map No. 1. Rio Colorado of the West, Explored by 1st Lieut. Joseph C. Ives, Top^l Eng^{rs} under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Capt. Top^l Eng^{rs} in charge, by order of Hon. John B. Floyd, Secretary of War. 1858. drawn by Fr^{hr} F. W. v. Egloffstein. Topographer to the Expedition. Scale of 6 miles to one Inch or 1:380160. *In:* Ives, Joseph C., *Report upon the Colorado River of the West, explored in 1857 and 1858 by Lieutenant Joseph C. Ives, Corps of Topographical Engineers, under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Captain Topographical Engineers, in charge. By order of the Secretary of War.* Washington, D.C.: U.S. Government Printing Office. (Volume: *U.S. 30th Congress, 1st Session, House Document 90, Serial 1058.*) (Spamer 25.493)**

This map (four panels on one sheet) depicts the region bounding the Colorado River between its mouth in the Gulf of California (left panel) and the head of navigation, in the vicinity of where today is Hoover Dam. The course of the river is very well displayed, including the intricate channeling of the delta region (*see Fig. 15*).

“Map No. 1” (Fig. 14) shows the river corridor along its north–south axis; “Map No. 2” (Fig. 13) shows the Grand Canyon region east–west; the division is at the so-called Great Bend of the Colorado, where the river’s course below the confluence of the Virgin River transitions from west to south.

MAPPING GRAND CANYON

Big Canyon (1853-1910)

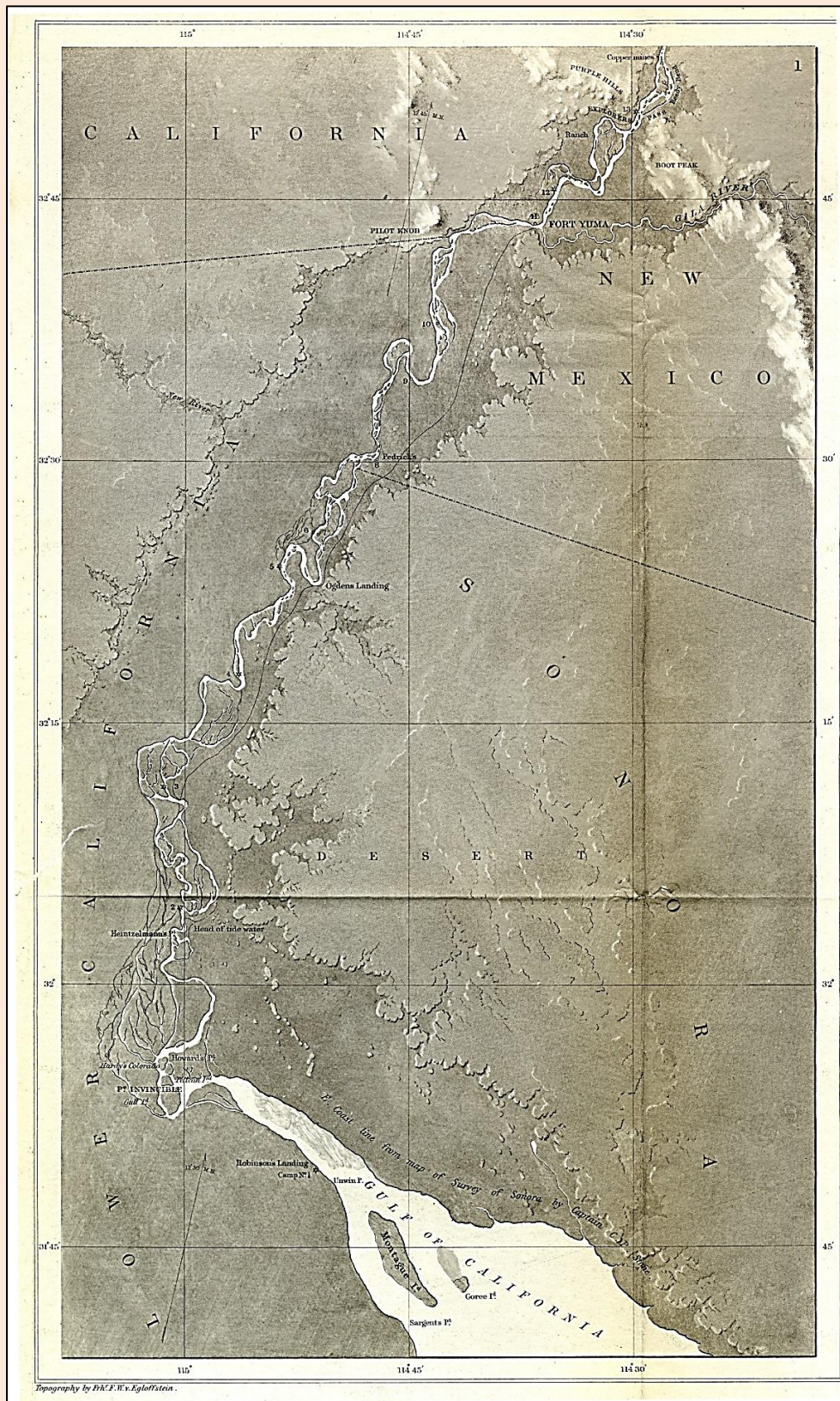


Figure 15. Panel 1 of Egloffstein's "Map No. 1."
Mouth of the Río Colorado to Explorers Pass northeast of Fort Yuma

MAPPING GRAND CANYON

Big Canyon (1853–1910)

DIAGRAMS OF THE EGLOFFSTEIN MODEL

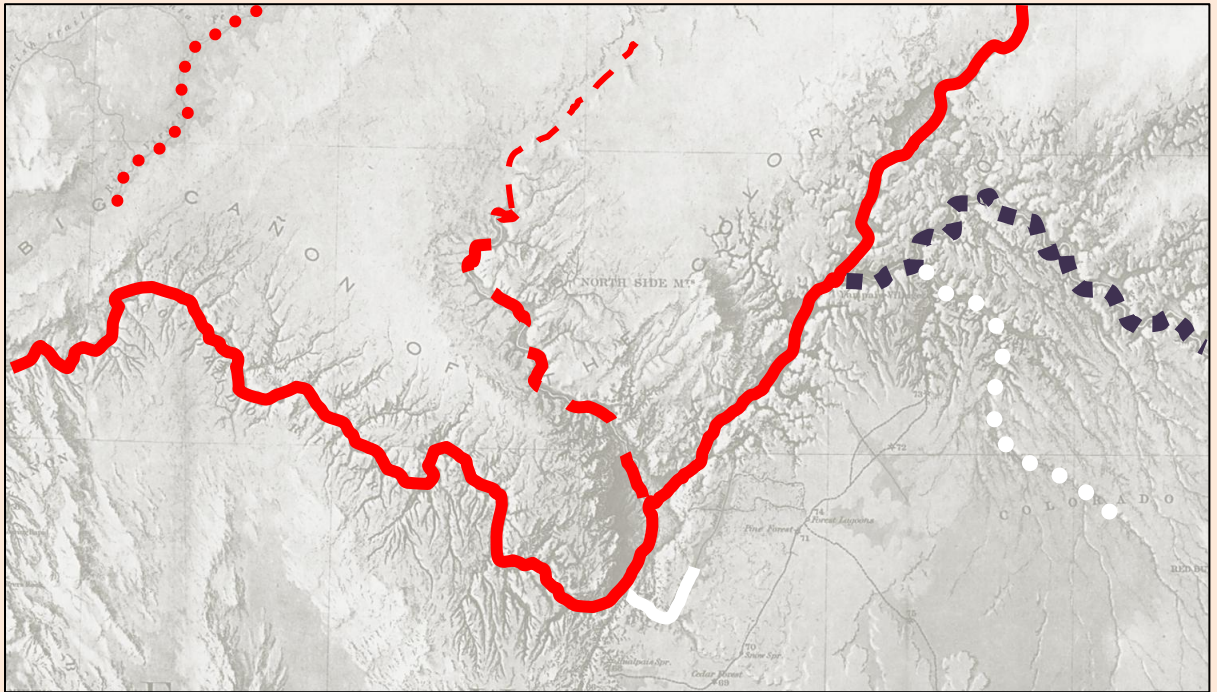


Figure 16. Egloffstein Model (Original)

(base map is a detail from Fig. 13)

Solid red line = Colorado River

Long-dashed red line = Parashant Canyon tributary, on some Egloffstein map variants implied to be the course of the Colorado River (*see Figure 17*), omitted or modified on others. (The dashed line is made narrower where Egloffstein's projected course seems conjectural.)

Short-dashed dark purple line = Little Colorado River

Large-dotted white line = Cataract Creek

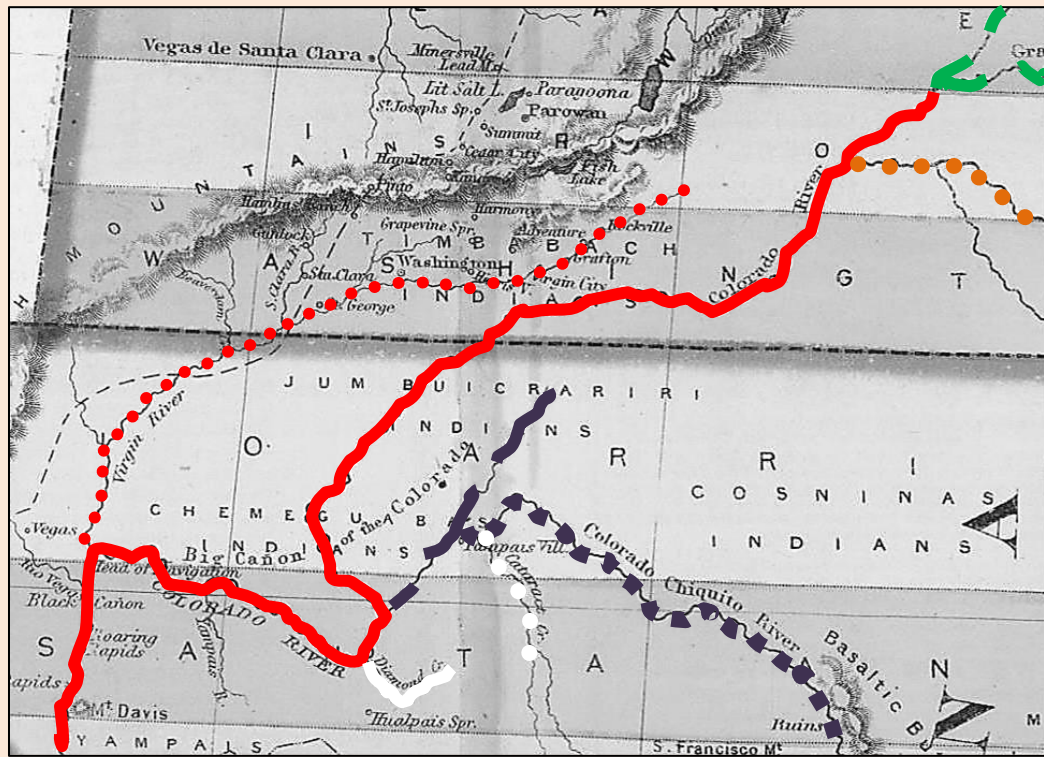
Solid white line = Diamond Creek

Small-dotted red line = Virgin River. (The confluence area was not interpreted by Egloffstein because the Ives Expedition had not reached that part of the river.)

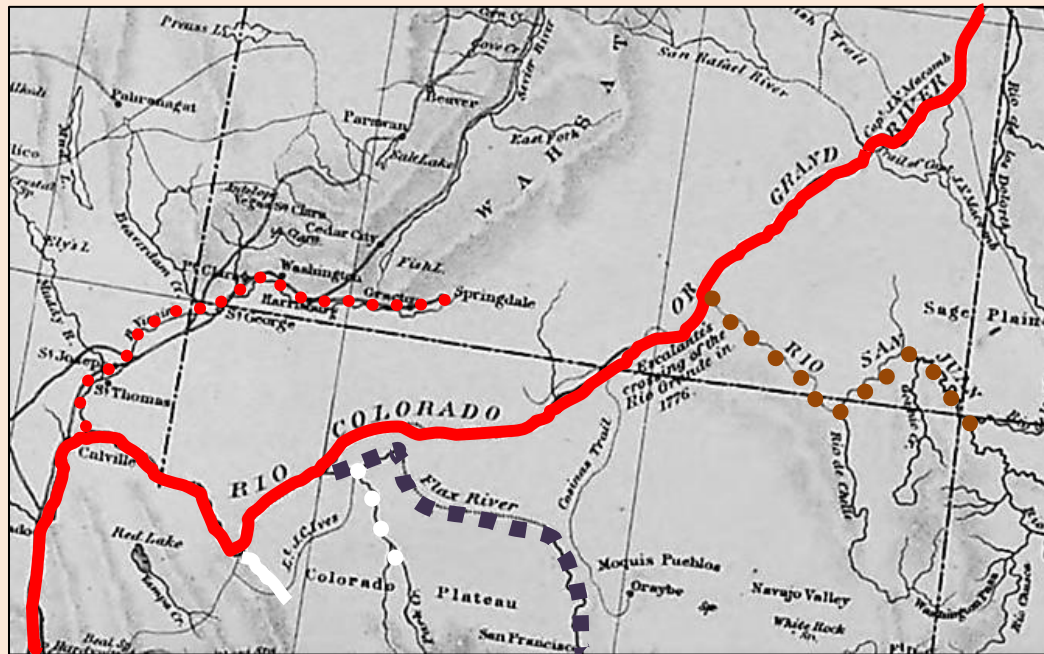
Figures 16 and 17 are designed to unambiguously convey this information also when reproduced in monochrome format.

MAPPING GRAND CANYON

Big Canyon (1853-1910)



Earle Spamer



Earle Spamer

Figure 17. Egloffstein Model (Variants) (base map sources on the next page)

Solid red line = Colorado River

In the **UPPER FIGURE**, the Colorado follows the Parashant Canyon route. The **DARK PURPLE LINE OF EXTRA-LONG DASHES** delineates an ambiguous stream that passes the Little Colorado River confluence, which actually seems to extend the Little Colorado's course farther southwest with a tributary from the northeast [possibly Kanab Creek?].

In the **LOWER FIGURE**, the Colorado is through-flowing and is labeled "Rio Colorado or Grand River." The small, unlabeled tributary from the north between the San Juan and Little Colorado is the Paria River.

Long-dashed green lines = Green and Grand Rivers

Large-dotted deep orange line = San Juan River

Short-dashed dark purple line = Little Colorado River

Small-dotted red line = Virgin River

Large-dotted white line = Cataract Creek

Solid white line = Diamond Creek

MAPPING GRAND CANYON

Big Canyon (1853–1910)

Base map sources for the Egloffstein variant maps (Fig. 17)

(*top*) **Colton, J. H. [Colton, Joseph Hutchins] 1865 Colton's Map of California, Nevada, Utah, Colorado, Arizona & New Mexico. Published by J.H. Colton 172 William St. New York.** *In: Colton's general atlas, containing one hundred and eighty steel plate maps and plans, on one hundred and eight imperial folio sheets, drawn by G. Woolworth Colton. Letter-press descriptions, geographical, statistical, and historical, by Richard Swainson Fisher.* New York: J. H. Colton Co., and London: Bacon and Co. (Spamer 25.1703)

(*bottom*) **Freyhold, Edward 1869 Office of the Chief of Engineers War Department Military Map of the United States compiled and drawn by E. Freyhold 1869.** ("Engraved & printed by Julius Bien, N.Y.") ("Note. In the compilation of this map the Authorities designated on the map of the Western Territories as well as others of more recent date have been used.") (Spamer 25.1535)

MAPPING GRAND CANYON

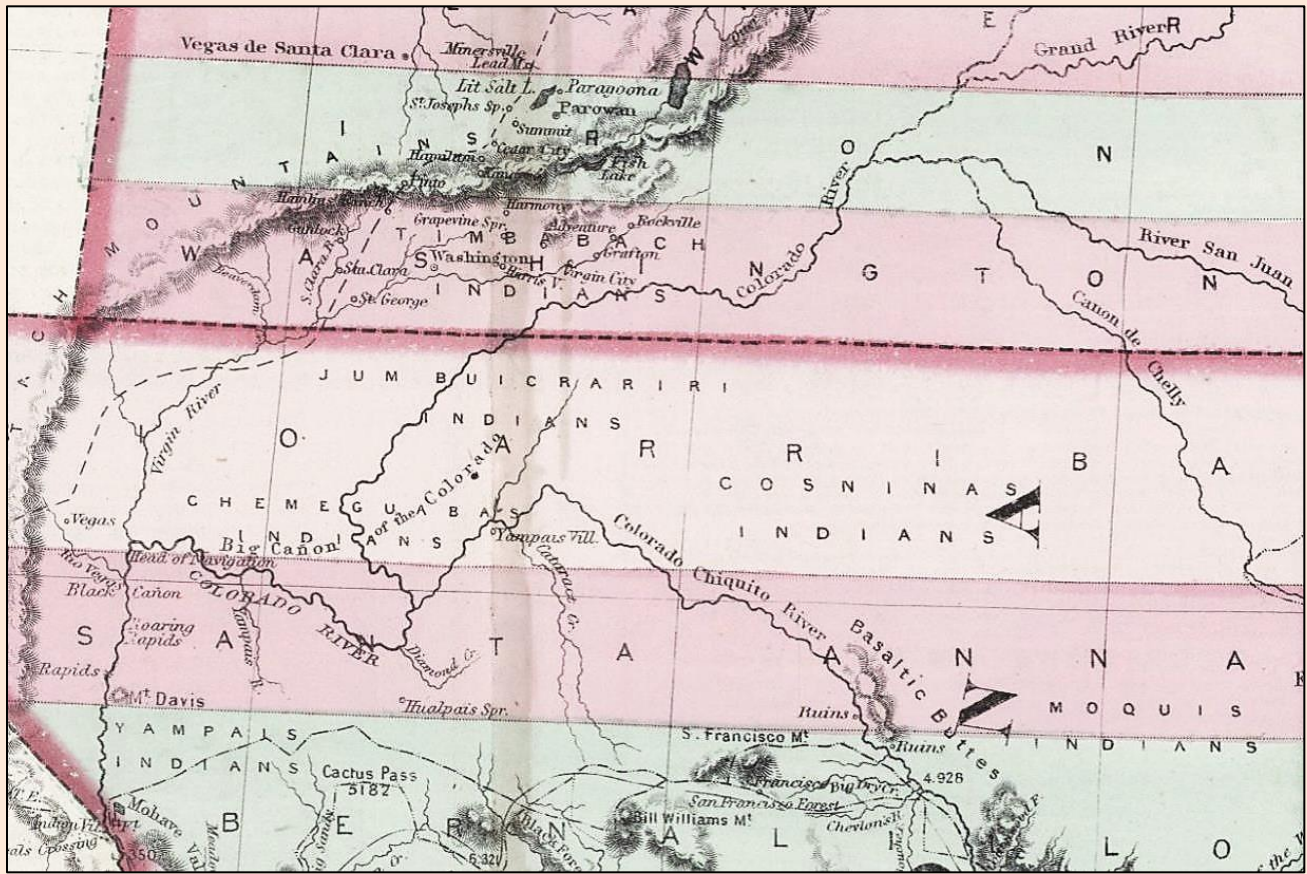
Big Canyon (1853-1910)

Figures 18-29

Examples of Variants of the Egloffstein Model

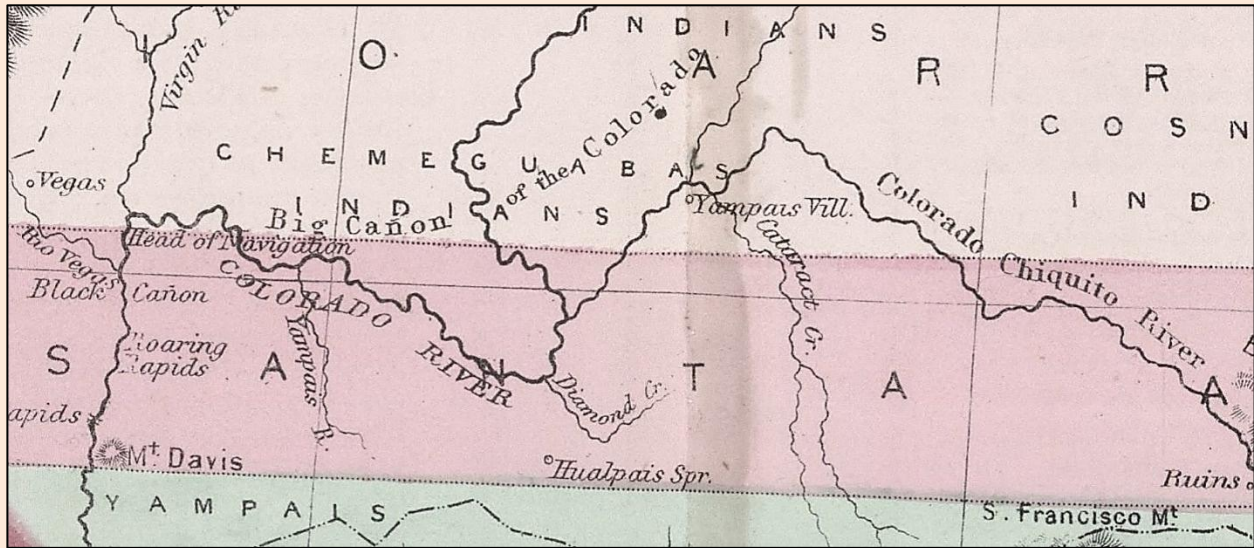
MAPPING GRAND CANYON

Big Canyon (1853-1910)



MAPPING GRAND CANYON

Big Canyon (1853–1910)



◀ ▲ **Figure 18. Colton, J. H. [Colton, Joseph Hutchins] 1865 Colton's Map of California, Nevada, Utah, Colorado, Arizona & New Mexico. Published by J.H. Colton 172 William St. New York. In: Colton's general atlas, containing one hundred and eighty steel plate maps and plans, on one hundred and eight imperial folio sheets, drawn by G. Woolworth Colton. Letter-press descriptions, geographical, statistical, and historical, by Richard Swainson Fisher. New York: J. H. Colton Co., and London: Bacon and Co. (Spamer 25.1703)**

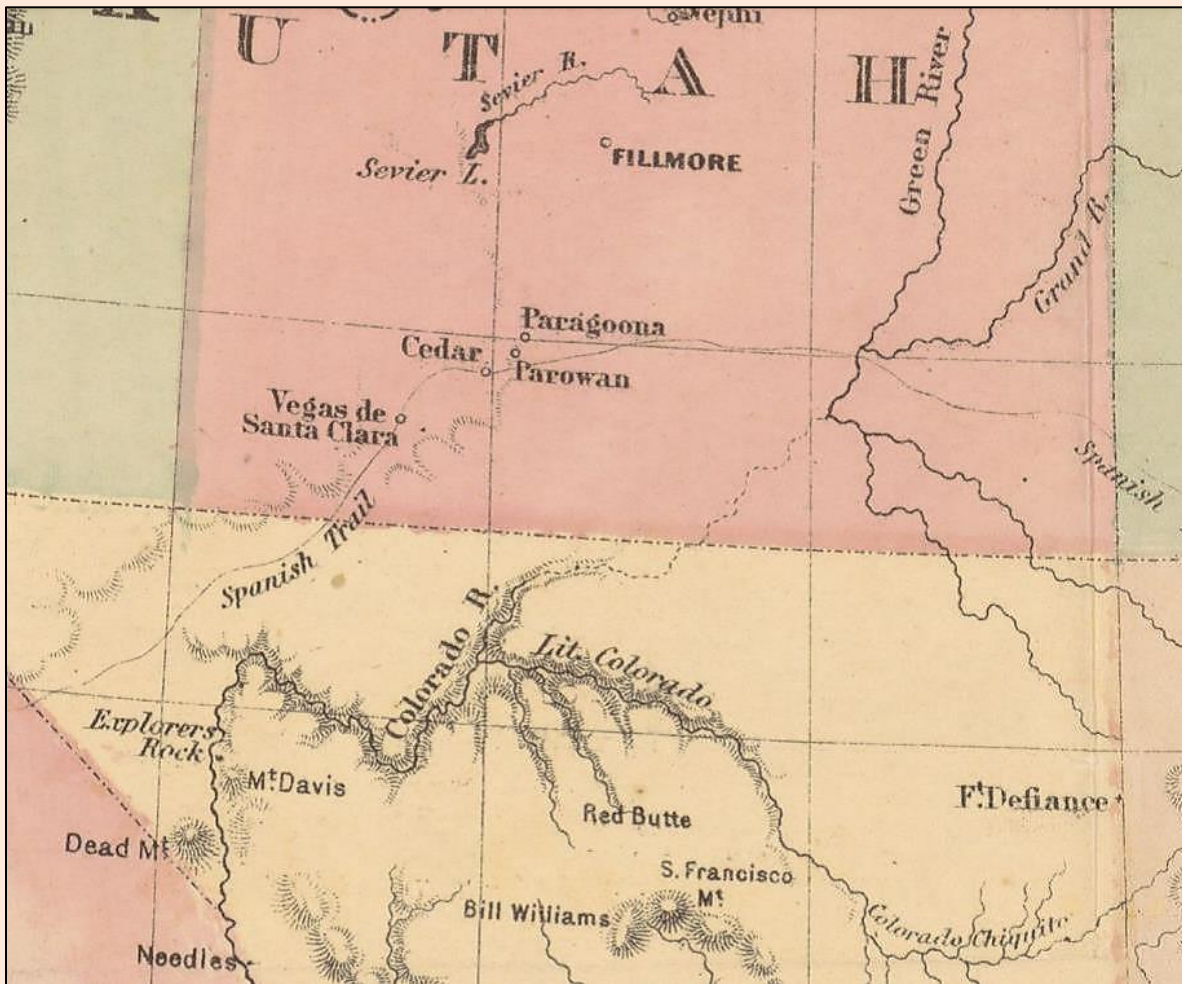
This is a remarkable confusion that, influenced by the Egloffstein map and in some measure “filling in” the unknowns of that map, do not even closely follow Egloffstein’s suggested courses, while boldly forcing the Colorado through Egloffstein’s Parashant Canyon route (refer to **Fig. 13** and details).

In its lower course the Colorado River is labeled *Rio Colorado*; from the confluence of *Grand River* and *Green River* through *Big Cañon of the Colorado* it is labeled *Colorado River*. Downstream from the Grand–Green confluence, the Colorado’s course is southwestward, but before reaching the Utah–Arizona boundary it turns due west, eventually turning southwestward again to cross the boundary due north of the mapped *Cataract Cr.* confluence. Then it turns southeastward (through the Parashant Canyon route) to a point north-northwest of the *Diamond Cr.* confluence, thence turns south-southwest to Diamond Creek and west-northwest to the confluence of *Virgin River* at *Head of Navigation* above the confluence of *Rio Vegas* (Las Vegas Wash) and the head of *Black Cañon*.

Colorado Chiquito River (Little Colorado River) follows a northwestward course before turning sharply to the southwest, receiving *Cataract Cr.* at *Yampais Vill.* where it turns briefly northwestward before receiving a tributary (not labeled) from the northeast (a Kanab Creek extension?). From that point it turns southwestward to its confluence with the Colorado, at the point aforementioned north-northeast of the Diamond Creek confluence.

MAPPING GRAND CANYON

Big Canyon (1853–1910)

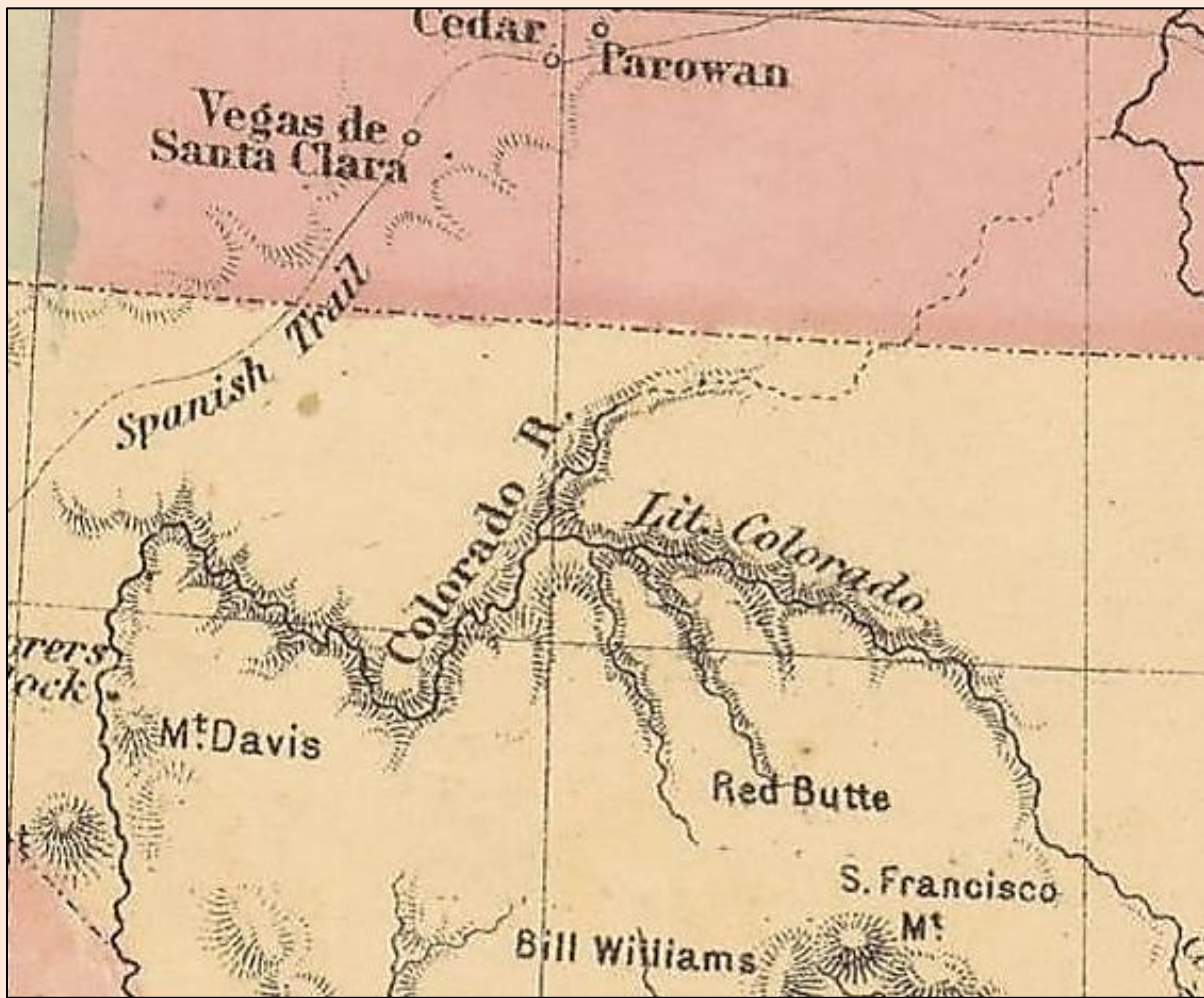


▲ ► **Figure 19. Goldthwait, J. H. [Goldthwait, Jonathan H.] 1865 Map of the Territories & Pacific States to accompany "Across the Continent" by Samuel Bowles.** *In:* Bowles, Samuel, *Across the continent: A summer's journey to the Rocky Mountains, the Mormons, and the Pacific States, with Speaker Colfax.* By Samuel Bowles, Editor of *The Springfield (Mass.) Republican*. Springfield, Massachusetts: Samuel Bowles and Co.; New York: Hurd and Houghton. [Except for the map, this book is extralimital to this cartobibliography.] (Spamer 25.1251)

Below the confluence of *Green River* and *Grand R.*, the *Colorado R.* follows a southwestward course to the confluence of what probably is the San Juan River. Beyond this juncture the Colorado's course is delimited conjecturally by a dashed line, turning westward once the Utah–Arizona boundary is crossed. It then aligns on Egloffstein's supposed course that comes to the confluence of the *Lit. Colorado River* (also labeled *Colorado Chiquito*) in what is actually the central Grand Canyon. The Colorado, between a point north of the Little Colorado confluence and the great bend, as well as the lower course of the Little Colorado and unlabeled tributaries to it, is demarcated by hachures to indicate encanyoned reaches. Egloffstein's supposed Parashant route or tributary is absent.

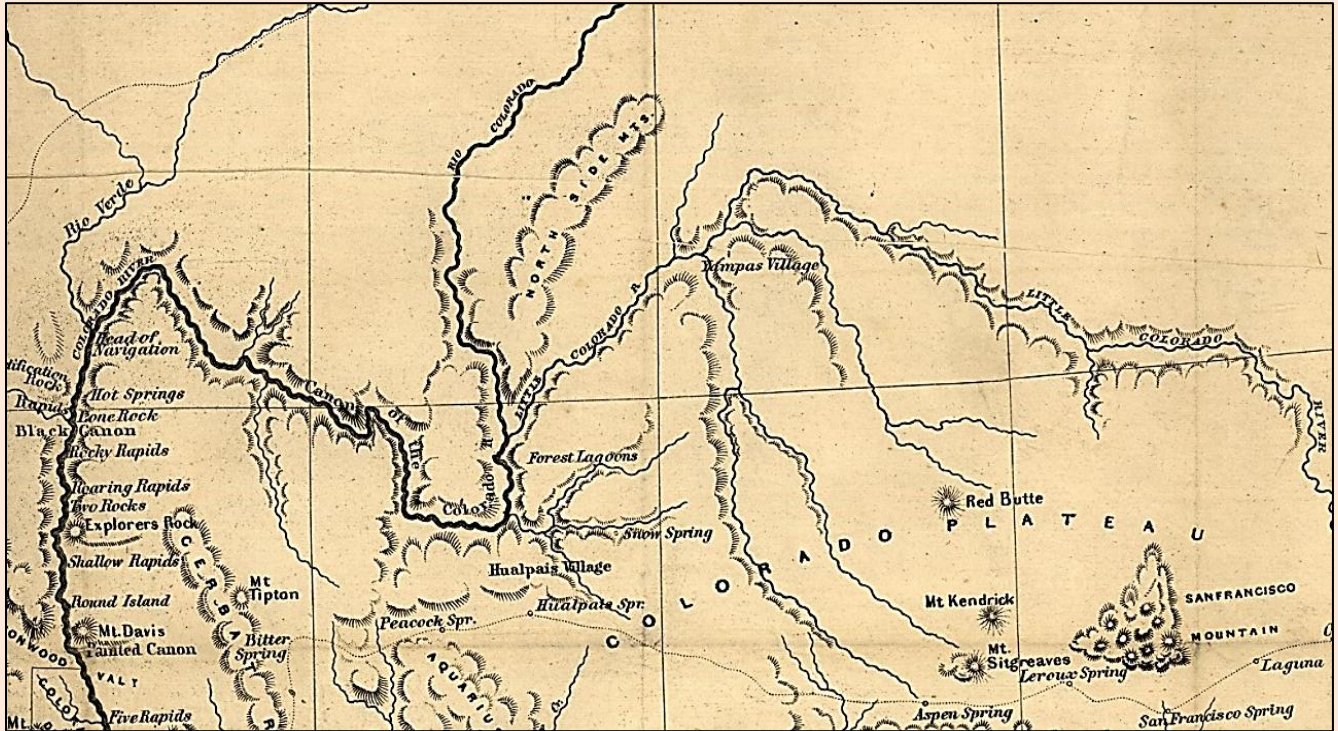
MAPPING GRAND CANYON

Big Canyon (1853-1910)



MAPPING GRAND CANYON

Big Canyon (1853–1910)

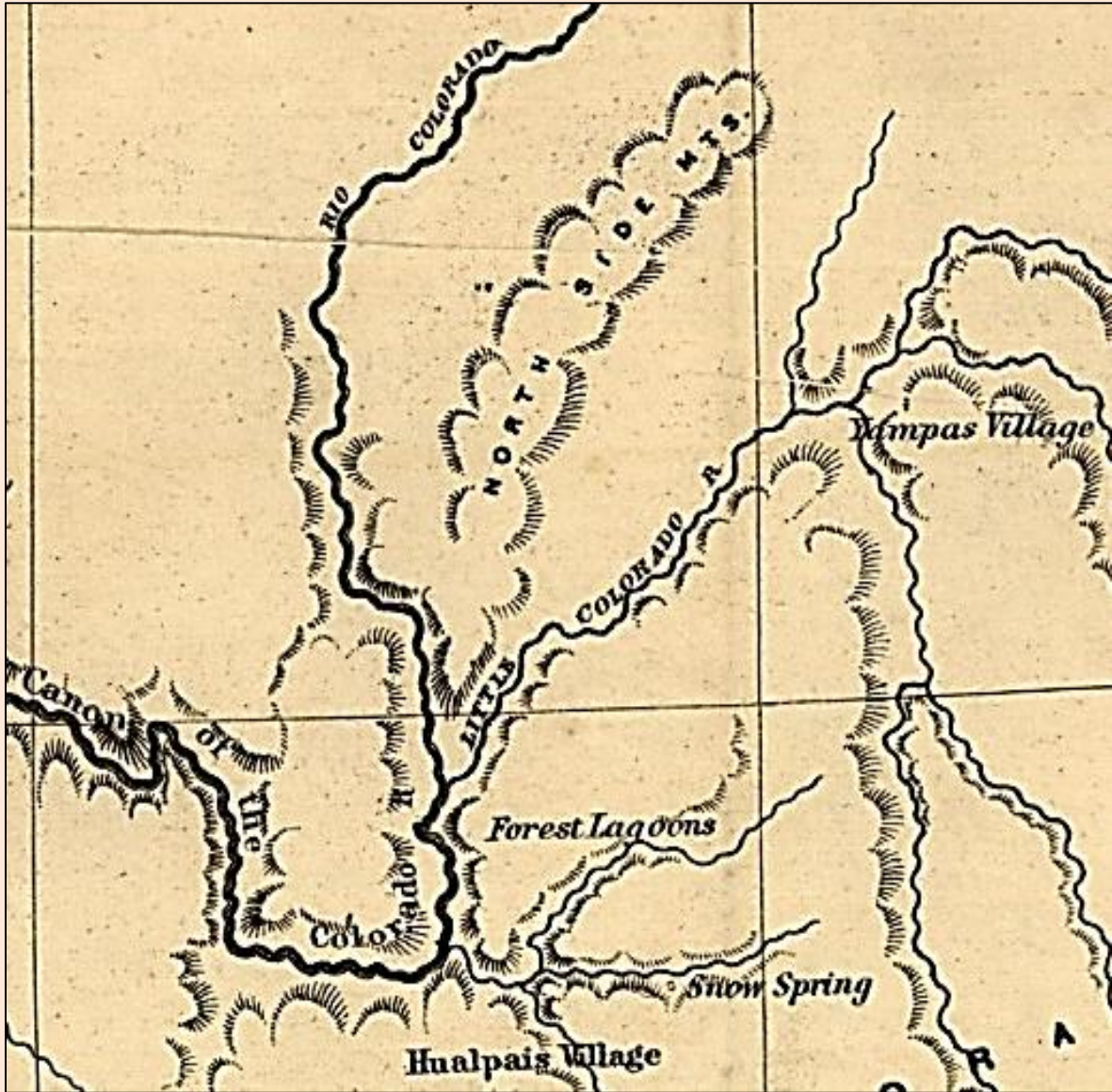


▲ ► **Figure 20. Hartley, William B. [1865?] Hartley's map of Arizona from official documents. Office 32 Pine St. N.Y. [No imprint.] (Spamer 25.50)**

Rio Colorado comes into Arizona following the Parashant Canyon route, labeled *Canon of the Colorado R.* about where Egloffstein placed his banner label, passing to the west of the *North Side Mts.* to reach the confluence of *Little Colorado R.* Egloffstein's own interpreted Colorado River course, coming from the northeast to the confluence of the Little Colorado River near *Yampas Village* on the unlabeled Cataract Creek, is reduced to a meager tributary to the Little Colorado, which may be an interpretation of an extension of Kanab Creek. Farther downstream on the Colorado, still on a southerly course before turning westward, is the confluence of Diamond Creek (not labeled) and the notation *Hualpais Village* (Peach Springs).

MAPPING GRAND CANYON

Big Canyon (1853-1910)



MAPPING GRAND CANYON

Big Canyon (1853–1910)

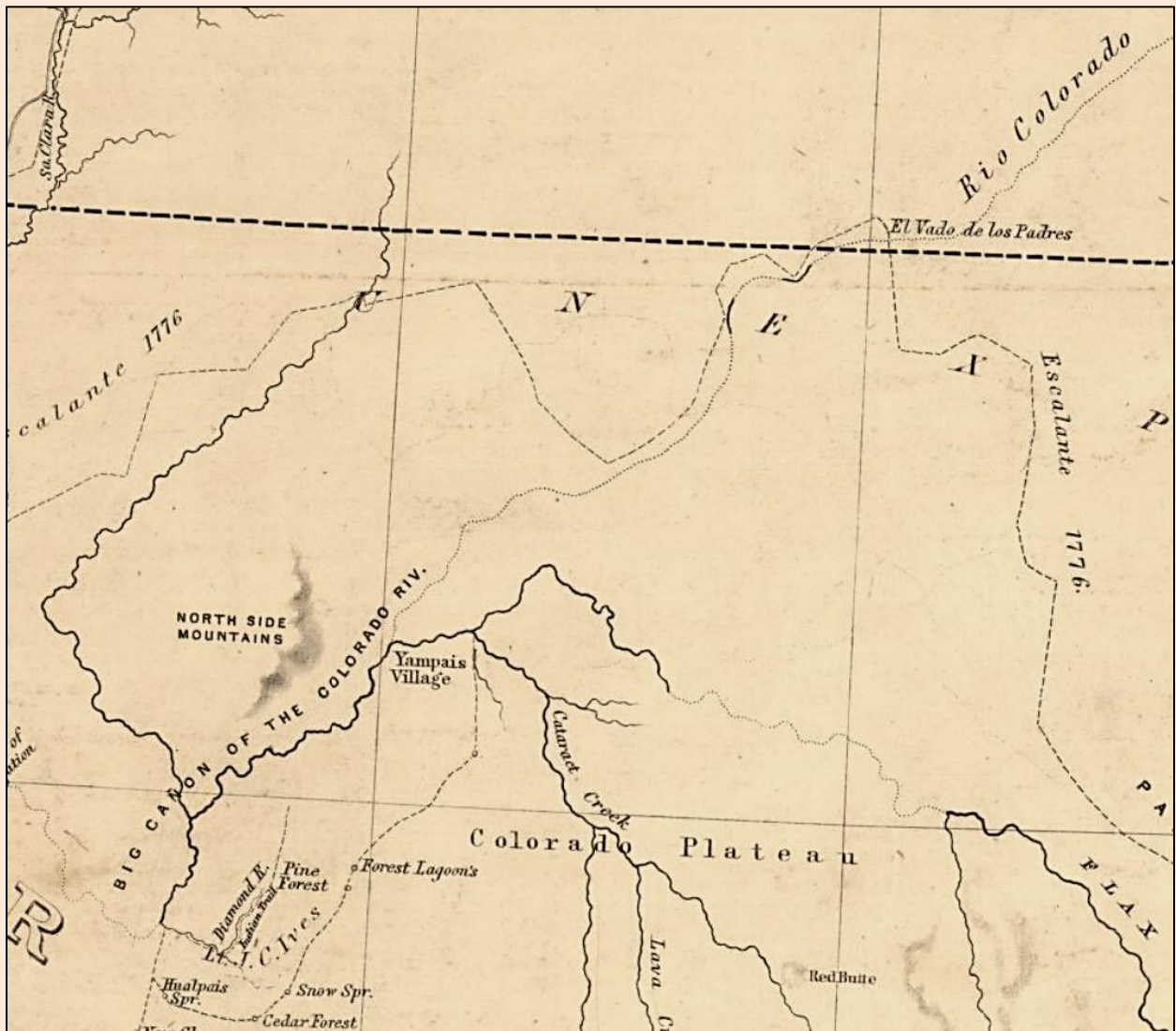


▲ ► **Figure 21. U.S. Army Corps of Engineers [Corps of Topographical Engineers] 1867 Old Territory and Military Department of New Mexico compiled in the Bureau of Topog! Eng^{ts} of the War Dep! chiefly for military purposes under the authority of the Secretary of War 1859 Partially revised and corrected to 1867. (Spamer 25.97)**

With some embellishment, the wholly conjectural course of *Rio Colorado* is southwest along a lightly dotted line from Utah to strike the confluence of *Flax River* (Little Colorado River) according to Egloffstein’s conjectured confluence area. Egloffstein’s Parashant Canyon tributary is inexplicably extended with implied certainty into Utah, its upper course paralleling the Colorado. From *Diamond R.* (Diamond Creek) the Colorado’s course continues, there labeled *Colorado River*, mostly northwestward to the confluence of *Rio Virgen* (Virgin River) below which on its southerly course it becomes definitive in light of the data from the Ives expedition. *Big Cañon of the Colorado Riv.* is labeled just about where Egloffstein’s prominent banner label is placed on his map.

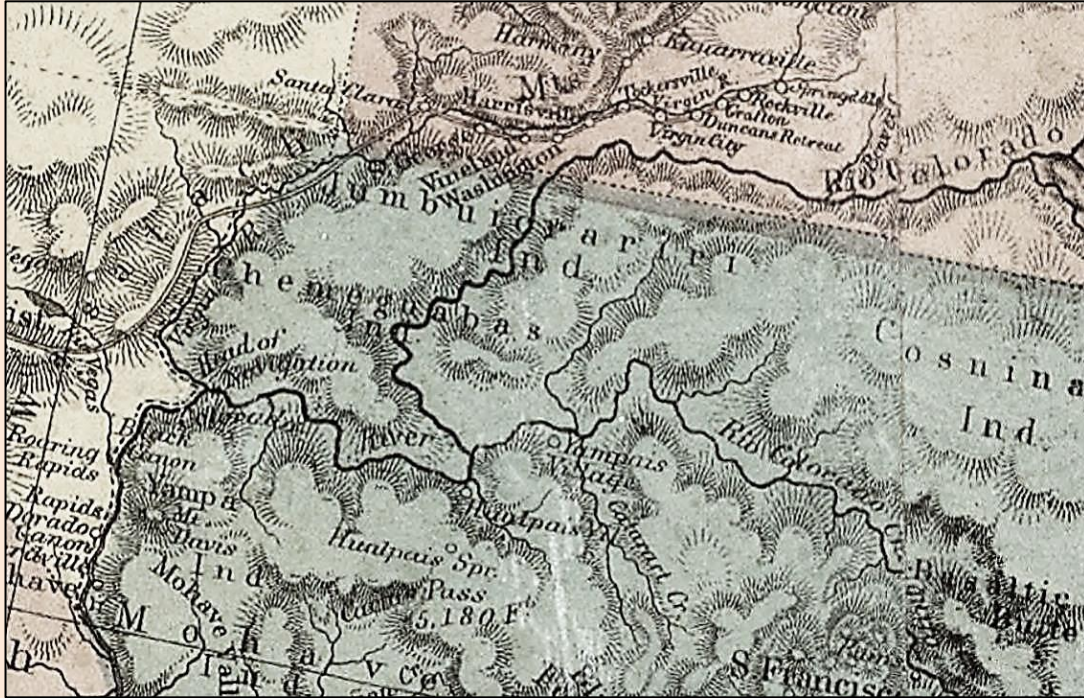
MAPPING GRAND CANYON

Big Canyon (1853-1910)



MAPPING GRAND CANYON

Big Canyon (1853–1910)



▲ ► **Figure 22. Lloyd, J. T. [Lloyd, James T.] 1868** Lloyd's Topographical Railway Map of North America, or the United States Continent in 1900 J.T. Lloyd, Publisher {New York 23 Cortland St. {London, 83 Fleet Street 1868. ("Entered according to Act of Congress in the Year 1865 by J. T. Lloyd, in the Clerks Office of the District Court of the U. S. for the Southern District of New York.") ("Scale of Map $83\frac{1}{4}$ Miles to an inch or 1:5,274,720 of Nature.") [Regarding the title, Phillips notes, "Giving 1900 as the possible date for the completion of certain railroads, etc." (Phillips, P. Lee, *A list of maps of America in the Library of Congress preceded by a list of works relating to cartography* [Washington: Government Printing Office], p. 610).] (Spamer 25.2009) [See also Fig. 27.]

Rio Colorado is delineated from the confluence of *Green Riv.* and *Grand R.* to the gulf. En route it receives *Rio San Juan* from the east and shortly later *Rio de Chelly* from the southeast before turning to run westwardly north of the Arizona-Utah boundary. It eventually turns southwest and southeast to reach the confluence of *Colorado Chiquito or Flax* (Little Colorado River) along the Parashant Canyon route. The Little Colorado, as with Egloffstein's interpretation, receives *Cataract Cr.* shortly before reaching the main Colorado.

The *Yampais Village* place marker is mispositioned at the Cataract–Little Colorado confluence. Opposite that point an unlabeled tributary from the northeast, which is on Egloffstein's projected course of the Colorado from Utah, may be a misinterpreted extension of Kanab Creek.

Just downstream from the supposed Colorado–Little Colorado confluence is the confluence of another tributary (not labeled, Diamond Creek) from the southeast, where *Hualpais Vil* (Peach Springs) is misplaced at that confluence (Diamond Creek's course is virtually occluded by the "Hualpais Vil" label). In the western Grand Canyon another tributary (not labeled) arrives from the south, which would be the "Yampais Creek" (or similar name) of other contemporary maps.

MAPPING GRAND CANYON

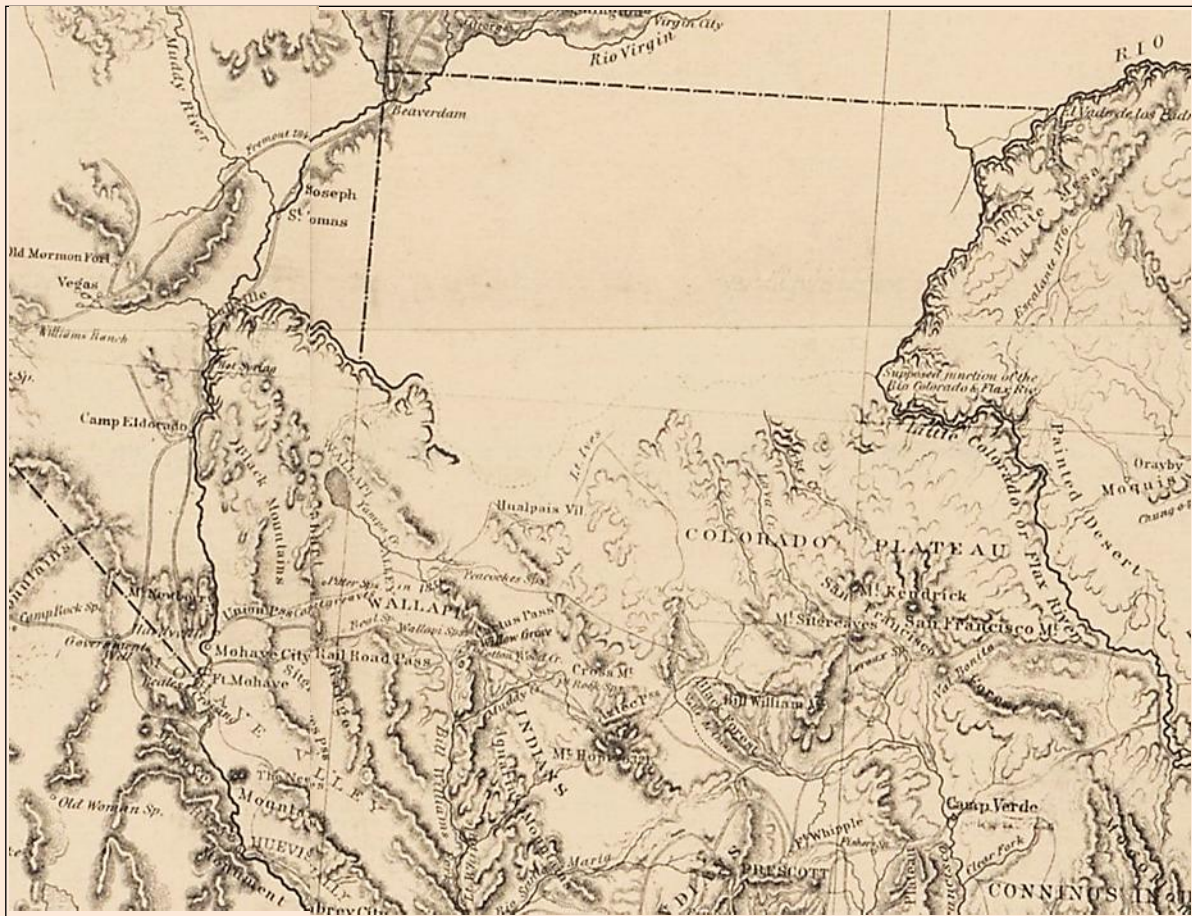
Big Canyon (1853-1910)



Detail is in grayscale and unsharpened to better read the labeling. Note that “Head of Navigation” is placed at the Virgin River confluence.

MAPPING GRAND CANYON

Big Canyon (1853–1910)



▲ ► **Figure 23. Freyhold, Edward 1868** Head Quarters Corps of Engineers. War Department. **Territory of the United States from the Mississippi River to the Pacific Ocean: Originally prepared to accompany the Reports of the explorations for a Pacific Railroad Route; Made in accordance with the 10th and 11th sections of the Army Appropriation Act of March 3rd 1853; Compiled from authorized explorations and other reliable data by Lieut. G. K. Warren, Top'l. Eng'rs, In the Office of Pacific R.R. Surveys, War Dept. under the direction of Bvt. Maj. W. H. Emory, Topl. Eng'rs, in 1854. Capt. A. A. Humphreys, Top'l. Eng'rs. in 1854-1858. Recompiled and redrawn under the direction of the Chief of Corps of Engineers by Edward Freyhold 1865-66-67-68.** ("Engraved & printed by Julius Bien, N.Y.") (Spamer 25.347, Wheat V:1185)

The course of *Rio Colorado* is depicted from the confluence of *Green River* and *Bunkara River* (Grand River); in the upper course the Colorado is labeled *Rio Colorado Grande*. From the *Supposed junction of the Rio Colorado & Flax Riv.* [Little Colorado River] to near *Wallapi Valley* (Hualapai Valley) the Colorado is depicted conjecturally by a dashed line, to the north of which, to *Rio Virgin*, is blank on this map. On the south side of the river in the Grand Canyon area are two tributaries that are shown heading toward the Colorado: *Lava Cr.* and *Parke Cr.*; on other maps these are shown as tributaries to one or the other, or a single tributary, that is *Cataract Creek*. The *Little Colorado* is depicted flowing northwestward to the Colorado. [It is this map that John Wesley Powell likely had available prior to his 1869 Colorado River expedition (*vide* Richard Quartaroli).]

Compare Freyhold, 1869 (Fig. 25).

MAPPING GRAND CANYON

Big Canyon (1853–1910)



▲ Freyhold, Edward 1868 (*greater and enhanced detail*)

This image is digitally enhanced to accentuate the faintly suggested course of the Colorado River downstream from the *Supposed junction of the Rio Colorado & Flax Riv.* It clearly borrows from Egloffstein's map by including the routes followed by *Lt. Ives* in 1858 and *Sitgreaves* in 1851, but it noticeably departs from the Egloffstein model by plotting the Little Colorado confluence at about where it should be and in eliminating Egloffstein's Parashant Canyon tributary. In fact, it omits everything north of the Grand Canyon's South Rim, with the river's course conjecturally shown by a dotted line, despite some of Egloffstein's features (Parashant Canyon among them) really being more or less accurate.

From this it is additionally clear why this map was likely of special interest to Powell by its suggestion of a reasonable course for the Colorado through the Grand Canyon, based as it was on Egloffstein's observations in the Diamond Creek area and some more general understandings from other sources about the courses of the Colorado and Little Colorado as they approached the Grand Canyon. The map (see previous page) correctly portrays the Little Colorado's course, with, at either end of the Grand Canyon, the Paria River (not labeled) and the *Rio Virgin–Muddy River* contribution.

MAPPING GRAND CANYON

Big Canyon (1853-1910)



MAPPING GRAND CANYON

Big Canyon (1853–1910)



◀ ▲ **Figure 24. Palmer, William J. [1868] Map of the Route of the Southern Continental R.R. with connections from Kansas City Mo., Ft. Smith Ark. and Shreveport La. Giving a general View of the Recent Surveys of the Kansas Pacific Railway Co., across the Continent Made in 1867 & 1868. under the direction of Gen. Wm. J. Palmer. On the Routes of the 32nd and 35th Parallels.** *In: Report of surveys across the continent, in 1867-'68, on the thirty-fifth and thirty-second parallels, for a route extending the Kansas Pacific Railway to the Pacific Ocean at San Francisco and San Diego. By Gen. Wm. J. Palmer. December 1st, 1868. [Privately printed, Philadelphia.] ("J. F. Gedney Lith, Washington. D.C.") [First state of this map. Even though the volume has been indicated to have been first available in 1869, it is clear that the map had already been produced by 1868.] (Spamer 25.600)*

This is the first map to display the “Grand Canyon” name, specifically as *Grand Cañon of the Colorado River* (so labeled between the confluences of *Rio San Juan* and *Rio Virgin*). The Colorado River is labeled *Rio Colorado* on its lower course, and as *Colorado River* between the confluence of the Virgin River and the confluence of the *Green River* and *Grand River* upstream.

The course of the Colorado in the western Grand Canyon region is reasonably like that as now known, but between there and the Green-Grand confluence it runs mostly southwesterly, reflecting the influence of Egloffstein’s map, and specifically Egloffstein’s intended course of the Colorado from Utah to the Little Colorado River confluence, with *Cataract Cr.* a tributary to the Little Colorado. Downstream from there, in the western Grand Canyon, is a river (not labeled) with an arc-shaped course from southwest around to southeast before striking the Colorado, which is the Parashant Canyon interpretation from Egloffstein’s map, though it heads in Utah.

MAPPING GRAND CANYON

Big Canyon (1853–1910)



▲ **Figure 25. Freyhold, Edward 1869 Office of the Chief of Engineers War Department Military Map of the United States compiled and drawn by E. Freyhold 1869.** (“Engraved & printed by Julius Bien, N.Y.”) (“Note. In the compilation of this map the Authorities designated on the map of the Western Territories as well as others of more recent date have been used.”) (Spamer 25.1535)

The course of *Rio Colorado or Grand River* is labeled on the area that is the canyon regions of northern Arizona and southeastern Utah. The course is depicted conjecturally by dotted lines, except for 1) a reach around the confluence of *Green River* and what actually is the *Grand River* (labeled farther upstream *Grande River*), 2) around the confluence of the *Paria River* (not labeled), 3) a reach around the confluence of *Flax River* (*Little Colorado River*), and 4) a reach around the confluence of *Diamond Creek* (not labeled).

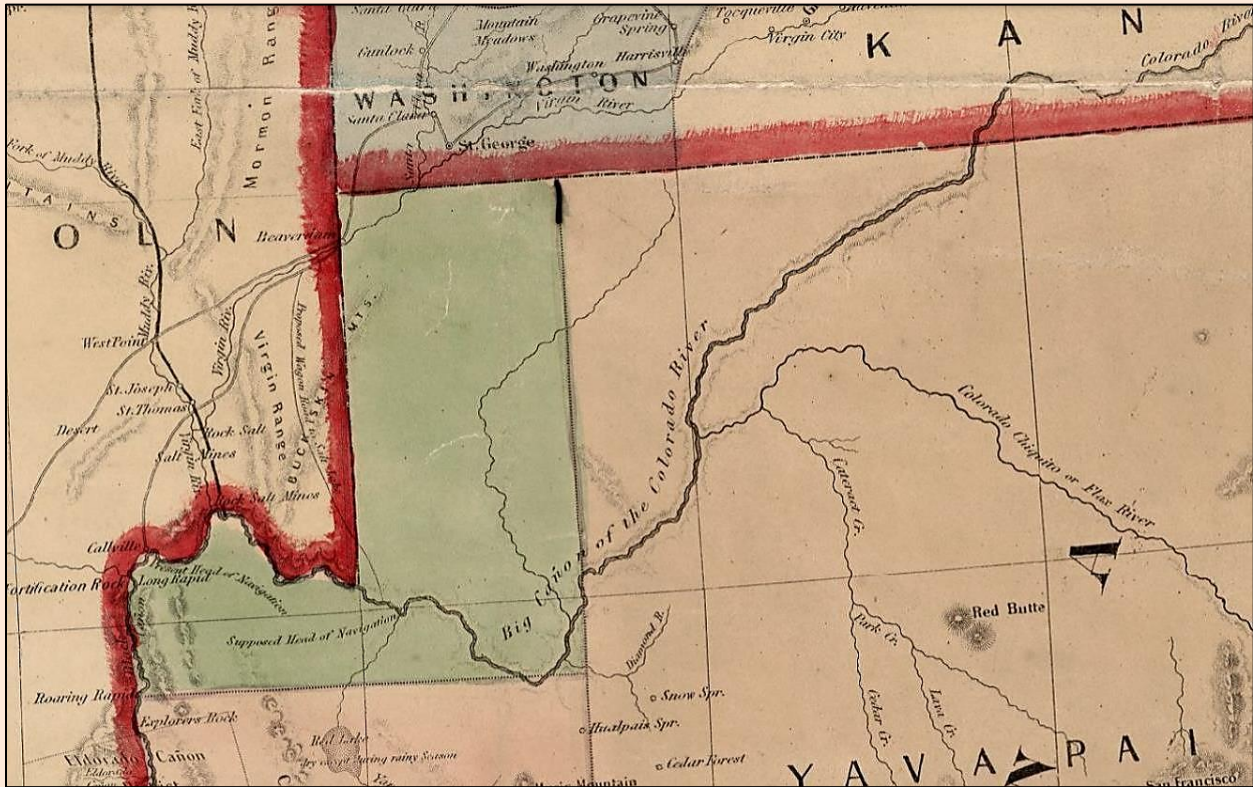
The *Little Colorado* (part of its lower course marked by a dotted line) reflects Egloffstein’s geography, meeting the *Colorado* from the east in the central part of where the *Grand Canyon* is situated, and which shortly before it meets the *Colorado* receives from the southeast *Cataract Creek* (not labeled, but on one of its headwater forks is labeled *Park Cr.* The *Parashant Canyon* tributary of Egloffstein is absent.

Between the *San Juan* and *Little Colorado River*, the unlabeled small tributary is the *Paria River*. Crossing the *Paria* is an Indian route, *Cosinas Trail*, also confusingly labeled and mispositioned, “*Escalante’s crossing of the Rio Grande in 1776.*”

Compare Freyhold (1868) (**Fig. 23**), which is, at least with respect to the stream courses, closer to reality.

MAPPING GRAND CANYON

Big Canyon (1853–1910)

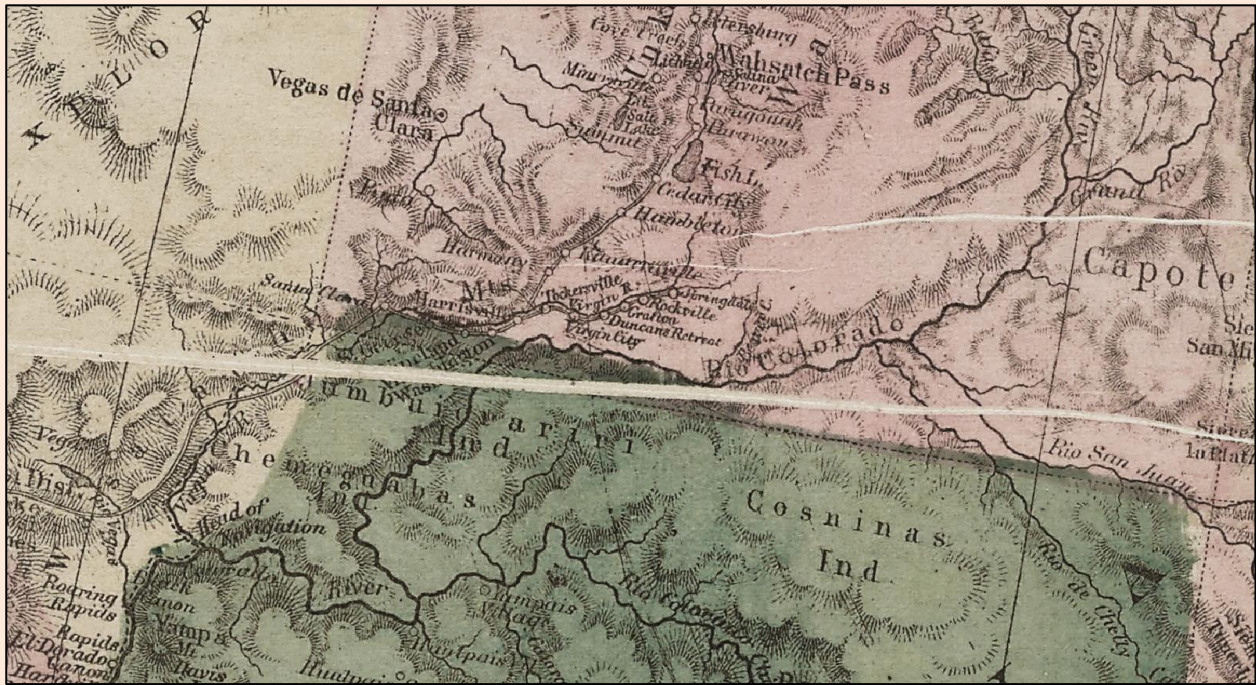


▲ **Figure 26. A. L. Bancroft and Co. 1871 Bancroft's, Map of California, Nevada, Utah and Arizona, Published By A. L. Bancroft, & Comp^y. Booksellers & Stationers San Francisco Cal. 1871.** ("Engraved & printed by Julius Bien, N.Y.") ("Note. In the compilation of this map the Authorities designated on the map of the Western Territories as well as others of more recent date have been used.") (Spamer 25.1249, Wheat V:1219)

Colorado River comes from off the map on the east (not shown in this detail). *Big Cañon of the Colorado River* is labeled between the confluences of *Colorado Chiquito or Flax River* and *Virgin River*. *Cataract Cr* is a tributary to the Little Colorado, with headwaters labeled as *Park Cr.*, *Lava Cr.*, and *Cedar Cr.* A tributary (not labeled) reaches the Colorado from the north in the mid-canyon area on the Parashant Canyon track, with headwater nearly at the Utah boundary. The Colorado follows the route implied by Egloffstein.

MAPPING GRAND CANYON

Big Canyon (1853–1910)



▲ **Figure 27. Lloyd, J. T. [Lloyd, James T.] 1871 Lloyd's Topographical Map of America 1871 Projected by J.T. Lloyd E. Lloyd, Publisher {New York 30 Cortlandt St. {London, 83 Fleet Street. ("Entered according to Act of Congress in the Year: 186[illegible] by J. T. Lloyd, in the Clerks Office of the District Court of the U. S. for the Southern District of New York.") 4 sheets. (Spamer 25.1884)**

This is a reprinting of Lloyd (1868; see Fig. 22), an example of retitling a map for other purposes.

MAPPING GRAND CANYON

Big Canyon (1853–1910)



▲ **Figure 28. Powell, J. W. [Powell, John Wesley] 1878 Department of the Interior[,] U.S. Geographical and Geological Survey of the Rocky Mountain Region[,] J. W. Powell, in charge. Map of the United States exhibiting the grants of lands made by the general government to aid in the construction of railroads and wagon roads. 1878[.] For explanation see chapter on "Land Grants in aid of Internal Improvements"[.] (The base chart was engraved for the Statistical Atlas of the United States.)** *In:* Powell, J. W., *Report on the lands of the arid region of the United States, with a more detailed account of the lands of Utah.* U.S. 45th Congress, 2nd Session, House Executive Document 73. (U.S. Geographical and Geological Survey of the Rocky Mountain Region.) (Spamer 25.1254, Wheat V:1290)

This reused map is a very peculiar choice for Powell, years after his own explorations on the Colorado River and mapping the adjacent parts of the Colorado Plateau. The Colorado River is not labeled in its lower course but appears as *Rio Colorado or Grand River* on its upper course (*as shown here*). Not only is the Grand Canyon not labeled, but the river course through the region is depicted on a more or less northeast–southwest course and is shown alternately with solid and conjecturally dotted lines. The Little Colorado River (not labeled) is shown as a tributary to the Colorado in the central Grand Canyon region, with Cataract Creek (also not labeled) a tributary to it, which follows Egloffstein’s interpretation. Cataract Creek and the lower part of the Little Colorado are shown with solid lines, although a portion of the lower part of the Little Colorado upstream from the confluence is depicted by a dotted line.

The shaded area delineates the land-grant area for the Atlantic & Pacific Railroad, with 40- and 50-mile boundaries approximately paralleling the route.

MAPPING GRAND CANYON

Big Canyon (1853–1910)

◀ **Figure 29. Vallardi, Ant. 1885 America Settentrionale 1885 Stabto. dell' Editore Ant. Vallardi Via Sta. Margherita, 9. Milano G. B. Paravia e C. Torino-Roma-Milano-Firenze.** (Spamer 25.2089)

This astonishingly outdated, confused, rather imaginative Italian map is included with the Egloffstein variants only by reason of a vague correlation to that geographical style; but beyond that, it is peculiarly unique, a contributing source thus far not identified for this survey.

The course of *Rio Colorado* is shown from the confluence of *Green R.* and *Bear R.* to *Golfo di California o Mare Vermiglio o Mare di Cortez* (Gulf of California or Vermilion Sea or Sea of Cortez). From that confluence the Colorado's course arcs from south to southwest, then turns south again to cross the *Utah–Nuovo* Messico boundary, receiving no tributaries in this reach.

Some distance into what today is Arizona, the Colorado turns westward, at which point is the confluence of a tributary from the east. Just a short distance to the east along this tributary is the place-name *Oribe* (*i.e.* Oraibi, one of the Hopi pueblos), seemingly badly positioned at the confluence of *R. S. Gió*. (San Juan River, which comes from the east-northeast) and an unlabeled river from the southeast (surely the Little Colorado River). (Note that on this map there is also a *R. S. Gioachimo*, a headwater branch of a major tributary to *R. S. Gió*.; that major tributary is itself not labeled.) The reach of the Colorado tributary between *Oribe* and the Colorado is not separately labeled, thus ambiguous, although it seems reasonable that it is a continuation of the Little Colorado. The entire region northeast of the confluence at *Oribe* is labeled *Grande Deserto* (Great Desert), an additional peculiarity given that the one-time Grand Desert label was applied to the sparingly watered western plains.

In this case the geography in the immediate area is reminiscent of Egloffstein's, with perhaps the Parashant Canyon interpretation for the Colorado's course, though inexplicably the already well-mapped western-Grand Canyon course of the Colorado to the great bend area is wholly ignored. From the Parashant confluence the Colorado instead arcs from west to southwest, continuing without much deviation from an arc to the south then to the south-southeast in order to reach the gulf.

The Virgin River does not appear on this map, but *Rio Gila* is a tributary to the Colorado about where it should be in relation to the gulf.

MAPPING GRAND CANYON

BIG CANYON CARTOBIBLIOGRAPHY (1853–1910)

Variant “Big Canyon” labels on maps are indicated by **bold red** lettering in the chorographical notes.

1853

Sitgreaves, L. [Sitgreaves, Lorenzo]

WHEAT III:763 [with illustration facing p. 10]

1853 25.916

Reconnaissance of the Zuñi, Little Colorado and Colorado Rivers. Made in 1851 under the direction of Col. J. J. Abert, Chief of Corps Topographical Engineers by Bvt. Capt. L. Sitgreaves, T. E. Assisted by Lieut. J. G. Parke, T.E. and M^r. M. H. Kern Drawn by R. H. Kern 1852 Gila River from a reconnaissance by Maj. Emory Topographical Eng^{rs} Colorado River below Camp Yuma from a reconnaissance by L^t Derby Topographical Eng^{rs} Ackerman Lith. 279 Broadway N.Y. Scale: of 10 miles to one inch.

In: Report of an expedition down the Zuñi and Colorado Rivers. Washington: Robert Armstrong, Public Printer, *U.S. 32nd Congress, 2nd Session, Senate Executive Document 59, Serial 668*, 198 pp. + plates, map.

► The lower Colorado is depicted between Ogden’s Landing and the coincident confluence of both the “Rio Virgen” and “Yampay Creek”; the Colorado comes from off the the north side of the map to this confluence.

Two states (see *Figure 12* in the Introduction to this section herein). It has not been determined here which state appeared first:

State 1: the short north/south reach of the Colorado between the Virgin/Yampay confluence and the top of the map is labeled “**Big Cañon**”

State 2: that reach is labeled “Great Cañon”.

States not noted by other cartobibliographers. See in Earle Spamer, “Big Canyon, Great Canyon, Grand Canyon: The mysterious evolution of a name”, *The Ol’ Pioneer* (Grand Canyon Historical Society), Volume 33, no. 1 (Winter 2022), pp. 8-18.

1861

Egloffstein, F. W. von [Egloffstein, Friedrich Wilhelm von]

WHEAT IV:948 [with illustration between pp. 98/99]

1861 25.494

Map No. 2. Rio Colorado of the West, Explored by 1st Lieut. Joseph C. Ives, Top^l Eng^{rs} under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Capt. Top^l Eng^{rs} in charge, by order of Hon. John B. Floyd, Secretary of War. 1858. drawn by Fr^{hr}. F. W. v. Egloffstein. Topographer to the Expedition. Scale of 12 miles to one Inch or 1:760320. (“Topography by Frh^r. F. V. v. Egloffstein. Ruling by Samuel Sartain. Lettering by F. Courtenay.”)

► From head of navigation of Colorado River to Fort Defiance, including Grand Canyon.]

In: Ives, Joseph C., *Report upon the Colorado River of the West, explored in 1857 and 1858 by Lieutenant Joseph C. Ives, Corps of Topographical Engineers, under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Captain Topographical Engineers, in charge. By order of the Secretary of War.* Washington, D.C.: U.S. Government Printing Office, 1 sheet. (Volume: *U.S. 30th Congress, 1st Session, House Document 90, Serial 1058.*) [Shaded relief.]

See Ives (1861, *ITEM NO.* 2.3584 in Volume 1, Part B of [THE GRAND CANON](#)) for bibliographical details of the volume. Ives (1861) also was released as *Senate Executive Document [no number]*, which differed only in that the Egloffstein maps were also used as base maps for two geological maps (geology by J. S. Newberry; see Newberry, 1861 [*ITEM NO.* [24.378](#)]) that accompanied only the Senate version).

MAPPING GRAND CANYON

Big Canyon (1853–1910)

► This map is well known for its highly conjectural depiction of the greater Grand Canyon region. “**Big Cañon of the Colorado**” is labeled prominently. “Colorado Plateau” is labeled on the south side of the Colorado. Notably, the “Little Colorado or Flax River” is a tributary to Cataract Creek, which in turn reaches the “Colorado River” nearly at longitude 113° W. “Yampais Village” is also labeled here. At that confluence the Colorado is depicted arriving from the northeast, although its course is shown only a short distance before fading into unmapped territory. A short distance northeast of the confluence of “Diamond River” a prominent tributary (not labeled) arrives from the northwest. Between the Colorado and that unlabeled tributary the features of the plateau are labeled “North Side M^{ts}”

NOTE on collation of maps. Although some sources may indicate that the maps are laid in loose, the copy of the Senate variant of Ives held in the American Philosophical Society, presented by J. S. Newberry, is in its original binding, wherein the two Egloffstein topographic maps are fold-outs following the second free leaf of the volume, preceding the plate titled “General Report; Profile” and the frontispiece.

Newberry, J. S. [Newberry, John Strong]

1861 24.378

Geological Map No. 2 : prepared by J. S. Newberry M.D. geologist of the expedition.

Accompanying: Newberry, John S., Part III, Geological Report [Newberry, 1861, *ITEM NO.* 21.2455 in Volume 1, Part B of [THE GRAND CANON](#)].

In: Ives, Joseph C., *Report upon the Colorado River of the West, explored in 1857 and 1858 by Lieutenant Joseph C. Ives, Corps of Topographical Engineers, under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Captain Topographical Engineers, in charge. By order of the Secretary of War.* Washington, D.C.: U.S. Government Printing Office, 4 maps on 1 sheet, scale 1:760,320. [Part III is separately paginated in the volume.] (Volume: *U.S. 36th Congress, 1st Session, Senate Executive Document [no number], Serial 1058.*)

NOTE: The geologic map portrays geology by Newberry, overprinted in color on shaded-relief map by F. W. von Egloffstein, *Map No. 2, Rio Colorado of the West, Explored by 1st. Lieut. Joseph C. Ives, Top^l. Eng^{rs}. under the direction of the Office of Explorations and Surveys, A. A. Humphreys, Capt. Top^l. Eng^{rs}. in charge, by order of Hon. John B. Floyd, Secretary of War. 1858.* (Egloffstein, 1861, *ITEM NO.* 25.494) [from head of navigation of Colorado River to Fort Defiance, including Grand Canyon]. The geologic map accompanies only the Senate Executive Document variant (Ives, 1861, *ITEM NO.* 2.3585 in Volume 1, Part B of [THE GRAND CANON](#)) (*vide* [WAGNER–CAMP 375](#), p. 648).

NOTE on collation of maps. Although some sources may indicate that the maps are laid in loose, the copy of the Senate variant held in the American Philosophical Society, presented by J. S. Newberry, is in its original binding, wherein the two Egloffstein topographic maps are fold-outs following the second free leaf of the volume, preceding the plate titled “General Report; Profile” and the frontispiece. The two Newberry geologic maps are fold-outs following Part III.

1862

U.S. Surveyor General’s Office

1862 25.998

Sketch of public surveys in New Mexico to accompany the Annual Report of the Surveyor General for 1862. (“John A. Clark [*facsimile signature*], Surveyor General of N.M.”)

► “Rio Colorado of the West” is depicted between “Gulf of California” and conjectured confluence of “Rio San Juan”. The river through the Grand Canyon region is labeled “**Big Canon of the Colorado**” between the confluences of “Virgin River” and “Little Colorado R”. The lower course of the San Juan, between “Rio de Chelly” and the Colorado is depicted by a dotted line.

MAPPING GRAND CANYON

Big Canyon (1853–1910)

1863

H. H. Bancroft and Co. [Bancroft, Hubert Howe]

- 1863 25.983 **Bancroft's map of the Colorado mines published by H. H. Bancroft and Co., San Francisco, Cal. 1863.**
In: Guide to the Colorado mines. San Francisco: H. H. Bancroft and Co., 16 pp., map. [Volume is principally a travel guide.]
▶ The river, "Colorado", is depicted between Mexico and the Grand Canyon region only. Grand Canyon is labeled "**Big Canon of the Colorado**". The main stem of the Colorado is shown as coming from the north approximately where Kanab Creek is situated, and "North Side Mts." are labeled between the Colorado-Little Colorado confluence, thus portraying the erroneous geography of Egloffstein.
Reprinted 1933; see Hubert Howe Bancroft, Robert Ernest Cowan, and Mahlon Dickerson, Fairchild, *Guide to the Colorado mines.* (Foreword by Robert Ernest Cowan.) *California Historical Society Quarterly*, 12(1) (March): 3-10, frontispiece map.

Colton, J. H. [Colton, Joseph Hutchins]

WHEAT V:1099

- 1864 25.1250 **Colton's Map of the States and Territories West of the Mississippi River to the Pacific Ocean Showing the Overland Routes, Project Rail Road Lines &c. Published by J. H. Colton, N^o 172 William St. New York. 1864.**
▶ The Colorado River is labeled "Rio Colorado" in its lower reach between the head of the Gulf of California (not labeled) and the confluence of "Virgin River"; upstream from there it is labeled "Colorado River" to the confluence of "Green River" and "Grand River". "**Big Canon of the Colorado**" is labeled between the Virgin and upstream of the confluence of "Colorado Chiquito River". "Cataract Cr." is a tributary to the Little Colorado. The main course of the Colorado comes into the Grand Canyon about where Kanab Creek is situated, although "Diamond Cr." is shown as a tributary to the Colorado a short distance downstream of the confluence of the Little Colorado. "River San Juan" is shown as a tributary not far south of the confluence of the Green and Grand, in southern Utah. "Head of Navigation" is labeled at the mouth of the Virgin River. "Rio Vegas" (Las Vegas Wash) is a tributary to "Black Cañon."
- 1864 25.2472 **Map of the Atchison, Topeka & Santa Fe Rail Road. Prepared by J.H. Colton, 172 William Street, New York. 1864.** ("Printed by H. P. Cooper 117 Fulton St N.Y.")
▶ The rail routes are mostly projected. The base map depicts the "Colorado River" from the confluence of "Green River" and "Grand River", following a southwesterly course nearly to the Arizona-Utah boundary, thence westerly before turning again southwest into Arizona, after which it turns southeast to reach the confluence of "Colorado Chiquito River" just upstream from the confluence of "Diamond Cr." The geography follows decidedly a variant of Egloffstein's geography. The Little Colorado follows a course to the northwest before turning southwesterly to the "Cataract Cr." confluence and, eventually, the main Colorado. "**Big Cañon of the Colorado**" is labeled in the area between the Cataract Creek confluence and the confluence of "Virgin River".

MAPPING GRAND CANYON

Big Canyon (1853–1910)

H. H. Bancroft and Co. [Bancroft, Hubert Howe]

WHEAT V:1093

- 1864 25.1248 **Bancroft's, Map of California, Nevada, Utah and Arizona, Published By H. H. Bancroft, & Comp^y Booksellers & Stationers San Francisco Cal. 1864.** ("Entered according to Act of Congress A.D. 1863, by H. H. Bancroft and Company . . .")
- ▶ "Colorado River" is depicted between a point south of the international boundary and southeastern Washington County, Utah, where it passes off the map to the east. "**Big Cañon of the Colorado**" is labeled, with "Colorado Chiquito (Little Colorado) or Flax R." a tributary from the east. "Cataract Cr." is shown as a tributary to the Little Colorado, near "Yampai's Village"; an upper tributary to Cataract is "Lava Cr." A short distance downstream on the Colorado is the confluence of "Diamond R." "North Side Mts." are labeled between the Colorado-Little Colorado confluence, thus portraying the erroneous geography of Egloffstein. In western Grand Canyon "Yampais Cr." is a tributary from the south. "Rio Virgin" is shown, with "Muddy R." a tributary to it, and Las Vegas Wash (not labeled) is a tributary to the Colorado in "Black Cañon".

1865

Colton, J. H.

- 1865 25.1703 **Colton's Map of California, Nevada, Utah, Colorado, Arizona & New Mexico. Published by J.H. Colton 172 William St New York.** ("Entered according to Act of Congress, in the Year 1855 [*sic*], by J. H. Colton—in the Clerks Office of the District Court of the United States for the Southern District of New York.")
- In: Colton's general atlas, containing one hundred and eighty steel plate maps and plans, on one hundred and eight imperial folio sheets, drawn by G. Woolworth Colton. Letter-press descriptions, geographical, statistical, and historical, by Richard Swainson Fisher. New York: J. H. Colton Co., and London: Bacon and Co.*
- ▶ The Arizona boundary is depicted with the Nevada angle of "Rio Arriba" county at northwest corner. The Gila River international boundary is labeled, "Surveyed by Mexican B^dy Commission", and the Gadsden Purchase boundary is labeled, "Boundary Line between United States & Mexico according to the Gadsden Treaty June 20th 1854. this line was run by Major Emory". In its lower course the Colorado River is labeled "Rio Colorado" and in its upper course "Colorado River". The river is depicted between the head of the Gulf of California (not labeled) and the confluence of "Green River" and "Grand River"; its reach in Mexico is shown on a very sinuous southward course, receiving "New River" from the northwest about one third of the distance above the gulf, and in this reach are various places labeled, including "Algodomes" [*sic*], "Willow Woods", "Ogdens Landing", and "Sierra Nevada Anchorage". "F: Yuma", "Colorado C.", and "Arizona City" all are labeled at the "River Gila" confluence. From the Grand-Green confluence through "**Big Cañon of the Colorado**" the Colorado is labeled "Colorado River". Downstream from the Grand-Green confluence, the Colorado's course is southwestward, receiving "River San Juan" from the east; before reaching the Utah-Arizona boundary it turns due west, eventually turning southwestward and crossing that boundary due north of the mapped "Cataract Cr." confluence (see further), then turns southeastward to a point north-northwest of the "Diamond Cr." confluence, thence turns south-southwest to Diamond Creek and west-northwestward to the confluence of "Virgin River" at "Head of Navigation" above the confluence of "Rio Vegas" (Las Vegas Wash) and the head of "Black Cañon". "Colorado Chiquito River" (Little Colorado River) follows a northwestward course before turning sharply to the southwest, receiving "Cataract Cr." at "Yampais Vill." where it turns briefly northwestward before receiving a tributary (not labeled) from the northeast (a Kanab Creek extension?) From that point it turns southwestward to its confluence with the

MAPPING GRAND CANYON

Big Canyon (1853–1910)

Colorado, at the point aforementioned north-northeast of the Diamond Creek confluence. All in all, a remarkable confusion not even closely following the courses suggested by the Egloffstein maps.

Gird, Richard

WHEAT IV:1122

1865 25.43

Official Map of the Territory of Arizona. With all the recent explorations Compiled by Richard Gird C. E. Commissioner. Approved by John N. Goodwin, Governor. In accordance with an act of the legislature, approved Oct. 23^d 1864. We hereby certify that this is the Official Map of the Territory of Arizona, and approve the same. John N. Goodwin [signature] Governor. R. C. M^cCormick [signature] Secretary. Prescott October 12th 1865. Published by A. Gensoul. Pacific Map Depot N^o 511 Montgomery St. San Francisco. ("Lith. Britton & Co. San Francisco.") Scale 1 inch = 15 miles.

Folded, in case. Case title: **Gird's Official Map of the Territory of Arizona. A. Gensoul, Publisher.**

► Arizona is figured with its original northwest angle that today is southern Nevada. "Colorado River" is delineated between the head of "Gulf of California" (that separates "Lower California" from "Sonora") and the Utah boundary. In the Grand Canyon region the geography represents that of the Egloffstein map in Ives' volume (1861) on the Colorado River exploration. The river and tributaries in this region are delineated by single contours that suggest canyon reaches. "**Big Cañon of the Colorado River**" is labeled in the western and central parts of the canyon, where "Flax River or Colorado Chiquito" (Little Colorado River) reaches the Colorado. "Cataract Cr." is a tributary to the Little Colorado; its upper reaches are separately labeled "Park Cr.", "Lava Cr.", and "Cedar Cr." Features in the northern part of the Lower Colorado River area are labeled according to the Egloffstein map but include "Callville" at "Present Head of Navigation", above "Fortification Rock", and farther upstream at the confluence of "Yampa Cr." from the south is labeled "Supposed Head of Navigation"; there also "Road to Salt Lake" is labeled arriving from the north. In the Colorado River delta region, "Hardys Colorado" is shown arriving with the Colorado at the head of the gulf, and "Cocopa Slough" connects the two streams. Below "Ogdens Landing" a separate stream departs from the Colorado and precedes to "Victoria Bay" that is an inlet of the gulf at "Port Isabel". "Fort Yuma", "Colorado City", and "Arizona City" are all labeled near the confluence of "Gila River".

Hartley, William B.

NO DATE 25.50

Hartley's map of Arizona from official documents. Office 32 Pine St. N.Y. [No imprint.] [1865?]

Library of Congress copy includes manuscript notations, "[1865]" (square brackets thus) and "Drawn & Eng J.C. Smith N.Y."

► "Colorado River" depicted to the "Gulf of California". The river in the Grand Canyon region is labeled "**Canon of the Colorado R**". (This citation is included under "Big Canyon" because the configurations of rivers and tributaries, and other data, indicate that this was copied and interpreted from Egloffstein's map.) "Rio Colorado" is depicted along a most unusual route between the confluence of the "Green River" and "Grand River", passing to the west of the "North Side Mts." and reaching the confluence of "Little Colorado R". Farther downstream, still on a southerly course before turning westward, is the confluence of Diamond Creek (not labeled) and the notation "Hualpais Village". The lower Colorado River region includes labels taken from the Ives Expedition; "Head of Navigation" is noted north of "Fortification Rock". Also, there are no labels on the river in Mexico except "Point Invincible Head of Navigation".

MAPPING GRAND CANYON

Big Canyon (1853–1910)

1866

Knight, William H.

WHEAT V:1132

1866 25.1247

Bancroft's map of the Rocky Mountain States, and the Pacific coast. Compiled by W^m H. Knight. Published by H. H. Bancroft & Co. Booksellers and Stationers, San Francisco, Cal. 1866.

► "Colorado R." is depicted between "Mexico" and the confluences of "Green R.", "Grande R." (Grand River), and "San Juan R." South of "Fort Yuma" and "Arizona City" the river continues some distance into Mexico before passing off the map, with no indication of the Gulf of California. The "Green" and "Grande" parallel each other, both coming to "**Big Cañon of the Colorado**"; it is unclear from the drawings whether "Grande" is implied to be a tributary to the San Juan or vice versa. "Little Colorado or Flax R." is shown as a tributary to the Colorado in the eastern Grand Canyon. "Virgin R." is shown as a tributary, into which "Muddy Cr." is in turn a tributary. "Bill Williams Fork" is shown. "Gila R." is a tributary to the Colorado at Arizona City.

U.S. General Land Office

WHEAT V:1153

1866 25.112

Sketch of public surveys in New Mexico & Arizona to accompany the annual report of the Commissioner of the General Land Office for 1866 : The Major & Knapp Eng Mfg & Lith Co. 71 Broadway N.Y. ("Department of the Interior General Land Office October 2nd 1866 Jos. S. Wilson [*facsimile signature*] Commissioner".)

► "Rio Colorado of the West" is labeled. "**Big Cañon of the Colorado**" is labeled between the confluence of "Virgin River" and the Arizona/Utah boundary. The river is drawn as a simple arc through this region, at the eastern end of which is the confluence of "Little Colorado R." to which "Cataract Cr" is a tributary. Just north of the territorial boundary, the river then is drawn as a dashed line, connecting along an approximately 130-mile east-west route with the "Rio San Juan". There are no streams shown coming from the north. In the western section, "Yampa Cr" is shown draining into "Red Lake", which in turn flows northeastward to the Colorado. "Callville" is marked "Present Head of Navig". In the northwestern part of Arizona in the so-called "angle" that today is southern Nevada, are labeled "Pah-Ute Co" and "Mohavee Co." [*sic*]. Also drawn in is "Whipple's Route to California (Not Considered Practicable)". Also drawn in is "Trail of the Colorado Exploring Expedition Lt Ives".

1867

De Cordova, J. [De Cordova, Jacob]

1867 25.697

J. De Cordova's map of the State of Texas compiled from the records of the General Land Office of the State by Robert Creuzbauer, Austin, 1867[.] New edition, revised and corrected to date. New York: J. H. Colton and Co.

► A quadrangular **INSET** map portrays the southwestern portion of North America with state and territorial boundaries shown. The Green River (not labeled), "Grand R." and "R. San Juan" have a nearly coincidental confluence, downstream of which is "Rio Colorado", which passes through "**Big Canon**" (labeled only at its western end). What had been in the 1856 ed. at least, the formerly labeled "Green R." is shorter and without label, but otherwise in the same respective position with the "Grand R." and "Rio de Lino". Nearer the Gulf of California, "Ft. Yuma", "Colorado City", and "Gila City" are shown together. The 35th and 32nd parallel Pacific railroad routes are shown, though not labeled.

MAPPING GRAND CANYON

Big Canyon (1853–1910)

Knight, William H.

WHEAT V:1164

1867 25.1030

Bancroft's map of the Pacific States. Compiled by W^m Henry Knight. Published by H. H. Bancroft & Co. Booksellers and Stationers, San Francisco, Cal. 1867.

► "Colorado Riv." (label below Yuma), "Colorado River" (label upstream) depicted from the U.S.-Mexico border to the confluence of the "Grand River" and "Green River". Callville is noted as "Present Head of Navigation", downstream from the confluence of "virgin Riv." "Big Cañon of the Colorado River" is labeled. "Red Lake" ("dry except during raining Season") in "Wallapi Valley" (Hualapai Valley) is depicted with "Yampi Cr." as a source and with an outlet to the Colorado River in western Grand Canyon where it is labeled "Supposed Head of Navigation". A "Proposed Wagon Road to Salt Lake [City]" is shown reaching the Colorado from the north at this point. "Diamond R." is shown as well as a tributary (not labeled) from the north that has its confluence with the Colorado just upstream from Diamond Creek. "Colorado Chiquito or Flax River" (Little Colorado River) is depicted with its confluence in central Grand Canyon, and "Cateract [sic] Cr." is shown as a tributary to it. In the "Colorado Desert" the entire Salton Basin is shown as "Salt Lake Dry except during rainy season Supposed to be below the level of the Sea".

Wheat (1963, Volume V, p. 223) calls this the "mother map" of a series of Bancroft maps.

U.S. Army Corps of Engineers [Corps of Topographical Engineers]

1867 25.97

Old Territory and Military Department of New Mexico compiled in the Bureau of Topog^l Eng^{ts} of the War Dep^t chiefly for military purposes under the authority of the Secretary of War 1859 Partially revised and corrected to 1867. ("Engraved by W. H. Dougal".) [With extensive list of "Authorities".

► The course of "Rio Colorado of the West" in the lower Colorado River region is depicted reasonably well, including that part of its course from "Colorado City" and "Arizona City" to the head of the "Gulf of California". Between "Callville" and the confluence of "Diamond R." (noted also by "Indian Trail"), in "Big Cañon of the Colorado Riv.", the course of the river is depicted with a dotted line. In this reach there is a label "Sup^d H^d of Navigation" from which point there is marked to the north, "Proposed Wagon Rd. to Salt Lake". Upstream from Diamond Creek the river is depicted by a solid line to a point near the confluence of "Cataract Creek" (which is in error because farther upstream matters are quite confused, reflecting the mapping reported by Egloffstein in Ives (1861). "Flax River or Colorado Chiquito" (Little Colorado River) approaches the region from the southeast, with a portion of its course depicted by a dotted line until its lowermost course, where Cataract Creek is shown as a tributary to it. From this confluence of the Little Colorado with the main Colorado, the main Colorado is depicted entirely by a dotted line between there and the confluence of "Green River" and "Grand River", with those two rivers farther upstream also depicted by dotted lines. The immediate area of that confluence, however, is depicted with "certainty", portrayed as encanyoned. In the western Grand Canyon area there is another tributary, depicted by a solid line, coming from the northeast before turning southeast to the Colorado with its confluence not far upstream from Diamond Creek.

MAPPING GRAND CANYON

Big Canyon (1853–1910)

U.S. General Land Office

WHEAT V:1168

1867 25.1037

Map of the United States and territories, showing the extent of public surveys and other details. Constructed from the plats and official sources of the General Land Office, under the direction of the Hon. Jos. S. Wilson, Commissioner, by Joseph Gorkinski, Draughtsman, 1867. ("Department of the Interior[,] General Land Office[,] Oct. 15th 1867. Jo^s S. Wilson [*facsimile signature*] Commissioner".)

► "Colorado River" is depicted between the "Gulf of California" and various supposed confluences in Utah. "Head of Navigation" is depicted at "Colville" (Callville). Between the confluences of "Rio Virgin" and "Rio Colorado Chiquito River" [*sic*] (Little Colorado River) is labeled "**Big Canon**". "Cataract R." is a tributary to the Little Colorado (Wheat, Volume 5, p. 214, misquotes as "Cateract R.", perhaps confused with Knight, 1867, [ITEM NO. 25.1030](#)). Upstream from the Little Colorado confluence the Colorado traces an east-west course, coming from the north from Utah where it is depicted only by a dotted line. The region through which the Colorado is drawn conjecturally also has a notation, "Unexplored". The manner in which the known portions of the "Grand R." and "Green River" are depicted with solid lines, although by appearances it seems that the Green is a tributary to "Yampah or Bear R." In any case, the continuing reaches of these rivers, to their confluences with the Colorado, are, like the Colorado, shown as dotted lines. The "Proposed Route of U.P. R.R. E.D.[.]" is shown on the 35th parallel route. This map also depicts by hand-colored symbols various areas of mining interest, identified by their productive materials. Numerous prospects are depicted throughout the lower Colorado River region; and of interest are gold prospects shown in the western Grand Canyon.

NOTE: It is this map that John Wesley Powell likely had available prior to his [1868 explorations in the Rocky Mountains](#) (*fide* Richard Quartaroli).

The map that Powell likely had available prior to his [1869 Colorado River expedition](#) (*fide* Quartaroli) **did not affix any name** to the Grand Canyon area. For its corresponding informational value, its citation and chorographical notes are appended here [also see [Figure 23](#) herein]:

Freyhold, Edward

WHEAT V:1185

1868 25.347

Head Quarters Corps of Engineers. War Department. Territory of the United States from the Mississippi River to the Pacific Ocean: Originally prepared to accompany the Reports of the explorations for a Pacific Railroad Route; Made in accordance with the 10th and 11th sections of the Army Appropriation Act of March 3rd 1853; Compiled from authorized explorations and other reliable data by Lieut. G. K. Warren, Top'l. Eng'rs, In the Office of Pacific R.R. Surveys, War Dept. under the direction of Bvt. Maj. W. H. Emory, Topl. Eng'rs, in 1854. Capt. A. A. Humphreys, Top'l. Eng'rs. in 1854-1858. Recompiled and redrawn under the direction of the Chief of Corps of Engineers by Edward Freyhold 1865-66-67-68. ("Engraved & printed by Julius Bien, N.Y.") Scale 1:3,000,000.

► "Rio Colorado" is depicted from the "Gulf of California" to the confluence of "Green River" and "Bunkara River" (Grand River); in the upper course the Colorado is labeled "Rio Colorado Grande". From near "Wallapi Valley" (Hualapai Valley) to "Supposed junction of the Rio Colorado & Flax Riv.", the Colorado is depicted by a dashed line, to the north of which, to "Rio Virgin" is blank on this map. On the south side of the river in the Grand Canyon area are two tributaries that are shown heading toward the Colorado: "Lava Cr." and "Parke Cr."; on other maps these are shown as tributaries to one or the other, or a single tributary, that is Cataract Creek. The "Little Colorado or Flax River" is depicted flowing northwestward to the Colorado. Various routes of exploration are also delineated.

MAPPING GRAND CANYON

Big Canyon (1853–1910)

Watson, Gaylord

WHEAT V:1174

1867 25.1104

The American Republic and Rail-Road Map of the United States[,] British Provinces[,] West-Indies[,] Mexico and Central America[.] Compiled from the latest Official Sources. New York: Gaylord Watson. ("Engraved by Fisk & Russell N. York".)

Cover title: **Watson's Rail-Road Map of the United States[,] Mexico etc.**

► "Colorado River" is depicted between the "Gulf of California" and the confluence of "Grand Riv." and a river labeled confusingly far northward "Green Riv." The Colorado is shown only diagrammatically in the Grand Canyon region, where at its western end is the label "**Big Cañon of the Colorado**". Also at the western end is the confluence of the Colorado and "Colorado Chiquito or Flax R." (Little Colorado River), where also is shown "Yampas Village" at the confluence of the Little Colorado and an unlabeled tributary that is Cataract Creek.

1869

Blanchard, Rufus

WHEAT V:1197

1869 25.1105

Cabinet Map of the Western States and Territories on a rectangular project showing the location of gold[,] silver and other minerals[,] the rail roads and principal cities[,] the meridian lines[,] base lines and Congressional townships as far as public surveys have been extended[.] Compiled from government maps and published by Rufus Blanchard. Chicago: Rufus Blanchard. ("Engraved by Jerome T. Gouget, at R. Blanchard's Map Establishment. No. 146, Lake St. Chicago, Ill.")

► "Colorado River" is depicted between "Gulf of California" and the confluence of "Gunnison River" [*sic*] and a river labeled confusingly far northward "Green River". At the western end of the Grand Canyon region is the label "**Big Canon**". More toward the middle of that region is shown the confluence of "Rio Colorado Chiquito Riv." [*sic*] and "Cataract R.", although it is unclear by the labeling which of the two continues to its confluence with the Colorado. At "Colville" (Callville) is the label "Head of Navigation".

Merrill, William E.

1869 25.641

(COMPILED UNDER DIRECTION OF) **Map of Utah and Colorado prepared by order of Lieut. Gen! W. T. Sherman** ("Drawn by H. De Werthern.") ("R. P. Studley & Co. lith. St. Louis, Mo.") ("Bvt. Maj. Gen! A. A. Humphreys Chief of Engineers") ("Compiled under direction of Bvt. Col. Wm. E. Merrill, Maj. Engrs. St. Louis, 1869") [With extensive list of authorities in lower left with dates 1854-1869.]

► Map includes portions of adjacent territories, including northernmost Arizona and conjectural geography of the Grand Canyon westward to the confluence of the Virgin River and Callville, Nevada (Grand Canyon is labeled "**Cañon of the Rio Colorado**"). The course of "Rio Colorado" is southwesterly where it crosses the Utah-Arizona boundary at "Vado de Los Padres" (somewhat mispositioned right on the boundary), continuing thus for a while before turning west, running parallel to the boundary before eventually turning southwest and south-southwest to enter into the Egloffstein model of the river, though here the Parashant tributary is more properly displayed as a discrete tributary to the Colorado. "Colorado Chiquito" enters the map from the southeast before turning southwest to meet the main Colorado, receiving from the southeast just before that confluence "Catarac Riv." (*sic*, Cataract Creek). A dashed line entering a tributary to Cataract Creek and continuing toward the Colorado is labeled "L. J. C. Ives". All stream courses including tributaries in northern Arizona are depicted as encanyoned. (Because this map employs the Egloffstein model, its citation is included under "Big Canyon" herein.)

SPECIAL NOTE: The Church of Jesus Christ of Latter-day Saints, Church Library and Archives, holds an annotated copy of this map with the notation, "The dotted lines

MAPPING GRAND CANYON

Big Canyon (1853–1910)

in Red Ink are corrections made by Maj. Powell of the Colorado Expedition.” The dotted lines follow traces drawn in pencil that describe the Colorado, Paria, and Dirty Devil Rivers and display a revised path of the Colorado River between the “Supposed Junction” of the San Juan River, through the Grand Canyon. This map (call no. 917.8 D516m 1869) also contains other annotations in pencil. It may be accessed online at <https://catalog.churchofjesuschrist.org/assets?id=335ce82c-5694-4c95-a637-312ccdf4412c&crate=0&index=0> (last accessed 22 August 2024). (No further information is available regarding the timing or source of the annotations or the provenance of that copy of the map [*fide* LDS Library to Richard D. Quartaroli, September 2019]. There is insufficient evidence to corroborate even whether Powell annotated the map, or whether indeed the information came from him [*fide* Quartaroli, 22 August 2024].)

Refer also to Richard D. Quartaroli, “John Wesley Powell, Jacob Hamblin, and ‘a Mormon map’”, *Proceedings of the Colorado River Basin History Symposium, 2021, hosted by The Grand Canyon Historical Society* (Grand Canyon, Arizona: Grand Canyon Historical Society, 2022), pp. 42-49. While his paper focuses on the historical background behind the supposed—and still unidentified, possibly manuscript—“Mormon map” that Powell had had prior to his first river expedition of 1869, and delves into Powell’s relationship with Mormon pioneer explorers particularly Jacob Hamblin, it includes a page-width reproduction (fig. 5, p. 46) of the map cited here accompanied by a cropped view (fig. 10, p. 47) of the area showing the red-dotted annotated lines. Also superimposed on the detail view are stream courses assembled digitally by Chris Brod of Spatial Science Solutions from 1) Frederick S. Dellenbaugh’s 1873 original manuscript map (made under Powell’s direction while on the Powell Survey based in Kanab, Utah, and sent on to Powell in Washington at the close of winter 1873, as revised for his 1902 book, *The Romance of the Colorado River* [G. P. Putnam’s Sons, New York], p. 37) and 2) the courses of the river and tributaries from a modern map. While it shows that the red-dotted line follows a very different course from that of the “Map of Utah and Colorado” cited here, neither does it even closely adhere to the Dellenbaugh or modern courses. In fact, it is observed (*here*) that the red-dotted course resembles the “bactrian” course of the Colorado that was plotted by commercial cartographers as early as 1868 and copied in various forms for the next decade. (Regarding the “bactrian” course, with illustrated examples, see Part 8 (pp. 153-164) of Earle E. Spamer, *The Colorado River of the West : cartographic styles of the 16th to 19th centuries* [Raven’s Perch Media, 2023, PDF online at <https://ravensperch.org/wp-content/uploads/2023/05/CRWest.pdf> or at <https://www.academia.edu/101672309/>, 194 pp., 25MB].)

It is difficult to suppose that Powell—or someone using information from him—had drawn the red-dotted line that departs so radically from the results of the Powell surveys of the Colorado River and the plateau country north of the Grand Canyon. Also of note is the annotated placement of Kanab, Utah, misspelled “Kinab”, a spelling not of Powell’s usage. [The “Kinab” spelling also does not appear among the variants noted by Steve Allen, *Utah’s canyon country place names, Volume 1 (A-L)* (Canyon Country Press, Durango, Colorado, 2013).]

Ravenstein, E. G. [Ravenstein, Ernst Georg]

1869 25.2488 **Map of South-Western Portion of the United States, and of Sonora and Chihuahua. Illustrating Travels by Dr. W. A. Bell. Compiled by E. G. Ravenstein, F.R.G.S. &c.** Scale 1:6,000,000.

In: Bell, William A., *New tracks in North America. A journal of travel and adventure whilst engaged in a survey for a southern railroad to the Pacific Ocean during 1867-8.* London: Chapman and Hall, 2 volumes, lxi, 236 pp., 322 pp. [See also an 1870 ed. of Bell.]

► “Colorado River” depicted between “Gulf of California” and confluence of “Grand R.” and “Green R.” General physiography by altitude is displayed. From the confluence of “R. San Juan” the Colorado follows a west-southwesterly course

MAPPING GRAND CANYON

Big Canyon (1853–1910)

before turning southwestwardly into Arizona, where in "**Big Cañon**" it receives "Flax R. or Little Colorado" from the east and southwest. "Cataract R." is a tributary to the Little Colorado. The depiction of the Colorado in Grand Canyon follows that of Egloffstein.

Watson, Gaylord

1869 25.2043

Watson's New Map of the Western States[,] Territories, Mexico, and Central America. Published by Gaylord Watson, 16 Beekman Street, New York. ("Entered according to Act of Congress, in the year 1869, by Gaylord Watson, in the Clerk's Office of the District Court of the United States for the Southern District of New York.") ("Chicago: W. W. Wadsorth, 135 So. Water St.")

► "Colorado River" is delineated between "Gulf of California" and a series of disjointed headwater streams, but careful attention to the crowded labelings "Green R." and "Grand Riv." have an approximately positioned confluence in southeastern Utah. The Colorado's course below that confluence arcs from south to west and remains in Utah along the boundary with Arizona before turning southwest into Arizona and around the "North Side Mts." where it then receives from the northwest "Colorado Chiquito or Flax R." (Little Colorado River). A tributary (not labeled) to the Little Colorado from the southwest is Cataract Creek, at the confluence of which is the "Yampas Village". On the north side of the supposed Colorado Chiquito here is an unlabeled tributary from the northeast that runs along the "North Side Mts." The Colorado then turns northwest to the confluence of "R. Virgin", where "Head of Navigation" is indicated, before turning south. Between the Virgin and Cataract Creek is the label "**Big Cañon of the Colorado**". A series of dashed lines in this area, with various place names, indicates (though not labeling) the route of the land expedition of J. C. Ives in 1858, thus indicating that these data are from Egloffstein's map in Ives' report of 1861. The 35th parallel railway route is very generally depicted, as also is the 32nd parallel road through "Arizona Cy." at "Ft. Yuma".

Wheeler, George M.; Lockwood, O. W.; AND Hamel, P. W.

WHEAT V:1218 [with illustration facing p. 299]

1869 25.736

Map showing detailed topography of the country traversed by the reconnaissance expedition through southern and southeastern Nevada in charge of Lieut. Geo. M. Wheeler[,] U.S. Engineers[,] assisted by Lieut. O. W. Lockwood[,] Corps of Engineers U.S.A. 1869 P. W. Hamel[,] Chief Topographer and Draughtsman.

Caption: "Reconnaissance Maps Department of California".

Added to map: "Military Map N^o 1". "Scale 1 inch. to 12 miles." "Photolith. by the N.Y. Lith^g Engr^g & Prt^g Co."

► Southeastern corner of map depicts the great bend of the "Colorado River" and westernmost Grand Canyon, where it is labeled "**Big Canon of the Colorado**". "Remarks" printed on map include: "At the south east corner to the east of the Virgin Range and to the south east of the mouth of the Virgin River, advantage has been taken of the map compiled from the results of Lieutenant Ives' explorations along the Colorado." (Refer to the map by F. W. von Egloffstein, 1861, [ITEM NO. 25.494](#), and notes therewith.)]

1870

Ravenstein, E. G. [Ravenstein, Ernst Georg]

1870 25.1098

Map of the South-Western Portion of the United States, and of Sonora and Chihuahua. to illustrate the Paper by Dr. W. A. Bell. Compiled by E. G. Ravenstein, F.R.G.S. &c.

MAPPING GRAND CANYON

Big Canyon (1853–1910)

(“Published for the Journal of the Royal Geographical Society by J. Murray, Albemarle Street, London 1870.” “Chapman and Hall, London.”) Scale 1:6,000,000.

Accompanies: Bell, William A. (1869), On the basin of Colorado and the Great Basin of North America. *Royal Geographical Society, Journal*, 39: 95-120. (“Read, March 8, 1868.”) [1870.]

▶ “Colorado River” is depicted between “Gulf of California” and confluence of “Green R.” and “Grand R.” “**Big Cañon**” is labeled in the western Grand Canyon region, where also is shown the confluence of “Flax R. or Little Colorado”. “Cataract R.” is shown as a tributary to the Little Colorado near its confluence with the Colorado.

WHEAT V:1196

[cites Chapman and Hall 1870 printing but also notes published in Bell (1869).]

1870 25.1099

Map of the South-Western Portion of the United States, and of Sonora and Chihuahua. Illustrating Travels by Dr. W. A. Bell. Compiled by E. G. Ravenstein, F.R.G.S. &c. (“London: Chapman & Hall, 1870.”) Scale 1:6,000,000.

In: Bell, William A., *New tracks in North America. A journal of travel and adventure whilst engaged in a survey for a southern railroad to the Pacific Ocean during 1867-8.* London: Chapman and Hall, and New York: Scribner, Welford and Co., lxi, 565 pp., **MAP**.

▶ “Colorado River” is depicted between “Gulf of California” and confluence of “Green R.” and “Grand R.” “**Big Cañon**” is labeled in the western Grand Canyon region, where also is shown the confluence of “Flax R. or Little Colorado”. “Cataract R.” is shown as a tributary to the Little Colorado near its confluence with the Colorado.

NOTE: This ed. of Bell includes “Appendix D. Major J. W. Powell’s report on his explorations of the Rio Colorado in 1869” (pp. 559-563), a reprinting, with minor editing, of Powell’s correspondence to the *New-York Tribune* (1869, *ITEM NO.* 2.27801). Appendix D is added to the 1870 ed.; not present in 1869 ed. Also note that by the inclusion of Powell’s use of “Grand Cañon”, this ed. of Bell is the only contemporary publication to use all three early names for Grand Canyon, also using “Great Cañon” and “Big Cañon”.

1871

A. L. Bancroft and Co.

WHEAT V:1219

1871 25.1249

Bancroft’s, Map of California, Nevada, Utah and Arizona, Published By A. L. Bancroft, & Comp^y Booksellers & Stationers San Francisco Cal. 1871.

▶ “Colorado River” is shown between south of Yuma and north of the Utah/Arizona boundary before passing off the map to the east. “**Big Cañon of the Colorado River**” is labeled between the Virgin River and the confluence of “Colorado Chiquito or Flax River”, to which the latter “Cataract Cr” is a tributary; headwaters of Cataract Creek are “Park Cr.”, “Lava Cr.”, and “Cedar Cr.” A river (not labeled) reaches the Colorado from the north in the mid-canyon area. Thus even after Powell’s first expedition the portrayal is still that reminiscent of the Egloffstein map in Ives.

MAPPING GRAND CANYON

Big Canyon (1853–1910)

1873

Bartholomew, John [Bartholomew, John, Jr.]

- NO DATE 25.2399 **(United States, N^oII (Western Division) The Pacific States, the Territories and a Portion of the North-Western States. By J. Bartholomew, F.R.G.S.** ("George Philip & Son, London & Liverpool.") [Ca. 1873.]
- "Rio Colorado" is delineated between "Gulf of California" and confluence of "Green R." and "Grand R." From that confluence the course is south-southwest to the confluence of "R. San Juan" (from the east-southeast), thence west for some distance north of the Utah-Arizona boundary, then southwest and arcing to south-southwest to the confluence of "Little Colorado or Flax R." from the east-southeast, continuing in that direction to the confluence of Diamond Creek (not labeled), thence west-northwest to the confluence of "Rio Virgen" from the north and northeast, thence southwest to "Calville" [sic], and southward to the gulf. Cataract Creek (not labeled) is shown as a tributary to the Little Colorado just above the confluence with the main Colorado. A tributary (not labeled) from the northwest is shown between the Little Colorado and Diamond Creek; and "R. Yampa is shown as a tributary passing through "Red L." before reaching the Colorado from the south-southwest. The overall geography and various labels indicate it follows the Egloffstein model. "Big Cañon" is labeled between Calville and the Yampa confluence, and the Colorado is shown with hachures as passing through various plateaus.

Petermann, A.

- 1875 25.571 **Die Vereinigten Staaten von Nord-Amerika in 6 Blättern im Maassstabe von 1:3.700.000. Von A. Petermann.** ("Bearbeitet v. H. Habenicht.") ("Gotha: Justus Perthes 1873.") ("III.III. Gest. v. Eberhardt, Kühn, Metzgeroth u. Weiler.") ("Steiler's Hand_Atlas, N^o 84.") [In German, with mixed labeling.]
- See the southwestern sheet of this series.
- On this sheet, the Colorado River is labeled "Great Colorado" on its lower course, "Rio Colorado" on its upper course. It is delineated between "Golf von Californien" and the confluence of "Grand River" and (not labeled on this sheet) Green River. In the Grand Canyon it is a curious mixture of Egloffstein's map in Ives and more recent discoveries (*i.e.* the Powell expedition). The Paria River (not labeled) is shown, with "Little Colorado od Flax R." shown with its confluence with the Colorado in its correct place, as also is "Cataract Creek" with "Yampais Village" shown, but near that confluence is a tributary from the northeast, with a dotted-line upper course, that is reminiscent of Egloffstein's rendition of the Colorado. Between Cataract Creek and the confluence of "Rio Virgen" is the label "Big Cañon of the Colorado". Also there are numerous geographic locales labeled in English notations, apparently from Egloffstein. The route of the Ives land expedition near Grand Canyon is plotted, as also are the routes of other contemporary expeditions.
- Compare also Peterman (1875, **ITEM NO.** 25.2088) in the "Grand Canyon" listings herein.

Williams, J. David

- 1873 25.2116 **Map of Colorado, Utah, New Mexico, and Arizona.** ("J. David Williams, New York, Boston & Chicago.") (Imprimerie de Ferd. Mayer et fils, New York et Paris.)
- In: The peoples' pictorial atlas. Being a complete and popular account of all the countries of the world, in their geographical, statistical, topographical and commercial aspects. With 52 maps. Constructed by A. Keith Johnston, F.R.G.S.; Prof. H. D. Rogers, of Boston; Edward Weller, F.R.G.S., and other eminent geographers.*

MAPPING GRAND CANYON

Big Canyon (1853–1910)

Compiled and edited by Charles H. Jones, assisted by Theodore F. Hamilton. New York: J. David Williams, plate 17.

► “Rio Colorado” shown between head of Gulf of California and the confluence of “Green River” and “Grand River”. From that confluence the Colorado’s course is southwest to the confluence of “Rio San Juan”, where it arcs southwest to northwest around “Sierra de Lanterna”²⁵ in southern “Territory of Utah”, then arcs to the southwest, crossing the Utah-Arizona boundary, receiving from the southeast “Rio de Lino or Colorado Chiquito (Little” [sic], continuing southwestward to beyond the confluence of Diamond Creek (not labeled) receiving also from the north a large tributary (not labeled), turning to the northwest to the confluence of “Rio Virgin” (from the northeast and north), receiving en route from the southwest “Yampa Cr.”, which itself comes from the east and southeast, its course through “Red L.” “Cataract Cr.” is a tributary to the lower Little Colorado. “**Big Canon of the Colorado**” is labeled between the Diamond Creek confluence and east of the “Sierra de Lanterna”, the course depicted as encanyoned. Turning to the south, the Colorado’s course is noted through “Black Canon”.

1875

Cram, George F.

1875 25.2122

Cram’s Rail Road & Township Map of Arizona. Published by Geo. F. Cram. Proprietor of the Western Map Depot, 66. Lake St. Chicago Ill: 1875.

In: New commercial atlas of the United States and territories: (Scale, 21 miles to the inch.) Showing all railroads, stations, cities, towns, villages, congressional townships, etc., etc. A complete shipper’s guide. Drawn and engraved from the very latest government surveys. New York and Chicago: The Cram Atlas Co., Western Office (Chicago).

► “Colorado River” is delineated between the U.S.-Mexico boundary and the Utah-Arizona boundary. Its unusual course arrives into Arizona from the

²⁵ **Sierra de la Lanterna** is a forgotten name for the Kaibab Plateau, though probably misplaced. It appears on maps between 1851 and 1867 (Spamer, *Cartobibliography of the Grand Canyon and Lower Colorado River Regions* [“THE GRAND CANON” series, Volume 2, 3rd ed., Raven’s Perch Media, 2025], pp. *I-II*, fig. I). It is perhaps a misspelling of the Spanish *linterna* (lantern), and itself misspelled a couple of times as “Sierra della Landerna”, but the origin or significance of this geographical name has not been identified. In one gazetteer from 1854 it was noticed with geographical coordinates that verify its placement where exists the Kaibab Plateau: “Sierra de la Lanterna, a mountain range in the N. part of the Territory of New Mexico, lat. about 36° 20’ N., long. 112° 15’ W.” (Thomas Baldwin and J. Thomas, *A new and complete gazetteer of the United States; giving a full and comprehensive review of the present condition, industry, and resources of the American confederacy: embracing, also, important topographical, statistical, and historical information, from recent and original sources; together with the results of the census of 1850, and population and statistics in many cases to 1853* [Philadelphia: Lippincott, Grambo and Co.], p. 262. [Note that this is the old New Mexico Territory, from which a part of it Arizona Territory was created.]) A pronouncing gazetteer from 1859 picked up on this name, too (probably from Baldwin and Thomas), identifying it as “*m* New Mex.” (a mountain in New Mexico [Territory]), but without further pinpointing its location (Elias Longley, *Pronouncing vocabulary of geographical and personal names* [Longley Brothers, Publishers, Cincinnati, 1859], p. 105.) The name “Sierra de Lanterna” [sic] appears on the map cited here as well as in the novel, *Overland*, by J. W. de Forest (Sheldon and Co., New York, 1871, p. 136), which was placed above the confluence of the Green and Grand Rivers (much as like displayed in the map detail cited as Spamer’s fig. I, above). The same geographical placement above the confluence is noticed as “Sierra Lanterna” [sic] on p. 177 in Virginia Sánchez, “Survival of Captivity: Hybrid identities, gender, and culture in territorial Colorado,” in *Nación Genízara: Ethnogenesis, place, and identity in New Mexico* (Moises Gonzalez and Enrique R. Lamadrid, eds.) (University of New Mexico Press, Albuquerque, 2019).

MAPPING GRAND CANYON

Big Canyon (1853–1910)

northeast before turning due west, paralleling the Utah boundary, and on a landscape of peculiar geography receiving unlabeled tributaries from the southeast (possibly the San Juan), north (possibly the Paria River), and north-northeast from a Utah town, "Johnson" (possibly Kanab Creek), although all of these are shown to be east of Kanab, Utah. The Colorado's course then turns due southwest, receiving at the start a large tributary from the southeast (likely the Little Colorado River), to which a tributary to it in turn is likely Cataract Creek. At the turn to the northwest, where would be Diamond Creek, no tributary is shown. The label, "**Big Cañon of the Colorado Riv.**" is written alongside this southwest course. The intervening physical geography is fairly imaginary, delimiting mountainous areas and plateaus through which the Colorado and its tributaries flow. This is likely an illusory version of the Egloffstein arrangement. At the confluence of "Rio Virgin" the river turns southward to the gulf. Proposed railway routes are delineated roughly; the 35th parallel route crossing the Colorado south of "The Needles" but continuing a ways farther to the south before turning west; another route crossing the river at "LaPaz"; and the 32nd parallel route crossing at "Colorado Cy" and "Arazona Cy." [sic] by "F. Yuma". [Compare Cram (1875) under "Grand Canyon" herein.]

Watson, Gaylord

1875 25.597

Centennial American Republic and Rail Road Map of the United States and the Dominion of Canada. Compiled from the Latest Official Sources. Agents Wanted. 1875. ("Entered according to Act of Congress, in the year 1875, by Gaylord Watson, In the Office of the Librarian of Congress, at Washington.")

► Map portrays "Colorado River" and "**Big Cañon of the Colorado**". The route of the proposed 35th parallel railway is sketched in only as a reasonably straight line through the northern portion of Arizona. A lightly dashed line connects an alternate route that passes by "Hualapais Spr." (Peach Springs); and interestingly, a similarly dashed line leads from "Peacock Spr." (to the west of "Hualapais Spr.") to the Colorado River.

In the Grand Canyon region, this map is reminiscent of the wayward stream courses presented by Haasis and Lubrecht (1872, [ITEM NO. 25.1569](#)) and Guernsey (1874, [ITEM NO. 25.1570](#)) (both under the "Great Canyon" listings herein), with modifications that do little to correct the misalignments. As on those maps, the course of the "Colorado River" from the confluence of "Green R." and "Grand R." heads southwesterly on an arc that becomes a short due west heading just north of the Utah-Arizona boundary. It turns southwest to cross the Utah-Arizona boundary and runs on the east side of the "North Side Mts." that are some 50 miles southeast of St. George, Utah, where it runs into "Big Cañon of the Colorado". Here it receives "Colorado Chiquito or Flax R." (Little Colorado River) at which confluence is the label "Yampas Village". A short distance upstream on the Little Colorado is a tributary (not labeled, but is Cataract Creek) from the southeast. The Colorado then arcs back to a northwest heading, receiving in the middle of that arc Diamond Creek (not labeled), and heads northwest to the great bend where it receives "Virgin R." from the north (which in turn had first come southwest from Utah). At "Callville" is the label "Head of Navigation".

1876

A. L. Bancroft and Co.

1876 25.1131

Bancroft's, Map of California, Nevada, Utah and Arizona Published by A. L. Bancroft, & Comp^y Booksellers & Stationers San Francisco Cal. 1876.

MAPPING GRAND CANYON

Big Canyon (1853–1910)

► “Colorado River” is shown between south of Yuma and north of the Utah/Arizona boundary before passing off the map to the east. “**Big Cañon of the Colorado River**” is labeled between the Virgin River and the confluence of “Colorado Chiquito or Flax River”, to which the latter “Cataract Cr” is a tributary. A river (not labeled) reaches the Colorado from the north in the mid-canyon area. Thus even after Powell’s expeditions the portrayal is still that reminiscent of the Egloffstein map in Ives.

Macomb, J. N. [Macomb, John N.]

WHEAT IV:983 [with illustration facing p. 142]

1876 25.568 (WITH Dimmock, C. H.) **Map of Explorations and Surveys in New Mexico and Utah made under the direction of the Secretary of War by Capt. J. N. Macomb Top^l. Eng^{rs}. assisted by C. H. Dimmock, C. Eng^r. 1860.** (Lettering by John L. Hazzard. Ruling by Samuel Sartain.)

As a part of: Newberry, J. S., Geological Report.

In: Macomb, J. N., *Report of the exploring expedition from Santa Fé, New Mexico, to the junction of the Grand and Green Rivers of the Great Colorado of the West, in 1859, under the command of Capt. J. N. Macomb, Corps of Topographical Engineers (now Colonel of Engineers) : with Geological Report by Prof. J. S. Newberry, geologist of the expedition.* Washington: Government Printing Office, fold-out sheet following p. 148, scale 1:760,320.

This map contains a separate imprint: “Geographical Institute, Baron F. W. von Egloffstein, No. 164 Broadway, N. York. 1864.” The 1864 date is the date of engraving. **Publication was delayed until 1876, in part due to the Civil War and post-war administrative and financial difficulties.**

► The region explored is extralimital to this Cartobibliography, thus the volume text is not pertinent to this Cartobibliography, but the map does include the region of the easternmost Grand Canyon and Marble Canyon (**neither labeled**), which also depicts the “Supposed junction of the Rio Colorado & Flax River” (Little Colorado River) that is positioned in Utah and upstream from “El Vado de los Padres” (which itself is mislocated just south of the Utah–Arizona boundary). (Note as well that in thus more precisely depicting the supposed alignment of the Colorado and Little Colorado Rivers that it improved on the engraver’s own, earlier maps from the Ives expedition even though here it still is geographically misplaced.) On the map is a text box, “Central Gold Region”, which notes, “**Big Cañon of the Colorado**, a succession of deeply cut valleys, in places a mile in depth, in *Arizona Territory*” is one of the “well known features” of the region. The box also notes, “A delicate tint was ruled over the whole plate to give the effect of a plaster model of the country. Constructed and engraved by Baron F. W. Von Egloffstein Topographer to the Surveys under the 35th and 38th parallels. Frémont’s, Beckwith’s and Ives’ Expeditions.”

NOTE: Map is reproduced in facsimile in Steven K. Madsen, *Exploring desert stone : John N. Macomb’s 1859 expedition to the canyonlands of the Colorado* (Utah State University Press, Logan, 2010), 1 sheet, loose in rear pocket of volume.

Rand McNally and Co.

WHEAT V:1276

[consolidated reference to “maps of western states and territories”]

1876 25.613 **Indexed map of Arizona showing the stage lines, counties, lakes and rivers.** Chicago: Rand McNally and Co., 1 sheet, scale *ca.* 1:2,000,000. [Title from cover.]

► “**Big Canon of the Colorado River**” is labeled. Of note is the demarcation of the route labeled “Escalanta 1776” [*sic*], which appears only between a dead-end at what are the Grand Wash Cliffs, and crossing the Colorado River at what is Lees Ferry, and “Elvado de los Padres” [*sic*] is labeled at the Colorado River just south of the Arizona-Utah boundary.

1876 25.1518 **Rand McNally & Co’s New Railroad and County Map of the United States and Canada Compiled from the Latest Government Surveys, and Drawn to an Accurate Scale.** (“Drawn,

MAPPING GRAND CANYON

Big Canyon (1853–1910)

Engraved and Printed in Colors, (under Letters Patent), by Rand, McNally & Co., Chicago.") ("Copyright, 1876, by Rand, McNally & Co.") ("Engraved under the direction of C. H. Waite." [facsimile signature].)

► A very detailed map. The course of the "Rio Colorado" is shown quite meandering from "Yuma" and "Arizona City" to the head of the "Gulf of California". Along that course is noted on the eastern side, "Uninhabited Desert. Isolated Mountains without grass, wood or water, Vegetation chapparal and cacti". The course of the lower Colorado between Yuma and the confluence of "Virgin River" is detailed. The "Supposed Head of Navigation" is labeled at a point several miles upstream from the Virgin, where is depicted on the north side of the river, "Proposed Wagon Road to Santa Fe" [sic]. East of the confluence of "Diamond Riv" (which also notes "Indian Trail"), the course of the Colorado is labeled "**Big Canon of the Colorado River**". Interestingly, now several years since the explorations and mapping by John Wesley Powell, not only is "Grand Canyon" not mentioned, but the course of the river through the canyon is not shown accurately although various names from Powell can be seen. At the confluence of "Cataract Creek" is labeled "Yampais Village" (i.e., Supai). The "Flax River or Colorado Chiquito" (Little Colorado River) is shown with its course from the southeast and its confluence with the Colorado directly from the south, with the label, "Supposed Junction of the Rio Colorado and Flax River". "Colorado Plateau" is labeled to the west of there, and "Painted Desert" to the east. The course of the Colorado through Marble Canyon (not labeled) between "Pahreah R." and the Little Colorado is figurative. Just upstream from there are "El Vado de los Padres" in "Monument Canon", and "The Temple of Music". All in all, in the Grand Canyon region this is a peculiar mixture of pre-Powell conjecture, borrowing on the Egloffstein model, and post-Powell certainty.

1878

Cram, George F.

1878 25.2124

Cram's Rail Road & Township Map of Arizona. Published by Geo. F. Cram. Proprietor of the Western Map Depot, 66. Lake St. Chicago Ill. 1878. *In: Cram's standard American atlas of the United States. Compiled from the very latest sources, showing railroads, rivers, counties, towns, villages, post offices, population, &c., to date. A complete guide for business men. Scale, 19 miles to an inch. Chicago: George F. Cram, Western Map Depot.*

► The peculiar geography of this map remains unchanged from that of Cram (1875): "Colorado River" is delineated between the U.S.-Mexico boundary and the Utah-Arizona boundary. Its unusual course arrives into Arizona from the northeast before turning due west, paralleling the Utah boundary, and on a landscape of peculiar geography receiving unlabeled tributaries from the southeast (possibly the San Juan), north (possibly the Paria River), and north-northeast from a Utah town, "Johnson" (possibly Kanab Creek), although all of these are shown to be east of Kanab, Utah. The Colorado's course then turns due southwest, receiving at the start a large tributary from the southeast (likely the Little Colorado River), to which a tributary to it in turn is likely Cataract Creek. At the turn to the northwest, where would be Diamond Creek, no tributary is shown. The label, "**Big Cañon of the Colorado Riv.**" is written alongside this southwest course. The intervening physical geography is fairly imaginary, delimiting mountainous areas and plateaus through which the Colorado and its tributaries flow. This is likely an illusory version of the Egloffstein arrangement. At the confluence of "Rio Virgin" the river turns southward to the gulf. Proposed railway routes are delineated roughly; the 35th parallel route crossing the Colorado south of "The Needles" but continuing a ways farther to the south before turning west; another route crossing the river at

MAPPING GRAND CANYON

Big Canyon (1853–1910)

"LaPaz"; and the 32nd parallel route crossing at "Colorado Cy" and "Arazona Cy." [sic] by "F. Yuma".

Rand, McNally and Co.

1878 25.1568

Rand McNally & Co.'s Arizona.

In: Rand, McNally & Co.'s Business Atlas containing large scale maps of each state and territory of the United States, the provinces of Canada, West India Islands, etc., etc. together with a Complete Reference Map of the World, printed in colors from plates secured by letters patent, producing the clearest typographical effect of any known engraved plates. Accompanied by a New and Original Compilation and Ready Reference Index, showing in detail the Entire Railroad System of North America, the express company doing business over each road, and accurately locating counties, parishes, islands, lakes, rivers, mountains, etc., etc., together with all Post Offices, Railroad Stations and Villages in the United States and Canada, with latest official census or estimated populaton of each. Chicago. Rand, McNally & Co., Printers, Engravers and Publishers. 1878-9. [Map on pp. 232-233.]

► Very detailed map. "Rio Colorado of the West" is depicted from between the head of the "Gulf of California" and southern Utah. Downstream from "Yuma" and "Arizona City" the river's channel are depicted along with wetlands symbols, to the east of which is labeled "Uninhabited Desert Isolated Mountains without wood or water, Vegetation chapparal and cacti". The course of the Colorado in "**Big Canon of the Colorado River**" is depicted generally, though clearly with some accuracy. However, the "Flax River or Colorado Chiquito" (Little Colorado River) is shown with its course from the southeast and its confluence with the Colorado directly from the south, with the label, "Supposed Junction of the Rio Colorado and Flax River". "Colorado Plateau" is labeled to the west of there, and "Painted Desert" to the east. The course of the Colorado through Marble Canyon (not labeled) between "Pahreah R." and the Little Colorado is figurative. Just upstream from there are "El Vado de los Padres" in "Monument Canon", and "The Temple of Music". At the confluence of Cataract Creek is noted "Yampais Village". All in all, in the Grand Canyon region this is a peculiar mixture of pre-Powell conjecture and post-Powell certainty, more surprising at this late date.

1881

Petermann, A.

1881 25.2110

Die Vereinigten Staaten von Nord-Amerika in 6 Blättern im Maassstabe von 1:3.700.000.

Von A. Petermann. ("Bearbeitet v. H. Habenicht.") (Various sheets have different headers and footers: Bl. 1, "Steiler's Hand_Atlas, N^o 8", "Bearbeitet v. H. Habenicht. Revidirt 1881.", "[number eradicated] I II. Gest. v. Eberhardt, Kühn, Metzeroth u. Weiler. v. H. Habernicht, corrigirt 1881." — Bl. 2, "II. I. Gest. v. Metzeroth, Eberhardt, Kühn u. Kramer. v. H. Habenicht.", "Gotha: Justus Perthes 1880." — Bl. 3, "Stieler's Hand_Atlas N^o 85", "IX_Gest. v. Eberhardt, Kühn u. Weiler.") *In: Adolf Steiler's Hand Atlas über Alle Theile der Erde und über das Weltgebäude : 95 Karten. Gotha: Justus Perthes. (Title-sheet with notations, "Entw. v. H. Berghaus 1881.", "Gest. v. H Eberhardt u. E. Kühn.") [In German, with mixed labeling.]*

See the southwestern sheet of this series.

► The Colorado River is labeled on its lower course "Great Colorado River", as "Rio Colorado" on its upper course. It is delineated between "Gulf von Californien" and the confluence of "Grand River" and "Green River". The course through the Grand Canyon is reasonably that as is mapped today, but with the label "Marble Cañon" in the reach between "Rio Colorado Chiquito" (which arrives from the southeast) and "Kanab Cañon"; between Kanab and "Grand Wash" it is

MAPPING GRAND CANYON

Big Canyon (1853–1910)

labeled "**Big Cañon of the Colorado**". "Cataract Cr." arrives independently from the south-southeast but, east of Cataract Creek, "Parke Cr.", arriving from the southeast and skirting to the west of "Red Butte", turns to the northeast to reach the Colorado approximately in the area of today's Royal Arch Creek. The Kaibab Plateau is labeled "Buckskin Plateau"; on its east side are labeled "House Rock V.", "House Rock Sp." and "Soap S". "El Vado de los Padres" is positioned on the Arizona side of the Arizona-Utah boundary. In western Grand Canyon, Diamond Creek is shown but not labeled, near the place name "Hualpais" (Peach Springs). The Grand Wash Cliffs south of the Colorado are labeled "Colorado Plateau". Of the canyons downstream, only "Virgin C." and "Black Cañon" are labeled.

1883

G. W. and C. B. Colton and Co.

- 1883 25.608 **Map Showing the New Transcontinental Route of the Atlantic & Pacific Railroad and its Connections.** ("Prepared by G. W. & C. B. Colton & C^o. 182 William St^t New York".) ("Entered according to Act of Congress in the year 1883 by G. W. & C. B. Colton & Co. in the Office of the Librarian of Congress, at Washington.") Scale 1:3,800,000.
Caption: *Extra-Beilage zur New-Yorker Handels-Zeitung.*
▶ The trace of the railroad is broadly marked "Atlantic & Pacific Western Division" in Arizona and western New Mexico, although the trackway itself is labeled "Atlantic & Pacific" here and "Southern Pacific" in California. The trace also lays out the railroad's land grant boundaries between the eastern boundary of Indian Territory and the Colorado River." Also shown is the 32nd parallel route, labeled "Southern Pac." "**Big Cañon of the Colorado**" is labeled thus, even at this late date. The "Virgin Range" is depicted adjacent to the "Rio Virgin" by the Arizona-Nevada boundary, and immediately parallel to it on the east is depicted "Buckskin Mts." The region of the central and eastern Grand Canyon is blank except for the Colorado River, unlabeled tributaries, and the label "Marble Cañon" (properly positioned). At the confluence of "Green R." and "Grand R." is the label, adjacent to the Green, "Canon of the Green Riv." Between this confluence and the confluence of "R. San Juan" the Colorado is labeled "Rio Colorado or Grand R." (The lower Colorado River is labeled "Colorado R.") The only other labeled tributaries in the Grand Canyon area are "Paria R." and "Colorado Chiquito R." "Painted Desert" is labeled on the north side of the Little Colorado. The unlabeled tributaries differ compared to the 1883 Colton map of the Atchison, Topeka and Santa Fe ([ITEM NO. 25.1658](#)).
- 1883 25.1658 **Map Showing the Atchison, Topeka and Santa Fe Railroad System. with its Connections.** ("Prepared by G. W. & C. B. Colton & C^o. 172 William St^t New York".) ("Entered according to Act of Congress in the year 1883 by G. W. & C. B. Colton & Co. in the Office of the Librarian of Congress, at Washington.") ("Rufus Adams & C^o. Stationers & Printers 4 & 6 Pine St^t New York.") Scale 1:3,800,000.
▶ The trace of the 35th parallel railroad is marked "Southern Pacific" [*sic*] in California and "Atlantic & Pacific" in Arizona and western New Mexico. Also shown is the 32nd parallel route, labeled "Southern Pacific". "**Big Cañon of the Colorado**" is labeled thus, even at this late date. The "Virgin Range" is depicted adjacent to the "Rio Virgin" by the Arizona-Nevada boundary, and immediately parallel to it on the east is depicted "Buckskin Mts." The region of the central and eastern Grand Canyon is blank except for the Colorado River and unlabeled tributaries. At the confluence of "Green R." and "Grand R." is the label, adjacent to the Green, "Canon of the Green". Between this confluence and the confluence of "R. San Juan" the Colorado is labeled "Rio Colorado or Grand R." (The lower Colorado River is labeled "Colorado R.") The only other labeled tributaries in the Grand Canyon area are "Paria R." and "Colorado Chiquito R." "Painted Desert" is

MAPPING GRAND CANYON

Big Canyon (1853–1910)

labeled on the north side of the Little Colorado. The unlabeled tributaries differ compared to the 1883 Colton map of the Atlantic & Pacific Railroad ([ITEM NO. 25.608](#)), as also notably the label for Marble Canyon is absent from the AT&SF map. The AT&SF map also includes railway lines in northern Mexico and displays part of the Gulf of California, with the label "Desert of Avena" to the east of the mouth of the Colorado River.

1884

Bartholomew, John [Bartholomew, John, Jr.]

- 1884 25.2120 **General Map of the United States. By J. Bartholomew, F.R.G.S.** ("Engraved & Printed in colours by J. Bartholomew, Edin:.") ("Published by A. & C. Black, Edinburgh.")
In: Black's general atlas of the world : new and revised edition : embracing the latest discoveries, new boundaries, and other changes : accompanied by introductory letterpress and index. Edinburgh: Adam and Charles Black, Map 40/41.
▶ "Rio Colorado" is shown between the "Gulf of California" and the confluence of "Green R." and "Grand R." While its course is reasonably accurate, the label "Marble Canon" appears between the confluence of "R. Colorado Chiquito Lit. Colorado R." (from the southeast). The label "**Big Canon**" appears between the confluences of Diamond Creek (not labeled) and "Virgen R." The label "Painted Desert" is written across the area north of the Colorado and east of it. Two unlabeled tributaries reach the Colorado from the southeast; one of them, Cataract Creek, the other, east of it, uncertain, heading at "Humphrey's Peak".
- 1884 25.2121 **California, Nevada, Oregon, Washington, Idaho, Utah, Arizona[,] Montana, Dakota, Wyoming, Nebraska, Colorado, Kansas &c.** ("J. Bartholomew, Edinburgh.") ("Published by A. & C. Black.") [These labels seemed to have been eradicated and reengraved.]
In: Black's general atlas of the world : new and revised edition : embracing the latest discoveries, new boundaries, and other changes : accompanied by introductory letterpress and index. Edinburgh: Adam and Charles Black, Map 44^M.
Compare this map against [ITEM NO. 25.2120](#) from the same volume.
▶ "Rio Colorado", as labeled on its lower reach, and "Rio Colorado grande", as labeled on its upper reach, is shown between the "Gulf of California" and the confluence of "Green R." and "Grand R." While its course is reasonably accurate, the label "Marble Canon" appears between the confluence of "Colorado Chiquito or Flax River" (from the southeast and labeled "Lit. Colorado R." on a headwater branch) and the confluence of "Kanab Cañon" (from the north). The label "**Big Cañon of the Colorado**" appears between the confluences of "Cataract Cr." (from the southeast) and "Virgin R." (from the northeast and north-northeast). The label "Painted Desert" is written along the lower course of the Little Colorado. Parallel to and to the east of Cataract Creek is "Parke Cr.", the course of which turns to the northeast approximately where today is Royal Arch Creek. "Buckskin Plateau" is the label for the Kaibab Plateau. To the west, "Yampa Cr." is shown running to "Red L." but no longer is continued to the Colorado.

1887

G. W. and C. B. Colton and Co.

- 1887 25.1564 **Map Showing the Pacific Railways and Their Branches. Prepared for the United States Pacific Railway Commission.** ("Prepared by G. W. & C. B. Colton & C^o 182 William St

MAPPING GRAND CANYON

Big Canyon (1853–1910)

New York.”) (“William Mann & Son Stationers & Printers, 88 Maiden Lane, New York.”) (“Entered according to Act of Congress in the year 1887 by G. W. & C. B. Colton & Co. in the office of the Librarian of Congress, at Washington.”)

► The “Atlantic & Pacific” railroad route is shown across northern Arizona. “Colorado R.” is delineated as encanyoned in “**Big Canon of the Colorado**” in the reach west of the confluence of Diamond Creek (not delineated). The Colorado’s course through the canyon is approximately correct, although the reach between Kanab Creek (not labeled) and the confluence of “Colorado Chiquito” is labeled “Mable [*sic*] Canon”.

1888

Rand McNally and Co.

NO DATE 25.593

A correct map of the United States of America, showing the Atchison, Topeka and Santa Fe R.R. and connections. Chicago: Rand McNally and Co., Engravers, 1 sheet, scale *ca.* 1:8,000,000.

Date of “JAN 22 1888” seen stamped on Library of Congress Copyright Office deposit copy.

► Grand Canyon is labeled as “**Big canon of the Colorado Riv.**” The railroad line is shown passing closest to the canyon at “Hualapais Spr.” (Peach Springs). “Lee’s Ferry” is also denoted. The Little Colorado River is labeled “Flax Riv. or Colorado” [*sic*], shown reaching its confluence with the Colorado directly from the southeast.

Compare also Rand McNally and Co., 1888, [ITEM NO. 25.594](#), under the “Grand Canyon” listings herein.

1910

George Philip and Son [firm]

1910 25.2432

(United States, N^oII (Western Division) The Pacific States, the Territories and a Portion of the North-Western States. (“George Philip & Son, L^{td}”) (“The London Geographical Institute.”)

In: Philips’ general atlas of the world : a series of new and authentic maps. Engraved from original drawings compiled from the latest surveys and the works of eminent travellers and explorers. [London]: George Philip & Son, Ltd.; London: The London Geographical Institute; Liverpool: Philip, Son & Nephew.

► This map is based on that of Bartholomew (*ca.* 1873, [ITEM NO. 25.2399](#)), including most of the title block but eliminating Bartholomew’s name, with updates but with some astonishingly outdated features, most notably the label “**Big Canon**” at the westernmost part of Grand Canyon (which is otherwise not labeled). The course of “Rio Colorado” is essentially correct, although it passes by “Buckskin Plateau” on the east and “Swamp Pl.” (Sanup Plateau, surely) on the west. “Painted Desert” is labeled across the entire Arizona Strip; and tributaries on the south side of the canyon display antique geography. On the lower Colorado the label for “Explorers R.^k”, which originated with the Egloffstein map of 1861, is retained.

MAPPING GRAND CANYON

Great Canyon (1853–1879)

MAPPING GRAND CANYON

Great Canyon (1853–1879)

INTRODUCTION TO THE “GREAT CANYON” SECTION

THE MAP DRAWN by Richard Kern in 1852 and published as part of the 1853 report of Lorenzo Sitgreaves’ 1851 exploration across northern New Mexico Territory seems to be the first appearance of “Big Canyon,” though it is conflated with the coincidental use of “Great Canyon” both on another state of the map and as referred to by Sitgreaves himself.²⁶ One version labels a misplaced “Great Cañon” where the Virgin River reaches the Colorado—independently arriving at that point from beyond the map’s edge on the north!—and in the other version the same short reach is labeled “Big Cañon” (*Figure 30*). Unfortunately, which of the two states was produced first has not been determined, though they seem to be nearly contemporaneous. The reason for the change (one way or the other) is unknown, yet it is clear that *both* names were in use around 1851-1852. Unfortunately for us, Sitgreaves’ text only mentions “the great cañon” a few times, in lower case letters, so the capitalized “Big Cañon” on one map is seen to have dropped in unannounced. (See more in the introduction to the “Big Canyon” section of the present volume.)

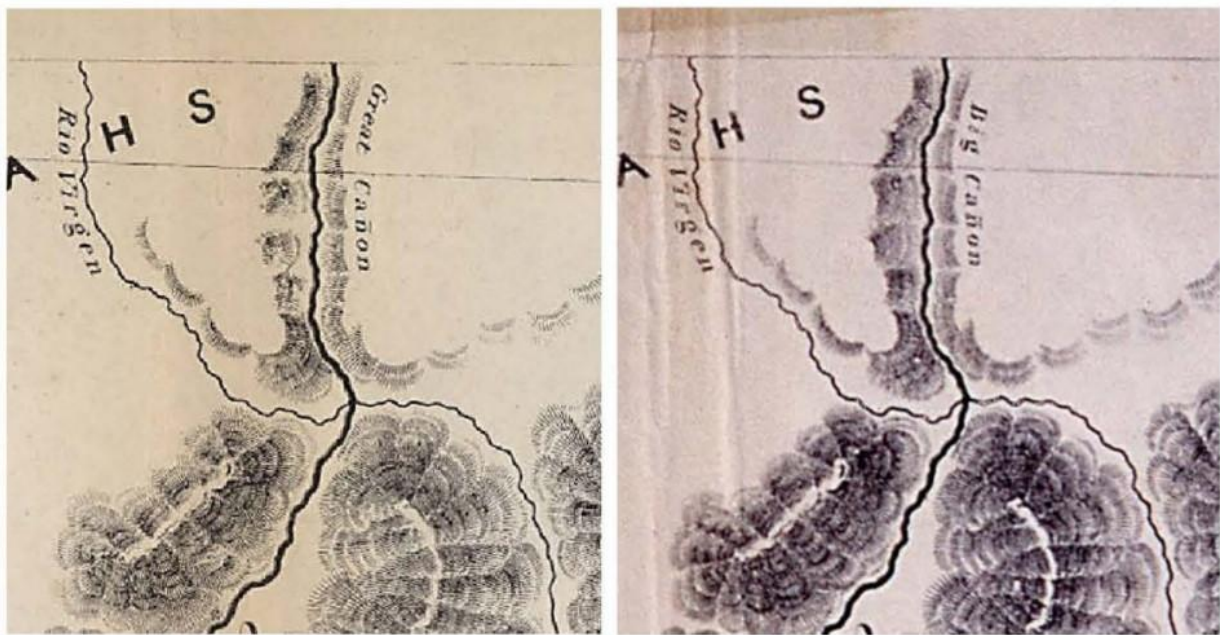


Figure 30. Details from the two contemporary versions of Richard Kern’s 1852 map that accompanied the 1853 report of Lorenzo Sitgreaves’ expedition across New Mexico Territory. One names “Great Cañon”, the other “Big Cañon.” Which came first has not been established. (Library of Congress and author’s collection.)

²⁶ L. Sitgreaves, *Report of an Expedition Down the Zuñi and Colorado Rivers* (Robert Armstrong, Public Printer) (32nd Congress, 2nd Session, Senate Executive Document 59, 1853).

MAPPING GRAND CANYON

Great Canyon (1853–1879)

Even though the term “Great Canyon” began pretty much contemporaneously with “Big Canyon,” “Great” never was popular. Despite an ironically lingering presence, outliving “Big Canyon” in texts but not on maps, “Great Canyon” finally disappeared in the early 1900s when it might have in fact been used more as an adjective, especially considering that “Grand Canyon” was so widely known—worldwide—by then.

MAPPING GRAND CANYON

GREAT CANYON CARTOBIBLIOGRAPHY (1853–1879)

Variant “Great Canyon” labels on maps are indicated by **bold red** lettering in the chorographical notes.

1853

Sitgreaves, L. [Sitgreaves, Lorenzo]

WHEAT III:763 [with illustration facing p. 10]

1853 25.916 **Reconnaissance of the Zuñi, Little Colorado and Colorado Rivers. Made in 1851 under the direction of Col. J. J. Abert, Chief of Corps Topographical Engineers by Bvt. Capt. L. Sitgreaves, T. E. Assisted by Lieut. J. G. Parke, T.E. and M^r. M. H. Kern Drawn by R. H. Kern 1852 Gila River from a reconnaissance by Maj. Emory Topographical Eng^{rs} Colorado River below Camp Yuma from a reconnaissance by Lt Derby Topographical Eng^{rs} Ackerman Lith. 279 Broadway N.Y. Scale: of 10 miles to one inch.**

In: Report of an expedition down the Zuñi and Colorado Rivers. Washington: Robert Armstrong, Public Printer, *U.S. 32nd Congress, 2nd Session, Senate Executive Document 59, Serial 668*, 198 pp. + plates, map.

► The lower Colorado is depicted between Ogden’s Landing and the coincident confluence of both the “Rio Virgen” and “Yampay Creek”; the Colorado comes from off the the north side of the map to this confluence.

Two states (see *Figure 30* in the introduction to this section of the bibliography). It has not been determined here which state appeared first:

State 1: the short north/south reach of the Colorado between the Virgin/Yampay confluence and the top of the map is labeled “Big Cañon”

State 2: that reach is labeled “**Great Cañon**”.

States not noted by other cartobibliographers. See in Earle Spamer, “Big Canyon, Great Canyon, Grand Canyon: The mysterious evolution of a name”, *The Old Pioneer* (Grand Canyon Historical Society), Volume 33, no. 1 (Winter 2022), pp. 8-18.

1864

Rosa, R.

1864 25.2007 **The American Continent. Topographical and Railroad Map of the United States, British Possessions, West Indies, Mexico and Central America. Compiled from the best Authorities, by R. Rosa, late Col. 46th Regt. N. Y. S. Vol. Published by Ch. Lubrecht & Co., 12 Frankfort Street, New York. 1864. Agents for Great Britain: Bacon & Co., 48 Paternoster Row, London, England. For Germany, Switzerland and Italy: Fr. Volkmar, Leipsic. Lubrecht & Co., Stuttgart. Revised Edition.** (“Entered, according to Act of Congress, in the year 1864, by Ch. Lubrecht & Co., in the Clerk’s Office of the District Court of the United States for the Southern District of New York.”) [Arizona is shown as a territory, with its northwestern angle that later would be southern Nevada.]

► “Colorado River” is delineated between the Gulf of California and the confluence of “Green R.” and “Grand R.” Enroute it receives “Rio San Juan” from the east before turning to run westwardly north of the Arizona-Utah boundary, eventually turning southwest and southeast to reach the confluence of “Colorado Chiquito or Flax” that itself reaches the Colorado from the northeast after having received “Cataract Cr.” from the southeast; the depiction is a variation of that on the Egloffstein map of 1858 (in Ives, 1861). The “North Side Mt.” divides the Colorado and Little Colorado at this point. The Grand Canyon is labeled “**Greut [sic] Canon of the Colorado**” [**Great Canyon of the Colorado**] along its western

MAPPING GRAND CANYON

Great Canyon (1853–1879)

and central sections then along the lower end of the Little Colorado. At the great bend where the Colorado turns to the south is the confluence of "Virgin Riv." from the northeast, where also the label appears, "Long Rapids, Head of navigation". "Bill Williams Fk" is a tributary from the east, and "Gila Riv." arrives at "F. Yuma and "Colorado City" from the east-northeast. The lower Colorado River region is crowded with labeling.

1867

Richardson, Albert D.

WHEAT V:1172

1867 25.911

[Map.] (Map drawn on wood by Tudor Horton; engraved by Fay & Cox.)

In: Beyond the Mississippi: From the great river to the great ocean. Life and adventure on the prairies, mountains, and Pacific coast. With more than two hundred illustrations, from photographs and original sketches, of the prairies, deserts, mountains, rivers, mines, cities, Indians, trappers, pioneers, and great natural curiosities of the new states and territories. 1857-1867. Hartford, Connecticut: American Publishing Co.; and Philadelphia, Cincinnati, Chicago, St. Louis, New Orleans, Atlanta, and Richmond: National Publishing Co.; and New York: Bliss and Co., 572 pp.

See pp. 472-474, "Big Canyon"; on fold-out **MAP** it is labeled "**Great Canyon**"; and see illustration credits, p. vii. [Also in 1869 ed.]

1872

Haasis and Lubrecht [firm]

1872 25.1569

1872. The American Union Railroad Map of the United States[,] British Possessions, West Indies, Mexico, and Central America. Published by Haasis & Lubrecht, 107 Liberty Street, New York. ("Smith & McDougal, Electrotypers, 82 Beckman St., New York.")

► The 35th parallel rail line is not labeled other than an indication in northern Arizona, "Sitgraves Route" [*sic*]. The 32nd parallel line across southern Arizona is labeled "Proposed Southern Pacific R.R." and "Former Overland Route". "Colorado River" is depicted between the head of the "Gulf of California" and the confluence of "Green R." (labeled on a headwater branch) and "Grand R." Its lower course is reasonably well portrayed; however, its course between the Green-Grand confluence and the confluence of "Virgin Riv." is remarkable. From the Green-Grand it heads southwesterly on an arc that becomes a due west heading just north of the Utah-Arizona boundary; had it continued without turning west it would have crossed into Arizona at about where it does in fact. Southwest of Rockville, Utah, before it conflicts with the Virgin River, the Colorado turns to the southwest, crossing the Utah-Arizona boundary, then flows around the west side of "North Side Mt." to a southeast heading where in "**Great Canon of the Colorado**" it receives "Colorado Chiquito or Flax Riv." (Little Colorado River). The Colorado then arcs back to a northwest heading, receiving in the middle of that arc Diamond Creek (not labeled), and heads northwest to the great bend. Arcing to the south, it passes "Colville" and receives "Virgin Riv." from the northwest (which in turn had first come southwest from Utah). At Callville is the label, "Long Rapids, Head of Navigation". The course of the Little Colorado River is just as remarkable, passing northeastward to the 36th parallel before turning west-northwest toward the east side of "North Side Mt." (the mountain being 50 miles southeast of St. George, Utah), then turns southwest to strike the Colorado River. A few miles before the Little Colorado turns southwest it receives "Cataract Cr." from the southeast, at which point also is labeled

MAPPING GRAND CANYON

Great Canyon (1853–1879)

“Yampais Village”. Confusing matters more, paralleling Cataract Creek some 30–40 miles to the east are two smaller tributaries (not labeled), on one of which is labeled “Cascade”, which is reminiscent of the presentation on other maps of Cataract Creek. Indeed, despite the misalignments of the rivers that are a reflection of Egloffstein’s geography in Ives (1861), that entire system has been transposed miles to the west.

NOTE: Compare also Watson (1875, [ITEM NO. 25.597](#), under the “Big Canyon” listings herein), which attempts to make corrections in the Grand Canyon area.

1874

Guernsey, D. L.

1874 25.1570

1874. The American Union Railroad Map of the United States[,] British Possessions, West Indies, Mexico, and Central America. Published by D. L. Guernsey, Concord, N.H. (“Press of Wynkoop & Hallenbeck, 113 Fulton Street, N.Y.”) (“Smith & McDougal, Electrotypers, 82 Beckman St., New York.”)

► This map is identical to that of Haasis and Lubrecht (1872, [ITEM NO. 25.1569](#)): The 35th parallel rail line is not labeled other than an indication in northern Arizona, “Sitgraves Route” [*sic*]. The 32nd parallel line across southern Arizona is labeled “Proposed Southern Pacific R.R.” and “Former Overland Route”. “Colorado River” is depicted between the head of the “Gulf of California” and the confluence of “Green R.” (labeled on a headwater branch) and “Grand R.” Its lower course is reasonably well portrayed; however, its course between the Green-Grand confluence and the confluence of “Virgin Riv.” is remarkable. From the Green-Grand it heads southwesterly on an arc that becomes a due west heading just north of the Utah-Arizona boundary; had it continued without turning west it would have crossed into Arizona at about where it does in fact. Southwest of Rockville, Utah, before it conflicts with the Virgin River, the Colorado turns to the southwest, crossing the Utah-Arizona boundary, then flows around the west side of “North Side Mt.” to a southeast heading where in “**Great Canon of the Colorado**” it receives “Colorado Chiquito or Flax Riv.” (Little Colorado River). The Colorado then arcs back to a northwest heading, receiving in the middle of that arc Diamond Creek (not labeled), and heads northwest to the great bend. Arcing to the south, it passes “Colville” and receives “Virgin Riv.” from the northwest (which in turn had first come southwest from Utah). At Callville is the label, “Long Rapids, Head of Navigation”. The course of the Little Colorado River is just as remarkable, passing northeastward to the 36th parallel before turning west-northwest toward the east side of “North Side Mt.” (the mountain being 50 miles southeast of St. George, Utah), then turns southwest to strike the Colorado River. A few miles before the Little Colorado turns southwest it receives “Cataract Cr.” from the southeast, at which point also is labeled “Yampais Village”. Confusing matter more, paralleling Cataract Creek some 30–40 miles to the east are two smaller tributaries (not labeled), on one of which is labeled “Cascade”, which is reminiscent of the presentation on other maps of Cataract Creek. Indeed, despite the misalignments of the rivers that are a reflection of Egloffstein’s geography in Ives (1861), that entire system has been transposed miles to the west.

NOTE: Compare also Watson (1875, [ITEM NO. 25.597](#), under the “Big Canyon” listings herein), which attempts to make corrections in the Grand Canyon area.

MAPPING GRAND CANYON

Great Canyon (1853–1879)

1879

Heubach, Emil

- 1879 25.620 **New rail road map of the United States and the Dominion of Canada, showing the Chicago, Rock Island and Pacific R. R.[,] the great overland route and short line to the West and South-West.** Chicago: [Chicago, Rock Island and Pacific Railroad], 1 sheet, scale *ca.* 1:5,000,000.
- ▶ Map depicts other rail lines, including the Union Pacific, Central Pacific, and Southern Pacific. In the Grand Canyon region the map depicts the Colorado River in the "**Great Cañon**", and the "Flax River" (Little Colorado River).
-

MAPPING GRAND CANYON

Grand Canyon (1868–present)

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

INTRODUCTION TO THE “GRAND CANYON” SECTION

COVERAGE IN THIS section includes immediately adjacent lands and tributaries of the Colorado River. Listings include state maps, atlases, and gazetteers. After the first maps portraying Grand Canyon National Park were published, only those maps that are restricted to Grand Canyon are cited (after 1923 in this list). The “Grand Canyon” label was then superfluous to special chorographical notation, so after that year it is not labeled in bold print herein. The cited maps are for more complete cartobibliographical reference. (For broader coverage of maps of the Grand Canyon region that may not use the name but fall within the time period examined here, see the chronological list that is Part 3 of *THE GRAND CANON* Volume 2, wherein chorographical notes will be informative as to how the Grand Canyon region overall was accommodated by the cartographers.)

As celebrated and well studied as were the Colorado River expeditions of John Wesley Powell in 1869 and 1871–72, his formal reports were not accompanied by maps of the Colorado River’s course; that was relegated to the topographic surveys of the cartographically ambitious “Powell Survey” of the plateau country principally north of the Grand Canyon in Arizona and Utah.

But Powell is also (unwittingly and purposely both) the tipping point between Big/Great and Grand Canyon. This point was first reached in Charles Christopher Parry’s detailed reporting of the James White saga. White, a prospector, said he had fled from Indians and unintentionally rafted the Colorado River through the Grand Canyon in 1867. He was rescued from the river, nearly dead from exposure and starvation, by Mormon colonists at Callville, well below the mouth of Grand Canyon. After recovering there, on September 26, 1867, White wrote a short letter to his brother; he said he had been through “Big Canon.”²⁷ White’s experience was widely recounted in his day, thanks to Parry and those who repeated it as a sensationally true tale, the veracity of which is still argued about today. In April 1868, Parry’s first report of White’s epic trip was titled in a journal, “Account of the Passage through the Great Cañon of the Colorado of the West,”²⁸ but when it was reprinted the following year for inclusion in William J. Palmer’s *Report of Surveys Across the Continent*

²⁷ Refer to introduction and comprehensive bibliography in Earle E. Spamer, “It was this way...” The Grand Canyon’s indubitable James White and John Hance: An introduction and annotated bibliography (Raven’s Perch Media, 2023, PDF online, https://ravensperch.org/wp-content/uploads/2023/05/It_was_this_way.pdf).

²⁸ C. C. Parry, “Account of the Passage Through the Great Cañon of the Colorado of the West, From Above the Mouth of Green River to the Head of Steamboat Navigation at Callville, in the Months of August and September, 1867, by James White, Now Living at Callville. Reported January 6, 1868, to J. D. Perry, Esq., Pres’t of the Union Pacific Railway, Eastern Division, by C. C. Parry, Ass’t Geologist, U. P. R. Surv.” *Transactions of the Academy of Science of St. Louis*, 2: 499-503. [Published April 1868 (see date at beginning of signature 32, p. 491 of volume). Delivered to meeting of Academy of Science of St. Louis by George Engelmann, February 17, 1868 (see notation p. 584 of volume).]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

(completed by December 1858) the title became the hybrid “Grand Canon of the Colorado. Account of the Passage of the Great Canon of the Colorado.”²⁹

The origin of the name “Grand Canyon” is obscured despite the parroting claims that John Wesley Powell named it. Powell is positively known to have used the name Grand Canyon well before his first Colorado River expedition in 1869. He never said he originated it, nor did he. The earliest published appearance of Powell’s use of the “grand” version of the name seems to be in a letter he had written to Ulysses S. Grant from Normal, Illinois, April 2, 1868, which was read into the printed record of the U.S. House of Representatives on May 11. He asked for federal assistance in the proposed Colorado River expedition, commenting,

It is hoped that a survey of that river [‘the Colorado river of the West’] can be made from its source to the point where the survey made by Lieutenant Ives was stopped. [. . .] I need not urge upon your attention the importance of the general scientific survey to the increase of knowledge. It is believed that the grand cañon of the Colorado will give the best geological section on the continent.³⁰

He also soon capitalized the name and abandoned the Spanish *cañon*. And thereafter he capitalized on his exploits, widely.

Not long after Powell left the river in 1869, a long communiqué from him was printed in the *New-York Tribune* for September 30, detailing the expedition’s river itinerary and accomplishments.³¹ To entice readers, the newspaper editors juiced up the title with tag lines like “shooting rapids and cascades” and “hair-breadth ‘scapes.” Just as he had before the expedition, Powell referred to the “Grand Canyon.” He did not, however, “name it.” That piece of derailed history was on the insistent authority of Frederick S. Dellenbaugh, the teenaged member of Powell’s second expedition in 1871–72, who for years, and long after Powell’s death in 1902, assured his reading public that it was Powell who had named the great Grand

²⁹ C. C. Parry, “Grand Canon of the Colorado. Account of the Passage of the Great Canon of the Colorado, From Above the Mouth of Green River to the Head of Steamboat Navigation at Callville, in the Months of August and September, 1867, by James White, Now Living at Callville.” Pages 232-236 in William J. Palmer, *Report of Surveys Across the Continent, in 1867-’68, on the Thirty-fifth and Thirty-second Parallels, for a Route Extending the Kansas Pacific Railway to the Pacific Ocean at San Francisco and San Diego. By Gen. Wm. J. Palmer. December 1st, 1868* (Privately printed in Philadelphia by W. B. Selheimer, Printer, 1869).

³⁰ [Letter, J. W. Powell to General Ulysses S. Grant, dated Normal, Illinois, April 2, 1868.] It appears in the House of Representatives proceedings under the heading, “Colorado Exploring Expedition,” in *The Congressional Globe: Containing the Debates and Proceedings of the Second Session Fortieth Congress* (Washington, 1868), p. 2407.

³¹ “Scenery of the Colorado. Interesting Report from Col. [sic] Powell. The most wonderful scenery in the world—925 miles of canon and 300 waterfalls—rock walls 4,000 feet high—shooting rapids and cascades—hair-breadth ‘scapes—loss of three men—ancient Indian towns—a fascinating story,” *New-York Tribune*, 29(8886) (September 30, 1869): 1-2. [Undated correspondence to the editor from Powell (with introduced errors).]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Canyon soon after the end of the 1869 expedition. His last attempt to ensure that Powell kept the crown was in 1933.³²

Powell's own correspondence and (more publicly) newspaper notices *before* the expedition, mentioning Grand Canyon, should have raised the red flag for misinformed neological historians and Powell celebrants of the Dellenbaugh camp throughout the 20th century. As we shall see, too, despite the best efforts of the grand champion of Colorado River historians, Dock Marston, who went after Dellenbaugh's misinformation, Powell widely continued, and continues, to be a certified Grand Canyon neologist.

It is Powell's *Tribune* letter that corroborates he never claimed the Grand Canyon name for his own. Therein he referred to "this region, [which had been] known vaguely as the Grand Cañon of the Colorado" (recall also the anonymous writer of 1854 who wrote of the three hundred miles of "Big Canon") and said, "Many stories of wild adventure have been told by Indians, trappers, and prospectors—stories of walking along the brink of the cañon walls . . ."

I also arrived at the conclusion that what was known as "the Grand Cañon" was in fact a series of cañons, forming the banks or walls of the Upper Colorado, and the lower portions of the Green and Grand that unite to form it. These two streams unite in cañons, and some persons held that the vaguely defined "Grand Cañon" was continued up the Green, and others that it was continued up the Grand . . .

We would love to have Powell's sources of the "Indians, trappers, and prospectors" who cruised the canyon's rims. Alas, they are mostly Powell's literary elaborations, to which we are accustomed.

Moving down the Green and Colorado Rivers, Powell peeled off the names of the canyons in order, dissecting a single grand canyon into many (his terms, with modern names in brackets):³³ "the Uintah system of cañons" [several canyons between Flaming Gorge and Split Mountain], "Cañon of Desolation" [Desolation Canyon], "Coal Cañon" [Gray Canyon], "Still Water Cañon" [Labyrinth and Stillwater Canyons], "Cataract Cañon" [Cataract Canyon], "A rocky valley cañon . . . we called it Mille-crag Bend" [Mille Crag Bend, foot of Cataract Canyon and start of Narrow Canyon—in "mille crag," today pronounced "millie," Powell had blended the French and English to mean "thousand crags"], "Narrow Cañon" [Narrow Canyon], "Mound Cañon" [part of Glen Canyon], "We named it Monument Cañon" [Glen Canyon], "We called this Marble Cañon" [Marble Canyon]. Most interesting of all, Powell did not mention Grand Canyon when he finally came to it in his narration, nor did he mention the name at any time while telling of his travel through it. Only after exiting did he say, "This

³² Frederick S. Dellenbaugh, "Naming the Grand Canyon," *Science*, new series, 77 (April 7, 1933): 349-350.

³³ Thanks to Richard Quartaroli for guiding me through the geography and nomenclature of the Upper Basin canyons.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

ended the exploration of the Grand Cañon of the Colorado; its head at the confluence of the Little Colorado, its foot at the entrance of the river to Mormon Valley [downstream from the Grand Wash Cliffs]. Further, in his table of “Approximate Distances” he listed each canyon, with “Grand Cañon of the Colorado” on its own line. Here, for the first time, the limits of Grand Canyon were defined.

The name no long was inferred to be the complex of Green–Grand–Colorado River canyons, of which perhaps the most literary turn of phrase came contemporaneously from Samuel Bowles in 1869: “. . . this rock-guarded career of the great river of the interior basin of the Continent is the grand canyon of the world, and one of its most wonderful marvels.” He mused, “Its passage in well protected boats by careful navigators can scarcely be deemed impracticable, however dangerous, and the country will await the Powell movement through it with eager interest.”³⁴ And he added, speaking of “men of science”: “The wonder is they have neglected it so long.” Perhaps it was because the trappers had for so long taken detours around *le grand cañon*, and convinced others of the same prudence.

Before his 1869 river trip, Powell himself seems to have been under the spell of a singular Grand Canyon along the Green and Colorado Rivers, but he realized differently once he was on these rivers. His geologist’s eyes read the rocks—the strata as well as the physiography—and he saw differences from one canyon to the next. He named them, but not the Grand Canyon; nary a word when the expedition came to it. It already had a name. Through his geographical neologisms, he dissected a once-super Grand Canyon into many. By demarcating the limits of his final canyon, in a distinctive way he *did* name the Grand Canyon—by defining it. It was the last reach of the greater Grand Canyon whose pieces were named one by one—and Grand Canyon was the leftover piece.

In most quarters now, Powell is credited as the person who popularized Grand Canyon’s name, and that the name was around before he used it. Even so, this has not been universally received, nor is it appreciated by those who just prefer the celebrity of one-armed Powell in the rapids and climbing canyon walls. It has taken deep digging to figure this out, although sometimes it seems to be treated like so much theater.

In 1968, the opinionated Otis “Dock” Marston, self-anointed but rightfully celebrated historian of the Colorado River, had had enough of Dellenbaugh’s repeated genuflections to Powell in articles, letters to editors, and general correspondence. Dellenbaugh’s misled congregants were thorns, too. Also, there were Dellenbaugh’s reminders that *he* (Dellenbaugh) was the *first* to pen the Grand Canyon name on a map (for Powell in January 1873 while Dellenbaugh was still in Kanab, Utah). To Marston, the Powell neology was nonsense. Dellenbaugh’s assertions, on behalf of Powell and himself both, wormed their ways into

³⁴ Samuel Bowles, *The Switzerland of America. A Summer Vacation In the Parks and Mountains of Colorado* (Samuel Bowles and Co., Springfield, Mass., 1869), p. 85.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

authoritative Arizona gazetteers—and they survive even today on mindlessly repetitive web pages. The claims weren't true, and Marston went in search of things that proved that the name preceded Powell.³⁵

In 1997, a generation after Marston, I published a short item noting that everyone—Dock included—had managed to overlook an appearance of the grand name that was in plain sight a full decade before Powell.³⁶ In 1858, Lieutenant Ives had submitted to army superiors his brief, *preliminary* report, “Colorado Exploring Expedition”; it was embedded deep in a year-end government roundup of army activities for the year.³⁷ He made no mention of the canyon by any name but offered several impressions about the “cañons” of the region. He was impressed by “immense chasms, thousands of feet deep, forming intricate systems of abysses many miles in width, and utterly impassable.” Ives’ report was picked up and published in February 1859 by a New York journal, which emended Ives’ title and added a subtitle: “The Colorado Expedition. The Colorado of the West and the Country Bordering It—The Grand Canon.”³⁸ This oversight by those who searched for “who named the Grand Canyon”—Marston, particularly—is inexplicable. The subtitled “Grand Canon” term predated Powell’s usages by a decade, but its author is unknown.

About fifteen years later, I uncovered an even earlier, surer, application of “Grand Cañon” buried in a robust monograph by Lorin Blodget, *Climatology of the United States*.³⁹ Published in Philadelphia in July 1857, or very soon thereafter, it appeared even while Ives’ expedition steamboat, *Explorer*, was being built just two miles from the publisher’s offices. Falling back on the old stand-by of the 1853 Sitgreaves report, Blodget wrote in a footnote,

Sitgreaves . . . describes the gorges and cañons of the Colorado as very formidable at the 35th parallel, and in several cases below this point, and gives figures of some of them. The

³⁵ O. Dock Marston, “Who Named the Grand Canyon?” *Pacific Historian*, 12(3) (Summer 1968): 4-8.

³⁶ Earle Spamer, “The Canyon Grand By Any Other Name”, *Nature Notes* (Grand Canyon National Park), 13(1) (Spring 1997): 7-9. [See particularly the sidebar, p. 9, “So, Who Did Name the Grand Canyon?” (since superseded).]

³⁷ “Colorado Exploring Expedition. Preliminary Report of 1st Lieutenant J. C. Ives, Topographical Engineers, to Captain A. A. Humphreys, Topographical Engineers, in charge of Office of Explorations and Surveys, War Department, November, 1858,” pp. 609-619 in U.S. 35th Congress, 2nd Session, Senate Executive Document 1, Serial 975, 1858. [Also pp. 31-42 in a separate of Humphreys’ annual report: “Colorado Exploring Expedition. Preliminary Report of First Lieut. J. C. Ives, Topographical Engineers, to Captain A. A. Humphreys, Topographical Engineers, in Charge of the Office of Explorations and Surveys, War Department, November 1858,” in *Annual Report of Captain A. A. Humphreys ... December, 1858* (“Washington: 1859” [no imprint]).] [Ives’ report is dated “Washington, November 1, 1858.”]

³⁸ “The Colorado Expedition. The Colorado of the West and the Country Bordering It—the Grand Canon,” *Journal of the American Geographical and Statistical Society*, 1(2) (February 1859): 41-45. [Slightly edited version of Ives’ preliminary report to the army in 1858, with editorially emended title and added subtitle; it largely omits his remarks on the Native Americans.]

³⁹ Lorin Blodget, *Climatology of the United States, and of the Temperate Latitudes of the North American Continent* (J. B. Lippincott and Co., Philadelphia, and Trübner and Co., London). [Regarding the Grand Canyon, see pp. 92, 97 *footnote*.]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Grand Cañon of the Colorado [italics are Blodget's] as known to trappers and hunters, though not yet visited by scientific engineers, is placed by Sitgreaves in lat. 36°.

Blodget capitalized—and emphatically italicized—the name. He cannot be said to have considered it as the complex of Colorado River canyons because we know that the Grand Canyon shadows the 36th parallel through its entire east–west course. However, he did not say the name was his. He may have known of it through someone else; and his “trappers and hunters” remark resonates of Lt. Sitgreaves’ “experienced trappers” comment from the 1851 expedition across New Mexico Territory (see in the Introduction to the Big Canyon section herein). If Blodget had not received the “Grand” name from someone else, who is not recorded, did he consciously raise “great” to a more splendidly literary “grand,” creating the name on his own? We do not know. Yet there it is—“the Grand Cañon” before Ives left to explore the Colorado River and Big Cañon, and even 11 years before Powell’s letter to General Grant.

Powell left us no record of his essential book research in preparation for his expeditions to the Rockies (1868) and down the Colorado (1869). But I hinted that Powell *may* have studied Blodget’s important publication as part of groundwork for his western expeditions, in that it includes numerous seasonal climatological maps of the U.S. It’s conceivable that he saw Blodget’s references to “Grand Cañon.” The 36th parallel run of Grand Canyon correlates with actual geography and with Powell’s own, later, definition of the extent of the canyon from the Little Colorado River to the “Mormon Valley.” It falls to historians and sleuths now.⁴⁰

⁴⁰ For substantive background, see Earle Spamer, “Once Again, ‘Who Named the Grand Canyon?’—and Other Obscure Grand Canyon ‘Firsts’.” *The Ol’ Pioneer*, 24(2) (Spring 2013): 4-16; “Connections: It’s Always Who You Know and What You Hear,” American Philosophical Society Library blog (April 20, 2018), <https://www.amphilsoc.org/blog/connections-its-always-who-you-know-and-what-you-hear> (last accessed August 12, 2024); “An Ill Wind Blows: Did John Wesley Powell Claim Jump the Grand Canyon?” *Boatman’s Quarterly Review*, 31(2) (Summer 2018): 10-12.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

THE GEORGE BILLINGSLEY MAPS

“Just because the Grand Canyon has been mapped does not mean it’s all done.”

Billingsley, quoted by Naomi Lubick (2005)

NO GRAND CANYON CARTOGRAPHER has accomplished more than George H. Billingsley. During his tenure with the U.S. Geological Survey in Flagstaff, Arizona (retired 2012), and afterward, he published 277 geologic maps of areas in the general region of interest to this cartobibliography. These were published between 1976 and 2019, nearly all of them by the USGS. (He worked on some maps outside of this area, too, which are omitted here.) Most of these were produced as sole or lead author; just 14 of the maps listed here note Billingsley as an author other than lead.

While Billingsley’s later work embraced the assistance of those who produced digital publications, for which he handed off his essential mapping to them, most of his maps were done the long-established way, with surveys in the field followed by office work on paper at a drafting table. Much of his field work was conducted by driving to remote parts of the Arizona Strip or on lands of the Navajo Nation. Other work was carried out in equally remote areas, including sites inside the canyons reached by helicopter or by boat on the Colorado River. Even so, as Lubick quotes him, “I have not been everywhere.” The style of his mapping, I have observed, one can visually identify even amidst the work of others—and at a distance, no less.

Doubtfully anyone will surpass Billingsley’s output, certainly with boots-on-the-ground fieldwork coupled with drafting table figuring and drawing. Such productivity demands that a separate cartobibliography for his Grand Canyon regional fieldwork be presented here.

For some biographical and professional background on George Billingsley, see the following print and online resources (*all URL hyperlinks last accessed 12 December 2024*):

Billingsley, George

- 2018 My experience as a seasonal park ranger at Havasu Campground in Grand Canyon National Park, 1970. *In*: Quartaroli, Richard D. (compiler, ed.), *Celebrating 100 years of the National Park Service, November 2016 : a gathering of Grand Canyon historians : ideas, arguments, and first-person accounts*. Grand Canyon, Arizona: Grand Canyon Association, pp. 64-71.

Billingsley, George, AND Steiger, Lew

- 2011 George Billingsley. *Boatman’s Quarterly Review*, 24(1) (Spring): 1, 30-43. [Billingsley oral history interview.]
Read a transcript of, or listen to, the full-length interview through the Northern Arizona University, Cline Library, Colorado Plateau Digital Collections; recorded October 26, 2007, duration 2:23:16 (143:17 minutes); interviewed by Lew Steiger for the River Runners Oral History Project, Grand Canyon River Guides:
<https://cdm16748.contentdm.oclc.org/digital/collection/cpa/id/73942/rec/2>.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Lubick, Naomi

- 2005 George H. Billingsley: Mapping the Grand Canyon. *Geotimes*, 50(2) (February): 48-49.
This is also online at <http://www.geotimes.org/feb05/profiles.html>.

Online Resources

Billingsley, George H.; Goodwin, Gregory; Nagorsen, Sarah E.; Erdman, Monica E.; AND Sherba, Jason T.

- 2019 Geologic and related photographs of the Grand Canyon region (1967-2010) : a photograph collection by George Billingsley. *U.S. Geological Survey, Data Release*, <https://doi.org/10.5066/F7WS8SHW>. "The photographs document some key geologic features, structures, and rock unit relations that were used to compile nine geologic maps of the Grand Canyon region published at 1:100,000 scale, and many more maps published at 1:24,000 scale."
For an introductory guide, see Billingsley *et al.* (2019), <https://pubs.er.usgs.gov/publication/gip189>.
Link to USGS ScienceBase catalog:
<https://www.sciencebase.gov/catalog/item/5a9751d5e4b06990606c5197>.

Billingsley, George H.; Goodwin, Gregory; Nagorsen, Sarah E.; Erdman, Monica E.; AND Sherba, Jason T.

- 2019 Geologic field photograph map of the Grand Canyon region, 1967-2010. *U.S. Geological Survey, General Information Product 189*, 11 pp. [Report can be downloaded from <https://pubs.usgs.gov/publication/gip189>.]
This is a guide to an online collection of "1,211 geotagged photographs collected [by Billingsley] during 43 years of geologic mapping". "The photographs document some key geologic features, structures, and rock unit relations that were used to compile nine geologic maps of the Grand Canyon region published at 1:100,000 scale, and many more maps published at 1:24,000 scale."
For the online dataset and photo catalog, see Billingsley *et al.* (2019), Geologic and related photographs of the Grand Canyon region (1967-2010) : a photograph collection by George Billingsley. *U.S. Geological Survey, Data Release*, <https://doi.org/10.5066/F7WS8SHW>; or link through USGS ScienceBase catalog:
<https://www.sciencebase.gov/catalog/item/5a9751d5e4b06990606c5197>.

Northern Arizona University, Cline Library, Special Collections and Archives

See the finding aid for the George H. Billingsley Papers, which includes series for photographs and films:
http://www.azarchivesonline.org/xtf/view?docId=ead/nau/billingsley_george.xml;query=Billingsley%20collection;brand=default.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

George H. Billingsley Cartobibliography for the Greater Grand Canyon Region

[All URL hyperlinks noted in this list were valid as of 10 December 2024]

Billingsley, George H.

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| 1987 | 24.6 | Geologic map of the southwestern Moenkopi Plateau and southern Ward Terrace, Coconino County, Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-1793</i> , 1 sheet, scale 1:31,680. |
| 1990 | 24.7 | Geologic map of the Jumpup Canyon and Big Springs quadrangles, Mohave and Coconino Counties, Arizona. <i>U.S. Geological Survey, Open-File Report 90-258</i> , 16 pp., 1 sheet, scale 1:62,500. |
| 1990 | 24.8 | Geologic map of the Purgatory Canyon quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 90-540</i> , 1 sheet, scale 1:24,000. |
| 1990 | 24.9 | Geologic map of the Wolf Hole Mountain West quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 90-541</i> , 1 sheet, scale 1:24,000. |
| 1990 | 24.10 | Geologic map of the Lizard Point quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 90-643</i> , 1 sheet, scale 1:24,000. |
| 1990 | 24.11 | Geologic map of the Wolf Hole Mountain East quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 90-644</i> , 1 sheet, scale 1:24,000. |
| 1991 | 24.12 | Geologic map of the Sullivan Draw North quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 91-558</i> , 1 sheet, scale 1:24,000, text 10 pp. |
| 1991 | 24.13 | Geologic map of the Sullivan Draw South quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 91-559</i> , 1 sheet, scale 1:24,000, text 9 pp. |
| 1991 | 24.14 | Geologic map of the Mustang Knoll quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 91-560</i> , 1 sheet, scale 1:24,000, text 12 pp. [Mustang Point.] |
| 1991 | 24.15 | Geologic map of the St. George Canyon quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 91-561</i> , 1 sheet, scale 1:24,000, text 11 pp. |
| 1992 | 24.16 | Geologic map of the Gyp Pocket quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 92-412</i> , 17 pp., 1 sheet, scale 1:24,000. |
| 1992 | 24.17 | Geologic map of the Hole-N-Wall Canyon quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 92-432</i> , 15 pp., 1 sheet, scale 1:24,000. |
| 1992 | 24.18 | Geologic map of the Yellowhorse Flat quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 92-442</i> , 17 pp., 1 sheet, scale 1:24,000. |
| 1992 | 24.19 | Geologic map of the Rock Canyon quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 92-449</i> , 17 pp., 1 sheet, scale 1:24,000. |

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

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| 1992 | 24.20 | Geologic map of the Jumpup Canyon and Big Springs quadrangles, Mohave and Coconino Counties, Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-2290, scale 1:62,500.</i> |
| 1993 | 24.21 | Geologic map of the Lost Spring Mountain East quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 93-565, 9 pp., 1 sheet, scale 1:24,000.</i> |
| 1993 | 24.22 | Geologic map of the Lost Spring Mountain West quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 93-566, 11 pp., 1 sheet, scale 1:24,000.</i> |
| 1993 | 24.23 | Geologic map of the Dutchman Draw quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 93-587, 12 pp., 1 sheet, scale 1:24,000.</i> |
| 1993 | 24.24 | Geologic map of The Grandstand quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 93-588, 15 pp., 1 sheet, scale 1:24,000.</i> |
| 1993 | 24.25 | Geologic map of the Little Tanks quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 93-682, 13 pp., 1 sheet, scale 1:24,000.</i> |
| 1993 | 24.26 | Geologic map of the Russell Spring quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 93-717, 17 pp., 1 sheet, scale 1:24,000.</i> |
| 1993 | 24.27 | Geologic map of the Wolf Hole Mountain and vicinity, Mohave County, northwestern Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-2296, 1 sheet, scale 1:24,000.</i> |
| 1994 | 24.28 | Geologic map of the Formaster Well quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 94-243, 1 sheet, scale 1:24,000, text 10 pp.</i> |
| 1994 | 24.29 | Geologic map of the White Pockets quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 94-244, 1 sheet, scale 1:24,000, text 11 pp.</i> |
| 1994 | 24.30 | Geologic map of the Little Clayhole Valley quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 94-290, 1 sheet, scale 1:24,000, text 11 pp.</i> |
| 1994 | 24.31 | Geologic map of the Antelope Knoll quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 94-449, 1 sheet, scale 1:24,000, text 18 pp.</i> |
| 1994 | 24.32 | Geologic map of the Hat Knoll quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 94-554, 1 sheet, scale 1:24,000, text 14 pp.</i> |
| 1994 | 24.33 | Geologic map of the Moriah Knoll quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 94-634, 1 sheet, scale 1:24,000, text 15 pp.</i> |
| 1997 | 24.34 | Geologic map of the Mount Logan quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 97-426, 1 sheet, scale 1:24,000, text 21 pp.</i> |
| 1997 | 24.35 | Geologic map of the Mount Trumbull NW quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 97-488, 1 sheet, scale 1:24,000, text 19 pp.</i> |
| 1997 | 24.36 | Geologic map of the Poverty Spring quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 97-493, 1 sheet, scale 1:24,000, text 13 pp.</i> |

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Billingsley, George H., AND Bohannon, R. G.

1995 24.37 **Geologic map of the Elbow Canyon quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 95-560*, 1 sheet, scale 1:24,000, text 17 pp.

Billingsley, George H., AND Breed, William J.

1986 24.38 **Geologic map of the Bright Angel Trail, Grand Canyon, Arizona.** Tulsa, Oklahoma: American Association of Petroleum Geologists, 1 sheet (2 sides)
Base map is topographic map by Washburn (1981), scale 1:4800, contour interval 25 feet); accompanied by text (Breed *et al.*, 1986, **ITEM NO.** 23.22).

Billingsley, George H., AND Dyer, Helen C.

2003 24.364 **Geologic map of the upper Hurricane Wash and vicinity, Mohave County, northwestern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2410*, scale 1:31,680, text 23 pp.

Billingsley, George H., AND Graham, Scott E.

2003 24.365 **Geologic map of the lower Hurricane Wash and vicinity, Mohave County, northwestern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2396*, scale 1:31,680, text 27 pp.

Billingsley, George H., AND Hampton, Haydee M.

1999 24.39 **Physiographic rim of the Grand Canyon, Arizona.** *U.S. Geological Survey, Open-File Report 99-30*, 1 sheet, scale 1:250,000, contour intervals 25 and 50 m. [[Illustrated herein \(Figure A, facing p. 1\).](#)]

Also downloadable GIS (Geographic Information System) data file in ARC/INFO format, "Physiographic rim of the Grand Canyon, Arizona: A digital database", with explanation, 10 pp. (<https://pubs.usgs.gov/publication/ofr9930>). [See chorographical notes, p. 258.]

2000 24.219 **Geologic map of the Grand Canyon 30' × 60' quadrangle, Coconino and Mohave Counties, northwestern Arizona.** *U.S. Geological Survey, Geologic Investigations Series, I-2688, Version 1.0*, 1 sheet, text 15 pp.

Poster style sheet, displaying map with supplementary images and key on three sides.

2001 24.221 **Geologic map of the House Rock Spring quadrangle, Coconino County, northern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2367*, scale 1:24,000, text 17 pp.

Billingsley, George H., AND Huntoon, Peter W.

1983 24.40 **Geologic map of Vulcan's Throne and vicinity, western Grand Canyon, Arizona.** Grand Canyon Natural History Association, scale 1:48,000.

Billingsley, George H., AND Priest, Susan S.

2010 24.350 **Geologic map of the House Rock Valley area, Coconino County, northern Arizona.** *U.S. Geological Survey, Scientific Investigations Map 3108*, 1 sheet, scale 1:50,000; pamphlet, 23 pp.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

2013 24.370 **Geologic map of the Glen Canyon Dam 30' × 60' quadrangle, Coconino County, northern Arizona.** *U.S. Geological Survey, Scientific Investigations Map 3268*, 41 pp., 3 sheets, scale 1:50,000.

Billingsley, George H., AND Wellmeyer, Jessica L.

2001 24.222 **Geologic map of the Cane quadrangle, Coconino County, northern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2366*, scale 1:24,000, text 7 pp.

2003 24.232 **Geologic map of the Mount Trumbull 30' × 60' quadrangle, Mohave and Coconino Counties, northwestern Arizona.** *U.S. Geological Survey, Geologic Investigations Series, I-2766*, scale 1:100,000, text 36 pp.

Billingsley, George H., AND Workman, Jeremiah B.

2000 24.216 **Geologic map of the Littlefield 30' × 60' quadrangle, Mohave County, northwestern Arizona.** *U.S. Geological Survey, Geologic Investigations Series, I-2628*, 1 sheet, scale 1:100,000, 25-page text.

Billingsley, George H.; Antweiler, John C.; Beard, L. Sue; Lucchitta, Ivo; AND Lane, M. E.

1986 24.41 **Mineral resource potential map of the Pigeon Canyon, Nevershine Mesa, and Snap Point Wilderness Study Areas, Mohave County, Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-1860-A*, 1 sheet with text, scale 1:50,000, and 10-pp. text in pamphlet.

Billingsley, George H.; Antweiler, John C.; AND Ellis, Clarence E.

1983 24.371 **Mineral resource potential of the Kanab Creek Roadless Area, Coconino and Mohave Counties, Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-1627-A*, 1 sheet with text, 10 pp.

Billingsley, George H.; Barnes, Charles W.; AND Ulrich, G. E.

1985 24.42 **Geologic map of the Coconino Point and Grandview Point quadrangles, Coconino County, Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Map I-1644*, 1 sheet, scale 1:62,500.

Billingsley, George H.; Beard, L. Sue; Priest, Susan S.; Wellmeyer, Jessica L.; AND Block, Debra L.

2004 24.368 **Geologic map of the lower Grand Wash Cliffs and vicinity, Mohave County, northwestern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2427*, scale 1:31,680, text 23 pp.

Billingsley, George H.; Block, Debra L.; AND Dyer, Helen C.

2006 24.271 **Geologic map of the Peach Springs 30' × 60' quadrangle, Mohave and Coconino Counties, northwestern Arizona.** *U.S. Geological Survey, Scientific Investigations Map 2900*, 16 pp., 1 sheet, scale 1:100,000.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Billingsley, George H.; Felger, Tracey J.; AND Priest, Susan S.

2006 24.238 **Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona.** *U.S. Geological Survey, Scientific Investigations Map 2895*, 22 pp., 1 sheet, scale 1:100,000.

Also available only as downloads from U.S. Geological Survey publications website are geologic maps of the thirty-two 7.5' quadrangles (scales 1:24,000) within the Valle 30' × 60' quadrangle, all of which can be accessed directly from this webpage: <https://pubs.usgs.gov/sim/2006/2895/24k/images/> (accessed 10 July 2024). Quadrangles are as follows:

2006 24.239 **National Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]

2006 24.240 **Supai Camp quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]

2006 24.241 **Hualapai Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]

2006 24.242 **Baldy Basin quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]

2006 24.243 **Box K Ranch quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]

2006 24.244 **Metzger Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]

2006 24.245 **Tusayan West quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]

2006 24.246 **Tusayan East quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]

2006 24.247 **Dike Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

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| 2006 | 24.248 | Supai Camp SE quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.249 | Hazen Hole Tank quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.250 | Rosebud Tank quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.251 | Little Harpo Canyon quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.252 | Howard Hill quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.253 | Red Butte SW quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.254 | Red Butte quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.255 | Rose Well Camp West quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.256 | Rose Well Camp East quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.257 | Black Tank quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.258 | Tin House quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.259 | Markham Dam quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S.</i> |

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

- Geological Survey, Scientific Investigations Map 2895. [7.5' quadrangle, scale 1:24,000.]*
- 2006 24.260 **Miller Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895. [7.5' quadrangle, scale 1:24,000.]*
- 2006 24.261 **Valle Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895. [7.5' quadrangle, scale 1:24,000.]*
- 2006 24.262 **Molly Ann Draw quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895. [7.5' quadrangle, scale 1:24,000.]*
- 2006 24.263 **Rhodes Canyon quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895. [7.5' quadrangle, scale 1:24,000.]*
- 2006 24.264 **Big Bud Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895. [7.5' quadrangle, scale 1:24,000.]*
- 2006 24.265 **Bishop Lake quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895. [7.5' quadrangle, scale 1:24,000.]*
- 2006 24.266 **Howard Spring quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895. [7.5' quadrangle, scale 1:24,000.]*
- 2006 24.267 **Red Hill Ranch quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895. [7.5' quadrangle, scale 1:24,000.]*
- 2006 24.268 **Mixon Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895. [7.5' quadrangle, scale 1:24,000.]*
- 2006 24.269 **Howard Lake quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895. [7.5' quadrangle, scale 1:24,000.]*
- 2006 24.270 **Hobble Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895. [7.5' quadrangle, scale 1:24,000.]*

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Billingsley, George H.; Goodwin, Gregory; Nagorsen, Sarah E.; Erdman, Monica E.; AND Sherba, Jason T.

- 2019 24.865 Geologic field photograph map of the Grand Canyon region, 1967-2010. *U.S. Geological Survey, General Information Product 189*, 11 pp. (<https://pubs.er.usgs.gov/publication/gip189>; last accessed 9 December 2024).
This is a guide to an online collection of "1,211 geotagged photographs collected [by Billingsley] during 43 years of geologic mapping". "The photographs document some key geologic features, structures, and rock unit relations that were used to compile nine geologic maps of the Grand Canyon region published at 1:100,000 scale, and many more maps published at 1:24,000 scale." [For the online dataset and photo catalog, see: Billingsley *et al.* (2019), Geologic and related photographs of the Grand Canyon region (1967-2010): a photograph collection by George Billingsley. *U.S. Geological Survey, Data Release*, <https://doi.org/10.5066/F7WS8SHW>. (Link to USGS ScienceBase catalog: <https://www.sciencebase.gov/catalog/item/5a9751d5e4b06990606c5197>.)

Billingsley, George H.; Hamblin, W. Kenneth; Wellmeyer, Jessica L.; Block, Debra; AND Dudash, Stephanie

- 2001 24.223 **Geologic map of part of the Uinkaret Volcanic Field, Mohave County, northwestern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2368*, scale 1:31,680. [Mount Trumbull-Toroweap Valley area.]

Billingsley, George H.; Harr, Michelle; AND Wellmeyer, Jessica L.

- 2000 24.224 **Geologic map of the upper Parashant Canyon and vicinity, northern Mohave County, northwestern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2343*, scale 1:31,680, text 27 pp. [Upper Parashant Canyon-Grassy Mountain area.]

Billingsley, George H.; Priest, Susan S.; AND Dudash, Stephanie L.

- 2002 24.366 **Geologic map of the Clayhole Wash and vicinity, Mohave County, northwestern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2394*, scale 1:31,680, text 20 pp.

Billingsley, George H.; Priest, Susan S.; AND Felger, Tracey J.

- 2004 24.360 **Geologic map of Pipe Spring National Monument and the western Kaibab-Paiute Indian Reservation, Mohave County, Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Map I-2863*, scale 1:31,680, 1 sheet.

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- 2007 24.274 **Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona.** *U.S. Geological Survey, Scientific Investigations Map 2977*, scale 1:100,000, 1 sheet, 33 pp.

Also available only as downloads from U.S. Geological Survey publications website are geologic maps of the thirty-two 7.5' quadrangles (scales 1:24,000) within the Cameron 30' × 60' quadrangle, all of which can be accessed directly from this webpage: <https://pubs.usgs.gov/sim/2007/2977/24k/images/> (accessed 10 July 2024). Quadrangles are as follows:

- 2007 24.275 **Grandview Point quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977*. [7.5' quadrangle, scale 1:24,000.]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

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| 2007 | 24.276 | Grandview Point NE quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.277 | Hellhole Bend quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.278 | Coconino Point quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.279 | Cameron North quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.280 | Cameron NE quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.281 | Goldtooth Point quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.282 | Appoloosa Ridge quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.283 | Harbison Tank quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.284 | Peterson Flat quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.285 | Willows Camp quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.286 | Coconino Point SE quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

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| 2007 | 24.287 | Cameron South quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.288 | Cameron SE quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.289 | The Landmark quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.290 | Gold Spring quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.291 | Dog Knobs quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.292 | Lockwood Canyon quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.293 | Campbell Francis Wash quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.294 | Gray Mountain. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.295 | Wupatki NE quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.296 | Badger Spring quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.297 | Rock Head quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.298 | Ebert Mountain quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S.</i> |

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

- 2007 24.299 *Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
Chapel Mountain quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.300 **SP Mountain quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.301 **East of SP Mountain quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.302 **Wupatki SW quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.303 **Wupatki SE quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.304 **Standing Rocks.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.305 **White Water Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.306 **Wupatki NE quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*

- 2008 24.316 **Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona.** *U.S. Geological Survey, Scientific Investigations Map 3035, scale 1:100,000, 1 sheet, 23 pp.*

Also available only as downloads from U.S. Geological Survey publications website are geologic maps of the thirty-two 7.5' quadrangles (scales 1:24,000) within the Fredonia 30' × 60' quadrangle, all of which can be accessed directly from this webpage: <https://pubs.usgs.gov/sim/3035/24k/images/> (accessed 10 July 2024). Quadrangles are as follows:

- 2008 24.317 **Colorado City quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035. [7.5' quadrangle, scale 1:24,000.]*

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

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| 2008 | 24.318 | Moccasin quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.319 | Kaibab quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.320 | Fredonia quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.321 | Shinarump Point quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.322 | Muggins Flat quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.323 | Buck Pasture Canyon quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.324 | Coyote Buttes quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.325 | Maroney Well quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.326 | Pipe Valley quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.327 | Pipe Spring quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.328 | Clear Water Spring quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.329 | White Sage Flat quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern |

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

- Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.330 **Le Fevre Ridge quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.331 **Cooper Ridge quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.332 **House Rock Spring quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.333 **Wild Band Pockets quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.334 **Sunshine Ridge quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.335 **Findaly Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.336 **Gunsight Point quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.337 **Toothpick Ridge quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.338 **Warm Springs Canyon quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.339 **Jacob Lake quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.340 **House Rock quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

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| 2008 | 24.341 | Heaton Knolls quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035</i> . [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.342 | Robinson Canyon quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035</i> . [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.343 | Grama Spring quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035</i> . [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.344 | Jumpup Point quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035</i> . [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.345 | Sowats Point quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035</i> . [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.346 | Big Springs quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035</i> . [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.347 | Telephone Hill quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035</i> . [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.348 | Cane quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035</i> . [7.5' quadrangle, scale 1:24,000.] |

Billingsley, George H.; Stoffer, Philip W.; AND Priest, Susan S.

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| 2012 | 24.361 | Geologic map of the Tuba City 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3227</i> , 31 pp., 3 sheets. |
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Billingsley, George H.; Ulrich, George E.; AND Barnes, C. W.

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| 1983 | 24.43 | Preliminary geologic map of the Coconino Point and Grandview Point quadrangles, Coconino County, Arizona. <i>U.S. Geological Survey, Open-File Report 83-731</i> , 1 sheet, 8 pp. |
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Billingsley, George H.; Wellmeyer, Jessica L.; AND Block, Debra

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| 2001 | 24.225 | Geologic map of the House Rock quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Miscellaneous Field Studies Map MF-2364</i> , scale 1:24,000, text 8 pp. |
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MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Billingsley, George H.; Wellmeyer, Jessica L.; Harr, Michelle; AND Priest, Susan S.

2002 24.367 **Geologic map of the Hidden Hills and vicinity, Mohave County, northwestern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2387*, scale 1:31,680, text 23 pp.

Billingsley, George H.; Wenrich, Karen J.; AND Huntoon, Peter W.

1986 24.44 **Breccia pipe and geologic map of the southeastern Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Open-File Report 86-458-B*, 26 pp., 2 sheets, scale 1:48,000.

2000 24.217 **Breccia-pipe and geologic map of the southeastern part of the Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Geologic Investigations Series, I-2643*, 2 sheets, text 18 pp; scale 1:48,000.

Billingsley, George H.; Wenrich, Karen J.; Huntoon, Peter W.; AND Young, Richard A.

1990 24.45 **Breccia pipe and geologic map of the southwestern Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Open-File Report 86-458-D*, 33 pp., 2 sheets, scale 1:48,000.

1999 24.214 **Breccia-pipe and geologic map of the southwestern part of the Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Series, I-2554*, 2 sheets, with text 50 pp.

Brown, Kristin M., AND Billingsley, George H.

2010 24.351 **Map showing geologic structure, cultural and geographic features, and geologic cross sections of northwestern Arizona.**
In: Alpine, Andrea E. (ed.), Hydrological, geological, and biological site characterization of breccia pipe uranium deposits in northern Arizona. *U.S. Geological Survey, Scientific Investigations Report 2010-5025*, Plate 1 (in pocket), scale 1:375,000.

Huntoon, Peter W., AND Billingsley, George H.

1977 24.90 **Geological map of western Grand Canyon, Arizona.** Grand Canyon Natural History Association, open file, 43 sheets.

Huntoon, Peter W., AND Billingsley, George H.; WITH Clark, Malcolm D.

1981 24.91 **Geologic map of the Hurricane fault zone and vicinity, western Grand Canyon, Arizona.** Grand Canyon Natural History Association, scale 1:48,000.

1982 24.92 **Geologic map of the Lower Granite Gorge and vicinity, western Grand Canyon, Arizona.** Grand Canyon Natural History Association, scale 1:48,000.

Huntoon, Peter W.; Billingsley, George H., Jr.; Breed, William J.; Sears, J. W.; Ford, Trevor D.; Clark, Malcolm D.; Babcock, R. S.; Brown, E. H.; et al.

1976 24.93 **Geologic map of the Grand Canyon National Park, Arizona.** Grand Canyon Natural History Association, and Museum of Northern Arizona, 1 sheet, scale 1:62,500.

NOTE: Map embraces the limits of the national park prior to the Grand Canyon National Park Enlargement Act (88 Stat. 2089). Later revisions of this map note as

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

- "eastern Grand Canyon National Park". This and other eds. is the so-called "Blue Dragon" map.
- See also Muir Way (firm) (no date, [ITEM NO. 24.852](#)), a print-on-demand fine art product with "Digital Elevation Data with shaded relief applied" to create a 3D appearance.
- 1980 24.784 **Geologic map of the eastern part of the Grand Canyon National Park, Arizona.** Grand Canyon Natural History Association, and Museum of Northern Arizona, 1 sheet, scale 1:62,500. [2nd ed. of this map.]
This and other eds. is the so-called "Blue Dragon" map. This ed. also reproduced in smaller facsimiles; see [2024], [ITEM NO. 24.902](#).
- 1986 24.785 **Geologic map of the eastern part of the Grand Canyon National Park, Arizona.** Grand Canyon Natural History Association, and Museum of Northern Arizona, 1 sheet, scale 1:62,500. [3rd ed. of this map.]
This and other eds. is the so-called "Blue Dragon" map.
- [2024] 24.902 **Geologic map of the eastern part of the Grand Canyon National Park, Arizona.** Grand Canyon, Arizona: Grand Canyon Association, 1 sheet.
Facsimile of 1980 ed. ([ITEM NO. 24.784](#)), reproduced—not separately dated—by Museum of Northern Arizona as a poster in two sizes, 24 × 16 inches or 36 × 24 inches (original measures 60 × 42 inches); commemorated by a special exhibit, "The Grand Canyon Dragon Map", about the making of the map, on display at the museum 25 May 2024 through January 2025. Reproduction on heavy stock shows scale but faithfully reproduces the "1:62,500" indicator, which of course is not correct for these facsimiles. This and other eds. is the so-called "Blue Dragon" map.
- Huntoon, Peter W.; Billingsley, George H.; Sears, James W.; Ilg, Bradley R.; Karlstrom, Karl E.; Williams, Michael L.; Hawkins, David; Breed, William J.; Ford, Trevor D.; Clark, Malcome D.** [*sic*, Clark, Malcolm D.]; **Babcock, R. Scott; AND Brown, Edwin H.**
- 1996 24.94 **Geologic map of the eastern part of the Grand Canyon National Park, Arizona.** Grand Canyon, Arizona: Grand Canyon Association, 1 sheet, scale 1:62,500. [4th ed. of this map.]
This and other eds. is the so-called "Blue Dragon" map.
- Lucchitta, Ivo; Beard, L. Sue; Billingsley, George H.; Antweiler, J. C.; Rieck, Hugh J.; AND Lane, M. E.**
- 1983 24.119 **Geology and mineral resource potential of the Pigeon Canyon (AZ-010-109), Nevershine Mesa (AZ-010-105A), and Snap Point (AZ-010-105B) Wilderness Study Areas, Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 83-0888*, 21 pp., map scale 1:50,000.
- Muir Way** [firm]
Print-on-demand products from <https://muir-way.com>
- _____ 24.852 **Geologic map of the Grand Canyon National Park, Arizona.** [San Diego, California]: Muir Way.
Reproduction of the geologic map by Huntoon *et al.* (1976, [ITEM NO. 24.93](#)) on Fine Art paper ("archival paper and inks, 100% cotton, OBA-free and acid-free, heavyweight 21.5 mil, certified to last 100 years"; "Digital Elevation Data with shaded relief applied to the original 1976 map adding a 3D appearance" [from the Muir Way website, advertised there as "Grand Canyon 1976 Relief Map"]).
This is a print-on-demand product ([copy acquired new in 2021](#)); available in three states—24 × 18 inches, 32 × 24 inches, 40 × 30 inches.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

The Muir Way imprint or any credit to the firm does not appear on the map.

Ulrich, George E.; Billingsley, George H.; Hereford, Richard; Wolfe, Edward W.; Nealey, L. David; AND Sutton, Robert L.

1984 24.195 **Map showing geology, structure, and uranium deposits of the Flagstaff 1° × 2° quadrangle, Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Map I-1446*, scale 1:250,000, 2 sheets.

Valin, Zenon; Hampton, Haydee; AND Buchheit, Kim

1997 25.1850 **[Two maps.]**
In: Billingsley, George H., Spamer, Earle E., and Menkes, Dove, *Quest for the pillar of gold : the mines and miners of the Grand Canyon*. Grand Canyon Association, Monograph 10.
Map 1—Physiographic Map (fold-out, inside back cover)
Map 2—Mining Districts (inside back cover)
Map 1 depicts the boundaries of physiographic regions of the greater Grand Canyon, with a key to 132 point places. Map 2 depicts the (informal) boundaries of historic mining districts of the greater Grand Canyon, with a key to 54 specifically located mines and claims. Map 2 is the only map of its kind.

Wenrich, Karen J.; Billingsley, George H.; AND Huntoon, Peter W.

1986 24.205 **Breccia pipe and geologic map of the northeastern Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Open-File Report 86-458A*, 29 pp., 2 plates, scale 1:48,000.

1987 24.206 **Breccia pipe and geologic map of the northeastern Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Open-File Report 86-458C*, 32 pp., 2 plates, scale 1:48,000.

1996 24.207 **Breccia-pipe and geologic map of the northwestern part of the Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Map I-2522*, 2 sheets, scale 1:48,000, text 16 pp.

1997 24.208 **Breccia-pipe and geologic map of the northeastern part of the Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Map I-2440*, 2 sheets, scale 1:48,000, text 19 pp.

MAPPING GRAND CANYON

GRAND CANYON CARTOBIBLIOGRAPHY (1868–present)

Variant “Grand Canyon” labels on maps are indicated by **bold red** lettering in the chorographical notes. After the first maps portraying Grand Canyon National Park were published, only those maps that are restricted to Grand Canyon are cited (after 1923 in this list), and the “Grand Canyon” label, now fully standardized, is no longer needed to be distinguished by bold print.

1868

Palmer, William J.⁴¹

NO DATE 25.600 **Map of the Route of the Southern Continental R.R. with connections from Kansas City Mo.[,] Ft. Smith Ark. and Shreveport La. Giving a general View of the Recent Surveys of the Kansas Pacific Railway Co[.], across the Continent Made in 1867 & 1868. under the direction of Gen. W^m J. Palmer. On the Routes of the 32nd and 35th Parallels.** (“J. F. Gedney Lith, Washington. D.C.”) [1868.] [**First state.**] [For the second state see Palmer (1869, ITEM NO. [25.900](#)).]

In: Report of surveys across the continent, in 1867-’68, on the thirty-fifth and thirty-second parallels, for a route extending the Kansas Pacific Railway to the Pacific Ocean at San Francisco and San Diego. By Gen. Wm. J. Palmer. December 1st, 1868. Philadelphia: W. B. Selheimer, Printer, 250 pp., map, profile. [Privately printed.]

Even though the volume has been indicated to have been first available in 1869, it is clear that the map had already been produced by 1868. This is the first map to display the “Grand Canyon” name, specifically as “**Grand Cañon of the Colorado River**” (so labeled between the confluences of “Rio San Juan” and “Rio Virgen”).

This map has in the past been cited as the first appearance anywhere of the name “Grand Canyon”. Although it is correctly cited as the first map to include the name, the canyon’s modern name was introduced in print at least two times earlier, as early as 1857.⁴²)

⁴¹ The Palmer maps cited herein, [1868] and 1869, important also for being the first to use the “Grand Canyon” name on a map, may be examined online (these were accessed 16 September 2020; reaccessed 13 August 2024).

An example of the **first state** can be seen online in the David Rumsey Map Collection at https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~223972~5506299:Map-Of-The-Route-Of-The-Southern-Co?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No&qvq=q:Map%20of%20the%20route%20of%20the%20Southern%20Continental%20R.R.;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No;lc:RUMSEY~8~1&mi=0&trs=2.

An example of the **second state** is also in the David Rumsey collection at https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~224091~5506328:Map-Of-The-Route-Of-The-Southern-Co?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No&qvq=q:Map%20of%20the%20route%20of%20the%20Southern%20Continental%20R.R.;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No;lc:RUMSEY~8~1&mi=1&trs=2

and **another example of the second state** is in the Library of Congress at <https://www.loc.gov/item/98688808/> (reaccessed 13 August 2024).

⁴² Earle Spamer, “Once again, ‘Who named the Grand Canyon?’—and other obscure Grand Canyon ‘firsts’”, *The Old Pioneer* (Grand Canyon Historical Society), Volume 24, No. 2 (Spring 2013), pp. 4-16 (ITEM NO. 2.18476, in Volume 1/Part B of THE GRAND CANON; the citation there adds significant errata and emenda); this was updated and refined by Earle Spamer, “An Ill Wind Blows: Did John Wesley Powell Claim Jump the Grand

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

This first state is identified by the lithographer's credit centered beneath the title panel in the lower-left corner of the sheet, and by the "Table of Distances on 35th Parallel by Shortest proposed line" and "Explanations" of symbols in the lower-right corner of the sheet. In the immediate Grand Canyon region, other features that distinguish the map from its second state are the label, "Moquis Pueblos" without symbols, the label "coal" appears south of Callville, and the label on the "Nevada Br." (the "r" is not superscript) reads downward with the route of that branch north of "St. Thomas" displayed as an arc that bows north-northwestward then northeastward. (The remainder of the map has not been examined for differences between the two states.)

Wheat (1963, Volume V, p. 253) noted that the base map used by Palmer is that of Keeler (1868, *ITEM NO.* 25.1253).

Wheat (1963, Volume V, pp. 417-418), by citing the title with the Keeler credit, actually refers to the 2nd state even though he cites it as having been published in the Palmer (1869) volume, which included the map's first state. Wheat also noted that railroad data added to the map by Palmer indicate that the map "was completed for the lithographer about mid-January 1869" (p. 254), thus another indication that he refers to the 2nd state, although this does not explain the inclusion thereon of the date June 1869.

► The Colorado River is labeled "Rio Colorado" on its lower course, and as "Colorado River" between the confluence of "Rio Virgen" and the confluence of the "Green River" and "Grand River". The course of the Colorado in the western Grand Canyon region is reasonably like that as now known, but between there and the Green-Grand confluence it runs mostly southwestward. "Rio San Juan" is a tributary from the east-southeast. The "Little Colorado River", however, shows its confluence near the western Grand Canyon, with "Cataract Cr." a tributary to it in turn from the southeast close to the Little Colorado's confluence with the main Colorado. Downstream from there in the western Grand Canyon is a river (not labeled) with an arc-shaped course from southwest around to southeast before striking the Colorado. On the lower Colorado, tributaries are "Bill Williams Fork" from the east, a short "Dry Cr." from the west, and Gila River with its confluence at "Arizona City". The 35th parallel railroad route, shown by a solid line, is labeled "Southern Pacific R.R." west of the Colorado, "Southern Continental R.R." through Arizona and New Mexico, and "Atlantic and Pacific R.R." east of there. Several proposed loop and spur routes, shown by dashed lines, extend from the 35th parallel route, including the "Proposed Morongo Route" that crosses the Colorado at "Aubrey City" at the mouth of the Bill Williams River, and the "Nevada Br." that leaves the main line at "Yampa Cr." and crosses the Colorado east of "Callville". The "Proposed Route of 32^d Parallel" (R.R.), crossing the Colorado at "Arizona City", is depicted by a dashed line.

NOTE: Wheat (1963, Volume V, pp. 417-418), by citing the title with the Keeler credit, actually refers to the **2nd state** even though he cites it as having been published in the Palmer (1869) volume, which included the map's first state. Wheat also noted that railroad data added to the map by Palmer indicate that the map "was completed for the lithographer about mid-January 1869" (p. 254), thus another indication that he refers to the 2nd state, although this does not explain the inclusion thereon of the date June 1869.

Canyon?", *Boatman's Quarterly Review*, Volume 31, No. 2 (Summer 2018), pp. 10-12 (*ITEM NO.* 2.27061). See also Spamer, "Big Canyon, Great Canyon, Grand Canyon: The mysterious evolution of a name", *The Ol' Pioneer* (Grand Canyon Historical Society), Volume 33, no. 1 (Winter 2022), pp. 8-18. See also Earle E. Spamer, *Naming the Grand Canyon* (Raven's Perch Media, 2024), 48 pp.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1869

Palmer, William J. ⁴³

WHEAT V:1206 [with illustration facing p. 243]

1869 25.900

Map of the Route of the Southern Continental R.R. with connections from Kansas City Mo.[,] Ft. Smith Ark. and Shreveport La. Giving a general View of the Recent Surveys of the Kansas Pacific Railway Co[.], across the Continent Made in 1867 & 1868. under the direction of Gen. W^m J. Palmer. On the Routes of the 32nd and 35th Parallels. together with the compilations from Keelers Official Map showing the Central and Northern Routes to the Pacific, and the intermediate topography. ("J. F. Gedney Lith, Washington. D.C.")
[Second state.] [For the first state see Palmer (no date [1868], [ITEM NO. 25.600](#)).]

In: Report of surveys across the continent, in 1867-'68 , on the thirty-fifth and thirty-second parallels, for a route extending the Kansas Pacific Railway to the Pacific Ocean at San Francisco and San Diego. By Gen. Wm. J. Palmer. December 1st, 1868. Philadelphia: W. B. Selheimer, Printer, 250 pp., map, profile. [Privately printed.]

This second state is identified by the addition of the credit to Keeler's map in the title, and the lithographer's credit appears to the lower right of the title panel (both in the lower-left corner of the sheet); above the title block is "Distances by Kansas Pacific Railway to Denver & Cheyenne thence by the Pacific Railroad to San Francisco" and the adjacent key to the rail lines dated "June 1869"; and in the lower right of the sheet appears "Table of Distances on 35th Parallel Route by Shortest proposed line of Kansas Pacific R.W." In the immediate Grand Canyon region, other features that distinguish the map from its first state are the label "Moquis Villages" now with seven square symbols adjacent to the label, the addition of "Red Butte", the label "coal" below Callville is removed, and the label on the "Nevada B:" (now with a superscript "r" with dot) reads upward with the route of that branch north of "St. Thomas" displayed as a gentle arc to the north and north-northeast. The remainder of the map has not been examined for differences between the two states.)

NOTE: Wheat (1963, Volume V, pp. 417-418), by citing the title with the Keeler credit, actually refers to the 2nd state even though he cites it as having been published in the Palmer (1869, [ITEM NO. 2.4981](#) in Volume 1 of [THE GRAND CANYON](#)) volume, which included the map's first state. Wheat also noted that railroad data added to the map by Palmer indicate that the map "was completed for the lithographer about mid-January 1869" (p. 254), thus another indication that he refers to the 2nd state, although this does not explain the inclusion thereon of the date June 1869.]

"**Grand Canon of the Colorado River**" is labeled (see also note below) between the confluences of "Rio San Juan" and "Rio Virgen".

► In the following points, the second state is the same as the first state: The Colorado River is labeled "Rio Colorado" on its lower course, and as "Colorado River" between the confluence of "Rio Virgen" and the confluence of the "Green River" and "Grand River". The course of the Colorado in the western Grand Canyon region is reasonably like that as now known, but between there and the Green-Grand confluence it runs mostly southwesterly. (The two copies of the 2nd state that Spamer examined both seem to show that the plate is wearing out. The *virgulilla* in the "Grand Cañon" name is not displayed, and the tiny creek shown next to it is nearly eradicated. Other elements of the map generally are likewise worn.) "Rio San Juan" is a tributary from the east-southeast. The "Little Colorado River", however, shows its confluence near the western Grand Canyon, with "Cataract Cr." a tributary to it in turn from the southeast close to the Little Colorado's confluence with the main Colorado.

⁴³The Palmer maps cited herein, [1868] and 1869, important also for being the first to use the "Grand Canyon" name on a map, may be examined online: see links in [footnote 39](#) with Palmer (no date [1868]).

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Downstream from there in the western Grand Canyon is a river (not labeled) with an arc-shaped course from southwest around to southeast before striking the Colorado. On the lower Colorado, tributaries are "Bill Williams Fork" from the east, a short "Dry Cr." from the west, and Gila River with its confluence at "Arizona City". The 35th parallel railroad route, shown by a solid line, is labeled "Southern Pacific R.R." west of the Colorado, "Southern Continental R.R." through Arizona and New Mexico, and "Atlantic and Pacific R.R." east of there. Several proposed loop and spur routes, shown by dashed lines, extend from the 35th parallel route, including the "Proposed Morongo Route" that crosses the Colorado at "Aubrey City" at the mouth of the Bill Williams River, and the "Nevada Br." that leaves the main line at "Yampa Cr." and crosses the Colorado at "Callville". The "Proposed Route of 32^d Parallel" (R.R.), crossing the Colorado at "Arizona City", is depicted by a dashed line.



Figure 31. Detail from William J. Palmer's second state (1869, [ITEM NO. 25.900](#)) of "Map of the Route of the Southern Continental R.R. with connections from Kansas City Mo., Ft. Smith Ark. and Shreveport La."

"Grand Canon of the Colorado River" is labeled, though the plate is more worn than in the 1st state (1868); see further notes in the citations herein. Wheat 1206. (*Library of Congress*)

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1870

G. W. and C. B. Colton and Co.

1870 25.1515 **Karte der Verschiedenen Pacific Eisenbahnen und deren Verbindung mit anderen Bahnen Für die "N.Y. Handels Zeitung" gezeichnet. von G. W. & C. B. Colton & Co. N^o 172 William St. New York. Juni 1870. [In German.]**

Caption: *Beilage zur N.Y. Handels Zeitung.*

► This reasonably detailed map shows a meandering course of "Rio Colorado" between "F: Yuma" and the head of the Gulf of California (not labeled, and only the northernmost part of which is depicted). The Salton Sea is labeled "G: Dry Lake". The course of the Colorado is shown reasonably accurately in its lower course, but between the confluence of "Virgin R." and "Colorado Chiquito R." it follows a conjecturally wild course, having proceeded to that point directly from the northeast. Of particular note on this map are the labels for Colorado River canyons as cited by John Wesley Powell, interesting that despite the conjectural course of the Colorado it was less than a year after Powell's expedition. These canyons are: "Mound Cañon" and "Monument Cañon" (together later Glen Canyon), Marble Cañon (the stretch between "Paria R." and "Bright Angel R."), and "**Grand Cañon of the Colorado River**". "Black Cañon" is also noted on the lower Colorado below Callville, although that settlement is shown along the Colorado some distance southwest of the confluence of "Virgin R." at the confluence of "Rio Vegas" (Las Vegas Wash), where also is the label "Head of Navigation". In the Grand Canyon area, a tributary (not labeled) from the north-northwest meets the river in the western part of the canyon; and downstream from there is the confluence of "Yampa Cr.", which flows through "Red Lake" en route to the Colorado. "Hualapais Spr." is marked at the head of one of the forks of Yampa Creek. "Yampais Vill." (Supai) is, peculiarly, marked well on the north side of the Colorado, southwest of the confluence of Bright Angel Creek.

This map was produced as a supplement to the *New-Yorker Handels-Zeitung*, by its date intended for a June issue of that then-weekly periodical. In weeks during June the map was advertised, but production delays, which were noted, interfered with the planned distribution date. It finally was available with the July 9 issue (Volume 19, No. 1112); a page 1 notice is headed, "Hierzu eine Beilage und als Extra-Beilage erhalten unsere Herren Abonnenten mit dieser Nummer eine Karte sämmtlicher Pacific-Eisenbahnen und deren Verbindungen." It also was offered for sale at \$1.50 per copy, with discounts for larger numbers.

Ravenstein, E. G. [Ravenstein, Ernst Georg]

1870 25.1099 **Map of the South-Western Portion of the United States, and of Sonora and Chihuahua. Illustrating Travels by Dr. W. A. Bell. Compiled by E. G. Ravenstein, F.R.G.S. &c.** ("London: Chapman & Hall, 1870.") Scale 1:6,000,000.

In: Bell, William A., *New tracks in North America. A journal of travel and adventure whilst engaged in a survey for a southern railroad to the Pacific Ocean during 1867-8.* London: Chapman and Hall, and New York: Scribner, Welford and Co., lxix, 565 pp., **MAP**.

► "Colorado River" is depicted between "Gulf of California" and confluence of "Green R." and "Grand R." "Big Cañon" is labeled in the western Grand Canyon region, where also is shown the confluence of "Flax R. or Little Colorado". "Cataract R." is shown as a tributary to the Little Colorado near its confluence with the Colorado.

NOTE: This ed. of Bell includes "Appendix D. Major J. W. Powell's report on his explorations of the Rio Colorado in 1869" (pp. 559-563), reprinted with minor editing and introduced errors, Powell's undated correspondence to the *New-York Tribune* [see

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

"Scenery of the Colorado. Interesting report from Col. [sic] Powell", *New-York Tribune*, 29(8886) (September 30, 1869): 1-2). Appendix D in Bell was added to the 1870 ed.; it is not present in 1869 ed. Also note that by the inclusion of "**Grand Cañon**" in the Powell appendix, this ed. of Bell is the only contemporary publication to use all three early names for Grand Canyon; it also uses "Great Cañon" and "Big Cañon", the latter appearing on the map. Note that the map was not updated for this ed.

1872

Wheeler, George M.

1872 25.946

WHEAT V:1237 [with illustration facing p. 338]

Preliminary topographical map embracing in skeleton a portion only of the notes from surveys made in accordance with Par. II Special Orders N^o 109 War Dep^t March 18th 1871 and letter of instructions of Brig. General A. A. Humphreys, Chief of Eng^{rs} dated march 23^d 1871. Conducted under the immediate direction of 1st Lieutenant Geo. M. Wheeler, Corps of Eng^{rs} assisted by 1st Lieutenant D. W. Lockwood, Corps of Eng^{rs} and 2nd Lieutenant D. A. Lyle, 2nd U.S. Artillery during the summer and fall of 1871. Louis Nell. Chief Topographer and Draughtsman. Scale of 1 inch to 24 miles. ("Explorations in Nevada and Arizona") (U.S. Engineer Department)

("NOTE This Map is a hasty and partial compilation from the topographical data already received, many still remaining en route. [¶]Upon it is projected in Skeleton the groundwork of the area examined. [¶]All points except the prominent astronomical positions are subject to a slight modification upon the final Map.")

From: Preliminary report of explorations in Nevada and Arizona.

In: Belknap, William W., Letter from the Secretary of War, communicating, In compliance with a resolution of the Senate of March 7, 1872, a preliminary report of Lieutenant George M. Wheeler, Corps of Engineers, of the progress of the engineer exploration of the public domain in Nevada and Arizona. *U.S. 42nd Congress, 2nd Session, Senate Executive Document 65*, 96 pp. [Wheeler's "Introduction", pp. 2-57.]

► In the area of interest to this Cartobibliography, map sketches in the topography along the "Colorado River" between "Aubrey Valley"/"North Side M^t:" and "C. Mohave". "**Grand Cañon of the Colorado**" is labeled between "Grand Wash" and northeast of the confluence of "Diamond Cr."; these reaches are displayed as encanyoned. Also shown are "Iceberg Cañon", "Boulder Cañon", and "Black Cañon", likewise encanyoned. East of Aubrey Valley the topography is only generalized; and the course of the "Little Colorado River", displayed in this region as a dashed line, ends in a blank area north of "San Francisco M^{ts}". The routes of exploration are delineated by dashed lines throughout. Cataract Creek is not displayed except for a generalized topographic valley that passes to the west of "Red Butte". The "Virgin River" is delineated between "S^t George" and the confluence with the Colorado River between Iceberg and Boulder canyons. "Callville" is prominently marked.

1873

G. W. and C. B. Colton and Co.

1873 25.1562

Colton's New Mexico and Arizona Published by G. W. and C. B. Colton & Co. N^o 172 William S^t New York. ("Entered according to Act of Congress in the year 1873 by G. W. & C. B. Colton & Co. in the Office of the Librarian of Congress, at Washington.") Scale 1:2,090,880.

► "Colorado R." in the western part of "**Grand Canon of the Colorado**" is depicted as encanyoned, as also is the tributary "Diamond R." Through the

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

central and eastern parts of the canyon the course of the river is wildly conjectural, though with "Kanab Cr." meeting it from the north midway. "Flax R. or Colorado Chiquito" reaches the Colorado in eastern Grand Canyon. Also shown on the map is the "Surveyed Line Atlantic & Pacific R.R."

- 1873 25.1704 **Colton's California, Nevada, Utah, Colorado, Arizona & New Mexico. Published by G.W. and C.B. Colton & Co., N^o172 William St. New York. 1873.** [In covers with embossed stamping, "Colton's Map of California, Nevada, Utah, Colorado, Arizona, and New Mexico. G.W. & C.B. Colton & C^o"]
- ▶ "Rio Colorado" is depicted between head of Gulf of California (not labeled) and the confluence of "Green River" and the Grand River (see further); its reach in Mexico is shown on a very sinuous southward course, receiving "New River" from the northwest about one third of the distance above the gulf, and in this reach are various places labeled, including "Algodomes" [*sic*], "Willow Woods", "Ogdens Landing", and "Sierra Nevada Anchorage". "Ft. Yuma" and "Arizona City" are labeled at the "River Gila" confluence. (Regarding the Grand River, it is labeled "Grand Riv." on its upper course but confusingly "Bunkara R." downstream from there before receiving "South Fork of Grand R.", then after receiving the combined "Rio San Miguel" and "Dolores R." it is not definitively labeled until it meets the Green at the head of "Cataract Canon".) Downstream from the Grand-Green confluence the Colorado passes through "Narrow Canon", "Mound Canon", and "Monument Canon", after which it receives "Paria R." from the north-northwest. It passes into "Marble Canon" where it receives "Colorado Chiquito" from the east-southeast, before passing on a wildly conjectural course through "**Grand Canon of the Colorado**", first receiving a tributary (not labeled) from the south that must be meant Cataract Creek (seriously misplaced) before turning northward and then, before turning southwestward, receives at that point "Bright Angel R." from the north (perhaps confused with Kanab Creek, which is not shown). In the western part of Grand Canyon the Colorado along a southwesterly course receives a tributary (not labeled) from the north before turning sharply north-northwestward, having received at that point "Yampa Cr." from the southwest (at the head of which, to the east, is "Hualpais Spr.") that is clearly confused with Diamond Creek (not present). At the western end of Grand Canyon the Colorado follows a westerly course, arcing eventually to its southerly course, receiving a tributary from the north and northeast (not labeled except for the presence of "Salt Mountain" [*sic*], but which is Virgin River); however, the reach between that confluence and "Callville" and "Head of Navigation" the river is labeled "Virgin R."! Also shown are the routes of "Atlantic & Pacific" and a 32nd parallel wagon road.

1874

G. W. and C. B. Colton and Co.

- 1874 25.2422 **New County Map of the United States of America. Drawn[,] Engraved & Printed by G. W. & C. B. Colton & Co. New York. 1874.** ("Entered according to Act of Congress, in the year 1873, by G.W. & C. B. Colton & Co. in the office of the Librarian of Congress, at Washington.")

Case title: **Colton's Map of the United States.**

▶ The Colorado River is labeled "Rio Colorado" on its lower course, "Colorado R." on its upper course; delineated between the southerly U.S.-Mexico boundary and the confluence of "Green River" and "Grand River". From that confluence the Colorado follows a course to the southwest, with "Cataract Cañon", "Narrow Cañon", "Dirty Devil R." tributary from the northwest, "Mound Cañon", "Rio San Juan" tributary from the east-southeast, an unlabeled tributary from the northwest, "Monument Cañon", crosses the Utah-Arizona boundary,

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

"Paria R." tributary from the northwest, "Marble Cañon", and "Colorado Chiquito River" tributary from the east-southeast. At the confluence of "Cataract Cr. from the south and southeast the river begins a wildly serpentine course thorough "**Grand Canon of the Colorado River**", but the apparent confluence is misengraved, in that the course of the Colorado follows it for a short distance before looping northeast around to southwest to where the remainder of the Cataract course is drawn, with the label "Yampais Vill." positioned some distance to the northwest of the Cataract confluence and on the north side of the Colorado. At the apex of the aforementioned loop, the Colorado receives "Bright Angel R." from the north (an error for Kanab Creek). In the western part of the Grand Canyon an unlabeled tributary arrives from the north (at about where would be the Parashant Canyon configuration on Egloffstein's map, and "Yampa Cr." from the southwest (after having passed through "Red Lake" and its source reach to the east of there). The Colorado then follows a course due north before turning abruptly west to reach the confluence of "Virgin R." from the north and northeast, with "Callville" mrked some distance downstream on a course arcing from southwest to south, receiving "Rio Vegas" (Las Vegas Wash) from the west-northwest and passing into "Black Cañon".

1875

The Cram Atlas Co.

1875 25.2123

New Railroad Map of the United States & Territories Published by The Cram Atlas Co.

("Rand, McNally & Co., Printers and Engravers, 79 and 81 Madison St., Chicago.")

In: New commercial atlas of the United States and territories: (Scale, 21 miles to the inch.) Showing all railroads, stations, cities, towns, villages, congressional townships, etc., etc. A complete shipper's guide. Drawn and engraved from the very latest government surveys. New York and Chicago: The Cram Atlas Co., Western Office (Chicago).

► "Colorado River" is delineated between the head of the "Gulf of California" and the confluence of "Green River" and "Grand River". Its course from that confluence is southwest, receiving "San Juan River" from the east, crossing into "Arizona" following a somewhat meandering course to the southwest and the west; where it turns again to the southwest it receives "Little Colorado or Flax river" from the southeast. Other than one other tributary from the north (not labeled, which may be the Paria River), no other tributaries are shown through the "**Grand Cañon of the Colorado River**" until the confluence of the Virgin River (not labeled even though its tributaries "Beaverdam Cr." and "Muddy Cr." are labeled). The general course is modified and simplified from Egloffstein's. [Compare Cram (1875) under "Big Canyon" herein.]

G. W. and C. B. Colton and Co.

1875 25.604

Maps showing the southern Pacific Railroad and its connections. New York; G. W. and C. B. Colton and Co., 2 maps on 1 sheet, scales 1:2,090,880 and 1:8,000,000.

► The Colorado River is depicted reasonably correctly in its lower reach and western portion of "**Grand Cañon of the Colorado**", but in the central and eastern portions of the Grand Canyon the course is far more conjectural. Black Canyon is also labeled.

Howell, Edwin E.

NO DATE 24.309

The Grand Cañon of the Colorado of the West and the cliffs of southern Utah. [No place]: U.S. Geological Survey, 3-dimensional map, topography with colored time-

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

stratigraphic outcrop markings, vertical and horizontal scales 1 inch = 2 miles (1:126,720). [1875; with different states at later dates.]

The original, commercially produced model, measuring 6 feet, 6 inches × 6 feet 7 inches [see Merrill, George P., 1889, Report on the Department of Lithology and Physical Geology, in *Annual Report of the Board of Regents of the Smithsonian Institution for the year ending June 30, 1886, Part II*, Government Printing Office (1889)], indicated an imprint of the Geographical and Geological Survey of the Rocky Mountain Region, which is the Powell Survey of general parlance. A model was first exhibited at the Centennial Exposition in Philadelphia, 1876, and commercially produced thereafter. A photograph of the model, which the Library of Congress attributes date as "191-", denotes "U.S. Geological Survey J. W. Powell, Director"; Powell was director during 1881-1894 (Geography and Map Division, call no. "G4332.G7 191-.G4 TIL"; digital view at <https://www.loc.gov/resource/g4332q.np000097/>). A model was also exhibited at the World's Industrial and Cotton Centennial Exposition, New Orleans, 1884-1885 [see U.S. Bureau of Education, 1886, *Special report by the Bureau of Education. Educational exhibits and conventions at the World's Industrial and Cotton Centennial Exposition, New Orleans, 1884-'85. Part I*. U.S. Government Printing Office]. See also McCalmont, Melanie Schleeter, *A wilderness of rocks : the impact of relief models on data science* (FriesenPress, Victoria, British Columbia, 2015).

A 22 × 22 cm black-and-white photograph of this map from the Library of Congress, and details, are shown in Figure 32 on the *next two pages*. ►

Monteith, James

NO DATE 25.1760

Manual of geography, combined with history and astronomy; designed for intermediate classes in public and private schools. New York, Chicago, and New Orleans, A. S. Barnes and Co., 124 pp. (National Geographical Series, Revised Edition.) [Ca. 1875?]

Cover title: *Monteith's Manual of Geography*.

► See MAP, p. 24, which labels "**Grand Canon**"; and p. 34, engraving of Colorado River with boats, displaying Thomas Moran monogram, with legend, "Grand Canon of the Colorado River, Arizona, showing how the rock has been worn by the rushing of the stream, to depths varying from 3,000 to 6,000 feet below the level of the plains".

► A MAP on pp. 24-25, "**United States[,] Canada and Mexico**" displays "Colorado R." between the confluence of "Green R." and "Grand R.", and the head of "Gulf of California". En route it receives the San Juan River (not labeled) from the southeast, the Little Colorado River (not labeled) from the southeast, and "Gila River" from the east-northeast. "**Grand Canon**" is labeled. A mountain range separates the Salton basin (not labeled) from "Colorado Desert" on the north, which embraces all of that region along the southerly part of the California-Nevada boundary. The New River (not labeled) is shown connecting the lower Colorado River in Mexico with the Salton lake bed.

NOTE: Copyright notice, p. 4: "Entered, according to Act of Congress, in the year 1868, by James Monteith, in the Clerk's Office of the District Court of the United States for the Southern District of New York." Although this would seem to indicate that the use of "Grand Canon" is an early one, the reasonably accurate map rendering of the course of the Colorado through the Grand Canyon, the positioning of the confluence of the Little Colorado River (not labeled), and the use of a Moran illustration of boats on the Colorado, belie that this revised ed. is somewhat later than 1868, reflecting the results of the Powell expeditions.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)



(Library of Congress)

Figure 32. Edwin E. Howell's scarce, commercially produced geological relief map of the Grand Canyon region (no date, [ITEM NO. 24.309](#); 1931, [ITEM NO. 24.783](#)) [no place]: U.S. Geological Survey, 3-dimensional map, topography with colored time-stratigraphic outcrop markings, vertical and horizontal scales 1 inch = 2 miles (1:126,720). Originally produced in 1875, with different states at later dates. The two small insets at *lower right* depict in relief, to the same scale, "Yosemite Valley" (*left*) and "Niagara Falls and Cañon" (*right*) (see ► *facing page* for detail views). The Library of Congress image is a black-and-white photograph of an actual map, which measures 6 feet, 6 inches by 6 feet 7 inches.

This copy (as illustrated above) in the Library of Congress is shown online as a photograph with the notational date of January 22, 1916. (Geography and Map Division, call no. "G4332.G7 191-.G4 TIL".) Downloadable digital views accessible at <http://hdl.loc.gov/loc.gmd/g4332g.np000097> (last accessed December 9, 2024).

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Newberry, F. T.

- 1875 25.1026 **Map of the Southern Pacific Rail Road and connections June 1875.** ("F. T. Newberry, Del.")
▶ "Colorado River" is depicted between the Gulf of California (not labeled) and the confluence of "Green River" and "Grand R." "**Grand Canon of the Colorado River**" is labeled, but the "Little Colorado or Flax River" is depicted with its confluence in the middle section of the Grand Canyon. Railroads in operation are shown between Los Angeles and Fort Yuma, and between the main line on the west coast and The Needles. Connecting (stage) routes are shown to the east of Arizona City and The Needles.

Petermann, A.

- 1875 25.2088 **Die Vereinigten Staaten von Nord-Amerika in 6 Blättern im Maassstabe von 1:3.700.000. Von A. Petermann.** ("Bearbeitet v. H. Habenicht.") ("Gotha: Justus Perthes 1875.") ("III.III. Gest. v. Eberhardt, Kühn, Metzgeroth u. Weiler.") ("Steiler's Hand_Atlas, N^o 83.") [In German, with mixed labeling.]
See the southwestern sheet of this series.
▶ This is essentially the same as Petermann (1873, though with the exception that between "Cataract Creek" and the confluence of "Rio Virgin" is the label "**Grand Cañon of the Colorado**"). On this sheet, the Colorado River is labeled "Great Colorado" on its lower course, "Rio Colorado" on its upper course. It is delineated between "Golf von Californien" and the confluence of "Grand River" and (not labeled on this sheet) Green River. In the Grand Canyon it is a curious mixture of Egloffstein's map in Ives and more recent discoveries (*i.e.* the Powell expedition). The Paria River (not labeled) is shown, with "Little Colorado od Flax R." shown with its confluence with the Colorado in its correct place, as also is "Cataract Creek" with "Yampais Village" shown, but near that confluence is a tributary from the northeast, with a dotted-line upper course, that is reminiscent of Egloffstein's rendition of the Colorado. Also there are numerous geographic locales labeled in English notations, apparently from Egloffstein. The route of the Ives land expedition near Grand Canyon is plotted, as also are the routes of other contemporary expeditions.
Compare also Peterman (1873, **ITEM NO.** 25.571) in the "Big Canyon" list herein.

Powell, John Wesley

- 1875 25.903 **Map of the **Grand Cañon of the Colorado** Showing Route Traveled by Major Powell.** WHEAT V:1260 [with illustration facing p. 354]
In: An overland trip to the Grand Cañon. *Scribner's Monthly*, 10 (October): 659-678.
Map appears on p. 661.
▶ Roughly illustrates Powell's land-based mapping work in the Grand Canyon region. This also is the first overall accurate portrayal of the Colorado River in the region between Glen Canyon and the Grand Wash Cliffs. "Glen Cañon", "Marble Cañon", and "**Grand Cañon**"; each is labeled.

Watson, Gaylord

- 1875 25.1039 **Watson's new county and railroad map of the Pacific States and Territories. Published by Gaylord Watson, 16 Beekman Street, N.Y. 1875.**
In: *Watson's new commercial county and railroad atlas of the United States and Dominion of Canada. Compiled from the latest official sources.* Boston: Perry and Spaulding.
▶ "Colorado River" depicted between "Gulf of California" and confluence of "Green R." and "Grand River" Between "Rio Virgin" and "Little Colorado or Flax R" the river runs through a well-defined but conjecturally drawn "**Grand Canon of**

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

the Colorado Riv.” Upstream from the Little Colorado the canyon is labeled “Colorado Riv. and Canon”. “Paria R.” and “Bright Angel R.” are shown as tributaries. Upstream from the confluence of “Rio San Juan” the Colorado River canyon is labeled “Mound Canon” (Glen Canyon) between the San Juan and “Dirty Devil Cr.” (Note that some of these names are those bestowed by the Powell expeditions.) “Callville” is noted as “Head of Navigation”. “Red Lake” (playa in Hualapai Valley) is depicted with “Yampa R” as a source and with an outlet to the Colorado River in western Grand Canyon.

1876

Henry T. Williams [firm]

1876 25.2518 **Williams’ New Trans-Continental Map of the Pacific R.R. and Routes of Overland Travel to Colorado, Nebraska, the Black Hills, Utah, Idaho, Nevada, Montana, California and the Pacific Coast** Henry T. Williams, Publisher 46 Beekman St. N.Y. (“Am. Photo-Litho.Co. N.Y. (“Entered according to Act of Congress in the year 1876 by H. T. Williams in the office of the Librarian of Congress at Washington.”) (“Am. Photo-Litho.Co. N.Y. (Osborne’s Process.)”) [Second ed. of this map, emending rail routes.]

► In the Grand Canyon region the Colorado River is drawn somewhat fancifully, with Cataract Creek (not labeled) as a tributary to the Colorado between “Colorado Chiquito R.” (Little Colorado River) and “Bright Angel R.” (Bright Angel Creek). In the western part of the canyon, Yampa Creek is shown as a tributary to Red Lake, which in turn flows into the Colorado River in the **“Grand Canon of the Colorado River”**. “Marble Canon” is shown between the Paria River extending to below the Little Colorado River.

U.S. General Land Office

1876 25.1566 **Territory of Arizona. Compiled from the official Records of the General Land Office and other sources by C. Roeser, Principal Draughtsman G.L.O.** (“Photo lith & print. by Julius Bien 16 & 18 Park Place N.Y.”)

► “Colorado River” in **“Grand Canon”** and “Marble Canon” is depicted as encanyoned, as are also its tributaries in that reach. Physical geography reflects present understanding. The routes of the “Atlantic and Pacific R.R.” and the “Texas and Pacific R.R.” are delineated, with their 40-mile land grant limits also shown.

Williams, G. Washington

1876 25.2441 **Williams’ Copper-Plate Map of the United States, Canada, Mexico, Central America, West Indies, &c. Published by John M. Atwood 402. Locust Street. Philadelphia.** (“Printed by F. Bourquin. 31 So. 6th Street Phila.”) (“Copyright 1876 by G. Washington Williams.”)

► “Colorado River” is delineated between “Gulf of California” and confluence of “Green R.” and “Grand R.”; it follows a reasonably accurate course, although topography is absent in southeastern Utah; the reaches through Arizona as well as the lower portions of tributaries are delineated as encanyoned. “Marble Canon” is labeled between the confluences of “Little Colorado or Flax R.” (its lower reach labeled “Colorado Chiquito Canon”) and “Kanab Cr.”; **“Colorado Canon”** is labeled between the confluences of Kanab Creek and “Diamond C.”; **“Grand Canon”** is labeled between the confluence of Diamond Creek and where would be the Grand Wash Cliffs (not delineated); downstream farther are “Iceberg Canon”, “Virgin Canon”, “Boulder Canon”, “Black Canon”, and (apparently the tributary) “El Dorado Canon”. Cataract Creek is not labeled but its two headwater forks, “Lava Cr.” and “Parke Cr.” are labeled.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1877

Henry T. Williams [firm]

- 1877 25.618 **Williams' New Trans-Continental Map of the Pacific R.R. and Routes of Overland Travel to Colorado, Nebraska, the Black Hills, Utah, Idaho, Nevada, Montana, California and the Pacific Coast** Henry T. Williams, Publisher 46 Beekman St. N.Y. ("Am. Photo-Litho.Co. N.Y. ("Entered according to Act of Congress in the year 1877 by H. T. Williams in the office of the Librarian of Congress at Washington.") ("Am. Photo-Litho.Co. N.Y. (Osborne's Process.)") [Second ed. of this map, emending rail routes.]
- ▶ In the Grand Canyon region the Colorado River is drawn somewhat fancifully, with Cataract Creek (not labeled) as a tributary to the Colorado between "Colorado Chiquito R." (Little Colorado River) and "Bright Angel R." (Bright Angel Creek). In the western part of the canyon, Yampa Creek is shown as a tributary to Red Lake, which in turn flows into the Colorado River in the "**Grand Canon of the Colorado River**". "Marble Canon" is shown between the Paria River extending to below the Little Colorado River.

Hinton, Richard J.

- 1877 25.52 **Map of Arizona prepared specifically for R. J. Hinton's hand book of Arizona. Compiled from official maps of military Division of the Pacific, Surveyor General's Office, A. T. & from the notes of Col. W. G. Boyle, Col. J. D. Graham, H. Ehrenberg, Prof. Pumpelly and Lieut. Philip Reade, U.S.A.** San Francisco: Payot, Upham, and Co. ("Lith. Britton, Rey& Co. S.F."). Scale 1 inch = 16 miles.
- ▶ "Black Cañon", "Boulder Cañon", and "Iceberg Cañon" are labeled on the "Colorado River". Downstream from Black Canyon is labeled "Colorado Cañon". The western portion of Grand Canyon is labeled "**Mouth of the Grand Cañon**". The confluence of "Colorado Chiquito Cañon" is properly shown at the Colorado's westward turn around the "Buckskin or Kaibab Plateau", but "Marble Cañon" is marked on that first westward stretch. "Mormon Trail" is marked through what is Lees Ferry (labeled "Ferry") and through "House Rock Valley". At Iceberg Canyon is labeled "Virgin Cañon Crossing". "Present Head of Steamboat Navigation" is marked at "Hardyville". The Colorado north of "Yuma City" is labeled "Canebreak Canon".

Mallery, J. C., AND Ward, J. W.

- 1877 25.64 **New map of the Territory of Arizona[,] southern California and parts of Nevada, Utah and Sonora[.] Compiled from the latest authentic data by Lieut. J. C. Mallery, A.M., U.S. Engineer Corps, and J. W. Ward, Civil & Topographical Engineer. 1876.1877. Office 105 Stockton St. San Francisco[.] Payot, Upham & Company, Publishers and Wholesale Stationers, 204 Sansome Street, (near Pine) San Francisco Scale one Inch to 16 Miles. 1:1,013,760. Britton, Rey & Co. Lith^{rs} S.F.** WHEAT V:1272
- ▶ Numerous place labels appear on this map. "Colorado River" is depicted between "Gulf of California" and confluence of "Rio San Juan". "**Grand Cañon of the Colorado**" is labeled between "Grand Wash" and "Kanab Cañon"; "Marble Cañon" is labeled between "Kanab Cañon" and confluence of "Colorado Chiquito Cañon". West of Grand Canyon are labelled, sequentially, "Iceberg Cañon", "Virgin Cañon", "Boulder Cañon", "Black Cañon". The Salton Basin is labeled "Dry Lake" and a bifurcated "New River Slough" enters the basin. Routes of exploration, surveyed railroad routes, and the "Mil. Telegraph Line" between San Diego and "F: Yuma" are depicted.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

U.S. Army Corps of Engineers

- 1877 25.1572 **Map of the United States. Prepared by authority of the Honorable the Secretary of War, in the Office of the Chief of Engineers under the direction of Brig. General A. A. Humphreys, Chief of Engineers & Bvt. Maj. Gen'l. U.S. Army. 1877.** ("Originally Compiled and drawn by E. Freyhold.") Scale 1:5,000,000.
- ▶ "Rio Colorado" and its tributaries in "**Grand Cañon**" are depicted somewhat accurately. On the lower Colorado River, "Ft. Yuma", "Camp at La Paz", "Camp Colorado", and "Camp Mojave" are depicted, with the first and last also designated by flags. In Mexico, the Colorado is depicted on a southerly course to a western arm of the head of "Gulf of California". South of "Ogden's Landing", a cut-off course feeds to a meager eastern arm of the gulf. No islands are depicted at the mouth of the river.

1878

Wheeler, George M.; Hamel, P. W.; AND Nell, L.

WHEAT V:1237 [with illustration facing p. 339]

- 1878 25.1041 **Map showing routes of the river and land parties engaged in exploring the **Grand Cañon of the Colorado**. Under the command of 1st. Lieut. Geo. M. Wheeler, Corps of Engineers, U.S. Army. 1871. P. W. Hamel and L. Nell, Topographers.** ("Issued Feb. 4th 1878.", "The Graphic Co. Photo-Lith. 30 & 41 Park Place, N.Y.", "Weyss, Thompson & Lang Del.", "By order of the Honorable the Secretary of War, under the direction of Brig. Gen. A. A. Humphreys, Chief of Engineers, U.S. Army.")
- In:* Wheeler, George M., *Report upon United States Geographical Surveys West of the One Hundredth Meridian, in charge of Capt. Geo. M. Wheeler . . . Volume 1.—Geographical report.* Washington, D.C.: U.S. Government Printing Office [1889], map between pp. 170/171.
- ▶ Map embraces 35°–36°15' N, 113°10–114°50' W; on the Colorado River between "C. Mohave" (Camp Mohave) and north of the confluence of "Diamond Cr." (the upriver expedition concluded at Diamond Creek).
- The published reports of the Wheeler Survey were greatly delayed in printing, although the maps were released at various times earlier.

1879

Freyhold, Edward

WHEAT V:1295

- 1879 25.1102 **Map of the Territory of the United States, West of the Mississippi River. Prepared by authority of of [sic] the Hon. the Secretary of War in the Office of the Chief of Engineers under the direction of Brig. General A. A. Humphreys Chief of Engineers and Brevet Maj. Gen. U.S. Army. By Edward Freyhold 1879 Scale 1/2000000.** 6 sheets, each in covers. ("Note. This map has been compiled chiefly for Military purposes from the best available data obtained by the several departments of the government. Critical exactness has, in some instances, been disregarded in order to adapt the most recent information to portions compiled before its reception. [¶] Telegraph Lines, having been established along all-most all Rail Roads, are shown only where the latter terminate.")
- ▶ The lowermost reach of "Colorado River", between the "Gulf of California" and "Ft. Yuma", and a short reach farther north between "Eureka" and "Rodes Rch.", are shown on Sheet 4. The remainder of the area of interest to this Cartobibliography is shown on Sheet 5. The title panel is shown on Sheet 6. "**Grand Cañon of the Colorado**" is labeled between "Grand Wash" and "Kanab

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Wash”; “Marble Cañon” is labeled between “Kanab Wash” and confluence of “Colorado Chiquito Cañon”/“Rio Colorado Chiquito”. West of Grand Canyon “Iceberg Cañon” and “Black Cañon” are labeled. The Salton Basin is labeled “Dry Bed of Lake” and “New River” is shown reaching it. Routes of exploration, surveyed railroad routes, and the military telegraph line between San Diego and Fort Yuma is depicted graphically.

U.S. Army, Chief of Engineers (Office of)

- 1879 25.612 **Territories of New Mexico and Arizona.** [Washington, D.C.]: U.S. Army, Office of the Chief of Engineers, 1 sheet, scale 1:500,000.
▶ “**Grand Canon of the Colorado**” is depicted; “Marble Canon” includes the reach between the “Colorado Chiquito Cañon” (Little Colorado River) and “Kanab Wash” (Kanab Creek). Of additional note is the label “Cascades” at the “Suppai Ind. Settlement”.
- WHEAT V:1293
- 1879 25.1255 **Map of California and Nevada, with parts of Utah & Arizona. Prepared in the Office of the Chief of Engineers U.S.A. 1879.** Scale 1:500,000. [1885 or after?]
▶ This is a physiographic map. “Colorado River” is depicted between south of “Yuma” and eastern “**Grand Canon of the Colorado**”. East of “Kanab Wash” is labeled “Marble Canon”. The confluence of the Little Colorado River and the Colorado River northward of that point are off the map. “Buckskin or Kaibab Plateau” is on the edge of the map. Place names are profusely represented on this map, which clearly includes the information from the Powell surveys.
NOTE: Although Wheat cites this map with the date of 1879, the David Rumsey map collection notes (<http://www.davidrumsey.com/maps5766.html>): “A larger version of a portion of the Freyhold/Warren U.S. [map] of 1879. Wheat mentions this map in the same paragraph as the Freyhold/Warren map but he does not notice that they are from the same map!” David Rumsey adds about the map in that collection, “Issued on thin paper for field use. Paper is watermarked ‘Crane Co. 1885.’”

1880

Eckhoff, Emil A., AND Riecker, Paul

- 1880 25.40 **Official map of the Territory of Arizona : compiled from surveys, reconnaissances and other sources by E. A. Eckhoff and P. Riecker, civil engineers. 1880.** New York: The Graphic Co., 1 sheet, scale ca. 1 in. = 14 miles.
▶ Labels include “Buckskin or Kaiba [sic] Plateau”; “Marble Cañon” label (along with the label “White Bluffs”) appears alongside the Colorado River in the area of the Upper Granite Gorge; “**Grand Cañon of the Colorado**” label appears in western Grand Canyon west of “Cataract Creek”.

G. W. and C. B. Colton and Co.

- 1880 25.2344 **Colton’s New Mexico and Arizona Published by G. W. and C. B. Colton & Co. N^o 172 William S^t. New York.** (“Entered according to Act of Congress in the year 1873 [date seems to be reengraved] by G. W. & C. B. Colton & Co in the Office of the Librarian of Congress, at Washington.”) Scale 1:2,090,880.
In: *Colton’s general atlas of the world, containing two hundred and twelve maps and plans, on one hundred and forty-two imperial folio sheets, drawn by G. Woolworth Colton. Accompanied by geographical, statistical, and historial letter-press descriptions.* New York: G. W. and C. B. Colton and Co. (“Entered according to Act of Congress, in the Year 1876, by G. W. & C. B. Colton & Co., in the Office of the Librarian of Congress, at Washington.”) This is map No. 88/89.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

► The course of the “Colorado River” follows its modern mapped route through “**Grand Cañon of the Colorado**”, so labeled between the confluences of “Kanab Cañon” and “Grand Wash”, though “Marble Cañon” is labeled both on its proper reach as well as between the confluences of “Colorado Chiquito Cañ.” and “Kanab Cañon” West of Grand Canyon the canyons are labeled in sequence, “Iceberg Cañon”, “Virgin Cañon”, “Boulder Cañon”, and “Black Canon” [sic]. Of note is the dual label at the mouth of “Paria Cañon”, “Colorado Dell Lees Ferry”.

Matthews, Northrup and Co.

NO DATE 25.1662 **Map of the Wisconsin Central Line And Connections. Matthews, Northrup & Co., Art-Printing Works, Buffalo, N. Y. [1880s.]**

INSET ON *Wisconsin Central Line and Connections The Direct Route Between Chicago, Milwaukee and All points East and South and St. Paul, Minneapolis, Ashland, Superior, Duluth and all points North and Northwest. Also the Following Points* [lengthy lists on right and left margins]. *The Direct Route Mark & Consign Freight* [**BROADSIDE**].

► Base map displays western United States between Lake Michigan and the Pacific Ocean. “Atlantic & Pacific” and “Southern Pacific” railroads are delineated generally across the Southwest. “Colorado River” is depicted generally, though along a reasonably accurate course, between the head of the “Gulf of California” and the confluence of “Green R.” and “Grand R.” “**Grand Canon**” is labeled between “Lees Ferry” and the confluence of “Muddy Cr” (the Virgin River, not labeled, is depicted as if it is a tributary to the Muddy). The Little Colorado River (not labeled) is depicted reaching the Colorado directly from the southeast. Other than “R. S. Juan”, no other tributaries to the Colorado are depicted in the Grand Canyon area.

1881

H. H. Hardesty and Co.

1881 25.1402 **Map of Arizona.** (“Rand, McNally & Co., Engr’s, Chicago.”)
In: Historical hand-atlas : illustrated : containing large scale copper plate maps of each state and territory of the United States, the provinces of Canada, together with a complete reference map of the world[,] topographical and railroad map of the United States, thirteen comprehensive maps of Bible geography, covering all the countries of Bible history, with a classified pronounciative index for each map, printed in colors from plates secured by letters patent, producing the clearest typographical effect of any known engraved plates, accompanied by a general survey of the world, history of the United States—history of each state and territory of the United States, nine farm maps, and history of Wells County, Indiana, illustrated, containing a condensed history of the county; biographical sketches; general statistics; miscellaneous matters, &c. Chicago and Toledo (Ohio): H. H. Hardesty and Co.

NOTE: The title cited here is one of a series of atlases that were customized (commissioned?) for specific counties of the United States, which were published during the early 1880s at least. There are variances to all. [Map appears on pp. 164-165.]

► “Colorado River” is shown fairly accurately between southern Utah (north of the confluence of the San Juan River) to the lower international boundary south of “Yuma City”. Specific items of interest on this profusely labeled map: “Lee’s Ferry” is shown to the east of the Colorado River on the “Mormon Wagon Road”; “Buckskin or Kaiba [sic] Plateau Buckskin Mountains” is labeled; between the confluences of “Little Colorado River” and “Kanab Wash” is labeled both “Marble Canon” and “White Bluffs”, and south of there is labeled

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

"Coconino Forest"; "Suppai [sic] Indian Settlement" is located on "Cataract Creek", with the adjacent notation, "Cascades"; "Peach Springs" is marked along with a separate marker northeast of there, "Indian Settlement"; north of Peach Springs are the labels "Cedar Forest" and "Colorado Forest"; the course of the Colorado between the confluences of "Kanab Wash" and "Grand Wash" is labeled "**Grand Canon of the Colorado**"; canyons downstream from there are labeled "Iceberg Canon", "Virgin Canon", and "Black Canon"; along the lower Colorado only "Canebreak Canon" is labeled, upstream from "Yuma City", while the stretch between there and Yuma is labeled "Explorers Pass".

Andree, Richard

- 1881 25.2169 **Vereinigte Staaten von Nordamerika. [In German.]**
In: Richard Andree's Allgemeiner Handatlas in sechshundachtzig Karten mit erläuterndem Text. Herausgegeben von der Geographischen Anstalt von Velhagen & Klasing in Leipzig. Bielefeld and Leipzig: Verlag von Velhagen und Klasing, pp. 86-87. Scale 1:10,000,000.
▶ "Colorado R.", its course approximately correct, is delineated between the Gulf of California and the confluence of the Green and Grand Rivers; enroute it receives the tributaries "S. Juan R." from the east, Paria River (not labeled) from the northwest, "Colorado Chiquito" (Little Colorado River) from the southeast, Kanab Creek (not labeled) from the north), Cataract Creek (not labeled) from the south-southeast, "Virgin R." from the north and northeast, an unlabeled short tributary from the west and northwest, "Bill Will. F." (Bill Williams River) from the east and north, an unlabeled short tributary from the northwest, and "Rio Gila" from the east. Virtually the entire reach of the river is depicted as encanyoned. The Grand Canyon is labeled "**Gr. Colorado Cañon**", while the label "Marble Can." is positioned between the Little Colorado River and Cataract Creek.
- 1881 25.2170 **Die Pacifischen Staaten der Union. [In German.]**
In: Richard Andree's Allgemeiner Handatlas in sechshundachtzig Karten mit erläuterndem Text. Herausgegeben von der Geographischen Anstalt von Velhagen & Klasing in Leipzig. Bielefeld and Leipzig: Verlag von Velhagen und Klasing, p. 88. Scale 1:5,000,000.
▶ "Rio Colorado", its course approximately correct, is delineated between "Golf v. California" a point east of "Kanab Wash". The central portion of the Grand Canyon is labeled "**Grand Cañon of the Colorado**", while the reach east of Kanab Creek is labeled "Marble Cañon". Other tributaries, in addition to several minor, unlabeled ones, include "Cataract Cr." from the south-southeast, "Grand Wash" from the northeast, "Virgin R." from the north and northeast, "Bill Williams Fork" from the east and north, and "Rio Gila" from the east.

1882

Dutton, Clarence Edward

- 1882 24.61 **[Five geological maps on 12 sheets.]**
In: The Tertiary history of the Grand Cañon district; with atlas. U.S. Geological Survey, Monograph 2, 264 pp. [quarto]; Atlas, 23 sheets [double folio].
Itemization of geological maps by Atlas sheet number:
II: Geological Map of the Western Part of the Plateau Province [scale nearly 1:1,000,000; colored] ["The topography of the colored portion is compiled by J. H. Renshaw, from data and surveys by the U.S. Geographical and Geological Survey of the Rocky Mountain Region, J. W. Powell in charge, and by the United States Geological Survey, Clarence King, Director. The topography of the uncolored portion

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

is compiled largely from surveys under the direction of Capt. George M. Wheeler, U.S. Engineers. Geology by C. E. Dutton" (*from* Sheet I, "List of Atlas Sheets").

III: Sketch Map of the Western Part of the Plateau Province Showing Faults of the Grand Cañon District and High Plateaus [scale *ca.* 1:1,000,000] ["The topography is the same as that of the preceding sheet." (*from* Sheet I)].

VII–VIII (halves of one map): **Map of the Uinkaret Plateau North Half** [scale 1:63,360; colored] [topography by J. H. Renshawe, geology by C. E. Dutton]; **Map of the Uinkaret Plateau South Half** [scale 1:63,360; colored] [topography by J. H. Renshawe, geology by C. E. Dutton].

XII–XIV (quadrants of one map): **Geologic Map of the Southern Part of the Kaibab Plateau (Part I. North-Western Sheet.)** [scale 1:63,360; colored] [topography by Sumner H. Bodfish, geology by C. E. Dutton]; **Geologic Map of the Southern Part of the Kaibab Plateau (Part II. North-Eastern Sheet.)** [scale 1:63,360; colored] [topography by Sumner H. Bodfish; geology by C. E. Dutton]; **Geologic Map of the Southern Part of the Kaibab Plateau (Part III. South-Western Sheet.)** [scale 1:63,360; colored] [topography by Sumner H. Bodfish, geology by C. E. Dutton]; **Geologic Map of the Southern Part of the Kaibab Plateau (Part IV. South-Eastern Sheet.)** [scale 1:63,360; colored] [topography by Sumner H. Bodfish, geology by C. E. Dutton].

XX–XXIV (quadrants of one map; XX/XXI abut East-West; XXI/XXIV abut North-South): **Geologic Map Showing the South-Western Portion of the Mesozoic Terraces and the Vicinity of the Hurricane Fault** [scale 1:250,000; colored] [geology by C. E. Dutton]; **Geologic Map of the Mesozoic Terraces of the Grand Cañon District and the Southern Portion of the High Plateaus** [scale 1:250,000; colored] [geology by C. E. Dutton]; **Geologic Map Showing the Kanab, Kaibab, Paria and Marble Cañon Platforms** [scale 1:250,000; colored] [geology by C. E. Dutton]; **Geologic Map of the Colorado Plateau and San Francisco Mountains** [scale 1:250,000; colored] [geology by C. E. Dutton].

G. W. and C. B. Colton and Co.

- 1882 25.605 **Map Showing the California and Nevada Railroad and its Extensions and Connections.** ("Drawn, Engraved & Printed by G. W. and C. B. Colton and Co. 182 William St. New York.") Scale 1:2,090,880.
- Colorado River canyons in the region covered by this Cartobibliography are labeled: "Marble Cañon" between "Lees Ferry" and "Kanab Cañon", "**Grand Cañon of the Colorado**" between "Kanab Cañon" and "Grand Wash" (where appears the label, "Colorado R. Cross."); "Virgin Cañon", "Boulder Cañon" and "Black Cañon" (where the Colorado goes off the map to the south). Also of note is that Lees Ferry is labeled both as "Lees Ferry" and "Colorado Dell". The Paria River is labeled simply "Cañon", although "Paria Plateau" is labeled, with "Vermillion [*sic*] Cliffs". Also labeled are "Kaibab or Buckskin Plateau" and "Houserock Vall.", and to the west, "SHI WITZ PLATEAU" (typographically thus). "Colorado Chiquito Cañ." reaches the Colorado directly from the southeast. Northeast of Lees Ferry but south of the Arizona-Utah boundary a short tributary reaches the Colorado from the east-southeast, "Navajo Cr.", while the San Juan River (not labeled) is depicted reaching the Colorado from the east in Utah. Numerous other labels appear.

Stanford, Edward

- 1882 25.2372 **United States (Western).** ("London: Edward Stanford, 55 Charing Cross.") ("Stanford's Geog. Establishment.")
- In: Stanford's London atlas of universal geography : quarto edition : forty-four coloured maps and alphabetical index.* London: Edward Stanford. [Map 38.]
- "R. Colorado" is delineated on its proper course. "**Grand Cañon**" is labeled in the western part of the canyon, while "Marble Cañon" is labeled between the confluences of "Little Colorado or Flax R." and Kanab Creek (not

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

labeled). The Kaibab Plateau is labeled "Buckskin Plateau". "Black Cañ." is labeled downstream from the confluence of "R. Virgin". Farther upstream, the only canyons with label are "Cataract Cañ." and "Stillwater Cañ." in Utah. The route of the Atlantic & Pacific Railroad (not labeled) is delineated.

1883

Letts, Son and Co. Limited

- 1883 25.2501 **Letts's Popular Atlas. United States of North America and Part of Canada.** *In: Letts's popular atlas, being a series of maps delineating the whole surface of the globe, with many special and original features; and a copious index of 23,000 names. Complete Edition.* London: Letts, Son and Co. Limited, map 119.
- ▶ "Colorado R." is delineated between "Gulf of California" and the confluence of "Green R." and "Grand R." Its course is fairly correct, although it seems that Cataract Creek (not labeled) is too far east, with its confluence with the Colorado a short distance southwest of the confluence of "Little Colorado or Flax R." "**Grand Cañon**" is labeled between Kanab Creek (not labeled) and the confluence of "Virgin R." The river reaches along the Colorado are shown as heavily encanyoned, although oddly the east side of the Colorado and north side of the "R. San Juan" omit the hachures.

1884

Poole Bros.

- 1884 25.1556 **Map of the Atchison Topeka & Santa Fé Railroad System. Showing its direct Connecting Lines in the United States and Mexico.** ("Rand, McNally & Co., Engravers, Chicago.")
- INSET ON RECTO OF** *The Santa Fé route Atchison, Topeka & Santa Fé R.R. 3 lines between the Missouri River and the Pacific coast to the city of Mexico via the A.T.&S. and Mexican Central R.R.* [title from verso, *fide* Library of Congress]. ("Poole Bros., Map Eng., Chicago.")
- ▶ The "Atlantic & Pacific R.R." route is drawn generally across northern Arizona. "**Grand Canon of the Colorado**" is labeled clearly through the length of Grand Canyon, between "Virgin R." and "R. Colorado Chiquito", although the label "Marble Canon" appears in smaller type between the Little Colorado and "Cataract Cr." Kanab Creek is not shown. In the western Grand Canyon is a tributary (not labeled) coming from the northwest before turning southeast to meet the Colorado.

Southern Pacific Company

- 1884 25.2503 **Correct map of the Railway & Steamship Lines Operated by the Southern Pacific Company.** San Francisco: Southern Pacific Co.
- ▶ "Colorado Riv." is delineated between the "Gulf of California" and the confluence of Green and Grand Rivers (neither labeled!). The Colorado follows a course that is generally correct, although more stylized in the western portion that is labeled "**Grand Canon**" between Kanab Creek (not labeled) and the Virgin River (not labeled). The only other tributaries it receives in this area are "San Juan Riv." from the east, "Little Colorado" from the southeast, and Cataract Creek (not labeled) from the southeast. The generalized route of the Southern Pacific Railroad is boldly delineated, crossing the Colorado at "Yuma", with all of its station houses labeled. The Atchison, Topeka and Santa Fe Railway is faintly delineated (labeled elsewhere on the map "Atch. Top. & San. Fe"). Interestingly, between "Peach Spr" and the Colorado

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

River a roadway is delineated. On the Kaibab Plateau (not labeled) two “+” symbols are labeled “Mines”; no other mines are noted on the map. “Lee’s Ferry” is pinpointed. Between there and south of “Callville” in Nevada the Colorado is depicted as encanyoned.

1885

Dutton, Clarence E.

1885 24.856

[Five geological maps on 12 sheets.]

In: Tertiary history of the Grand Cañon district : with atlas. 48th U.S. Congress, 2nd Session, House of Representatives Miscellaneous Document 35, 264 pp. [text, quarto]; *Atlas*, 24 sheets [folded, laid loose in three-quarter leather folder with cloth ties affixed to boards on three open edges, and spine labels affixed; quarto].

House series title-page accompanies text volume: *The Miscellaneous Documents of the House of Representatives for the Second Session of the Forty-eighth Congress, 1884-'85. In seventeen volumes. Volume 11.—No. 35. Washington: Government Printing Office. 1885.*

SPINE TITLE FOR TEXT VOLUME: [top] “HOUSE MISCELLANEOUS DOCUMENTS 2^D SESS., 48TH CONG. 1884-'85 VOL. 11”; [bottom] “DUTTON [rule] TERTIARY HISTORY OF THE GRAND CANON DISTRICT [rule] WITH ATLAS”.

SPINE TITLE FOR ATLAS: [top] “HOUSE MISCELLANEOUS DOCUMENTS 2d SESS., 48th CONG. 1884-'85 VOL. 11”; [bottom] “ATLAS”.)

• A re-release of Dutton (1882, [ITEM NO. 24.61](#), which see for an itemization of the geological maps). This re-release was a part of the collated series of House Miscellaneous Documents for 1884–1885, not mentioned by Farquhar or originally in [THE GRAND CANON](#) Volume 1. Text and Atlas title-pages are the same as for Dutton (1882), retaining date, but text volume adds the House Miscellaneous Documents series title-page (1885) cited above; atlas does not include a separate House Miscellaneous Documents title-page although it is identifiable from its spine labels. Atlas Sheets differ from 1882 publication in that the double-folio sheets are vertically and horizontally folded to accommodate quarto format (vertical fold in center as in original double-folio state, then folded horizontally to achieve quarto size). Quarto format also corroborated in *Checklist of Public Documents, Second Edition* (U.S. Government Printing Office, Superintendent of Documents, 1895, [ITEM NO. 2.27756](#) in Volume 1 of [THE GRAND CANON](#)), p. 76. *Folded* Atlas Sheets each are also stamped with a numeral on the exterior (sheet verso) corner, enumerated 0 to 23, to facilitate identification of Atlas Sheets without having to unfold them: “0” is the title-page, “1” is the “List of Atlas Sheets” (equivalent to Atlas Sheet I), followed by 2–23 (Atlas Sheets II–XXIII, comprising tinted and chromo-lithographic maps and scenic views). Atlas title-page: “Department of the Interior United States Geological Survey J.W.Powell Director Atlas to Accompany the Monograph on the Tertiary History of the Grand Cañon District by Capt. Clarence E. Dutton U.S.A. [vignette] Washington 1882 Julius Bien and Co. Lith. New York”.)

Points relating to physical arrangement are provided with the assistance of Daniel F. Cassidy and Richard D. Quartaroli.

NOTE: Sets of loose Atlas sheets, not folded and not stamped with external numbers on verso, are known.

Garollo, G.

NO DATE 25.1691

(DIRETORE) **Stati Uniti d' America meta' [sic] Occidentale.** (“Stab. Lit. Galileo Milano”; “Casa Edit. D. Francesco Vallardi Proprieta Letteraria”; “G. Garollo dir.”) **[In Italian.]**

From: Porena, Filippo, L'America del nord; o America Anglo-Sassone.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

In: Marinelli, G., ed altri scienziati Italiani, *La terra : trattato popolare di geografia univesale*. Milano, Napoli, Roma, Torino, Palermo, Pisa, Bologna, Catania, Firenze, Genova, Padova, Cagliari, Sassari, Bari, and Pavia: Casa Editrice Dottor Francesco Vallardi, between pp. 176/177. [Ca. 1885.]

► “Colorado R.” is shown between “Golfo di California” and the confluence of “Gannison [*sic*] R.” and “Dolores R.” in eastern Utah; downstream of that confluence is the confluence of “Green R.” Its course through “**Gr. Canon of the Colorado**” shows the currently mapped course, although downstream from the confluence of the Little Colorado River (not labeled) is marked as “Marble C.” Cataract Creek is also shown (not labeled). The route of the “Atlantic Pacific R.R.” is shown; the 32nd parallel route is shown but not labeled.

1886

Mitchell, Samuel Augustus, Jr.

1886 25.2118 **County and township map of Arizona and New Mexico.** (“Entered according to Act of Congress in the year 188[] by S. Augustus Mitchell in the Office of the Librarian of Congress at Washington.”)

In: *Mitchell's new general atlas, containing maps of the various countries of the world, plans of cities, etc., embraced in ninety-three quarto maps, forming a series of one hundred and forty-seven maps and plans, together with valuable statistical tables. Also, a list of post-offices of the United States and territories, and also census of 1880 for states, territories and counties, also of cities of over 10,000 inhabitants.*

Philadelphia: William M. Bradley and Brother [1886], p. 92. (“Entered according to Act of Congress 1883 by S. Augustus Mitchell in the office of the Librarian of Congress at Washington.”)

► “Colorado River” is shown on an accurate course, delineated as encanyoned between the Utah-Arizona boundary and “Eldorado Canon” on its lower course. “**Grand Canon**” is labeled on the reach west of “Hurricane Ledge” and “Aubrey Cliffs”; “Marble Canon” between “Lee’s Fy.” and “Little Colorado River”. “Cataract Creek” is shown as a tributary to the Colorado from the southeast between the confluence of “Canab Canon” [*sic*] from the north and “Aubrey Cliffs”. “Parker Cr.” [*sic*] is retained as a tributary to the Colorado from the south-southwest, on the east side of “Red Butte”, which is itself too far to the west.

1887

Cram, George F.

1887 25.1555 **Railroad and County Map of Arizona. Geo. F. Cram, Engraver and Publisher, Chicago.**

In: *Cram's unrivaled family atlas of the world*. Chicago: George F. Cram.

Note that there are numerous eds. of this atlas. The map referred to here appeared on pp. 212-213 of the 1887 ed. Other eds. have not been examined.

► Map includes some Township and Range section information, boundaries of Indian reservations, and some bare physiographic information. The Havasupai reservation is labeled, remarkably, “Yava Pai Sapa Res.” Most tributaries are depicted only diagrammatically with generally undulating lines, though principal rivers and tributaries are shown more accurately. “Colorado River” is shown as encanyoned in “**Grand Canon**” and “Marble Canon”, although the “Grand Canon” label appears only in western Grand Canyon between the confluences of “Rio Virgin” and “Kanab Creek”, while the “Marble Canon” label appears between the confluences of “Kanab Creek” and “Little Colorado” (the Little Colorado River is

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

labeled only on a headwater fork). The Colorado is not depicted as encanyoned upstream from the confluence of the Little Colorado.

Stanford, Edward

- 1887 25.2393 **The United States of North America.** ("London: Edward Stanford, 55, Charing Cross, S.W.")
In: Stanford's London atlas of universal geography exhibiting the physical and political divisions of the various countries of the world : folio edition : ninety maps, with a geographical index. London: Edward Stanford. [Map 73.]
▶ "Colorado River" is delineated on its proper course. "**Grand Cañon**" is labeled in the western part of the canyon, while "Marble Cañon" is labeled between the confluences of "Colorado Chiquito" and Kanab Creek (not labeled). The Kaibab Plateau is labeled "Buckskin Plateau". "Black Cañon" is labeled downstream from the confluence of "Virgin R." The route of the Atlantic & Pacific Railroad (not labeled) is delineated.

1888

Rand McNally and Co.

- 1888 25.594 **The Santa Fé Route and connections : 1888.** Chicago: Rand McNally and Co., Engravers, 1 sheet.
▶ "**Grand Canon Colorado**" [*sic*] and "Marble Canon" are labeled. The railway line is shown passing closest to the canyon at "Peach Springs". Map also includes elevational profiles of four different railway lines, including "Elevations between Kansas City and San Francisco". "Grand Canon" and "Marble Canon" are marked. "Little Colorado R." is also marked.
Compare the map by Rand McNally and Co. (no date [1888], [ITEM NO. 25.593](#), under the "Big Canyon" listings herein).

Southern Pacific Company

- 1888 25.2504 **Correct map of the Railway & Steamship Lines Operated by the Southern Pacific Company.** San Francisco: Southern Pacific Co. [Seen as a folded pamphlet with cover title, *Southern Pacific Company*, No. 47, November 1888.] ("Crocker & Co's Print. San Francisco".) ("11-5-88. 30.30.")
▶ The map is the same as that noted for 1884. "Colorado Riv." is delineated between the "Gulf of California" and the confluence of Green and Grand Rivers (neither labeled!). The Colorado follows a course that is generally correct, although more stylized in the western portion that is labeled "**Grand Canon**" between Kanab Creek (not labeled) and the Virgin River (not labeled). The only other tributaries it receives in this area are "San Juan Riv." from the east, "Little Colorado" from the southeast, and Cataract Creek (not labeled) from the southeast. The generalized route of the Southern Pacific Railroad is boldly delineated, crossing the Colorado at "Yuma", with all of its station houses labeled. The Atchison, Topeka and Santa Fe Railway is faintly delineated (labeled elsewhere on the map "Atch. Top. & San. Fe"). Interestingly, between "Peach Spr" and the Colorado River a roadway is delineated. On the Kaibab Plateau (not labeled) two "+" symbols are labeled "Mines"; no other mines are noted on the map. "Lee's Ferry" is pinpointed. Between there and south of "Callville" in Nevada the Colorado is depicted as encanyoned.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1889

Matthews, Northrup and Co.

- 1889 25.1663 **Map of the Nashville, Chattanooga and St. Louis Ry. And connections.** ("Copyright, 1889, by W. L. Danley, Gen'l Pass'r Ag't N., C. & St. L. R'y, Nashville, Tenn.") (Matthews, Northrup & Co., Art-Printing Works, Buffalo, N. Y.)
- ▶ "Colorado River" is depicted as a broad waterway between the head of "Gulf of California" and the confluence of "Green R." and "Grand R.", upstream from which the rivers are shown by solid lines. "**Grand Canon**" is labeled between the confluences of "Virgin R." and "Kanab R." "Marble Canon" is labeled between the confluences of "Kanab R." and "Little Colorado R." Through this entire reach the river is depicted as encanyoned. The reach between the Little Colorado and "Lees Ferry" is not labeled, nor displayed as encanyoned. North of the southwest-to-northend bend of the Colorado that receives Diamond Creek from the south (not marked on this map), the area is labeled "Lost Basin". The "Atlantic & Pacific" and "Southern Pacific" railroads are delineated generally across the Southwest.

Pennsylvania Railroad

- 1889 25.1660 **Map of the Pennsylvania Railroad and its Connections.** [No imprint.]
- ▶ Blue-line print depicting scattered place names and railroad routes, with bare indications of topography. The 35th parallel "Atlantic & Pacific R.R." and 32nd parallel "Southern Pacific R.R." are depicted generally across Arizona and California. "Colorado River" is depicted generally, though along an accurate course. Between "Lee's Ferry" and downstream from "The Needles" at "Aubrey", the river is displayed as being encanyoned. "**Grand Canon**" is labeled between "Lit. Colorado Riv." and Virgin River (not labeled).
- Library of Congress catalog record lists "Patterson, S. C." as contributor to this map and indicates it is a Copyright Office copy from 1889.

1890

Cardona, S. Adalberto de

- 1890 25.1834 **The Santa Fé Route and Connections. 1889.** ("Rand, McNally & Co., Engr's. Chicago.") [pp. [2]-[3] of a [4]-p. insert between pp. 72/73]. [Map in English; the remainder of volume is in Spanish.]
- In: De México á Nueva York : guia para el viajero en que se describen las principales ciudades de México y los Estados Unidos del Norte.* San Francisco: Imprenta de H. S. Crocker y Cia., 420 pp.
- ▶ "Gulf of California" separates "Lower California" from "Mexico". "Colorado River" is depicted between the head of the gulf and the confluence of "Green River" and (not labeled) Grand River. The reach of the Colorado through "**Grand Canon**" and "Marble Canon" is depicted as encanyoned. Tributaries to the Colorado include "San Juan R.", Little Colorado River (not labeled), and Gila River (not labeled). The Virgin River (not labeled) is curiously depicted, implying that what on other contemporary maps is the Sevier River in western Utah, flowing directly to the Colorado past "Overton", Nevada. The route of the "Atlantic & Pacific R. R." across northern Arizona is depicted.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Johnston, Alexander Keith [Johnston, Keith]

- 1890 25.1378 **United States of North America (Western States) by Keith Johnston, F.R.S.E.** ("Engraved, Printed and Published by W. & A. K. Johnston, Edinburgh & London.")
Caption: "Keith Johnston's General Atlas".) Scale 1:6,047,811, 95 miles to an inch.
- ▶ Within the area of interest to this Cartobibliography, this ed. of the map is (amazingly) effectively unchanged from the 1875 ed. (ITEM NO. 25.1377), with the exception that the 35th and 32nd parallel railroads are delineated, the inclusion of "Mineral Park" as a place name in northwestern Arizona, the label "**Grand Cañon**" appears on the "Rio Colorado" in the western part of the canyon, the label "Marble Cañon" on the Colorado between "Rio Colorado Chiquito" and "Kanab Cr." (and "Cataract Cañon" in Utah upstream from "Rio San Juan"); else all is the same including the retention of the peculiar "Parke Cr.", and the absence of Diamond Creek even though "Pariah" has been added downstream from the still-misplaced El Vado de los Padres—all in all, a most peculiar map for its "antedated" updates on a base map long out of date.

Matthews, Northrup and Co.

- 1890 25.1559 **1890 Matthews, Northrup & Co's Official Railroad Map of the United States, Dominion of Canada and Mexico Perfected to Date from Latest Authentic Sources. Engraved and Printed by Matthews, Northrup & Co. Buffalo, & New York.**
- ▶ Colorado "River" is depicted as encanyoned through "**Grand Cañon**" between a point downstream from "Virgin River" and the Arizona-Utah boundary. Although the confluence of "Little Colorado R." is correctly shown, its northwesterly course is somewhat generalized.

1891

W. and A. K. Johnston [firm]

- 1891 25.2424 **General Map of North America Constructed from the Best Authorities, and Embodying the Results of All Explorations to the Present Time. By W. & A. K. Johnston, Geographers to the Queen. Edinburgh and London. 1891.** ("Engraved & Printed by W. & A. K. Johnston, Edinburgh & London".) Scale 1:7,160,000.)
- ▶ "Rio Colorado" is delineated between the "Gulf of California" and confluence of "Green R." and "Grand R." Downstream from that confluence the Colorado follows a southwest course through "Cataract Cañon", receiving "Curtis Cr." from the northwest, an unlabeled tributary from the northwest, "Rio San Juan" from the east, arcs from southwest to south through "Marble Cañon", receiving "Little Colorado R." from the southeast, then turns westerly through "**Grand Cañon**" to the confluence of "Virgin R." before tuning southward to the gulf.

1892

Hovey, H. C. [Hovey, Horace Carter]

- 1892 25.1849 On the rim and in the depths of the Grand Canyon. *Scientific American*, 67(6) (August 6): 87-89.
See MAP, p. 88, Map of the **Grand Cañon Region of the Colorado River**, in Arizona. ("American Bank Note Co. New York") ("42917".)

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

► Usually, maps within periodicals are not cited in this cartobibliography, but this is cited for its interesting historical inclusions. The entire Grand Canyon region is displayed, with the route of the “Atlantic and Pacific Rail Road” running across the bottom of the map. Wagon routes and trails are marked: from Flagstaff, “Stage Route” follows around the eastern side of the “San Francisco Peaks” and reaches “Hance’s” on the eastern end of the South Rim of Grand Canyon; and “Moqui Trail” departs from this route to cross “Little Colorado”, at which point “Mormon Road” leaves for “Lee’s Ferry” (with “Navajo Trail” also reaching the ferry, north of “Marble Cañon”, although no trail is shown on the western side of the river. From “Williams” a road leaves northward to the canyon, dividing into “Rowe’s Route” that reaches the canyon opposite “Bright Angel Cr.”, and “Bass’ Route” that parallels “Cataract Creek” and is shown going all the way to its confluence with the Colorado. At “Peach Springs” a road is shown heading north-northeastward to the Colorado; even though Diamond Creek is depicted arriving from the east and east-northeast it is not labeled.

Migeon, J.

1892 25.2057 **États-Unis.** (“Gravé par Smith.”) (“Dressé sous la direction de J. Migeon par Ch. Lacoste.”) (“Migeon, éditeur; imp. n. r. du Moulin Vert. Paris.”) (“Écrit par A Bixet”).
[In French.]

In: Martineau, A. (text), *Nouvel atlas illustré géographie universelle comprenant la géographie, l’histoire, l’administration, la statistique, etc. scientifique, industriel et commercial dressé, dessiné et gravé par MM. Desbuissons, Lorisignol, Lacoste, Fillatreau, Lecocq, Smith, Bizet, Fontaine, Barbier, Soudain, etc.* Paris: Direction et Administration. [Map no. 56.]

► “Colorado de l’Ouest” is depicted between “Golfe de Californie” and the confluence of “Green R.” and “Grand River”; enroute it receives the tributaries “R. San Juan” from the east, “P^t. Colorado” (*Petite Colorado*, Little Colorado River) from the southeast, an unlabeled tributary from the southeast (Cataract Creek), “Virgin R.” from the northeast, an unlabeled tributary from the east and north (Bill Williams River), and “R. Gila” from the east at “Arizona City (Yuma)” and “F^t. Yuma”. The Colorado south through to “La Paz”, and its tributaries, are depicted as encanyoned. The label “**Gd. Canon**”, appears on the western end of the Grand Canyon. The entire region north of and east of the Grand Canyon in northern Arizona is labeled “Painled [*sic*] Désert”. The routes of the 35th and 32nd parallel railways are roughly delineated.

Rand, McNally and Co.

1892 25.1552 **Rand, McNally & Co.’s Map of the Untied States Showing, In Six Degrees, the Density of Population, 1890.**

In: *Indexed atlas of the world.* Chicago: Rand, McNally and Co.

► “Colorado River” is shown as encanyoned in “**Grand Canon of the Colorado**”. What is Marble Canyon is labeled as “Middle Canon”.

Southern Pacific Company

1892 25.2505 **Correct map of the Railway & Steamship Lines Operated by the Southern Pacific Company.** San Francisco: Southern Pacific Co. [Map with border promotional texts.]

► The map is the same as that noted for 1884. “Colorado Riv.” is delineated between the “Gulf of California” and the confluence of Green and Grand Rivers (neither labeled!). The Colorado follows a course that is generally correct, although more stylized in the western portion that is labeled “**Grand Canon**” between Kanab Creek (not labeled) and the Virgin River (not labeled). The only other tributaries it receives in this area are “San Juan Riv.” from the east, “Little Colorado” from the southeast, and Cataract Creek (not labeled) from the southeast. The generalized

MAPPING GRAND CANYON

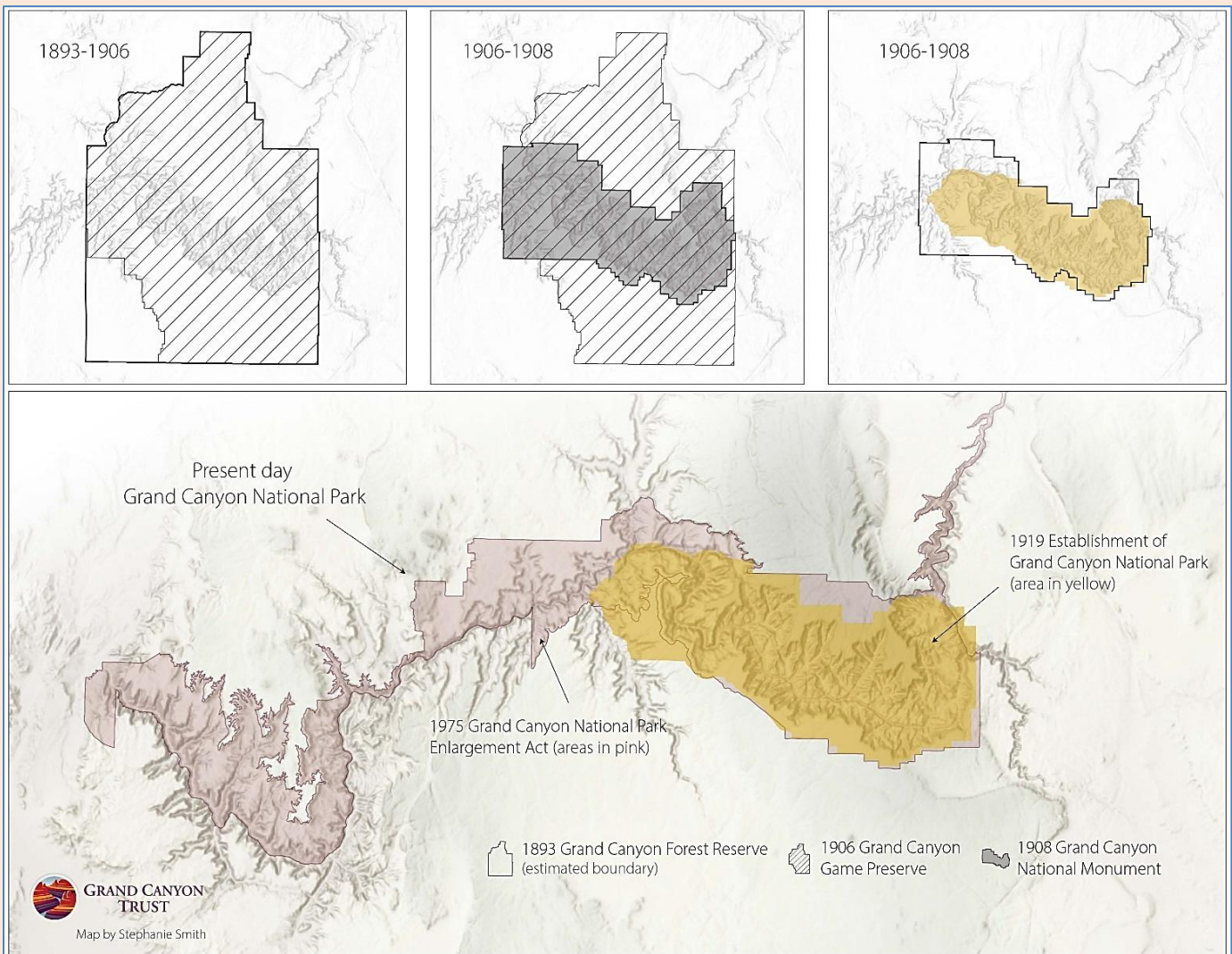
Grand Canyon (1868–Present)

route of the Southern Pacific Railroad is boldly delineated, crossing the Colorado at "Yuma", with all of its station houses labeled. The Atchison, Topeka and Santa Fe Railway is faintly delineated (labeled elsewhere on the map "Atch. Top. & San. Fe"). Interestingly, between "Peach Spr" and the Colorado River a roadway is delineated. On the Kaibab Plateau (not labeled) two "+" symbols are labeled "Mines"; no other mines are noted on the map. "Lee's Ferry" is pinpointed. Between there and south of "Callville" in Nevada the Colorado is depicted as encanyoned.

Figure 33.

Federally-Designated Boundaries of Grand Canyon National Park and Predecessor Units 1893–Present

maps by Stephanie Smith, Grand Canyon Trust, 2019



MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1893

Nordenskiöld, Gustaf

- 1893 25.894 *The cliff dwellers of the Mesa Verde, southwestern Colorado : their pottery and implements.* (D. Lloyd Morgan, translator.) Stockholm and Chicago: P. A. Norstedt & Söner, 174+ pp., plates. ("Stockholm 1893; Royal Printing Office".) [Pagination: frontispiece (portrait), [i-vi], 1-174 with Plates I-XVI interleaved, Plates XVII-LI, i-iv [index]; Appendix, [ii], i-xi, Plates I-X; map.]
- ▶ The **MAP** (1 leaf), scale 1:3,700,000, includes central and eastern "**Grand Cañon**", although "Painted Desert" embraces the North Rim, crossing the Kaibab Plateau. Map also depicts roads and Indian reservations.
- Volume is an English translation, from Swedish, of Nordenskiöld, *Ruiner af klippboningar i Mesa Verde's cañons : med talrika illustrationer efter originalfotografier af författaren* (Stockholm: P. A. Norstedt & Söner).

Pennsylvania Railroad

- 1893 25.1661 **General Map of the Pennsylvania Railroad and its Connections.** ("Allen, Lane & Scott, Engravers.") [No imprint.]
- Date from Library of Congress catalog record.
- ▶ "Colorado R."/"Colorado River" is depicted between the head of "Gulf of California" and the confluence of "Green R." and "Grand R." "**Grand Canon**" is labeled between "Little Colorado" and "Rio Virgin". "Colorado Plateau" is labeled south of the canyon. An interesting, late-date depiction of a south-trending river paralleling the lower Colorado River to its west shows a course from headwaters at the Nevada-California boundary to a dry lake west of Parker, Arizona. It is reminiscent of the supposed "river of the sulfurous pyramids" displayed on earlier maps.

Rand, McNally and Co.

- 1893 25.2244 **Rand McNally and Co's General Map of the United States With Portions of the Dominion of Canada and the Republic of Mexico. Compiled from the most reliable Sources and Engraved by Rand, McNally & Co., Map Engravers and Publishers, 162-172 Adams St., Chicago.**
- This map seen as reproduced in: *Historical atlas of the United States.* By Rufus Blanchard (with cover title) *Blanchard's historical atlas of the United States Map of Europe and the world, E. T. C.* [sic] with notes [various imprints and dates, 1890s]. This map sheet has appended at its bottom, "Diagram of United States History." (a chronological presentation in text). The other maps in Blanchard are not pertinent to this cartobibliography.
- ▶ "**Grand Canon**" is delineated as encanyoned between "Lees Ferry" and the Arizona-Nevada boundary. The "Hualapai Indian Reservation" boundary is delineated, but no other federal reserves are marked on this map. The route of the "Atlantic & Pacific" is shown, with towns and station houses labeled. Of note is the high point labeled, "Shivas Temple", which appears at the south end of "Kaibab Plateau".
- 1893 25.1659 **Rand, Mc.Nally & Co's Official Railroad Map of the United States with portions of the Dominion of Canada[,] the Republic of Mexico and the West Indies[.] Compiled from Government Surveys, and Official Tracings and Operating Time Tables of all Railroads.** ("Rand, McNally & Co., Engravers, Printers, and Publishers, Chicago and New York.") ("Approximate Scale: 36 Miles to 1 Inch.") ("Rand, McNally & Co.'s Railroad Map of the United States. Copyright, 1893, by Rand, McNally & Co.")

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

► Very detailed map on four large sheets, with physiography displayed by noticeably heavy hachuring, which interferes with some map labels. "Colorado River" is depicted between the head of the "Gulf of California" and the confluence of "Green River" and "Grand River". The river is depicted between the gulf and the confluence of the Bill Williams River (not labeled except for "Santa Maria R." on its upper course) is shown by a widely drawn waterway, upstream from which it is shown only as a solid line. "**Grand Canon & Colorado River**" and "**Grand Canon**" are labeled between the confluence of "Little Colorado Riv.r" [*sic*] and "Grand Wash"/"Grand Wash Cliff"/"Grand Wash Cliffs Cottonwood" [*sic*] (where also is labeled "Peirce Ferry"). "Marble Canon" is labeled between the Little Colorado and "Lees Ferry". The course of the Colorado through Grand and Marble Canyons (and "Black Canon" downstream) is very heavily hachured, rendering the river channel rather hard to discern. Other labeled tributaries in the Grand Canyon region are "Kanab Canon", "Cataract Cr.", and "Virgin River". "Kaibab Plateau" is labeled, with "De Monte Park" [*sic*]. Numerous other physiographic features are labeled in the region. The "Hualapai Indian Reservation" is delimited, but there is no indication of Diamond Creek on this map, though the rail section house "Peach Spr." is present. The 35th parallel "Atlantic & Pacific" and 32nd parallel "Southern Pacific" railroad routes are depicted.

1894

H. V. and H. W. Poor [firm]

1894 25.1761 **Railroad Map of the United States—Section 14. Utah, Colorado, Arizona and New Mexico.** ("Eng'd by American Bank Note Co. New York")

In: Manual of the railroads of the United States for 1894. Twenty seventh annual number. New York: H. V. and H. W. Poor; London: Effingham Wilson; New York: American Banknote Company. [Cover title: *Poor's Manual—1894. American Bank Note Co. No. 86 Trinity Place, New York, Engravers and Printers.*] [See two maps, depicting variant styles as of this date.

► "Colorado R." is depicted rather generally between the head of the Gulf of California (not labeled) and the confluence of "Grand River" and "Green River" (although the labels are erroneously switched). Tributaries received en route are "San Juan Riv" from the northeast and east-southeast (what might be the Paria River [not labeled] is shown reaching the Colorado from the northwest just north of the San Juan confluence), an unlabeled small tributary from the east reaching the Colorado just south of the Utah-Arizona boundary, "Little Colorado Riv." from the east-southeast and southeast, Cataract Creek (not labeled) from the south and southeast, Kanab Creek (not labeled) from the north-northeast, an unlabeled tributary from the northeast, "Virgin River" from the northwest and northeast, Bill Williams River (not labeled) from the east and north, and "Gila River" from the east-northeast". The course of the Colorado through the "**Grand Canon**" resembles the imaginative course partly reminiscent of that shown by Egloffstein and Ives. The route of the "Atl. & Pac." railroad is depicted generally, as is also the "Sou. Pac." railroad.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Rand McNally and Co.

- 1894 25.2294 **[Map of Arizona.]**
In: Rand McNally & Co.'s business atlas and shippers' guide Chicago: Rand, McNally & Co., p. 300.
▶ **"Grand Canon of the Colorado"**, with "Marble Canon" upstream and "Black Canon" downstream, are delineated as encanyoned, as also are some tributaries. The route of the "Atlantic & Pacific R.R." is delineated.

1895

Petermann, A.

- 1895 25.2361 **West-Indien, Central-Amerika bis zum Südlichen Canada (4 Blätter) im Maassstab v. 1:7.500.000 entworfen v. A. Petermann, gezeichnet v. H. Habenicht. [In German, with mixed labeling.]**
See Blätter 1. ("Steiler's Hand-Atlas, No. 79.") ("Bearbeitet v. H. Habenicht. Neu bearbeitet v. Dr. R. Lüddecke 1888 & 1889. Ausg. 1894".) ("Gotha: Justus Perthes.")
In: Adolf Steiler's Hand Atlas über alle Theile der Erde und über das Weltgebäude : 95 Karten. Gotha: Justus Perthes. [The newest map in this volume is dated 1895.
▶ Relief depicted throughout by hachures, with the "Colorado" encanyoned through **"Grand Cañon of the Colorado"**, "Marble C.", and "Glen Cañon". The region north of the canyon and crossing over to the east of the Colorado is labeled "Painted Desert". The route of the Atlantic & Pacific Railroad (not labeled) is delimited.

1897

Smith, Benjamin E.

- 1897 25.262 **Arizona and New Mexico.**
In: Smith, Benjamin E. (preparer), The Century atlas of the world. New York: The Century Co. [This is Map 55.]
▶ **"Grand Cañon of the Colorado"** is depicted as encanyoned between the Little Colorado River confluence and Grand Wash Cliffs. Includes postal routes; "Talfree" [sic, Tolfree] at Grand Canyon.

1898

Gray, C. P. [Gray, Charles P.]

- 1898 25.1551 **Gray's New Trunk Railway Map of the Untied States[,] Dom. of Canada and portion of Mexico. Compiled from Latest Official Sources, showing carefully selected list of Cities & Towns in readable type for quick reference. Published by C. P. Gray 89 Fulton St. New York.** ("Robert A. Welcke Photo-Lith. 178 William St. N.Y.") ("Copyrighted 1898 by C. P. Gray N.Y.")
The Library of Congress Office of Register of Copyrights stamp on the LOC copy of this map is dated January 7, 1899.
▶ The "Atchison Topeka & Santa Fe" route is shown across northern Arizona. On "Colorado River", **"Grand Canon"** is figured as encanyoned. Of note is a dashed line that depicts a road connection between "Flagstaff" and "Hances"

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

[sic]. The spot position of the John Hance ranch locale is shown at the area now known as Desert View, and in fact displays as in the canyon. This may be in part due to Santa Fe advertising, since also by Flagstaff are noted "Cave Dwellings" and "Cliff Dwellings"; no other such notes are shown.

1899

Atchison, Topeka and Santa Fe Railway System

- 1899 25.1550 **The Atchison, Topeka and Santa Fe Railway System. 1899.** ("Eng'd by American Bank Note Company, New York.")
▶ Main routes are highlighted in red; spurs in black. The "Santa Fe Pacific R. R." main route is shown crossing northern Arizona, passing closest to "**Grand Canon of the Colorado**" at "Peach Sprs." A spur line is shown between Kingman and Chloride. The Grand Canyon, and "Marble Canon", are depicted as encanyoned.

Cram, George F.

- 1899 25.2452 **Map of the United States of America Chicago, Ills.**
In: Cram's standard American railway system atlas of the world. Accompanied with a complete and simple index of the United States showing the true location of all railroads, towns, villages and post offices. New York and Chicago: Geo. F. Cram, pp. 508/509.
Volume cover title: *Cram's standard American railway system atlas 1899.*
A broad gap between "America" and "Chicago" in the map title seems to indicate that some text was deleted from an earlier edition.
▶ "Colorado River" is sketched generally; the reaches between the confluence of the Green and Grand Rivers to just below the confluence of "Virgin R." are depicted as encanyoned, as also are the lower reaches of "San Juan R." and "Little Colorado R." The label "**Grand Canon**" is written such that it spans the Grand Canyon and the canyons of southeastern Utah.
- 1899 25.2453 **Arizona.**
In: Cram's standard American railway system atlas of the world. Accompanied with a complete and simple index of the United States showing the true location of all railroads, towns, villages and post offices. New York and Chicago: Geo. F. Cram, pp. 364/365.
Volume cover title: *Cram's standard American railway system atlas 1899.*
▶ "Colorado River" is delineated with a broad width with a broad river-flow-like artwork rather than a single line. Between the confluences of the Little Colorado River (not labeled) and "Rio Virgin" the river is depicted as encanyoned. The label "**Grand Canon**" is shown only in western Grand Canyon, between Parashant Canyon (not labeled) and "Grand Wash". The label "Marble Canon" is written between the confluences of the Little Colorado and "Kanab Creek"; "Coconino Forest" is written along the canyon rim opposite. Boundaries are indicated for "Hualpai Indian Res." and "Yava Pai-Sapa Res." (Havasupai Indian Reservation). The routes of the "Santa Fe Pacific" and "Southern Pacific" railways are delineated.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1901

Cram, George F.

- 1901 25.2454 **Map of the United States of America.**
In: Cram's standard American railway system atlas of the world. Accompanied with a complete and simple index of the United States showing the true location of all railroads, towns, villages and post offices. Chicago and New York: Geo. F. Cram, pp. 518/519.
▶ This is the same map as which appears in the 1899 ed. (ITEM NO. 25.2453): Colorado River" is sketched generally; the reaches between the confluence of the Green and Grand Rivers to just below the confluence of "Virgin R." are depicted as encanyoned, as also are the lower reaches of "San Juan R." and "Little Colorado R." The label "**Grand Canon**" is written such that it spans the Grand Canyon and the canyons of southeastern Utah.
- 1901 25.2455 **Arizona.**
In: Cram's standard American railway system atlas of the world. Accompanied with a complete and simple index of the United States showing the true location of all railroads, towns, villages and post offices. Chicago and New York: Geo. F. Cram, pp. 370/371.
▶ "Colorado River" is delineated with a broad width with a broad river-flow-like artwork rather than a single line. Between the confluences of the Little Colorado River (not labeled) and "Rio Virgin" the river is depicted as encanyoned. The label "**Grand Canon**" is shown only in western Grand Canyon, between Parashant Canyon (not labeled) and "Grand Wash". The label "Marble Canon" is written between the confluences of the Little Colorado and "Kanab Creek"; "Coconino Forest" is written along the canyon rim opposite. Boundaries are indicated for "Hualpai Indian Res." and "Yava Pai-Sapa Res." (Havasupai Indian Reservation). In this edition, in the Virgin River area, "Pierces Ferry", "Greggs Ferry", and "Bonnellis Ferry" are denoted. The routes of the "Santa Fe Pacific" (now with the "San. Fe & Grand Canyon" spur between Williams and the Grand Canyon rim, with two section houses en route ["Coconino" and "Tourist"], though the village of Grand Canyon is not depicted) and "Southern Pacific" railways are delineated. From Kingman, a branch line of the Santa Fe is shown to "White Hills".

National Publishing Company

- 1901 25.1581 **The United States of America Including All Its Newly Acquired Territory Published by The National Publishing Company.** *Boston, Mass.* ("Copyright, 1901, by the National Publishing Company, Boston, Mass.")
▶ Fairly detailed map. "Colorado R." is shown as encanyoned through "Marble Canyon", "**Grand Canyon of the Colorado**", "Virgin Canyon", "Boulder Canyon", and "Black Canyon". "Santa Fe Pacific" rail route is shown across northern Arizona, with spur "S. F. & G. C." between "Williams" and "Anita" and another spur from "Anita Jc" to "Grand Canyon". "Grand Canyon Forest Res." is delineated. "Sou. Pac." rail route is shown across southern Arizona.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1902

Bicknell, P. C. [Bicknell, Pierpont Constable]

- NO DATE 25.789 *Guide book of the **Grand Canyon of Arizona** : with the only correct maps in print : a volume of interesting facts and gossip by P. C. Bicknell.* [No imprint] (printed by Press of G. Rice and Sons, Los Angeles), 97 pp., **MAP**. [1902.]
Cover title: *Guide Book of the Grand Canyon.*
Copies with stamp added to title-page: "Fred Harvey, Publisher, Kansas City, Mo. Copyright by Geo. U. Young".
Data from U.S. Copyright Office indicate Library of Congress No. 2—17241, and: "Copyright by Geo. U. Young and P. C. Bicknell, United States. Class A, XXc, no. 16043, Sept. 3, 1901 [*i.e.* copyright registration filed]; 1 copy rec'd May 31, 1902; 1 copy rec'd June 9, 1902 [*i.e.*, dates when requirement of the deposit of two copies of the publication were satisfied]" (U.S. Library of Congress, Copyright Office, *Catalogue of Title Entries of Books and Other Articles*, (577) (3rd Quarter 1902) (July 24): 389).

1903

O'Hare, Daniel

- 1903 25.1695 **Territory of Arizona. Compiled from the official Records of the General Land Office and other sources under the direction of Frank Bond Chief of Drafting Division G.L.O. 1903 Scale: 1 Inch = 22 Miles.** ("Compiled and Drawn by Daniel O'Hare." "Andrew B. Graham Photolith Washington, D.C.")
► Topography is illustrated. Includes county boundaries, and Indian and military reservations. In Grand Canyon region, boundaries of **Grand Canyon Forest Reserve** and Walapai Indian Reserve are shown.

1904

Dellenbaugh, Frederick S.

- 1904 25.801 (TEXT ED.) *The **Grand Cañon of Arizona** : through the stereoscope : the Underwood Patent Map System combined with eighteen original stereoscopic photographs.* New York, London, Ottawa (Kansas), Toronto, San Francisco, and Bombay: Underwood and Underwood, 64 pp. with 2 maps (map 2 is fold-out).
This separately bound text accompanies a boxed set of 18 stereoscopic views (see Underwood and Underwood in Part 26/Appendix 2 of **THE GRAND CANON** Volume 1, Part B, **ITEM NOS.** 26.641, 26.980). Its fold-out **MAP** of Grand Canyon delimits with overprinting the direction and breadth of view for each stereoview. Dellenbaugh not credited in this 1st ed. Box variants noted: boxes with gilt lettering or silver stamping. Text booklet either clothbound or with wraps.
NOTE: Thus far one dust jacket has been seen with a clothbound text, but which may have been custom-made, thus dust jackets for clothbound texts are not likely a publisher's production (*vide* Dan Cassidy, Five Quail Books).
Later eds. printed without date (see Dellenbaugh, no date, **ITEM NO.** 2.26910 in Volume 1, Part B of **THE GRAND CANON**).
NOTE: In addition to the difference in places of publication, this ed. differs from the later undated [1906-1908] ed. in the following points: 1) in later ed. the title-page adds credit to Dellenbaugh; 2) chapter title, p. 11, lacks *virgullilla* over "N" ("HOW THE CANON CAME TO BE"); 3) p. 31, last two lines rewritten (in 1904 ed. as ". . . of the Indians will hospitably show you the way to a point where you can get a . . .", in later

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

ed. as “. . . Indian will show you the way to the point marked 1 on Map 1, where you get a . . .”

1906

Andree, Richard

1906 25.2022

Nordamerika. [In German.]

In: Andrees Allgemeiner Handatlas in 139 Haupt- und 161 Nebenkarten nebst vollständigem alphabetischem Namenverzeichnis. Fünfte, völlig Neubearbeitete und vermehrte Auflage. Jubiläumsausgabe. Herausgegeben von A. Scobel. Bielefeld and Leipzig: Verlag von Velhagen und Klasing, pp. 181-182. Scale 1:10,000,000.

► The river “Colorado” is delineated between “Golf von Californien” and the confluence of “Green R.” and “Grand R.”; enroute it receives among the labeled tributaries “Fremont R.” from the northwest, “Escalante R.” from the northwest, “S. Juan R.” from the east, “Paria R.” from the northwest, “Lit. Colorado” from the southeast, “Virgin R.” from the north and northeast, and “Rio Gila” from the east; principal unlabeled tributaries are Cataract Creek from the south-southeast and Bill Williams River from the east and north. The Grand Canyon is labeled “**Gr. Colorado Cañon**”; “Marble Can” is labeled between the Paria and Little Colorado Rivers.

Bacon, G. W.

1906 25.2425

Bacon’s New Chart of the World Mercator’s Projection by G. W. Bacon F.R.G.S. (“Copyright G. W. Bacon & Co., Ltd., Royal London Buildings, Deansgate, Manchester.”) (“Price 21/-”)

► The course of “Colorado” is display rudimentarily through encanyoned reaches of which the only one labeled is “**Grd. Canon**”.

Dellenbaugh, Frederick S.

NO DATE 25.800

(TEXT ED.) *The **Grand Cañon of Arizona** : through the stereoscope : the Underwood Patent Map System combined with eighteen original stereoscopic photographs : Explanatory Notes edited by F. S. Dellenbaugh[,]* author of *The Romance of the Colorado River, North Americans of Yesterday, etc.* New York and London: Underwood and Underwood, 64 pp. with 2 maps (map 2 is fold-out). (“527” noted on title-page; “Printed in the United States” on title-page verso.) [1906-1908.]

This is a later ed.; 1st ed. 1904 (see Dellenbaugh, **ITEM NO.** 2.2316 in Volume 1, Part B of **THE GRAND CANON**).

This separately bound text accompanies a boxed set of 18 stereoscopic views (see Underwood and Underwood in Part 26/Appendix 2 of **THE GRAND CANON** Volume 1, Part B, **ITEM NOS.** 26.641, 26.980). Its fold-out **MAP** of Grand Canyon delimits with overprinting the direction and breadth of view for each stereoview. Box variants noted: boxes with gilt lettering or silver stamping. Text booklet either clothbound or with wraps. Clothbound cover stamping: *Grand Canyon of Arizona : through the stereoscope : Underwood & Underwood.*

NOTE: Thus far one dust jacket has been seen with a clothbound text, but which may have been custom-made, thus dust jackets for clothbound texts are not likely a publisher’s production (*fide* Dan Cassidy, Five Quail Books).

NOTE: In addition to the difference in places of publication, this ed. differs from the 1904 ed. in the following points: 1) title-page adds credit to Dellenbaugh; 2) chapter title, p. 11, adds *virgulilla* to “N” (“HOW THE CAÑON CAME TO BE”); 3) p. 31, last two lines rewritten (in 1904 ed. as “. . . of the Indians will hospitably show you the way to a point where you can get a . . .”, in this later ed. as “. . . Indian will show you the way to the point marked 1 on Map 1, where you get a . . .”

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

L. L. Poates Engraving Co. of New York

- 1906 25.1852 **Map of Arizona, engraved by the L. L. Poates Engraving Co. of New York especially for The American Bank Reporter. Copyright, 1906, by Steurer Publishing Co., New York Banking towns are in gothic type.**
- In:* *The American Bank Reporter. February-March, 1907.* New York: Steurer Publishing Co., between pp. 8/9. [The serial is produced semi-annually. Other issues have not been examined.]
- The base map is peculiar, in that the encanyoned “Colorado River” is shown along its correct course through the Grand Canyon region while tributaries reflect a much older source. “Marble Cañon” is labeled between “Lees Ferry” and downstream of the “Little Colorado River” confluence; “**Grand Cañon**” is labeled between the “Kanab R.” confluence and “Virgin River” confluence. “Grand Wash” is peculiarly shown as a disjointed system of streams, not reaching the Colorado River. Diamond Creek (not labeled) is depicted reaching the Colorado from due east. Cataract Creek (not labeled) is shown prominently, but three additional streams (not labeled) are shown reaching the Colorado generally from the south. The Paria River is not shown, but there are two tributaries that reach the Colorado from the east in the Lees Ferry area. (The San Juan River, not labeled, is also depicted on the map.) “Red Butte” is shown *southwest* of “Grand Canyon” village. The “Atchison Topeka & Santa Fe” railroad is shown crossing Arizona, with the “Grand Canyon” spur between Williams and Grand Canyon (passing to the east of Red Butte and twice crossing one of the unlabeled tributaries). Another rail spur is shown from a point west of Kingman to Mineral Park and Chloride. The “Southern Pacific” railroad is also delineated. Another rail line, “(Building) Arizona & California”, is shown between Parker on the Colorado River and rail lines reaching Prescott from the north and south.

Matthes, François E.

- 1906 24.133 **Bright Angel, Ariz.** U.S. Geological Survey, 1 sheet. [See [Figure 34](#) and detail, [Figure 34a](#).]
- 1:48,000-scale topographic map of Bright Angel quadrangle, Arizona.
Text on verso by L. F. Noble: *The Grand Canyon of the Colorado River*.
Reprinted 1932, 1947.
- Specially cited for the unusual addition of verso text. This quadrangle has seen steady use in introductory geology classes. See also in Section 4A of [THE GRAND CANYON](#) Volume 2 (Cartobibliography) the guide to [1:48,000-scale quadrangles](#) that were a part of the 1903-1904 topographical survey of the eastern Grand Canyon region.
- See also the 1962 ed., on which is indicated: “Topography by photogrammetric methods from aerial photographs taken 1954 and 1960. Field checked 1962.” It retains the verso text.
- See also the geological maps by [Maxson](#) (1961-1969), which uses the Matthes map as a base and also includes a verso text.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)



Figure 34. Bright Angel, Ariz., Quadrangle. Scale 1:48,000, contour interval 50 feet. ("E. M. Douglas, Geographer in charge. Topography by Francois E. Matthes. Triangulation by H. L. Baldwin, Jr. and J. T. Stewart. Surveyed in 1902–1903.")

(USGS Topographic Division, Historical File, 1906 edition, 1947 reprinting)

MAPPING GRAND CANYON

Grand Canyon (1868–Present)



Figure 34a. Detail of François Matthes's Bright Angel Quadrangle.
Contour interval 50 feet.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1907

Colby, Frank Moore, AND Sandeman, George

- 1907 25.796 **Cañons of the Colorado.**
In: Colby, Frank Moore, and Sandeman, George (eds.-in-chief), *Nelson's encyclopaedia : everybody's book of reference. Vol. III, Ceve to Dende.* New York, London, Edinburgh, and Dublin: Thomas Nelson and Sons, revised, 618 pp. (*Nelson's Perpetual Loose-Leaf Encyclopaedia.*) [Map is on p. 247A.]

1908

Stanton, Robert Brewster

- 1908 25.172 **Diagram showing the history of the exploration[,] navigation and survey : Grand and other cañons of the Colorado River of the West from 1540 to 1908.** New York: Robert Brewster Stanton, 1 sheet. ("Special Note. The complete record of the navigation of the Lower Colorado River, below the **Grand Cañon**, is not intended to be given here. The records of Alarçon, Johnson and Ives are only given as they were the most prominent.") ("This diagram does not attempt to give the names of every trapper or hunter that has been to the Colorado, but only the REAL EXPEDITIONS that have Explored, Surveyed & Navigated the River in Boats THROUGH THE GREAT CAÑONS.")

U.S. Forest Service

- 1908 25.607 **Grand Canyon National Monument within Grand Canyon National Forest, Arizona. 1907.** U.S. Forest Service, 1 sheet. ("Diagram forming a part of proclamation dated January 11, 1908.")
Displays township and range grid for the national forest and monument.

1910

The Scarborough Company

- 1910 25.2397 **Scorborough's Map of the World North America and South America Shewing Countries and their Colonies Principal Transportation Lines etc. Published by The Scarborough Company, London, Eng. Principal Offices, London, 8, Arundel Street, Strand, W. C. Indianapolis, Boston, U. S. A.** ("Printed by The Scarborough Company, Boston, Mass., U.S.A.")
("Copyright, 1906, 1907, 1908 and 1910 by The Scarborough Company, Indianapolis, Ind.")

Western and eastern hemispheres on recto and verso.

► "Colorado R." is delineated somewhat stylistically, with the reaches from the confluence of "Green R." and "Grand R." through to the head of the Gulf of California seeming to be all delimited as encanyoned. "**Grand Canyon**" is the only canyon labeled.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1912

Rand McNally and Co.

- 1912 25.2346 **The United States.**
In: The library atlas of the world : a reference work in two volumes, containing over two hundred maps and a complete index. Volume I—United States. Chicago and New York: Rand McNally and Co., pp. XII-XIII.
▶ In "Arizona", "Colorado River" is shown on a somewhat diagrammatic course through "**Grand Canon**", with its course in Utah and across Arizona displayed as encanyoned. The boundaries of the "Tualapai [*sic*] I. R." near "Peach Springs", and "Colorado Ind. Res." near "Parker" are delimited. The Santa Fe and Southern Pacific railroads (not labeled) are roughly sketched.
- 1912 25.2347 **The Rand-McNally New Commercial Atlas Map of Arizona.**
In: The library atlas of the world : a reference work in two volumes, containing over two hundred maps and a complete index. Volume I—United States. Chicago and New York: Rand McNally and Co., pp. 300-301.
▶ In "Arizona", "Colorado River" is shown on its proper course through "**Grand Canyon of the Colorado**", with "Marble Canyon" upstream and, downstream, only "Iceberg Canyon" and "Black Canyon" are labeled. The entire reach of canyons is displayed as encanyoned. The boundaries of "Grand Canyon National Monument", "Hualpai Indian Reservation", "Colorado Indian Reservation", and "Yuma Indian Reservation" are delimited. The "Atch. Top. & San. Fe" and "Southern Pacific" railroads are generally sketched. Also shown (between pp. 298/299) is a **Relief Map of Arizona**, on which are labeled "**Grand Canon of the Colorado**" and "Marble Canon".

1915

Thurston, Albert G.

- 1915 25.997 **New series. Thurston's travel and mileage map of the highways, cities, towns, railways : absolutely reliable : southern California to Phoenix, Arizona : the desert map, water holes, wells, springs, elevations of mountains and valleys and east to Washington, D. C. via southern all-year-round route. Published by Albert G. Thurston, Pasadena. (Drawn by D. C. McLain.)**
Panel title from map: **Thurston's auto-highway, mountain and desert map showing towns, railways, and waterholes between Grand Canyon, Williams, Prescott, Barstow, Riverside, San Bernardino, San Diego, Yuma, and Phoenix : published by Western Map and Publishing Co., 250 East 4th St., Los Angeles, El Centro and Pasadena.**
▶ Upper-right corner of map includes a small **INSET** that displays the "Grand Cañon Route" between a point north of Red Lake to "El Tovar". Map also displays railroads with their section names.

1918

American Automobile Association

- 1918 25.1577 **General Map of Transcontinental Routes with Principal Connections.** New York: American Automobile Association. ("Copyright 1912, 1913, 1914, 1916, 1918".)
▶ Routes are keyed to colored overprints in a variety of symbols. Crossing northern Arizona are shown "National Park-Park Hwy." with loop route between Flagstaff-Grandview-Grand Canyon-Anita-Williams, and the coincident

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

“National Old Trails Road” (omitting the Grand Canyon loop); in California, Nevada, and Utah between Needles–Searchlight–Las Vegas–St. Thomas–Toquerville is shown the “Arrowhead Trail”; and across southern Arizona are shown the “Southern Natational Hwy.” and “Old Spanish Trail”. Also of note on this map is the symbol at “**Grand Canyon of the Colorado**” marking “Bass Camp”, although with no connecting road delineated.

National Railway Publication Company

- 1918 25.1579 **General Railway Map Engraved Expressly for The Official Guide of the Railways and Steam Navigation Lines of the United States, Porto Rico, Canada, Mexico, and Cuba. Comprising Maps of the United States, Cuba, Porto Rico, the Philippines[,] etc. Published by the National Railway Publication Co.,[] 75 Church Street[,] New York.** (“Copyright, 1902-1903-1909-1915-1918, by the National Railway Publication Company, New York.”)
Library of Congress Copyright Office’s receipt copy is stamped with date “Jan 13 1919”.
▶ “Southern Pacific” route is delineated generally across southern Arizona. “Santa Fe” route is delineated generally across northern Arizona, with “San. Fe Gr. Can.” spur, Williams–Cota–Willaha–Anita–Coconino–Grand Canyon. “Colorado River” through “**Grand Canyon**” is delineated as encanyoned.

1919

Clason Map Company

- NO DATE 25.1580 **Clason’s Guide Map of United States Published by the Clason Map Co., Denver, Colo.** (“Copyrighted by the Clason Map Co. Denver, Colo.”)
Library of Congress Copyright Office’s receipt copy stamped with date “Oct –7 1919”.
▶ “National Old Trails Road” and “A. T. & S. F. Ry.” are delineated across northern Arizona, with “G. C. Ry.” spur between Williams and Grand Canyon at “**Grand Canyon Nat. Park**”. Roadway shown from east of Flagstaff around eastern side of San Francisco Peaks to Grand Canyon, and between there and east of Williams. “Dixie Overland Highway” is shown crossing the Colorado at Yuma.

Westgard, A. L.

- 1919 25.615 **Arizona and New Mexico : local and through routes : showing topography, Indian reservations and pueblos, national parks and monuments. With digest of hunting and fishing regulations.** Washington, D.C., and New York: American Automobile Association, Touring Information Board, 1 sheet, two sides, scale ca. 1:1,362,240. (“Compiled and drawn by A. L. Westgard.”)
▶ This is the first AAA map to depict **Grand Canyon National Park**. “Grand View”, “El Tovar”, and “Bass Camp” are depicted as accessible by road. The “Monumental Highway” (today’s U.S. Routes 89 and 89A) is shown, which crosses the Colorado River at “Lee’s Ferry”.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1920

Anonymous

- 1920 25.1754 **New Series. Arizona.** ("Copyright, 1920.")
In: James, George Wharton, Burgoyne, Alan H., and Peake, Elmore Elliott, *The people's pictorial atlas of the world*. Cleveland, Ohio: R. C. Barnum Co., and Better Farming Association; Detroit, Michigan: F. B. Dickerson Co.; Toronto, Canada: Imperial Publishing Co., pp. 212-213.
▶ Despite the indication, "New Series", the cartography is reminiscent of older portrayals. On "Colorado River", "Marble Canon" is labeled between "Lees Ferry" and the confluence of "Kanab Canon Kanab Cr."; "**Grand Canon of the Colorado**" between that confluence and "Grand Wash". Downstream from there only "Black Canon" and "Pyramid Canon" are labeled.

American Automobile Association, Touring Information Board

- 1920 25.1578 **United States West Main-Traveled Routes. Showing Principal Highway in the Central and Western States.** New York: American Automobile Association, Touring Information Board.
Verso with map, "**General Map of United States West Main Automobile Routes**".
▶ Much cleaner typography as compared to American Automobile Association (1918, [ITEM NO. 25.1577](#)). Depicts principal routes only by lines drawn more boldly. The northern Arizona route includes a loop, Flagstaff-Grandview-Grand Canyon-Anita-Williams. It also shows a symbol at "**Grand Canyon of the Colorado**" marking "Bass Camp", although with no connecting road delineated.

Finley, John H.

- 1920 25.821 **Cañons of the Colorado.**
In: Finley, John H. (ed.-in-chief), *Nelson's perpetual loose-leaf encyclopaedia : an international work of reference*. New York, London, Edinburgh, Toronto, Melbourne, Paris, and Bombay: Thomas Nelson and Sons, 618+ pp. [Map is on p. 247A.]

1923

U.S. General Land Office

- 1923 25.1575 **Department of the Interior Hubert Work, Secretary General Land Office William Spry, Commissioner United States including territories and insular possessions showing the extent of public surveys[,] national parks and monuments, Indian, military, bird and game reservations, national forests, railroads, canals, and other details compiled under the direction of I. P. Berthrong, Chief of Drafting Division 1923.** ("Scale 37 Miles to 1 Inch".) ("Corrected to June 30 1923 by M. Hendges".) ("Engraved by R. F. Bartle & Co., Washington, D.C.") ("Printed by the U.S. Geological Survey".)
▶ Depicts Township and Range sections. Along "Colorado River" region in Arizona are shown "**Grand Canyon Nat'l Game Preserve**", "Kaibab Nat'l Forest", "**Grand Canyon National Park**", "Havasupai Ind. Res.", "Dixie Nat'l Forest", "Hualapai Indian Res.", "Fort Mohave Ind. School Res.", "Chemehuevis Valley Indian Reserve", "Colorado Riv. Ind. Reserve", "Yuma Ind. Res." In "Lower California", Volcano Lake is labeled "L. Lululu".

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

From this point, "Grand Canyon" labels on maps are *not regularly indicated* by **bold** lettering in this cartobibliography, such regular indicators now being wholly superfluous—although a few nomenclatural variants are indicated. Only maps that specifically pertain to Grand Canyon, or that by definition display Grand Canyon in a meaningful way, are cited.

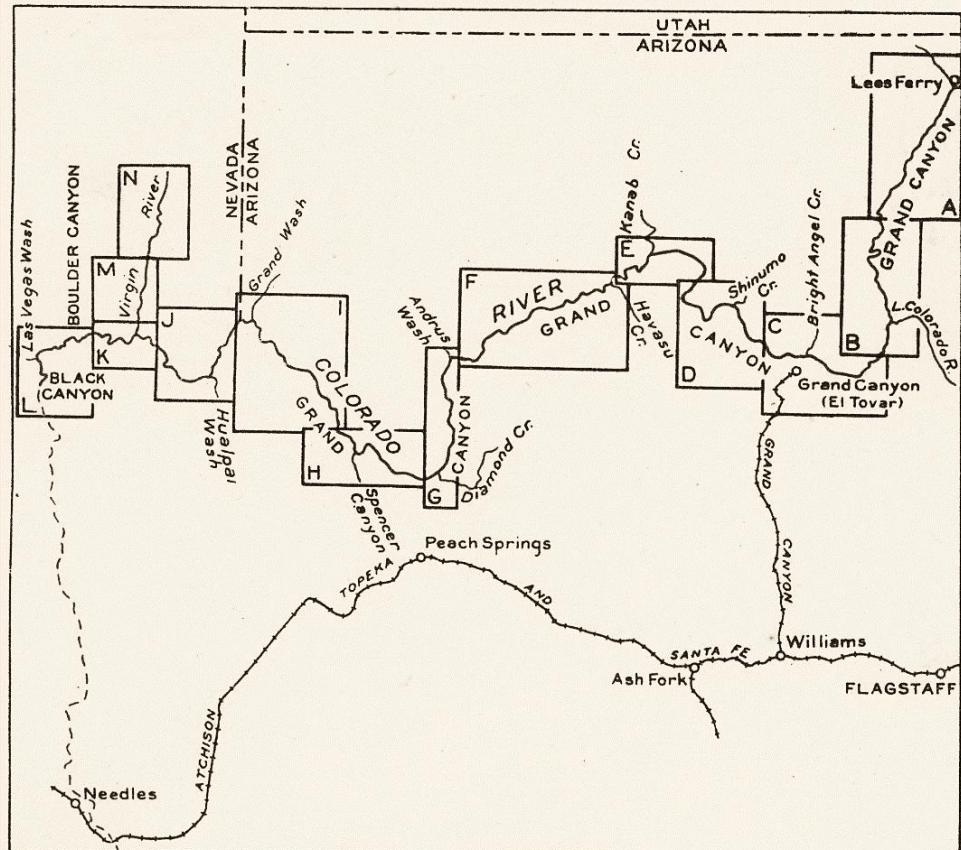
1924

Birdseye, Claude H.

1924 10.119

Plan and profile of Colorado River from Lees Ferry, Ariz., to Black Canyon, Ariz.-Nev., and Virgin River, Nev. (Topography by R. W. Burchard and C. H. Birdseye.) U.S. Geological Survey, 21 sheets consisting of 14 plans (maps, sheets A-N, scale 1:31,680, contour interval 50 feet, contour interval on river surface 5 feet; *see key below*) and 7 profiles (sheets O-U, scale 1:81:680, vertical scale 1 inch = 20 feet).

Full set displays Colorado River Miles 0-356, and Virgin River Miles 0-28. Virgin River, between Colorado River and Muddy Creek, plans on sheets K, M, N. "Mileage [on Colorado River] is measured [downstream] from U. S. G. S. concrete gage well opposite mouth of Paria River".



KEY MAP OF PLAN SHEETS

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1925

Hedin, Sven

- 1925 25.854 **Karta över Grand Canyon i Arizona.** [In Swedish.]
In: *Grand Canyon*. Stockholm: Albert Bonniers Förlag, 295 [297] pp. [This fold-out map is affixed to leaf corresponding to p. [299] in advance of the rear free flyleaf.]

Yard, Robert Sterling

- 1925 25.954 Grand Canyon, Zion and Bryce.
In: Kane, John Francis (ed.), *Picturesque America : its parks and playgrounds An illustrated volume with special articles contributed for park and playground sections and numerous selections from the works of well known authors expressing the varied appeal of out-doors in America*. New York: Resorts and Playgrounds of America, pp. 108-117, 118-124, fold-out **MAP**.

1926

Freytag & Berndt [firm]

- 1926 24.867 **Übersicht von Nord_Amerika nach den geologischen Vermessungen von Canada, der Vereinigten Staaten und anderen Quellen.** (Caption: "Nord_Amerika".) ("Berghaus' Physikal. Atlas N^o 13.") ("Entw. v. Herm. Berghaus 1886, Ausg. 1887.") ("Nebenkarten gez. v. M. Risch.") [In German.]
► Geological map. The main map restricts labeling principally to large-scale geographical features and does not label rivers; in the area of interest here only "Colorado Plat." appears across the Grand Canyon area.
An **INSET MAP**, "Cañons des Colorado 1:5000 000" provides some rather antiquated labeling: "Grand Cañon" appears in the western Grand Canyon, while "Marble Cañon" is in the area between the confluences of "Colorado Chiquito" and "Kanab Cañ." Most physiographic features and the course of "Rio Colorado" are correct, but while "Cataract Cr." is correctly delineated, "Parke" Cr." parallels it just to the east, passing around the west side of "Red Butte" before turning northeastward to reach the Colorado.

Hedin, Sven

- 1926 25.855 **Sonderkarte des Gran Cañon in Arizona.** [In German.]
In: *Gran Cañon : Mein Besuch im amerikanischen Wunderland*. Leipzig: F. A. Brockhaus, 245 pp. [Translation of Hedin (1925).]
The fold-out map is laid in with cloth strap inside rear cover.

U.S. Geological Survey

- 1926 25.561 **Map of Grand Canyon National Park.** [No place]: U.S. Geological Survey, 1 sheet. ("Courtesy of the National Park Service".)
Shaded-relief map, with relief shades in gray and rose, and green forestry overprinting; displaying roads, railroad, and place names. 8 × 14½ inches. Scale approximately 0.2 inch = 1 mile.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1927

Fischer, Alois

- 1927 25.2446 **Vereinigte Staaten v. Amerika und Mexico.** [In German.]
In: Fisher, Alois (ed.), *Prof. Hickmann's geographisch-statistischer Universal-Atlas : 1927 : vollständig neubearbeitet von Alois Fischer.* Wien: G. Freytag & Berndt A. G. Scale 1:30,000,000.
► "R. Colorado" is delineated, with "**Gr. Canon d. Colorado**" labeled between the confluences of Green and Grand Rivers and the central part of Grand Canyon.

Hedin, Sven

- 1927 25.856 **Sonderkarte des Gran Cañon in Arizona.** [In German.]
In: *Gran Cañon : Mein Besuch im amerikanischen Wunderland.* Leipzig: F. A. Brockhaus, 2nd ed., 245 pp. [Translation of Hedin (1925).]
The fold-out map is laid in with cloth strap inside rear cover.

U.S. Geological Survey

- 1927 24.386 (WITH U.S. National Park Service) **Topographic map of the Grand Canyon National Park, Arizona (east half).** U.S. Geological Survey, 1 sheet, scale 1:48,000, contour interval 50 feet. ("Topography by Francois E. Matthes and Richard T. Evans. Surveyed in 1902-1923.") [Reprinted 1948.]
- 1927 24.387 (WITH U.S. National Park Service) **Topographic map of the Grand Canyon National Park, Arizona (west half).** U.S. Geological Survey, 1 sheet, scale 1:48,000, contour interval 50 feet. ("Topography by Francois E. Matthes and Richard T. Evans. Surveyed in 1902-1923.") [Reprinted 1948.]
- 1927 24.817 (WITH U.S. National Park Service) **Topographic map of the Grand Canyon National Park, Arizona (east half).** U.S. Geological Survey, 1 sheet, scale 1:48,000. ("Topography by Francois E. Matthes and Richard T. Evans. Surveyed in 1902-1923.") [Variant. Lacks contour lines; only drainages and geographic features are displayed.] [Reprinted 1948.]
- 1927 24.818 (WITH U.S. National Park Service) **Topographic map of the Grand Canyon National Park, Arizona (west half).** U.S. Geological Survey, 1 sheet, scale 1:48,000. ("Topography by Francois E. Matthes and Richard T. Evans. Surveyed in 1902-1923.") [Variant. Lacks contour lines; only drainages and geographic features are displayed.] [Reprinted 1948.]

1928

Hedin, Sven

- 1928 25.857 *Восьмое чудо света : Большой Каньон* [*Vos'moe chudo sveta : Bol'shoi Kan'on*]. [The eighth wonder of the world : Grand Canyon.] (С. П. Кублицкой-Пиоттух [S. P. Kublitskoï-Piottukh], translator.) Москва и Ленинград [Moscow and Leningrad]: Государственное Издательство [Gosudarstvennoye Izdatel'stvo] [State Publishing House], 161 pp. [In Russian.]
NOTE: The publisher is most often cited in abbreviated format, "Гос. изд-во" [Gos. izd-vo].

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Translation of Hedin's *Grand Canyon*, although it is not determined here whether the translation was made from the 1925 Swedish ed. or the 1926 German translation. Not seen, thus uncertain whether this ed. includes the **MAP**. Author's name in Cyrillic characters is Свен Хедин.

1930

Anonymous

- 1930 25.751 Swinging stage used to make giant map. *Popular Science Monthly*, 117(2) (August): 43.
63-foot physiographic map of United States at Babson Institute, Wellesley, Massachusetts; photo depicts "E. Le Roy Nichols . . . finishing Grand Canyon block."

Eddy, Gerald A.

- NO DATE 25.218 **Two wonders of the world : Grand Canyon—nature's masterpiece : Boulder Dam—man's greatest engineering achievement : connected by the largest artificial body of water in the world—Lake Mead. Where to go and what to do in the Boulder Dam-Grand Canyon area.** Boulder City, Nevada: Grand Canyon-Boulder Dam Tours, Inc. [1930s.] [**MAP.**]

1931

Howell, Edwin E.

- 1931 24.783 **Grand Canyon of the Colorado and the cliffs of southern Utah.** [No place]: U.S. Geological Survey, 3-dimensional map, topography with colored time-stratigraphic outcrop markings, vertical and horizontal scales 1 inch = 2 miles (1:126,720). ("Modelled by E. E. Howell from maps of the United States Geological and Geographical Survey [*sic*] by J. W. Powell; revised by F. T. Thwaites and Fred Wilhelm in 1931 from geological maps of Arizona 1924 and Utah 1918".)
For original see Howell (no date [1875], **ITEM NO.** [24.309](#)), which is also illustrated there.

Mora, Jo

- NO DATE 25.68 **Grand Canyon.** Monterey, California: Jo Mora Publications.
Cartoon physiographic map. A reduced-size reprint of Mora (1931). **A copy of the reprint was purchased new in 1995.**
- 1931 25.69 **Grand Canyon.** Monterey, California: Jo Mora Publications.
Cartoon physiographic map.

1935

Fred Harvey [firm]

- NO DATE 25.2458 **Southwest outings : New Mexico—Arizona—Colorado.** [No place]: Fred Harvey. [**Ca. 1935.**]
Folded pamphlet produced by U.S. National Park Service, with verso map, which there contains an inset map, "**Grand Canyon National Park and Vicinity**". 16 × 18 inches, with pictorial vignettes.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Taylor, Ruth

- 1935 25.1690 [Maps.]
In: Taylor, Frank J., and Taylor, Ruth, *Our U.S.A. : a gay geography*. (Text by Frank J. Taylor, maps by Ruth Taylor.) Boston: Little, Brown and Co., 113 pp.
Full-page cartoon-illustrated maps for the 48 states and American possessions. See Arizona (map 13).
NOTE: The volume scarcely appears in the used-book market, as many dealers have broken the volumes in order to sell individual maps at a premium.

1936

Lindgren, Jolly [Lindgren, Hjalmer]

- 1936 25.351 **A hysterical map of Grand Canyon National Park : a mile deep and ever so wide : where Mother Nature started from scratch.** Spokane, Washington: Lindgren Brothers, 1 sheet.

1940

Haack, W., AND Lautensach, H.

- 1940 25.2440 **Verinigte Staaten, Mittelamerika, Westindien.** ("Gotha: Justus Perthes".) ("Sydow-Wagners method. Schul-Atlas Nr. 56".) ("Bonne'sche Projektion. Radius des 30. Parallelkreises (in Proj. u. MBstb. d. Karte 1:20000000) = 553 mm".) [In German.]
In: *Sydow-Wagners methodischer Schul-Atlas : 21. Auflage.* Gotha: Justus Perthes.
▶ "Green R." and "Grand R.", with "Colorado" downstream, are delineated as encanyoned. The label "**Cañon des Colorado**" appears on the reach between the Grand-Green confluence and the confluence of "Kl. Colorado" (Little Colorado River). Note that the Colorado does not follow the course of the Grand River, which had been renamed two decades earlier. A line crossing the river, with the label "Staudamm", appears at Boulder Canyon (not labeled), thus conveying old data for the location of what was, in 1940, the completed Hoover Dam in Black Canyon. The routes of the Santa Fe and the Southern Pacific railways are delineated.

Lindgren, Jolly [Lindgren, Hjalmer]

- 1940 25.141 **A hysterical map of Grand Canyon National Park : a mile deep and ever so wide : a swell place to throw your old razor blades.** Spokane, Washington: Lindgren Brothers, 1 sheet.

1943

Birdseye, Claude H.

- 1943 10.120 **Plan and profile of Colorado River from Lees Ferry, Ariz., to Black Canyon, Ariz.-Nev., and Virgin River, Nev.** (Topography by R. W. Burchard and C. H. Birdseye.) U.S. Geological Survey, 21 sheets.
Reprint of Birdseye (1924) but also noting, "Printed 1924".

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

U.S. Coast and Geodetic Survey

- 1943 25.104 **Grand Canyon sectional aeronautical chart.** Washington, D.C.: U.S. Coast and Geodetic Survey, under authority of the Secretary of Commerce, 1 sheet, scale 1:500,000, contour intervals 1,000 and 2,000 feet; marked "Restricted" due to wartime conditions. Quadrangle 36°-38°N, 108°-114°W. [Other printings.]

1944

U.S. National Park Service

- 1944 25.136 **National park location map no. 6 : southwestern states.** [No place]: U.S. National Park Service, folded pamphlet. (Drawn by J. J. Black, June 1944. Printed by Cullom and Ghertner Co., Nashville, Tennessee, "50M-7-14-44".)
Map embraces Oklahoma, Texas, Colorado, New Mexico, Utah, and Arizona. Text and illustrations on verso of opened pamphlet. Cover illustration depicts Colorado River and Inner Gorge of Grand Canyon at Bright Angel Creek.

1946

Fred Harvey [firm]

- 1946 25.133 **Illustrated map of the great Southwest : including points of interest in New Mexico and Arizona.** Fred Harvey Co. ("F.G." credit.)
Includes one inset, showing "**Grand Canyon National Park and Vicinity**". Variant of Fred Harvey (ca. 1935).

1950

Bloodgood, Don

- NO DATE 25.514 **Your souvenir pic-tour map of Arizona : where to go . . . what to see.** Phoenix: Petley Studios, Inc., 1 sheet. [Ca. 1950.] [Ellipsis is part of title.]

1955

U.S. Coast and Geodetic Survey

- 1955 25.116 **Visitor's guide to Grand Canyon National Park : South Rim.** U.S. National Park Service, 1 sheet.

1958

Egloffstein, F. W. von [Egloffstein, Friedrich Wilhelm von]

- 1958 25.224 **Rio Colorado of the West.** U.S. Army, Corps of Engineers, 1 sheet.
Facsimile reproduction of "Map No. 2. Rio Colorado of the West", shaded relief (depicting region from head of navigation of Colorado River to Fort Defiance, including Grand Canyon), which was originally published in Joseph C. Ives, *Report upon the Colorado River of the West, explored in 1857 and 1858* (U.S. 30th Congress, 1st Session, House Document 90, Serial 1058), 1861.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Fred Harvey [firm]

- 1958 25.2459 **Illustrated map of the great Southwest : including points of interest in New Mexico and Arizona.** Fred Harvey Co. ("F.G." credit.) ("Alco-Gravure, Inc. K.C. Mo.")
Includes one inset, showing "**Grand Canyon National Park and Vicinity**".
Variant of Fred Harvey (ca. 1935); 14 × 22 inches; map printed with brown ink background with white lines.

1959

U.S. Army Corps of Engineers, Map Service

- 1959 25.205 **Grand Canyon.** Washington, D.C.: U.S. Army Map Service (distributed by U.S. Geological Survey, Denver). ("Compiled in 1959 from Western United States, 1:250,000, AMS sheets NJ 12-1 through NJ 12-12, 1953-55".)

Wilson, Eldred D.; Moore, R. T.; et al.

- 1959 24.210 **Geologic map of Mohave County, Arizona.** Arizona Bureau of Mines, scale 1:375,000.

1960

Moore, Richard T.; Wilson, Eldred D.; AND O'Haire, R. T.

- 1960 24.143 **Geologic map of Coconino County, Arizona.** Arizona Bureau of Mines, scale 1:375,000.

U.S. Army Corps of Engineers, Map Service

- 1960 25.206 **Grand Canyon.** Washington, D.C.: U.S. Army Map Service. ("Western United States, 1:250,000"; "NJ 12-10".)
1960 25.207 **Grand Canyon.** Washington, D.C.: U.S. Army Map Service, scale 1:1,000,000. ("AMS sheets NJ 12-1 thru NJ 12-12, 1953-55".)

1961

Maxson, John H.

- 1961 24.382 **Geologic map of the Bright Angel quadrangle, Grand Canyon National Park, Ariz.** Grand Canyon Natural History Association, Map No. 1, 1 sheet, scale 1:48,000, contour interval 50 feet. ("Topography by Francois T. Matthes, 1902-1903; United States Geological Survey; Culture as of 1962".)
Text on verso: "Geologic History of the Bright Angel Quadrangle".]

1962

Akers, J. P.; Irwin, J. H.; Stephen, P. R.; AND McClymonds, N. E.

- 1962 24.1 **Geology of the Cameron quadrangle, Arizona, with a section on uranium deposits, by W. L. Chenoweth.** *U.S. Geological Survey, Geological Quadrangle Map GQ-162.*

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Jones, Leslie Allen [Jones, Les]⁴⁴

1962 10.14 [Les Jones' scroll map of the Colorado River in Grand Canyon.] Heber City, Utah: Leslie Allen Jones [Western Whitewater Co.], continuous scroll, photostatically reproduced, scale ca. 1:33,500. [Later issued by Jones from Midway, Utah.] [Numerous variants without date change; no complete compendium yet exists.]

All maps were reproduced on an as-needed basis. Earlier variants blue-line reproduced on roll paper, later variants reproduced in black on more water-resistant and sturdier roll stock such as Mylar.

No title *per se* and often referred to as "Les Jones' Scroll" or "the Les Jones Scroll". Library catalog records generally record catalogers' contrived titles; for example, "Grand Canyon river guide scroll map", "Grand Canyon", "Grand C.", and "Rafting map of Colorado River and Grand Canyon from Lees Ferry, Arizona to Diamond Creek". Start of scroll notes, "This map is by Leslie A. Jones, 1962". Separate sheet, "Handling Instructions", notes "Copyright 1960". Distributed in plastic bag with instructions on use in bag so as to allow continuous scrolling while on the river. Note that the earlier reproductions on paper were subject to rapid fading in sunlight.]

• Jones' Grand Canyon map is based on the U.S. Geological Survey's 1924 *Plan and profile of Colorado River from Lees Ferry, Ariz., to Black Canyon, Ariz.-Nev., and Virgin River, Nev.* (see Birdseye, 1924, ITEM NO. 24.46); the separate Birdseye plans and profiles are reproduced in continuous parallel views. Profusely annotated by Jones with ratings of rapids, notes of river flows during historic trips, miscellaneous historical notes and notes from trips taken by Jones, occasional inset sketch maps of rapids with boat run lines at the times when mapped, and geological notes. Also noted for this citation is a table of data for a kayak run of the river, Lees Ferry to Pearce Ferry, September 1962 (table in two separate sections on scroll). Annotations emended occasionally, sometimes with keyed dates affixed.

Other specifically interesting annotations, added after 1962, include table, "All time record low water run: 1000 cfs very fine rock exposed", October 1963; table appears in two separate sections on scroll. Scroll concludes with graphical data for river flows according to weeks of the year.

Widths of scrolls can vary between ca. 7-10 inches, depending upon the amount of free space on the medium used. Variants include coverage Lees Ferry to

⁴⁴ Jones privately produced numerous sheet and scroll maps for use on various western rivers. All maps were produced on an as-needed basis. Those that relate specifically to the area covered by this Cartobibliography are cited here. Information significantly contributing to these citations and this note was obtained from Richard D. Quartaroli in January/February 2020. Two price lists from Jones, dated March 20, 1982, and July, 1989, indicate products that were available at those times. The known set of maps are (quoted from the price lists and *numbered here for convenience not as record*; Grand Canyon products noted in **bold**):

1982 LIST — "Colorado River Basin": [1] "Desolation-Red C." [and] "Lodore-Split Mtn.", [2] Moab-Green R., [3] "Westwater Canyon (Granite C. to Moab)", [4] "Cataract Canon (From Moab)", [5] "**Grand Canyon**", [6] Yampa River (Maybell-Echo Park), [7] "Dolores River (Dolores to Colo. River)". "Oregon Rivers": [8] "Rogue River", "Mc Kenzie River" [*sic*]. "Idaho-Wyo. Snake River Basin": [9] "Lt. Gr. C. of Snake (Moran to Alpine)", [10] "Hells C. (Snake River)", [11] "Middle Fork of Salmon", [12a] "Main Salmon" (12-inch-wide scroll), [12b] "Main Salmon" (5-inch-wide scroll), [13] "Selway, Lochsa, Clearw.". "British Columbia-Canada": [14] "Columbia River (Golden-Revelstoke)".

1989 LIST — "Colorado R. Basin": [1] "Yampa River, Maybell thru Cross Mtn.", [2] "Blue Mtn. C. to Echo Park"; [3] "Green & Colorado R. Red C., Lodore, Split Mtn."; [4] "End Split Mtn.-Sand Wash", [5] "Desolation & Grey Canyons", [6] "Moab-Green R. City (Canyons)", [7] "Westwater C. (Westw.-Moab)"; [8] "Colorado River, Cataract Canyon.: Moab-Dark C.", [9] "**Grand C.: Lee's Fy.-Diamond Cr.**", [10] "**Grand C.: Diamond Cr.-Lake Mead**" [this is the "Lower Granite Gorge" map noted as ITEM NO. 10.115 in THE GRAND CANON Volume 2]; [11] "San Juan River, Chinle Cr.-Lake Powell". "Snake River Basin": [12] "Moran to Jackson: Snake R.", [13] "Hoback & Greys Rrs & Little Grand C. of the Snake", [14] "Palisades Res. & Swan Valley", [15] "Hell's C.: Brownley-Lewiston", [16] "Selway: Whitecap Cr.-Lochsa R.", [17] "Lochsa R.: Crook Cr.-Mouth", [18] "Clearwater: Lochsa R.-Mouth". "Salmon R. Basin" [19] "Middle Fk. of Salmon 1990", [20] "Salmon: M. Fk.-Vinegar Cr.". "Oregon Rivers": [21] "Rogue River to the Ocean", [22] "McKenzie River".

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Diamond Creek (a 1995 reproduction, a signed copy acquired by Spamer in 1995, measures 6¾ inches × 29 feet, 4 inches). Other measurements noted from library catalog records are: Lees Ferry to Lake Mead, Temple Bar (7 inches × 43 feet, 4½ inches); and Lees Ferry to Lake Mead, Overton Arm (8 inches × 51 feet, 5 inches).

- *Other points* (taken from the 1995 variant noted above) — Scroll head notes: “Western Whitewater Snake, Salmon, Colorado, Green, Madison, Yellowstone, Missouri; ride the wilderness whitewaters in reverence before God—with a prayer his strength will be in you—Leslie Allen Jones, 3451 N. River Rd., Midway, Utah, 84049”. “Whitewater exploration and mapping—Colorado Basin”. Start of scroll headed “To: (226 mi.) Diamond Cr.” The 1995 production seems to have been prepared in order to add notations of photo numbers from the Grand Canyon “Legends” river trip of September 1994 (also known as the “Old Timers Trip”). An asterisk notes on the margin, “The Grand Canyon Continuous Photo Album Set is available at the Historical Libraries: Cline Library, Flagstaff, Az., BYU [Brigham Young University], Utah, Univ. of Utah, and from Leslie A. Jones”.

- Richard Quartaroli’s partial record (January/February 2020) of Jones scrolls notes for Grand Canyon the following variants (numbered here for convenience and not for record, parenthetical dates indicate dates interpreted from annotations): [1] Lees Ferry to Virgin River, Colorado River miles 0-330, 1962 (1963?), 11¼-inch paper; [2] Lees Ferry to Virgin River, miles 0-330, 1962 (1964), 7¾-inch paper; [3] Lees Ferry to Lake Mead, miles 0-315, 1962 (1963), 7-inch Mylar; [4] Lees Ferry to Lake Mead, miles 0-315, 1962 (1965), 7½-inch Mylar; [5] Lees Ferry to Diamond Creek, 0-226, 1962 (1995), 6½-inch Mylar; [6] Lees Ferry to Diamond Creek, 1962 (1995), 8½-inch Mylar. Quartaroli also reports (July 2020) [7] a poorly reproduced 7-inch Mylar scroll with many splices that had been acquired by a previous user in 2001, with signs of having been used on the river, which *begins* at Spring Canyon, and at the end of which is the labeling and notations, “Lower Granite Gorge: Grand C. M.P. 225.5 → 246.5 11.2’/mi. : L. Mead Silting In Begins Abv. Separation Rapid: M. P. 240” and “Out → Temple Bar”.

1963

Weschow, Karl

1963 25.216 **Grand Canyon.** Munich: Karl Weschow GmbH, for Denoyer-Geppert Co., Chicago, anaglyph with viewing glasses.

1966

Birdseye, Claude H.

NO DATE 10.118 **Plan and profile of Colorado River from Lees Ferry, Ariz., to Black Canyon, Ariz.-Nev., and Virgin River, Nev.** Oakland, California: American River Touring Association, 1 map and 1 profile on 8 sheets, and mileage schedule sheet; scale [ca. 1:63,360]. [1966?] Reproduction from Birdseye (1924) at about one-half original size but without correcting the stated 1:31,680 scale.

Maxson, John H.

1966 24.383 **Geologic map of the Bright Angel quadrangle, Grand Canyon National Park, Ariz.** Grand Canyon Natural History Association, Map No. 1, 1 sheet, scale 1:48,000, contour interval 50 feet. 2nd ed., revised. (“Topography by Francois T. Matthes, 1902-1903; United States Geological Survey; Culture as of 1962”.) Text on verso: “Geologic History of the Bright Angel Quadrangle”.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Nightingale, Constance

1966 25.266 **Map of the Grand Canyon of the Colorado River.** [Grand Canyon, Arizona]: Kolb Studios, 1 sheet.

U.S. Army Topographic Command

NO DATE 25.211 **Grand Canyon.** U.S. Army Topographic Command. (From Western United States 1:250,000 series, Edition 2-AMS, sheet NJ 12-10, 1966).

1967

Cooley, M. E.

1967 24.54 **Arizona highway geologic map.** Arizona Geological Society, scale 1:1,000,000, 1 sheet. (Text on verso, "The geologic history of Arizona"; also "Physiographic map of Arizona" [with scenic sketches and accompanying text to sketches by J. F. Lance] and "Maps showing stages of the geological evolution in Arizona through time".)

Maxson, John H.

1967 24.135 **Preliminary geologic map of the Grand Canyon and vicinity, Arizona. Eastern section.** Grand Canyon Natural History Association, scale 1:62,500.

U.S. Bureau of Reclamation, Region 3

1967 25.563 **Map and operational diagram : lower Colorado River : Lees Ferry to Gulf of California.** [No place]: U.S. Bureau of Reclamation, 1 sheet (revised June 1967), [no scale]. ("Supersedes 432-306-183".)

U.S. Geological Survey

1967 24.819 **Grand Canyon National Park and vicinity, Arizona.** U.S. Geological Survey, 1 sheet, scale 1:62,500, contour interval 80 feet with 40-foot supplementary contours. ("Compiled in 1967 from 1:62,500 scale maps dated 1954 and 1962 and by photogrammetric methods from aerial photographs taken 1951, 1954, 1958, and 1960.")
Date shown with map name in lower right of sheet: 1962. [Also reprints.]
[Original park size, prior to Grand Canyon Enlargement Act of 1975.]

1967 24.820 **Bright Angel quadrangle, Arizona—Coconino Co. : 15 minute series (topographic).** U.S. Geological Survey, 1 sheet, scale 1:62,500, contour interval 80 feet with 40-foot supplementary contours, *shaded relief*. ("Topography and photogrammetric methods from aerial photographs taken 1954 and 1960. Field checked 1962".)
Label in lower right: "Bright Angel, Ariz.", "1962 minor corrections made 1967".

1968

Fletcher, Colin

1968 25.1257 ***The man who walked through time.*** New York: Alfred A. Knopf, 239 [242] pp., map. [First printing; copyright 1967, dust jacket front leaf indicates "1/68".]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Fold-out **MAP**, "Grand Canyon National Park", following p. [242], depicts "Colin Fletcher's Route". "Map by Evelyn Bingham". Map printed on thin paper, physiography shown in orange-brown, with black lettering and route line.

Hamblin, W. Kenneth, AND Rigby, J. Keith

- 1968 10.98 **Guidebook to the Colorado River, Part 1: Lee's Ferry to Phantom Ranch in Grand Canyon National Park; with notes on aboriginal cultures by R. T. Matheny, and on biological features by J. R. Murphy.** *Brigham Young University, Geology Studies*, 15(5), Studies for Students, (4), 84 pp. (*Studies for Students*: Brigham Young University, Department of Geology.) ("Distributed October 1, 1968" [title-page verso].)
Cover: "Brigham Young University Geology Studies Volume 15 - Part 5 - 1968 Studies for Students No. 4 Guidebook to the Colorado River, Part 1: Lee's Ferry to Phantom Ranch in Grand Canyon National Park"; blue wraps, faded background illustration.
Map views are annotated aerial photographs.

Maxson, John H.

- 1968 24.384 **Geologic map of the Bright Angel quadrangle, Grand Canyon National Park, Ariz.** Grand Canyon Natural History Association, Map No. 1, 1 sheet, scale 1:48,000, contour interval 50 feet. 3rd ed., revised. ("Topography by Francois T. Matthes, 1902-1903; United States Geological Survey; Culture as of 1962".)
Text on verso: "Geologic History of the Bright Angel Quadrangle".

Péwé, Troy L.

- 1968 10.100 **Geologic and geographic guide book of the Colorado River from Lees Ferry to Phantom Ranch.** Tempe, Arizona: Arizona State University, paginated [1]-2, [plate], 3-19, [plate], [3]. [Mimeographed. Stated "First Edition".]
Cover title: **Colorado River guidebook : Lee's Ferry to Phantom Ranch.**

1969

Belknap, Buzz [Belknap, William, III]

- 1969 10.4 **Powell centennial : Grand Canyon river guide : river map, historic photographs, Major Powell's own story : special river runners waterproof edition.** New York, Salt Lake City, and San Francisco: Canyonlands Press, [48] pp.
Printed on water-resistant paper, wraps same stock as text; spine both string-stitched and saddle-stapled.
- 1969 10.5 **Grand Canyon river guide.** Boulder City, Nevada: Westwater Books, [48] pp. (Powell Centennial.) [Printed on water-resistant paper but cover omits "waterproof edition" comment that appears in the Canyonlands Press ed. (ITEM NO. 10.4), covers heavier stock than text; perfect-bound. Various printings.]

Hamblin, W. Kenneth, AND Rigby, J. Keith

- 1969 10.146 **Guidebook to the Colorado River, Part 1: Lee's Ferry to Phantom Ranch in Grand Canyon National Park; with notes on aboriginal cultures by R. T. Matheny, and on biological features by J. R. Murphy.** *Brigham Young University, Geology Studies*, 15(5), Studies for Students, (4), 2nd ed., 84 pp. (Title-page verso notes, "Distributed April 5, 1969"; reprintings in July 1970, July 1972, May 1974, April 1978, April 1982, December 1996.) (*Studies for Students*: Brigham Young University, Department of Geology.)
Data on printings *fide* Richard Quartaroli.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Cover: "Guidebook to the Colorado River Part 1: Lee's Ferry to Phantom Ranch in Grand Canyon National Park"; blue wraps, faded background illustration.
Map views are annotated aerial photographs.

- 1969 10.99 **Guidebook to the Colorado River, Part 2: Phantom Ranch in Grand Canyon National Park to Lake Mead, Arizona-Nevada.** *Brigham Young University, Geology Studies*, 16(2), Studies for Students, (5), 126 pp. (*Studies for Students*: Brigham Young University, Department of Geology.) (Title-page verso notes, "Distributed April 5, 1969"; reprintings in June 1970, April 1972, May 1973, August 1979, April 1982, December 1996.)
Data on printings *fide* Richard Quartaroli.
Cover: "Guidebook to the Colorado River Part 2: Phantom Ranch in Grand Canyon National Park to Lake Mead, Arizona-Nevada"; yellow wraps, faded background illustration.
Map views are annotated aerial photographs.
NOTE: Part 3 is extralimital to this Cartobibliography: "Guidebook to the Colorado River, Part 3: Moab to Hite, Utah[,] through Canyonlands National Park", by J. Keith Rigby, W. Kenneth Hamblin, Ray Matheny, and Stanley L. Welsh, *Brigham Young University, Geology Studies*, 18(2), Studies for Students, (6), 91 pp., 1971.

Konferenz der kantonalen Erziehungsdirektoren

- 1969 25.2420 *Schweizerischer Mittelschulatlas : herausgegeben von der Konferenz der kantonalen Erziehungsdirektoren, Fünfzehnte Auflage, 1969.* (Bearbeitung und Originalzeichnung, Eduard Imhof; Kartentechnische Erstellung und Druck, Art. Institut Orell Füssli AG, Zürich.) Zürich: Zu beziehen durch den Lehrmittelverlag des kantons Zürich. [Schweizerische Konferenz der kantonalen Erziehungsdirektoren (Swiss Conference of Cantonal Directors of Education).] **[In German.]**
See "**Vereinigte Staaten und Mexiko**", pp. 114-115. Shaded relief map.
▶ The course of "Colorado" through the Grand Canyon is oddly generalized. The label, "**Cañon des Colorado**" is positioned between the western Grand Canyon and southeastern Utah. "Ind.-Res." is labeled twice on the area embracing southeast Utah/southwest Colorado and northeastern Arizona/northwestern New Mexico, without boundaries; similarly "Ind.-R" is labeled where the Hualapai Indian Reservation is located, also without boundary, and no other reservation is shown in the area of interest to this cartobibliography.

Maxson, John H.

- 1969 24.136 **Preliminary geologic map of the Grand Canyon and vicinity, Arizona. Western and central sections.** Grand Canyon Natural History Association, scale 1:62,500.

Péwé, Troy L.

- 1969 10.101 **Colorado River guidebook : a geologic and geographic guide from Lees Ferry to Phantom Ranch, Arizona.** Tempe, Arizona: Troy L. Péwé, 2nd ed., 78 pp.

Wilson, Eldred D.; Moore, R. T.; AND Cooper, J. R.

- 1969 24.209 **Geologic map of Arizona.** Arizona Bureau of Mines, scale 1:500,000.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1971

California State Automobile Association

1971 25.23 **Death Valley and Grand Canyon.** San Francisco: California State Automobile Association, 1 sheet, scale 1:1,100,000.

Heiniger, Ernst A.

1971 25.858 **Anaglyphenkarte des Grand Canyon; Massstab 1:62 500.** [In German.]
In: Grand Canyon : Natur und Tierwelt in 157 Farbaufnahmen. Bern, Switzerland: Kümmerly and Frey Geographischer Verlag; and München, Bern, and Wien: BLV Verlagsgesellschaft, 236, [17] pp. (pagination continues through interleaved unpaginated leaves containing 157 photos); with anaglyphoscope.
MAP is between pp. [124]/[125] and is to be viewed with the anaglyphoscope producing a three-dimensional image.) [Red/green plastic-lensed cardboard anaglyphoscope accompanying the volume has printed on it: "KÜMMERLY & FREY—GRAND CANYON", with image of a thumb printed on right-hand side of the card. Also a card laid in, "Grand Canyon Bildlegenden", 10 × 29.5 cm, which is keyed to the map.

Sauck, W. A., AND Sumner, J. S.

1971 24.174 **Residual aeromagnetic map of Arizona.** University of Arizona.

1972

Kingsley, John; Colvin, Rodney G.; McIntyre, Joseph; Currey, Betty Ann; Menasco, Thomas; AND Currey, Jack L.

1972 10.9 **Pictorial color map of Grand Canyon : geology, history, points of interest, river and rapids.** Salt Lake City: River Map, 31 pp. (includes colored geologic map), scale 1:87,000. (Geological research and cartography by John Kingsley, Rodney G. Colvin, and Joseph McIntyre; historical research by Betty Ann Currey and Thomas Menasco; photography by Jack L. Currey; graphics by Bailey-Montague, Salt Lake City; printed by Paragon Press, Salt Lake City.)
River guide, despite generalized title. Includes fold-out leaves; pagination continues across individual folds.

U.S. Geological Survey

1972 24.821 **Grand Canyon National Park and vicinity, Arizona. Shaded relief edition of 1972.** U.S. Geological Survey, 1 sheet, scale 1:62,500, contour interval 80 feet with 40-foot supplementary contours. ("Compiled in 1967 from 1:62,500 scale maps dated 1954 and 1962 and by photogrammetric methods from aerial photographs taken 1951, 1954, 1958, and 1960.")
Date shown with map name in lower right of sheet: 1962.
Original park size, prior to Grand Canyon Enlargement Act of 1975.

Wegener, Bruce H.

1972 25.124 **Grand Canyon.** Evergreen Park, Illinois: Bruce Wegener, 1 sheet, scale 1:300,000.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1973

Heiniger, Ernst A.

- 1973 25.859 **Grand Canyon du Colorado : suite pour nature et faune en 157 images.** (Pierre Champendal, translator.) Paris: Elsevier Séquoia, 244 [285] pp. (pagination continues through interleaved unpaginated leaves containing 157 photos); with anaglyphoscope. [In French, translated from German.]
Red/green plastic-lensed cardboard anaglyphoscope accompanying the volume, for use with **MAP**, has printed on it: "KÜMMERLY & FREY—GRAND CANYON", with image of a thumb printed on right-hand side of the card.
See also remarks with Heiniger (1971, [ITEM NO. 25.858](#).)
Translation of Heiniger (1971, *Grand Canyon : Natur und Tierwelt in 157 Farbaufnahmen*. Bern, Switzerland: Kümmerly and Frey Geographischer Verlag; and München, Bern, and Wien: BLV Verlagsgesellschaft).

Rand McNally and Co.

- 1973 25.86 **Grand Canyon Village and vicinity. Fred Harvey services at Grand Canyon National Park, South Rim.** [Chicago]: Rand McNally and Co., 1 sheet.

U.S. Army Corps of Engineers, Map Service

- 1973 25.208 **Grand Canyon.** Washington, D.C.: U.S. Army Map Service, scale 1:1,000,000. ("AMS sheets NJ 12-1 thru NJ 12-12, 1953-55".)

U.S. Army Topographic Command

- 1973 25.228 **Marble Canyon, Arizona, Utah, 1956.** U.S. Geological Survey, 3rd ed., revised (from Western United States 1:250,000 series, sheet NJ 12-11).

1974

Péwé, Troy L.

- 1974 10.102 **Colorado River guidebook : a geologic and geographic guide from Lees Ferry to Phantom Ranch, Arizona.** Tempe, Arizona: Troy L. Péwé, 3rd ed., [1st printing], 79 pp.

1975

Egloffstein, F. W. von [Egloffstein, Friedrich Wilhelm von]

- 1975 25.225 **Rio Colorado of the West.** U.S. Army, Corps of Engineers, 1 sheet.
Facsimile reproduction of "Map No. 2. Rio Colorado of the West", shaded relief (depicting region from head of navigation of Colorado River to Fort Defiance, including Grand Canyon), which was originally published in Joseph C. Ives, *Report upon the Colorado River of the West, explored in 1857 and 1858* (U.S. 30th Congress, 1st Session, House Document 90, Serial 1058), 1861.

Heiniger, Ernst A.

- 1975 25.860 **Grand Canyon.** (Ewald Osers, translator.) Washington, D.C., and New York: Robert C. Luce Co., Inc., 240 pp. (pagination continues through interleaved unpaginated leaves containing 157 photos); with anaglyphoscope. [In English, translated from German.]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Red/green plastic-lensed cardboard anaglyphoscope accompanying the volume, for use with **MAP**, has printed on it: "KÜMMERLY & FREY—GRAND CANYON", with image of a thumb printed on right-hand side of the card.

See also remarks with Heiniger (1971, [ITEM NO. 25.858](#).)]

Translation of Heiniger (1971, *Grand Canyon : Natur und Tierwelt in 157 Farbaufnahmen*. Bern, Switzerland: Kümmerly and Frey Geographischer Verlag; and München, Bern, and Wien: BLV Verlagsgesellschaft).

Kistler Graphics, Inc.

- 1975 25.58 **Grand Canyon National Park.** Denver: Kistler Graphics, Inc., colored relief model, 44 × 44 cm, scale *ca.* 1:506,880, vertical ⅛ in. = 1000 ft. (Based on ERTS [Earth Resources Technology Satellite] photography.)

U.S. National Park Service

- 1975 25.117 **Sudseite der Nationalpark Grand Canyon, Arizona.** Washington, D.C.: U.S. National Park Service, scale *ca.* 1:275,000; with text on verso. [Also reprint, 1978.] [\[In German.\]](#)
- 1975 25.118 **El Borde Sur, Parque Nacional de Gran Canon, Arizona.** Washington, D.C.: U.S. National Park Service, scale *ca.* 1:275,000; with text on verso. [\[In Spanish.\]](#)

1976

Arrow Publishing Company

- 1976 25.14 **Metropolitan Phoenix, including state map of Arizona featuring Grand Canyon.** Distributed by Strong's News Agency, Glendale, Arizona, scale *ca.* 1:44,500.

California State Automobile Association, AND Automobile Club of Southern California

- 1976 25.25 **Death Valley and Grand Canyon.** San Francisco: California State Automobile Association, 1 sheet, scale 1:1,100,000.

Huntoon, Peter W.; Billingsley, George H., Jr.; Breed, William J.; Sears, J. W.; Ford, Trevor D.; Clark, Malcolm D.; Babcock, R. S.; Brown, E. H.; *et al.*

- 1976 24.93 **Geologic map of the Grand Canyon National Park, Arizona.** Grand Canyon Natural History Association, and Museum of Northern Arizona, 1 sheet, scale 1:62,500.
NOTE: Map embraces the limits of the national park prior to the Grand Canyon National Park Enlargement Act (88 Stat. 2089). Later revisions of this map note as "eastern Grand Canyon National Park".
This and other eds. is the so-called "Blue Dragon" map.

Pacific Southwest Inter-Agency Committee

- 1976 10.25 **River mile index : Lower Colorado River and selected tributaries : Arizona, California, Nevada, and Utah.** Report of the Water Management Technical Subcommittee, 70 pp., 4 maps.

NOTE: This index lists river mileages for tributary confluences as well as separate mileages for selected tributary streams. For the Colorado River main stem, mileages are in order upstream from the southerly U.S.-Mexico boundary.

See also U.S. Bureau of Reclamation, Lower Colorado Region, Boulder Canyon Operations Office, 2001, [ITEM NO. 10.141](#).

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Pilonero, Joseph T.

- 1976 24.154 **Satellite image maps of the State of Arizona and of Phoenix.** *In:* Williams, R. S., Jr., and Carter, W. D. (eds.), ERTS-1, a new window on our planet. *U.S. Geological Survey, Professional Paper 929*, pp. 29-31. [Earth Resources Technology Satellite.]

Sumner, John S.; Schmidt, J. S.; AND Aiken, C. L. V.

- 1976 24.187 **Free-air gravity anomaly map of Arizona.** *Arizona Geological Society, Digest 10*, pp. 7-12, Plate 2 in Map Supplement slipcase.

1977

Dutton, Clarence Edward

- 1977 24.62 **[Five geological maps on 12 sheets.]**
In: Tertiary history of the Grand Cañon district; with atlas. *U.S. Geological Survey, Monograph 2*, facsimile reprinting, Layton, Utah: Peregrine Smith, Inc., 264 pp.; **Atlas**, 23 sheets [loose in slipcase]. [Edition of 1,500 sets (text and atlas), with introduction by Wallace Stegner.]
Reprinting of Dutton (1882, [ITEM NO. 24.61](#), which see for an itemization of the geological maps).

Huntoon, Peter W., AND Billingsley, George H.

- 1977 24.90 **Geological map of western Grand Canyon, Arizona.** Grand Canyon Natural History Association, open file, 43 sheets.

U.S. National Park Service

- 1977 25.119 **南壁, グランド キャニオン 国立 コエン, アリゾナ** [*Nanpeki, Gurando Kyanion Kokuritsu Koen, Arizona*]. [[South Rim, Grand Canyon National Park, Arizona](#)]. Washington, D.C.: U.S. National Park Service, scale ca. 1:275,000. [[In Japanese](#).]

1978

Haynes, D. D., AND Hackman, R. J.

- 1978 24.78 **Geology, structure, and uranium deposits of the Marble Canyon 1° x 2° quadrangle, Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Map I-1003*, 2 sheets, scale 1:250,000.

National Geographic Society, Cartographic Division

- 1978 24.357 (IN COLLABORATION WITH Boston Museum of Science) **The heart of the Grand Canyon, Grand Canyon National Park, Arizona.** Washington, D.C.: National Geographic Society, 1 sheet, scale 1:24,000, contour interval 100 ft. ("Produced by the Cartographic Division, National Geographic Society".) ("This map was compiled from 1972 aerial photography and field surveys by Bradford Washburn, assisted by Barbara P. Washburn, Harry R. Feldman and Wendell Mason. Relief by Tibor G. Toth, research and compilation by Thomas L. Gray, contours by Norbert and Walter Vasques, all National Geographic Staff. Cliff hachures by the Topographical Survey of Switzerland. Photogrammetry by Lockwood Mapping, laser assistance by K & E Laser Systems and Electronics. The National Geographic is also grateful to the Grand Canyon National

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Park, and Professor J. Harvey Butchart, Northern Arizona University, for their generous cooperation and assistance during the preparation of this map.”)

This is **Variant A**. 35 × 36 inches, printed on one side on plasticized paper, omitting text and illustrations that appear in the mass produced Variant B [see [ITEM NO. 24.145](#)]. Compared to Variant B this map expands ground coverage on the west by 1.5 miles, to the west of Hermit’s Rest, and on the east by ca. 3,000 feet. Includes table of trail distances that is omitted from Variant B. Key and credit notations are placed differently than in Variant B.] [See also Variants C and D, 1990, 1999, [ITEM NOS. 24.827, 24.828](#).]

CONSERVATIONAL NOTE: The materials with which Variant A was produced may not be long-lived, depending upon storage conditions. The compiler’s copy is severely degraded, becoming fragmented, with noticeable off-gassing after several years’ storage contained in a screw-capped plastic tube under conventional room temperatures. — *E.E.S., 2014*.

- 1978 24.145 (IN COLLABORATION WITH Boston Museum of Science) **The heart of the Grand Canyon, Grand Canyon National Park, Arizona**. Washington, D.C.: National Geographic Society, 1 sheet, scale 1:24,000, contour interval 100 ft.; text and illustrations on verso, “The Grand Canyon of the Colorado”. (“Produced by the Cartographic Division, National Geographic Society” [recto and verso notations].) (“Supplement to National Geographic, July 1978, Page 35A, Vol. 154, No. 1—THE HEART OF THE GRAND CANYON” [recto notation].) (“This map was compiled from 1972 aerial photography and field surveys by Bradford Washburn, assisted by Barbara P. Washburn, Harry R. Feldman and Wendell Mason. Relief by Tibor G. Toth, research and compilation by Thomas L. Gray, contours by Norbert and Walter Vasques, all National Geographic Staff. Cliff hachures by the Topographical Survey of Switzerland. Photogrammetry by Lockwood Mapping, laser assistance by K & E Laser Systems and Electronics. The National Geographic is also grateful to the Grand Canyon National Park, and Professor J. Harvey Butchart, Northern Arizona University, for their generous cooperation and assistance during the preparation of this map.” [recto notation])
- This is **Variant B**. 22½ × 35 inches (reduced from Variant A to accommodate presses used for very large National Geographic magazine press run), published for distribution with July 1978 issue of *National Geographic*, accompanying the feature by W. E. Garrett, “Grand Canyon; are we loving it to death?” *National Geographic*, 154(1) (July): cover, 1, 16-51 [pagination includes fold-outs.]. Map folded, 6 × 9 inches, to be laid in with this issue. “Copies of this map with additional coverage extending westward beyond Hermits Rest, same scale, 35” × 36”, printed one side only on plastic, may be purchased from the National Geographic Society, Washington, D.C.” (recto notation). For the larger format variant A, with slightly broader geographic coverage, see [ITEM NO. 24.357](#). Key and credit notations are placed differently than in Variant A. Omits the table of trail distances that appears in Variant A.

NOTE: For **Variants C and D**, see under 1990 and 1999 ([ITEM NOS. 24.827, 24.828](#)).

U.S. Bureau of Land Management

- 1978 25.100 **Grand Canyon, Arizona** (Surface Management, and Surface-Minerals Management editions). Planimetric, scale 1:100,000.
- 1978 25.101 **Mount Trumbull, Arizona** (Surface Management, and Surface-Minerals Management editions). Planimetric, scale 1:100,000.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1979

California State Automobile Association, Nevada Division

1979 25.24 **Death Valley and Grand Canyon.** San Francisco: California State Automobile Association, 1 sheet, scale 1:1,100,000.

Levings, G. W., AND Farrar, C. D.

1979 24.115 **Maps showing ground-water conditions in the Kanab area, Coconino and Mohave Counties, Arizona—1976.** *U.S. Geological Survey Water-Resources Investigations, Open-File Report 79-1070*, 2 sheets, scale 1:125,000.

U.S. Geological Survey

1979 24.199 **Land use and land cover and associated maps for Grand Canyon, Arizona.** *U.S. Geological Survey, Open-File Report 79-1494*, 4 sheets, scale 1:250,000.

U.S. National Park Service

1979 25.120 **Grand Canyon.** Washington, D.C.: U.S. National Park Service, scale ca. 1:95,000; with text on verso.

1980

H. M. Gousha Company

1980 25.44 **Arizona, New Mexico : with mini-map of Grand Canyon National Park** (product of Gousha/Chek-Chart). San Jose, California: H. M. Gousha Co., 1 sheet.

Heffner, J. D., AND Hyder, M. L.

1980 24.79 **Marble Canyon 1° × 2° NTMS area, Arizona; hydrogeochemical and stream sediment reconnaissance.** *U.S. Department of Energy, Grand Junction Office, Report GJBX-138-81, DPST-79-146-18*, 36 pp., scale 1:250,000. [National Topographic Map Series.]
Includes microfiche and a copy of *U.S. Geological Survey, Miscellaneous Investigations Map I-1003*.

Huntoon, Peter W.; Billingsley, George H., Jr.; Breed, William J.; Sears, J. W.; Ford, Trevor D.; Clark, Malcolm D.; Babcock, R. S.; Brown, E. H.; et al.

1980 24.784 **Geologic map of the eastern part of the Grand Canyon National Park, Arizona.** Grand Canyon Natural History Association, and Museum of Northern Arizona, 1 sheet, scale 1:62,500. [2nd ed. of this map.]
This and other eds. is the so-called "Blue Dragon" map.

Rainbow Expeditions

1980 25.81 **Lees Ferry, Arizona : a recreational map to a portion of the Grand Canyon National Park & vicinity.** Tucson: Rainbow Expeditions, 2nd ed., 1 sheet, folded, map and text on opposite sides. (Map No. 1, Grand Canyon Recreational Map Series.)
Trail map; map scale 1:62,500, base U.S. Geological Survey topographic maps.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

- 1980 25.82 **Phantom Ranch, Arizona : a recreational map to a portion of the Grand Canyon National Park & vicinity.** Tucson: Rainbow Expeditions, 2nd ed., 1 sheet, folded, map and text on opposite sides. (Map No. 4, Grand Canyon Recreational Map Series.)
Trail map; map scale 1:62,500, base U.S. Geological Survey topographic maps.

Shotts, John, Jr.

- 1980 25.215 **The Grand Canyon : a natural wonder.** Scottsdale, Arizona: John Schotts. ("Map no. JCS-GC-1-80-M".)

U.S. National Aeronautics and Space Administration

- NO DATE 25.114 **Landsat image of the Grand Canyon** [colored]. [Distributed by] University of New Mexico, Albuquerque. [1980s.]

1981

Huntoon, Peter W., AND Billingsley, George H.; WITH Clark, Malcolm D.

- 1981 24.91 **Geologic map of the Hurricane fault zone and vicinity, western Grand Canyon, Arizona.** Grand Canyon Natural History Association, scale 1:48,000.

Washburn, Bradford

- 1981 24.204 (WITH Barbara P. Washburn, Harry R. Feldman, Wendell Mason, *et al.*) **The Bright Angel Trail, Grand Canyon, Arizona : a new large-scale map of the world's most famous footpath.** Boston: Museum of Science, scale 1:4,800, 25-foot contour interval.

1982

Baillieu, Thomas A., AND Zollinger, Richard C.

- 1982 24.5 **Grand Canyon quadrangle, Arizona.** Grand Junction, Colorado: Bendix Field Engineering Corp., 36 pp., map scale 1:500,000, with microfiche. (National Uranium Resource Evaluation Program.)

Huntoon, Peter W., AND Billingsley, George H.; WITH Clark, Malcolm D.

- 1982 24.92 **Geologic map of the Lower Granite Gorge and vicinity, western Grand Canyon, Arizona.** Grand Canyon Natural History Association, scale 1:48,000.

1983

Billingsley, George H., AND Huntoon, Peter W.

- 1983 24.40 **Geologic map of Vulcan's Throne and vicinity, western Grand Canyon, Arizona.** Grand Canyon Natural History Association, scale 1:48,000.

Billingsley, George H.; Antweiler, John C.; AND Ellis, Clarence E.

- 1983 24.371 **Mineral resource potential of the Kanab Creek Roadless Area, Coconino and Mohave Counties, Arizona.** U.S. Geological Survey, *Miscellaneous Field Studies Map MF-1627-A*, 1 sheet with text, 10 pp.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Billingsley, George H.; Ulrich, George E.; AND Barnes, C. W.

1983 24.43 **Preliminary geologic map of the Coconino Point and Grandview Point quadrangles, Coconino County, Arizona.** *U.S. Geological Survey, Open-File Report 83-731*, 1 sheet, 8 pp.

Jay, J. E.; Havens, T. H.; Hendricks, D. M.; Post, D. F.; AND Guernsey, C. W.

1983 24.96 **Arizona general soil map.** U.S. Department of Agriculture, Soil Conservation Service; University of Arizona, Agricultural Experiment Station, 1 sheet, scale 1:1,000,000.

Lucchitta, Ivo; Beard, L. Sue; Billingsley, George H.; Antweiler, J. C.; Rieck, Hugh J.; AND Lane, M. E.

1983 24.119 **Geology and mineral resource potential of the Pigeon Canyon (AZ-010-109), Nevershine Mesa (AZ-010-105A), and Snap Point (AZ-010-105B) Wilderness Study Areas, Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 83-0888*, 21 pp., map scale 1:50,000.

Péwé, Troy L.

1983 10.103 **Colorado River guidebook : a geologic and geographic guide from Lees Ferry to Phantom Ranch, Arizona.** Phoenix: Troy L. Péwé, "Second printing [of 3rd ed.] with updating", 79 pp.

Stevens, Larry [Stevens, Lawrence E.]

1983 10.26 **The Colorado River in Grand Canyon : a comprehensive guide to its natural and human history.** Flagstaff, Arizona: Red Lake Books, 107 pp.
Later accompanied by a single-leaf "Postscript: A river once more", dated July, 1983; and Errata. Also distributed later with single-leaf "Grand Canyon update: 1 November, 1983", regarding spillover water releases from Glen Canyon Dam

Sutphin, Hoyt B., AND Wenrich, Karen J.

1983 24.188 **Structural control of breccia pipes on the southern Marble Plateau, Arizona.** *U.S. Geological Survey, Open-File Report 83-908*, 6 pp., 2 sheets, scale 1:50,000.

1984

Lindemann, Linda Lou

1984 10.15 **Colorado River briefs for a trip through the Grand Canyon.** Tucson: Lundquist Press, 120 pp. [Saddle-stitched, dark-yellow wraps.]
NOTE: All subsequent "printings" contain minor changes.

Stevens, Larry [Stevens, Lawrence E.]

1984 10.29 **The Colorado River in Grand Canyon : a comprehensive guide to its natural and human history.** Flagstaff, Arizona: Red Lake Books, 2nd ed., 107 pp.

U.S. National Park Service

1984 25.121 **Grand Canyon National Park, Arizona.** Washington, D.C.: U.S. Government Printing Office; with text on verso.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1985

Billingsley, George H.; Barnes, Charles W.; AND Ulrich, G. E.

1985 24.42 **Geologic map of the Coconino Point and Grandview Point quadrangles, Coconino County, Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Map I-1644*, 1 sheet, scale 1:62,500.

Earth Tracks

1985 25.217 **Bright Angel recreation map.** Phoenix: Earth Tracks. (Revision by Gordon Wahl.)

Map, Inc.

1985 25.65 **Arizona travel adventures and trivia map** [New Mexico map on verso]. Norman, Oklahoma: Map, Inc., 1 sheet.

Stevens, Larry [Stevens, Lawrence E.]

1985 10.83 **The Colorado River in Grand Canyon : a comprehensive guide to its natural and human history.** Flagstaff, Arizona: Red Lake Books, revised 2nd ed., 107 pp.

1986

Aquamaps, Inc.

1986 10.66 **Colorado River recreation guide : an atlas of the Colorado River from Grand Lake, Colorado to Yuma, Arizona.** Denver, Colorado: Aquamaps, Inc., SEPARATELY PAGINATED SECTIONS.
Sections with separate authors: Max Branyon, Steve Chawkins, Deborah Frazier, Carolyn R. Johnson, *et al.* (including U.S. Bureau of Reclamation).

Billingsley, George H., AND Breed, William J.

1986 24.38 **Geologic map of the Bright Angel Trail, Grand Canyon, Arizona.** Tulsa, Oklahoma: American Association of Petroleum Geologists, 1 sheet (2 sides); base map is topographic map by Washburn (1981), scale 1:4800, contour interval 25 feet.
Accompanied by text: Breed, William J.; Stefanic, Vern; and Billingsley, George H., *Geologic guide to the Bright Angel Trail.* Tulsa, Oklahoma: American Association of Petroleum Geologists, [44 pp.].

Billingsley, George H.; Antweiler, John C.; Beard, L. Sue; Lucchitta, Ivo; AND Lane, M. E.

1986 24.41 **Mineral resource potential map of the Pigeon Canyon, Nevershine Mesa, and Snap Point Wilderness Study Areas, Mohave County, Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-1860-A*, 1 sheet with text, scale 1:50,000, and 10-pp. text in pamphlet.

Billingsley, George H.; Wenrich, Karen J.; AND Huntoon, Peter W.

1986 24.44 **Breccia pipe and geologic map of the southeastern Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Open-File Report 86-458-B*, 26 pp., 2 sheets, scale 1:48,000.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Huntoon, Peter W.; Billingsley, George H., Jr.; Breed, William J.; Sears, J. W.; Ford, Trevor D.; Clark, Malcolm D.; Babcock, R. S.; Brown, E. H.; et al.

- 1986 24.785 **Geologic map of the eastern part of the Grand Canyon National Park, Arizona.** Grand Canyon Natural History Association, and Museum of Northern Arizona, 1 sheet, scale 1:62,500. [3rd ed. of this map.]
This and other eds. is the so-called "Blue Dragon" map.

Lucchitta, Ivo; Beard, Sue J.; AND Rieck, Hugh J.

- 1986 24.120 **Geologic map of the Pigeon Canyon, Nevershine Mesa, and Snap Point Wilderness Areas, Mohave County, Arizona.** *U.S. Geological Survey Miscellaneous Field Studies Map MF-1860-B*, 1 sheet.

North Star Mapping

- 1986 25.74 **Map of Grand Canyon National Park and village : plus Tusayan.** [Flagstaff, Arizona]: North Star Mapping, 1 sheet, 2 sides.

Reynolds, Stephen J.

- 1988 24.162 **Geologic map of Arizona.** *Arizona Geological Survey, Map 26*, scale 1:1,000,000. (Prepared in cooperation with U.S. Geological Survey as part of Cooperative Geologic Mapping (COGEOMAP) program.
Map also released with Nations, J. Dale, and Stump, Edmund, 1986, *Geology of Arizona* (Dubuque, Iowa: Kendall/Hunt Publishing Co.).

Stevens, Larry [Stevens, Lawrence E.]

- 1986 10.30 **The Colorado River in Grand Canyon : a comprehensive guide to its natural and human history.** Flagstaff, Arizona: Red Lake Books, revised 2nd ed., 107 pp. [2nd printing?]

Wenrich, Karen J.; Billingsley, George H.; AND Huntoon, Peter W.

- 1986 24.205 **Breccia pipe and geologic map of the northeastern Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Open-File Report 86-458A*, 29 pp., 2 plates, scale 1:48,000.

1987

Frankovich, Anton, Jr.

- 1987 25.42 **The Grand Canyon dimensional map.** (Graphic concept and illustrations by Margarete Ferraro.) Salt Lake City: Rainbow Gold, Inc., 1 sheet, 2 sides (primarily scenic photographs).

Grubensky, Michael J., AND Reynolds, Stephen J.

- 1987 24.76 **Index of unpublished (pre-1969) geologic mapping in Arizona done by the Arizona Bureau of Mines and the U.S. Geological Survey.** *Arizona Bureau of Geology and Mineral Technology, Open-File Report 87-5.*
Grand Canyon quadrangle, sheet 4 of 14.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

H. M. Gousha Company

- 1987 25.132 **Tourist map of Tucson : latest visitors' map in full color, showing places of interest . . . and map of Grand Canyon National Park.** San Jose, California: H. M. Gousha Co., 1 sheet, scale 1:15,840. (Distributed by Petley Studios.)

Merchant Maps

- 1987 25.66 **Maps of Flagstaff and Grand Canyon area : including South Rim Village and Williams, Arizona: Happy to help you find your way around!** Cincinnati, Ohio: Mass Marketing, Inc., Merchant Maps Division, 1 sheet, 2 sides.

Stevens, Larry [Stevens, Lawrence E.]

- 1987 10.31 **The Colorado River in Grand Canyon : a comprehensive guide to its natural and human history.** Flagstaff, Arizona: Red Lake Books, 3rd ed., 115 pp.

Trails Illustrated

- 1987 25.588 **Grand Canyon National Park, Arizona.** Evergreen, Colorado: Ponderosa Publishing Co., 1 sheet, folded, printed on both sides.
Trail map; base is U.S. Geological Survey's Grand Canyon National Park topographic map; scale ca. 1:73,530.

Underhill Foundation, AND Grand Canyon Trust

- 1987 25.155 **Federal lands of the Colorado Plateau region.** Underhill Foundation and Grand Canyon Trust. Scale 1:2,000,000. 1 sheet.

Wenrich, Karen J.; Billingsley, George H.; AND Huntoon, Peter W.

- 1987 24.206 **Breccia pipe and geologic map of the northeastern Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Open-File Report 86-458C*, 32 pp., 2 plates, scale 1:48,000.

1988

Cygnus Graphic

- 1988 25.32 **The Grand Canyon of the Colorado River.** Phoenix: Cygnus Graphic, scale 1:300,000. (Cygnus Graphic OPTI-RELIEF map, designed to be used with viewer glasses; with one-page of instructions in [English](#), [French](#), [Spanish](#), [German](#), and [Japanese](#).)

Karto+Grafik

- NO DATE 25.55 **Hildebrand's travel map : United States : the Southern Rockies and Grand Canyon country.** Frankfurt, West Germany: Karto+Grafik, 1 sheet, 2 sides. [One online catalog listing gives date as "[1988?]" Other eds.]
Four Corners region.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Kieffer, Susan Werner⁴⁵

- | | | |
|------|--------|--|
| 1988 | 24.99 | Hydraulic map of House Rock Rapids, Grand Canyon, Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-1897-A</i> , 1 sheet, scale 1:1,000. |
| 1988 | 24.100 | Hydraulic map of 24.5 Mile Rapids, Grand Canyon, Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-1897-B</i> , 1 sheet, scale 1:1,000. |
| 1988 | 24.101 | Hydraulic map of Hance Rapids, Grand Canyon, Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-1897-C</i> , 1 sheet, scale 1:1,000. |
| 1988 | 24.102 | Hydraulic map of Bright Angel Rapids, Grand Canyon, Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-1897-D</i> , 1 sheet, scale 1:1,000. |
| 1988 | 24.103 | Hydraulic map of Horn Creek Rapids, Grand Canyon, Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-1897-E</i> , 1 sheet, scale 1:1,000. |
| 1988 | 24.104 | Hydraulic map of Granite Rapids, Grand Canyon, Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-1897-F</i> , 1 sheet, scale 1:1,000. |
| 1988 | 24.105 | Hydraulic map of Hermit Rapids, Grand Canyon, Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-1897-G</i> , 1 sheet, scale 1:1,000. |
| 1988 | 24.106 | Hydraulic map of Crystal Rapids, Grand Canyon, Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-1897-H</i> , 1 sheet, scale 1:1,000. |
| 1988 | 24.107 | Hydraulic map of Deubendorff Rapids, Grand Canyon, Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-1897-I</i> , 1 sheet, scale 1:1,000. |
| 1988 | 24.108 | Hydraulic map of Lava Falls Rapids, Grand Canyon, Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-1897-J</i> , 1 sheet, scale 1:1,000. |

Kron, Andrea June; cARTography

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|------|-------|--|
| 1988 | 25.60 | The firey canyon. Los Alamos, New Mexico: A. J. Kron. [Artistic, colored LANDSAT thematic mapper scene from EOSAT, Lanham, Maryland; base map U.S. Geological Survey 15-minute scale Bright Angel quadrangle, 1962, contour interval 400 ft.] |
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S.A.R. System

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|------|--------|---|
| 1988 | 24.168 | Grand Canyon, Arizona. Synthetic Aperture Radar imagery X Band, near range, east look. Produced for U.S. Geological Survey by Aero Service Division, Western Atlas International, Inc., scale 1:250,000. |
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Sutphin, Hoyt B., AND Wenrich, Karen J.

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|------|--------|---|
| 1988 | 24.189 | Map showing structural control of breccia pipes on the southern Marble Plateau, north-central Arizona. <i>U.S. Geological Survey, Miscellaneous Investigations Map I-1778</i> , 2 sheets; Sheet 1, Northern part, scale 1:50,000; Sheet 2, Southern part, scale 1:250,000. |
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⁴⁵ Rolled and folded states seen of Kieffer's hydraulic maps; folded maps were distributed in printed paper sleeves.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Van Dam [firm]

- NO DATE 25.122 **Grand Canyon unfolds.** Van Dam, in cooperation with Grand Canyon Natural History Association and Babbitt Brothers, 2 pop-up maps and text in booklet format. [1988 or before.]

1989

Arizona Department of Transportation, Photogrammetry and Mapping Services

- 1989 25.6 **Arizona Highways road atlas.** Phoenix: Arizona Highways, 56 pp.

Belknap, Buzz, AND Evans, Loie Belknap

- 1989 10.6 **Belknap's waterproof Grand Canyon river guide : all new color edition.** Evergreen, Colorado: Westwater Books, 95 [96] pp.
New ed. of Belknap (1969); beginning with 2nd printing noted as "revised edition" on title-page verso. Eighteen printings (2nd, 1991; 3rd, 1992; 4th, 1993; 5th, 1994; 6th, 1995; 7th, 1996; 8th, 1997; 9th, 1998; 10th and 11th, 2000; 12th, 2001; 13th, 2003; 14th and 15th, 2004; 16th and 17th, 2005; 18th, 2006.
With minor updates, inasmuch as the 1992 printing is the first to include a note relating to the drop of Lava Falls Rapid.

Earthwalk Press

- 1989 25.38 **Hiking map and guide, Grand Canyon National Park.** (Text on verso by Helen H. Larson, 1986.) Eureka, California: Earthwalk Press, 1 sheet, 2 sides, scale 1:48,000, revised.

Kistler Graphics, Inc.

- 1989 25.59 **Satellite photo map of Arizona.** Denver: Kistler Graphics, Inc. [Vinyl raised-relief map.]

Sutphin, Hoyt B., AND Wenrich, Karen J.

- 1989 24.190 **Map of locations of collapse-breccia pipes in the Grand Canyon region of Arizona.** U.S. Geological Survey, *Open-File Report 89-550*, 1 sheet, scale 1:250,000.

Trails Illustrated

- 1989 25.587 **Grand Canyon National Park, Arizona.** Evergreen, Colorado: Ponderosa Publishing Co., 1 sheet, folded, printed on both sides. (Revised 1989.)
Trail map; base is U.S. Geological Survey's Grand Canyon National Park topographic map; scale ca. 1:73,530.

U.S. Bureau of Land Management, Arizona Strip District; AND U.S. Forest Service, Intermountain Region

- 1989 25.201 **Arizona Strip District : visitor map : 1989.** Ogden, Utah: U.S. Forest Service, Intermountain Region, *in cooperation with* U.S. Bureau of Land Management, Arizona Strip District, St. George, Utah.
East and west half on two sides of one sheet.

U.S. Federal Aviation Administration

- 1989 25.107 **Grand Canyon National Park Airport, Grand Canyon, Arizona; digitized from OC 5381, surveyed April 1989, 5th edition.** U.S. National Ocean Service, *Obstruction Data Sheet ODS 5381.*

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1990

Billingsley, George H.

- 1990 24.7 **Geologic map of the Jumpup Canyon and Big Springs quadrangles, Mohave and Coconino Counties, Arizona.** *U.S. Geological Survey, Open-File Report 90-258*, 16 pp., 1 sheet, scale 1:62,500.
- 1990 24.8 **Geologic map of the Purgatory Canyon quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 90-540*, 1 sheet, scale 1:24,000.
- 1990 24.9 **Geologic map of the Wolf Hole Mountain West quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 90-541*, 1 sheet, scale 1:24,000.
- 1990 24.10 **Geologic map of the Lizard Point quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 90-643*, 1 sheet, scale 1:24,000.
- 1990 24.11 **Geologic map of the Wolf Hole Mountain East quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 90-644*, 1 sheet, scale 1:24,000.

Billingsley, George H.; Wenrich, Karen J.; Huntoon, Peter W.; AND Young, Richard A.

- 1990 24.45 **Breccia pipe and geologic map of the southwestern Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Open-File Report 86-458-D*, 33 pp., 2 sheets, scale 1:48,000.

Brown, Chip

- 1990 25.792 A sublime encounter. *Condé Nast Traveler*, (June): 8, 104-115, 167-169; and fold-out panoramic **MAP** with pagination 183-189.

Edwards, Kathleen, AND Batson, R. M.

- 1990 24.64 **Experimental digital shaded-relief maps of Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Map I-1821*, 2 sheets, scale 1:1,000,000.
- 1990 24.65 **Experimental digital shaded-relief maps of southwestern United States.** *U.S. Geological Survey, Miscellaneous Investigations Map I-1850*, 2 sheets, scale 1:2,000,000.

Lindemann, Linda Lou

- 1990 10.16 **Colorado River briefs for a trip through the Grand Canyon.** (Illustrated by Dan K. Lindemann.) Tucson: Lundquist Press, 2nd printing, 152 pp. [Spiral-bound, light-blue covers.]

National Geographic Society, Cartographic Division

- 1990 24.827 (IN COLLABORATION WITH Boston Museum of Science) **The heart of the Grand Canyon, Grand Canyon National Park, Arizona.** Washington, D.C.: National Geographic Society, 1 sheet, scale 1:24,000, contour interval 100 ft. ("Produced by the Cartographic Division, National Geographic Society".) ("Limited Revision 1990".) ("This map was compiled from 1972 aerial photography and field surveys by Bradford Washburn, assisted by Barbara P. Washburn, Harry R. Feldman and Wendell Mason. Relief by Tibor G. Toth, research and compilation by Thomas L. Gray, contours by Norbert and Walter Vasques, all National Geographic Staff. Cliff hachures by the Topographical Survey of Switzerland. Photogrammetry by Lockwood Mapping, laser assistance by

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

K & E Laser Systems and Electronics. The National Geographic is also grateful to the Grand Canyon National Park, and Professor J. Harvey Butchart, Northern Arizona University, for their generous cooperation and assistance during the preparation of this map.”)

This is **Variant C**. 35 × 36 inches, printed on one side on plasticized paper, omitting text and illustrations that appear in Variant B (see 1978, [ITEM NO. 24.145](#)); National Geographical Society promotional note in lower-left corner; copyright notice in lower-right corner. Compared to Variant B this map expands ground coverage on the west by 1.5 miles, to the west of Hermit’s Rest, and on the east by ca. 3,000 feet. Includes table of trail distances that is omitted from Variant B. Key and credit notations are placed differently than in Variant B.

Nihon Kōkū Bunka Jigyō Sentā [日本航空文化事業センター] [Japan Airlines Business Center]

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| 1990 | 25.651 | ロサンゼルス・ラスベガス・グランドキャニオン Los Angeles [Rosanzerusu rasubegasu gurandokyanion : Los Angeles] [<i>Los Angeles, Las Vegas, Grand Canyon : Los Angeles</i>]. Tōkyō: 日本航空文化事業センター [Nihon Kōkū Bunka Jigyō Sentā] [Japan Airlines Business Center]. (JAL City Guide Map.) [<i>In Japanese, with title in mixed Japanese and Roman characters.</i>] |
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1991

Billingsley, George H.

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| 1991 | 24.12 | Geologic map of the Sullivan Draw North quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 91-558</i> , 1 sheet, scale 1:24,000, text 10 pp. |
| 1991 | 24.13 | Geologic map of the Sullivan Draw South quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 91-559</i> , 1 sheet, scale 1:24,000, text 9 pp. |
| 1991 | 24.14 | Geologic map of the Mustang Knoll quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 91-560</i> , 1 sheet, scale 1:24,000, text 12 pp. |
| 1991 | 24.15 | Geologic map of the St. George Canyon quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 91-561</i> , 1 sheet, scale 1:24,000, text 11 pp. |

Lucchitta, Ivo

- | | | |
|------|--------|--|
| 1991 | 24.786 | Topographic map of the Palisades-Unkar area, Grand Canyon, Arizona. <i>U.S. Geological Survey, Open-File Report 91-0636</i> , 2 sheets, scale 1:5000, contour interval 5 m (2.5-m supplemental contours). |
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Rennicke, Jeff

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| 1991 | 9.308 | The Grand Canyon: Fold-out map. <i>Backpacker</i> , 19(6): 24-. |
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1992

Billingsley, George H.

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|------|-------|--|
| 1992 | 24.16 | Geologic map of the Gyp Pocket quadrangle, northern Mohave County, Arizona. <i>U.S. Geological Survey, Open-File Report 92-412</i> , 17 pp., 1 sheet, scale 1:24,000. |
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MAPPING GRAND CANYON

Grand Canyon (1868–Present)

- 1992 24.17 **Geologic map of the Hole-N-Wall Canyon quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 92-432*, 15 pp., 1 sheet, scale 1:24,000.
- 1992 24.18 **Geologic map of the Yellowhorse Flat quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 92-442*, 17 pp., 1 sheet, scale 1:24,000.
- 1992 24.19 **Geologic map of the Rock Canyon quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 92-449*, 17 pp., 1 sheet, scale 1:24,000.
- 1992 24.20 **Geologic map of the Jumpup Canyon and Big Springs quadrangles, Mohave and Coconino Counties, Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Map I-2290*, scale 1:62,500.

Frankovich, Anton, Jr.

- 1992 25.213 **The Grand Canyon photo map : 277 miles of dramatic color photographs by land and by air.** (Graphic concept and illustrations by Margarete Ferraro.) Salt Lake City: Rainbow Gold, Inc., 1 sheet, 2 sides.

Loco Promotions

- 1992 25.61 **Grand Canyon : souvenir map poster and guide.** Flagstaff, Arizona: Loco Promotions, 1 folded sheet.

1993

Billingsley, George H.

- 1993 24.21 **Geologic map of the Lost Spring Mountain East quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 93-565*, 9 pp., 1 sheet, scale 1:24,000.
- 1993 24.22 **Geologic map of the Lost Spring Mountain West quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 93-566*, 11 pp., 1 sheet, scale 1:24,000.
- 1993 24.23 **Geologic map of the Dutchman Draw quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 93-587*, 12 pp., 1 sheet, scale 1:24,000.
- 1993 24.24 **Geologic map of The Grandstand quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 93-588*, 15 pp., 1 sheet, scale 1:24,000.
- 1993 24.25 **Geologic map of the Little Tanks quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 93-682*, 13 pp., 1 sheet, scale 1:24,000.
- 1993 24.26 **Geologic map of the Russell Spring quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 93-717*, 17 pp., 1 sheet, scale 1:24,000.
- 1993 24.27 **Geologic map of the Wolf Hole Mountain and vicinity, Mohave County, northwestern Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Map I-2296*, 1 sheet.

DeLorme Mapping

- 1993 25.33 **Arizona atlas and gazetteer.** Freeport, Maine: DeLorme Mapping, 76 pp.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Earthwalk Press

- 1993 25.39 **Bright Angel Trail hiking map and guide.** (Text copyright by Helen H. Larson.) Eureka, California: Earthwalk Press, 1 sheet, 2 sides, scale 1:24,000.

GTR Mapping

- 1993 25.47 **Topographic recreational map of Arizona.** Canon City, Colorado: GTR Mapping, 1 sheet. Scale 1 inch = 12.5 miles.
Verso includes information.

Hereford, Richard

- 1993 24.81 **Map showing surficial geology and geomorphology of the Palisades Creek archeologic area, Grand Canyon National Park, Arizona.** *U.S. Geological Survey, Open-File Report 93-553*, 20 pp., 1 plate (scale 1:2,000).

Lindemann, Linda Lou

- 1993 10.17 **Colorado River briefs for a trip through the Grand Canyon.** (Updated edition, illustrated by Dan K. Lindemann.) Tucson: Lundquist Press, 3rd printing, 152 pp. [Spiral-bound, rust-red covers.]

Luedke, R. G.

- 1993 24.123 **Maps showing distribution, composition, and age of early and middle Cenozoic volcanic centers in Arizona, New Mexico, and West Texas.** *U.S. Geological Survey, Miscellaneous Investigations Map I-2291-A*, 2 sheets, scale 1:1,000,000, text 16 pp.

1994

Billingsley, George H.

- 1994 24.28 **Geologic map of the Formaster Well quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 94-243*, 1 sheet, text 10 pp.
- 1994 24.29 **Geologic map of the White Pockets quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 94-244*, 1 sheet, text 11 pp.
- 1994 24.30 **Geologic map of the Little Clayhole Valley quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 94-290*, 1 sheet, text 11 pp.
- 1994 24.31 **Geologic map of the Antelope Knoll quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 94-449*, 1 sheet, text 18 pp.
- 1994 24.32 **Geologic map of the Hat Knoll quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 94-554*, 1 sheet, text 14 pp.
- 1994 24.33 **Geologic map of the Moriah Knoll quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 94-634*, 1 sheet, text 15 pp.

Cook, John Wayne, AND Krause, Brian

- 1994 25.29 (ART WORK) **The American Southwest.** Salt Lake City: Directions Unlimited, Inc., Re-Discovery America Regional Map Series, no. 1, 1 sheet, text on verso.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Hereford, Richard, AND Thompson, Kathryn S.

- 1994 24.84 **Topographic map of the Granite Park area, Grand Canyon, Arizona.** *U.S. Geological Survey, Open-File Report 94-563*, 1 sheet, scale 1:2,000, contour interval 1 m.
- 1994 24.85 **Topographic map of the Nankoweap Rapids area, Marble Canyon, Arizona.** *U.S. Geological Survey, Open-File Report 94-564*, 1 sheet, scale 1:2,000, contour interval 1 m.

Lucchitta, Ivo

- 1994 24.117 **Topographic map of the Lees Ferry area, Arizona.** *U.S. Geological Survey, Open-File Report 94-411*, 1 sheet, scale 1:5000, contour interval 5 m (2.5-m supplemental contours).

Trails Illustrated

- 1994 25.93 **Grand Canyon National Park, Arizona.** Evergreen, Colorado: Trails Illustrated, revised, 1 sheet.

1995

Billingsley, George H., AND Bohannon, R. G.

- 1995 24.37 **Geologic map of the Elbow Canyon quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 95-560*, 1 sheet, text 17 pp.

Dinosaur Nature Association

- 1995 25.180 **The rivers of the Colorado River basin [AND] The plumbing of the Colorado River basin.** Vernal, Utah: Dinosaur Nature Association, 2 maps on 1 sheet.

Karto+Grafik

- 1995 25.639 **Hildebrand's travel map : United States : the southern Rockies and Grand Canyon Country.** Frankfurt am Main: Karto+Grafik Verlagsgesellschaft, 1 sheet, 2 sides. Scale 1:700,000; general map of the Southwest, 1:3,500,000.

Lindemann, Linda Lou

- 1995 10.18 **Colorado River briefs for a trip through the Grand Canyon.** (Updated edition, illustrated by Dan K. Lindemann.) Tucson: Lundquist Press, 4th printing, 152 pp. [Spiral-bound, red covers.]

Lucchitta, Ivo

- 1995 24.372 **Topographic map of the Nankoweap-Kwagunt area, Grand Canyon, Arizona.** *U.S. Geological Survey, Open-File Report 95-529*, 1 sheet, scale 1:5000, contour interval 5 m (2.5-m supplemental contours).

Lucchitta, Ivo; Basdekas, P. G.; Bohannon, R. G.; Reick, H. J.; AND Dehler, C. M.

- 1995 24.118 **Geologic map of the Cane Springs quadrangle, northern Mohave County, Arizona.** *U.S. Geological Survey, Open-File Report 95-86*, scale 1:24,000.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Lucchitta, Ivo; Dehler, Carol M.; AND Basdekas, Peggy G.

- 1995 24.121 **Geologic map of the Cane Springs Southeast quadrangle, northern Mohave County, AZ.** *U.S. Geological Survey, Open-File Report 95-48*, scale 1:24,000.

Lucchitta, Ivo; Dehler, Carol M.; Davis, Marie E.; Burke, Kelly J.; AND Basdekas, Peggy O.

- 1995 24.273 **Quaternary geologic map of the Palisades Creek-Comanche Creek area, eastern Grand Canyon, Arizona.** *U.S. Geological Survey, Open-File Report 95-832*, 2 sheets, text 39 pp. (Glen Canyon Environmental Studies, Quaternary Geology-Geomorphology Program, Report 3.)

Reineck and Reineck

- 1995 25.88 **Grand Canyon : map and guide to the South Rim.** San Francisco: Rufus Graphics, in cooperation with Grand Canyon Natural History Association, 1 sheet.
- 1995 25.89 **Grand Canyon : Karte und Führer zum Südrand.** San Francisco: Rufus Graphics, in cooperation with Grand Canyon Natural History Association, 1 sheet. [In German.]

RV-Verlag

- 1995 25.90 **Grand Canyon : Monument Valley. 1: 800 000 RV World Cart. World-Länderkarte.** München: RV-Verlag. [In German.]

Stevens, Larry [Stevens, Lawrence E.]

- 1995 10.32 **The Colorado River in Grand Canyon : a comprehensive guide to its natural and human history.** Flagstaff, Arizona: Red Lake Books, 4th ed., 115 pp.

Taylor, Karen

- 1995 9.367 **Grand Canyon map and guide to the South Rim.** Grand Canyon, Arizona: Grand Canyon Natural History Association, 18 pp., fold-out.

Trapp, Richard A., AND Reynolds, Stephen J.

- 1995 24.192 **Map showing names and outlines of physiographic areas in Arizona used by the Arizona Geological Survey with comprehensive base map.** *Arizona Geological Survey, Open-File Report OFR 95-2a*, 1 sheet.
- 1995 24.193 **Map showing names and outlines of physiographic areas in Arizona used by the Arizona Geological Survey with base map showing township and range only.** *Arizona Geological Survey, Open-File Report OFR 95-2b*, 1 sheet.

U.S. Forest Service, Southwestern Region

- 1995 25.111 **Arizona : Grand Canyon State : recreation and historic sites map : campgrounds and facilities on state, federal and tribal lands.** U.S. Forest Service, Southwestern Region, scale *ca.* 1:1,425,000.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1996

Benchmark Maps

1996 25.18 **Arizona road and recreation atlas.** Berkeley, California: Benchmark Maps, 112 pp.

DeLorme Mapping

1996 25.34 **Arizona atlas and gazetteer.** Freeport, Maine: DeLorme Mapping, 2nd ed., 76 pp.

Hereford, Richard

1996 24.82 **Map showing surficial geology and geomorphology of the Palisades Creek area, Grand Canyon National Park, Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Map I-2449*, scale 1:2,000, contour interval 1 m, 1 sheet (scale 1:2,000), text 12 pp.

Hereford, Richard; Burke, Kelly J.; AND Thompson, Kathryn S.

1996 24.86 **Map showing Quaternary geology and geomorphology of the Nankoweap Rapids area, Marble Canyon, Arizona.** *U.S. Geological Survey, Open-File Report 96-502*, 29 pp., 1 sheet, scale 1:2,000, contour interval 1 m.

Hodgson, Godfrey

1996 25.865 *Handbooks to the modern world. The United States. Volume 1.* New York and Oxford: Facts on File, 575 pp.
See Arizona, pp. 23-32. *Of note:* **MAP** on p. 24 shows Grand Canyon Village near Elves Chasm.

Huntoon, Peter W.; Billingsley, George H.; Sears, James W.; Ilg, Bradley R.; Karlstrom, Karl E.; Williams, Michael L.; Hawkins, David; Breed, William J.; Ford, Trevor D.; Clark, Malcome D. [Clark, Malcolm D.]; Babcock, R. Scott; AND Brown, Edwin H.

1996 24.94 **Geologic map of the eastern part of the Grand Canyon National Park, Arizona.** Grand Canyon, Arizona: Grand Canyon Association, 1 sheet, scale 1:62,500. [4th ed. of this map.]

This and other eds. is the so-called "Blue Dragon" map.

Lindemann, Linda Lou

1996 10.19 **Colorado River briefs for a trip through the Grand Canyon.** (Updated edition, illustrated by Dan K. Lindemann.) Catalina, Arizona: Lundquist Press, 5th printing, 152 pp. [Spiral-bound, light-green covers.]

Thompson, Kathryn S.; Burke, Kelly J.; AND Hereford, Richard

1996 24.191 **Topographic map showing drainage basins associated with pre-dam terraces in the Granite Park area, Grand Canyon, Arizona.** *U.S. Geological Survey, Open-File Report 96-298*, 1 sheet, scale 1:2,000.

Wenrich, Karen J.; Billingsley, George H.; AND Huntoon, Peter W.

1996 24.207 **Breccia-pipe and geologic map of the northwestern part of the Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Map I-2522*, 2 sheets, scale 1:48,000, text 16 pp.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1997

Berndtson und Berndtson GmbH

1997 25.654 **American Southwest : road map : Grand Canyon, Gr. Los Angeles, Greater Phoenix, Gr. San Francisco.** Fürstenfeldbruck, Germany: Berndtson und Berndtson GmbH, scale 1:3,000,000. [In German.]

Billingsley, George H.

1997 24.34 **Geologic map of the Mount Logan quadrangle, northern Mohave County, Arizona.** U.S. Geological Survey, Open-File Report 97-426, 1 sheet, text 21 pp.

1997 24.35 **Geologic map of the Mount Trumbull NW quadrangle, northern Mohave County, Arizona.** U.S. Geological Survey, Open-File Report 97-488, 1 sheet, text 19 pp.

1997 24.36 **Geologic map of the Poverty Spring quadrangle, northern Mohave County, Arizona.** U.S. Geological Survey, Open-File Report 97-493, 1 sheet, text 13 pp.

Hereford, Richard

1997 24.83 **Topographic map of the Nine Mile Draw area, Colorado River, Glen Canyon National Recreation Area, Arizona.** U.S. Geological Survey, Open-File Report 97-253, 1 sheet, scale 1:1,000.
Upstream from Lees Ferry.

Rand McNally

1997 25.83 **Grand Canyon National Park EasyFinder.** Skokie, Illinois: Rand McNally, 1 sheet cut in small squares, laminated, and folded.

Stevens, Larry [Stevens, Lawrence E.]

1997 10.33 **The Colorado River in Grand Canyon : a comprehensive guide to its natural and human history.** Flagstaff, Arizona: Red Lake Books, 5th ed., 115 pp. [1st printing erroneously marked on title-page verso "Fifth edition, 5th printing, 1997". 2nd printing, 1998.]

Valin, Zenon; Hampton, Haydee; AND Buchheit, Kim

1997 25.1850 [Two maps.]
In: Billingsley, George H., Spamer, Earle E., and Menkes, Dove, *Quest for the pillar of gold : the mines and miners of the Grand Canyon.* Grand Canyon Association, Monograph 10.
See **MAPS:** "Map 1—Physiographic Map" (fold-out, inside back cover), "Map 2—Mining Districts" (inside back cover). [Map 1 depicts the boundaries of physiographic regions of the greater Grand Canyon, with a key to 132 point places. Map 2 depicts the (informal) boundaries of historic mining districts of the greater Grand Canyon, with a key to 54 specifically located mines and claims. Map 2 is the only map of its kind.]

Wenrich, Karen J.; Billingsley, George H.; AND Huntoon, Peter W.

1997 24.208 **Breccia-pipe and geologic map of the northeastern part of the Hualapai Indian Reservation and vicinity, Arizona.** U.S. Geological Survey, *Miscellaneous Investigations Map I-2440*, 2 sheets, scale 1:48,000, text 19 pp.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

1998

Arizona Department of Transportation, Photogrammetry and Mapping Section

- NO DATE 25.7 **Arizona Landkarte.** [No imprint], 1 sheet. (Text on verso: "Arizona. Land der Abenteuer und Naturwunder".) [In German.]
Map purchased new in 1998. Credit is given to 1998/1999 data from Arizona Office of Tourism.

Arizona Geological Survey

- 1998 24.3 **3-D stereo topographical map of Arizona.** *Arizona Geological Survey, Map 32*, 1 sheet, scale 1:750,000, contour interval 100 feet. (Stereo contours produced by American Stereo Map Co., Salt Lake City.)
To be used with red/blue glasses.

Caryl McHarney Design

- 1998 25.638 **The Havasu Canyon trail.** [No place]: Caryl McHarney Design. (Copyright 1998 Havasupai Tribe.)
Hualapai Hilltop to Colorado River. Cartoon physiography, "not to scale"; with **INSET**, "Supai Village Enlarged".

Hereford, Richard; Burke, Kelly J.; AND Thompson, Kathryn S.

- 1998 24.226 **Quaternary geology and geomorphology of the Nankoweap Rapids area, Marble Canyon, Arizona.** *U.S. Geological Survey, Geologic Investigations Series, I-2608*, 18 pp.

Kamilli, Robert J., AND Richard, Stephen M.

- 1998 24.98 (EDS.) **Geologic highway map of Arizona.** *Arizona Geological Survey, Map 33*, scale 1:1,000,000, 1 sheet, 2 sides.

Kneale, S. M., AND Richard, S. M.

- 1998 24.113 **Arizona geologic index map, version 1.0.** *Arizona Geological Survey, Digital Information DI-9*, 5 pp., 3 high-density digital diskettes.

Oasis Media

- 1998 25.246 **大な-ちゃんのラスベガス サンポッポ : 車でゆくグランドキャニオン, イン治安の文化に触れる, 感度の旅, ビッグスカイ; あs うえがs 寸ポッポ** [*Daina-chan no Rasubegasu Sanpoppo : kuruma de yuku Gurando Kyanion, Indian no bunka ni fureru, kando no tabi, biggu sukai : Las Vegas Sunpoppo.*] Las Vegas: Oasis Media, map, 1 sheet, folded. [In Japanese.]
Advertisements (in English) on verso.

Pearthree, Philip A.

- 1998 11.16171 (COMPILER) **Quaternary fault data and map for Arizona.** *Arizona Geological Survey, Open-File Report 98-24*, 122 pp., 1 DOS diskette, 1 sheet, scale 1:750,000.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Trapp, Richard A.; Reynolds, Stephen J.; AND Kneale, S. M.

1998 24.194 **Physiographic areas in Arizona used by the Arizona Geological Survey.** *Arizona Geological Survey, Digital Information DI-10*, 4 pp., 1 high-density diskette.

1999

Berndtson und Berndtson GmbH

1999 25.19 **USA 2 : American Southwest.** Fürstenfeldbruck, Germany: Berndtson und Berndtson GmbH, 1 sheet, 2 sides, cut and laminated, scale 1:3,000,000. [In German.]

Billingsley, George H., AND Hampton, Haydee M.

1999 24.39 **Physiographic rim of the Grand Canyon, Arizona.** *U.S. Geological Survey, Open-File Report 99-30*, 1 sheet, scale 1:250,000, contour intervals 25 and 50 m. ("This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American Stratigraphic Code.") [Illustrated herein (Figure A, facing p. 1).]

Also downloadable GIS (Geographic Information System) data file in ARC/INFO format, "Physiographic rim of the Grand Canyon, Arizona: A digital database", with explanation, 10 pp. (<https://pubs.usgs.gov/publication/ofr9930>; last accessed 3 January 2025).

► Not a typical topographic or geological map, but one uniquely Grand Canyon. The physiographic rim is interpreted along both sides of the canyon, from Lees Ferry (on the Northeast) to the Grand Wash Cliffs (on the West), embracing Marble Canyon (from Lees Ferry nearly to the Little Colorado River that enters from the Southeast) and Grand Canyon. The rim is plotted not along lines of equal elevation as like topographic contours but along what can be construed as the "edge" of the canyon. While the precise "edge" may be subjectively defined in some areas, where the rim is not immediate and precipitous, this map nonetheless for the first time displays the true figure of the canyon without respect to definitions of political geography or to stylistic generalities that cause imprecision. By convention, the two sides of the canyon, separated by the Colorado River, are called the North Rim and the South Rim.

Note that the physiographic rim also runs along the rims of significant tributaries, the most prominent ones of which are Kanab Creek (on the North), the Little Colorado River (on the East), and Cataract/Havasu Creek (on the South). The mappers, though, had not indicated the lengths of the two rims as drawn on the map. These were later measured by Susan S. Priest (U.S. Geological Survey) using ArcInfo data points from Billingsley and Hampton's data set. The crenulated north side measures 1,384 miles along the rim contour. Despite the great asymmetry between the two sides, the south side is astonishingly a nearly identical 1,373 miles. (Data were first sent from Billingsley to Spamer in 2010. These figures were included in a publication by E. E. Spamer, "What Lies Behind the Grand Canyon?", *Annals of Improbable Research*, Vol. 16, no. 5 [September/October 2010], cover, 1, 6-10.)

Billingsley, George H.; Wenrich, Karen J.; Huntoon, Peter W.; AND Young, Richard A.

1999 24.214 **Breccia-pipe and geologic map of the southwestern part of the Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Series, I-2554*, 2 sheets, with text 50 pp.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

DeLorme [firm]

1999 25.127 **3-D TopoQuads : Arizona.** Yarmouth, Maine: DeLorme, 9 CD-ROMs, 12-page text.

DeLorme Mapping

1999 25.150 **Arizona atlas and gazetteer.** Yarmouth, Maine: DeLorme, 3rd ed., 76 pp.

Doelling, Hellmut H.

1999 24.807 (COMPILER) **Interim geologic map of the Kanab 30' × 60' quadrangle, Kane and Washington Counties, Utah, and Coconino and Mohave Counties, Arizona.** *Utah Geological Survey, Open-File Report 366*, 1 sheet [cross-section], text [12] pp. with maps as text-figures.
For later map see Doelling (2008, [ITEM NO. 24.814](#)).

Landkarte [firm]

1999 25.126 **Mega Atlas Arizona 1: 400 000.** Fürst: Berndtson u. B. [In German.]

Lindemann, Linda Lou

1999 10.20 **Colorado River briefs for a trip through the Grand Canyon.** (Updated edition, illustrated by Dan K. Lindemann.) Catalina, Arizona: Lundquist Press, 6th printing, 152 pp. [Spiral-bound, yellow covers.]
NOTE: Later copies distributed with insert regarding summer 1999 rockslide at President Harding Rapid.

National Geographic Society

1999 25.134 **Grand Canyon National Park destination maps.** Evergreen, Colorado: Trails Illustrated/National Geographic Maps, revised.

National Geographic Society, Cartographic Division

1999 24.828 (IN COLLABORATION WITH Boston Museum of Science) **The heart of the Grand Canyon, Grand Canyon National Park, Arizona.** Washington, D.C.: National Geographic Society, 1 sheet, scale 1:24,000, contour interval 100 ft. ("Produced by the Cartographic Division, National Geographic Society".) ("Reprinted 1999".) ("Distributed by MapQuest.com, Mountville, Pennsylvania, USA".) ("This map was compiled from 1972 aerial photography and field surveys by Bradford Washburn, assisted by Barbara P. Washburn, Harry R. Feldman and Wendell Mason. Relief by Tibor G. Toth, research and compilation by Thomas L. Gray, contours by Norbert and Walter Vasques, all National Geographic Staff. Cliff hachures by the Topographical Survey of Switzerland. Photogrammetry by Lockwood Mapping, laser assistance by K & E Laser Systems and Electronics. The National Geographic is also grateful to the Grand Canyon National Park, and Professor J. Harvey Butchart, Northern Arizona University, for their generous cooperation and assistance during the preparation of this map.")

This is **Variant D**. 35 × 36 inches, printed on one side on *regular paper*, omitting text and illustrations that appear in Variant B [see 1978, [ITEM NO. 24.145](#)]; omits "THE HEART OF THE GRAND CANYON" in lower-right corner, replaced with availability information; copyright and distributional note are in lower-left corner. Compared to Variant B this map expands ground coverage on the west by 1.5 miles, to the west of Hermit's Rest, and on the east by ca. 3,000 feet. Includes table of trail distances that is omitted from Variant B. Key and credit notations are placed differently than in Variant B.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Stevens, Larry [Stevens, Lawrence E.]

- 1999 10.34 **The Colorado River in Grand Canyon : a comprehensive guide to its natural and human history.** Flagstaff, Arizona: Red Lake Books, 6th ed., 115 pp. [Title-page erroneously states "Fifth Edition"; verso indicates "Sixth edition, 1st printing, 1999". 2nd printing 2002. 3rd printing 2003.]

Time Traveler Maps

- 1999 25.135 **The Colorado Plateau : map and guide to public lands on the Colorado Plateau and its borderlands.** Mancos, Colorado: Time Traveler Maps, foldout, 2 sides, scale 1:1,250,000.

U.S. Bureau of Land Management, Arizona Strip Field Office; AND U.S. National Applied Resource Sciences Center

- 1999 25.202 **Arizona Strip District : visitor map : 1999.** [St. George, Utah]: U.S. Bureau of Land Management, Arizona Strip Field Office.
East and west half on two sides of one sheet.

2000

Billingsley, George H., AND Hampton, Haydee M.

- 2000 24.219 **Geologic map of the Grand Canyon 30' × 60' quadrangle, Coconino and Mohave Counties, northwestern Arizona.** *U.S. Geological Survey, Geologic Investigations Series, I-2688, Version 1.0*, 1 sheet, text 15 pp.
Poster style sheet, displaying map with supplementary images and key on three sides.

Billingsley, George H., AND Workman, Jeremiah B.

- 2000 24.216 **Geologic map of the Littlefield 30' × 60' quadrangle, Mohave County, northwestern Arizona.** *U.S. Geological Survey, Geologic Investigations Series, I-2628*, 1 sheet, scale 1:100,000, 25-page text.

Billingsley, George H.; Harr, Michelle; AND Wellmeyer, Jessica L.

- 2000 24.224 **Geologic map of the upper Parashant Canyon and vicinity, northern Mohave County, northwestern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2343*, scale 1:31,680, text 27 pp.
Upper Parashant Canyon–Grassy Mountain area.

Billingsley, George H.; Wenrich, Karen J.; AND Huntoon, Peter W.

- 2000 24.217 **Breccia-pipe and geologic map of the southeastern part of the Hualapai Indian Reservation and vicinity, Arizona.** *U.S. Geological Survey, Geologic Investigations Series, I-2643*, 2 sheets, text 18 pp; scale 1:48,000.

Fletcher, Colin

- 2000 25.1258 *Wanderer durch die Zeit : allein im Grand Canyon: eine Entdeckungsreise.* (Arnd Kösling, translator.) München und Zürich: Diana Verlag, 271 pp., map. [In German.]
Includes "Vorbemerkung", dated "C. F. 1990" (p. 9), and "Nachtrag 1989", dated "C. F., März 1989" (pp. 265-266).

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Fold-out **MAP**, "Grand Canyon National Park" (between pp. 128/129) depicts "Colin Fletchers Route"; legend and some labels translated to German. "Ursprüngliche Karte von Evelyn Bingham Bearbeitung von Achim Norweg". Map printed on glossy paper, physiography shown in orange-brown, with black lettering and route line. Translation of *The man who walked through time*.

Grand Canyon National Park Lodges

- NO DATE 9.1214 *Grand Canyon historic village at South Rim : map and visitor guide : experience the historic village : the "must-see" at Grand Canyon*. [No place]: Grand Canyon National Park Lodges, 24 pp. [including wraps]. [Early 2000s?] [Also later printings, no date.]
Front cover is gatefold **MAP**, "Grand Canyon Historic Village", an oblique view cartoon panorama between Mather Point and Hopi Point. Includes walking tour of Grand Canyon Village.

Grand Canyon Trust

- NO DATE 25.496 **Greater Grand Canyon**. Flagstaff, Arizona: Grand Canyon Trust. [2000.]
Verso of folded oversize sheet titled, *A vision for the greater Grand Canyon*; recto comprises text and illustrations.
Also distributed in unfolded format on request.

Hereford, Richard; Burke, Kelly J.; AND Thompson, Kathryn S.

- 2000 24.229 **Map showing Quaternary geology and geomorphology of the Granite Park area, Grand Canyon, Arizona**. U.S. Geological Survey, *Geologic Investigations Series, I-2662*, scale 1:2000.
- 2000 24.230 **Map showing Quaternary geology and geomorphology of the Lees Ferry area, Glen Canyon, Arizona**. U.S. Geological Survey, *Geologic Investigations Series, I-2663*, scale 1:2333.

Karto+Grafik

- 2000 25.157 **Hildebrand's Urlaubskarten-Road Map-Carte Routiere : USA : Colorado Plateau : Canyonlands : Südliche Rocky Mountains**. Frankfurt am Main: Karto+Grafik, scale 1:700,000. [In German.]

Lindemann, Linda Lou

- 2000 10.43 **Colorado River briefs for a trip through the Grand Canyon**. (Updated edition, illustrated by Dan K. Lindemann.) Catalina, Arizona: Lundquist Press, 7th printing, 152 pp. [Spiral-bound, yellow covers.]

Richard, Stephen M.; Reynolds, S. J.; Spencer, J. E.; AND Pearthree, P. A.

- 2000 24.218 **Geologic map of Arizona**. *Arizona Geological Survey, Map 35*, 1 sheet, scale 1:1,000,000.
- 2000 24.349 **Digital graphic files for the Geologic Map of Arizona; a representation of Arizona Geological Survey Map 35**. *Arizona Geological Survey, Digital Geological Map DGM-17*, CD.

Thomas, Jim

- 2000 10.41 **Grand Canyon : Colorado River trip**. Flagstaff, Arizona: Design and Sales Publishing, Inc., laminated card.
Map, list of rapids, illustrations.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

U.S. Bureau of Land Management, Arizona Strip Field Office; AND U.S. National Applied Resource Sciences Center

- 2000 25.203 **Arizona Strip District : visitor map : 2000.** [St. George, Utah]: U.S. Bureau of Land Management, Arizona Strip Field Office.
East and west half on two sides of one sheet.

2001

Billingsley, George H., AND Hampton, Haydee M.

- 2001 24.221 **Geologic map of the House Rock Spring quadrangle, Coconino County, northern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2367*, scale 1:24,000, text 17 pp.

Billingsley, George H., AND Wellmeyer, Jessica L.

- 2001 24.222 **Geologic map of the Cane quadrangle, Coconino County, northern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2366*, scale 1:24,000, text 7 pp.

Billingsley, George H.; Hamblin, W. Kenneth; Wellmeyer, Jessica L.; Block, Debra; AND Dudash, Stephanie

- 2001 24.223 **Geologic map of part of the Uinkaret Volcanic Field, Mohave County, northwestern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2368*, scale 1:31,680.
Mount Trumbull–Toroweap Valley area.

Billingsley, George H.; Wellmeyer, Jessica L.; AND Block, Debra

- 2001 24.225 **Geologic map of the House Rock quadrangle, Coconino County, northern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2364*, scale 1:24,000, text 8 pp.

DeLorme Mapping

- 2001 25.152 **Arizona atlas and gazetteer.** Yarmouth, Maine: DeLorme, 4th ed., 76 pp.

Dohrenwend, John C.

- 2001 25.348 **Satellite image map of Grand Canyon National Park.** Teasdale, Utah: Southwest Satellite Imaging, scale 1:250,000.
Legend on map: "Grand Canyon National Park".
Grand Canyon National Park and Grand Canyon-Parashant National Monument.
Political unit boundaries outlined on satellite image of Grand Canyon region (eastern/western map boundaries at about Lees Ferry to Pearce Ferry, northern/southern map boundaries at about Pipe Spring and Peach Springs).
Boundaries generalized at this resolution.

Hallwag [firm]

- 2001 25.153 **Southwest : southern Rockies, canyon country.** Bern, Switzerland: Hallwag AG, Kartenverlag, "Edition 2001-2003", 1 sheet, scale 1:200,000. (USA Road Guide, no. 6.)

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Includes guide booklet affixed to stiff wrap: *USA road guide : information A-Z : top attractions : insider tips*. Bern: Hallwag AG, "5. Hallwag-Ausgabe 2001/2003", copyright 1997, 44 [48] pp., covers I, II, III.

Phoenix Mapping Service

2001 25.142 **Flagstaff, Grand Canyon, Arizona city map : including Flagstaff east, Northern Arizona University : plus neighboring communities.** Skokie, Illinois: Rand McNally, folded sheet.

Preston, R. N., AND Preston, M. L.

2001 25.324 **Arizona ghost towns/sites then and now : early towns, military roads, early railroads, stage stations, early forts : overlay of modern road system.** Lake Oswego, Oregon: Northwest Distributors, LLC, 6 maps in illustrated envelope. ("Copyright 2001 R.N./M.L. Preston".)
Map 1, side 1, Arizona 1881 (facsimile, "Arizona 1881", Rand McNally, Chicago).
Map 1, side 2, Arizona 1885 (facsimile, "Arizona 1885", George F. Cram, Chicago).
Map 2, side 1, Arizona 1900 (facsimile, no imprint).
Map 2, side 2, Arizona populations (town populations for 1900, 1950, 2000).
Maps 3-6 include clear plastic overlay printed in red depicting "Arizona—Today", affixed along top edge to paper 1881 map section:
"Map 3 Arizona—1881 Northwest Section"
"Map 4 Arizona—1881 Northeast Section"
"Map 5 Arizona—1881 Southwest Section"
"Map 6 Arizona—1881 Southeast Section".
Envelope includes instructions, "Using the Overlay".
NOTE: Copy acquired as new in 2013 with distributor's label as given above. Beneath the label reads outdated information: Northwest Distributors, Inc., Albany, Oregon.

Unique Media

2001 25.159 **Las Vegas, Grand Canyon, Arizona, Lake Mead country.** Don Mills, Ontario: Unique Media, Inc., 2001/2002 ed., 1 sheet.

U.S. Bureau of Reclamation, Lower Colorado Region

2001 25.566 **Map and operational diagram : lower Colorado River : Lees Ferry to Gulf of California.** [No place]: U.S. Bureau of Reclamation, Lower Colorado Region, 1 sheet. (Revised August 2001.)

U.S. Bureau of Reclamation, Lower Colorado Region, Boulder Canyon Operations Office

2001 10.141 **[River mile index for the Lower Colorado River.]** U.S. Bureau of Reclamation, Lower Colorado Region, Boulder Canyon Operations Office, [17] pp.
NOTE: This index is for the Colorado River main stem only. Mileages are in order upstream from the southerly U.S.-Mexico boundary to Lees Ferry. Compare Pacific Southwest Inter-Agency Committee (1974, [ITEM NO. 10.25](#)).

U.S. National Aeronautical Charting Office

2001 25.144 **Sectional aeronautical chart. Las Vegas.** [Silver Spring, Maryland]: U.S. Department of Transportation, National Aeronautical Charting Office, 1 sheet, 2 sides, scale 1:500,000.
Boundary meridians 118, 111 West, parallels 36, 40 North.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Whitis, Duwain, AND Vinson, Barbara

- 2001 10.45 **Colorado River in the Grand Canyon.** Buda, Texas: Duwain Whitis and Barbara Vinson, pp. [1-2], Maps 1-50. (RiverMaps™ series.) [Spiral-bound; produced on demand with color laser printer, on water-resistant paper with laminated covers.]
True 1st ed. For later eds. see Martin and Whitis (2004 [ITEM NO. [10.71](#)] and following).

2002

Billingsley, George H.; Priest, Susan S.; AND Dudash, Stephanie L.

- 2002 24.366 **Geologic map of the Clayhole Wash and vicinity, Mohave County, northwestern Arizona.** U.S. Geological Survey, *Miscellaneous Field Studies Map MF-2394*, scale 1:31,680, text 20 pp.

Billingsley, George H.; Wellmeyer, Jessica L.; Harr, Michelle; AND Priest, Susan S.

- 2002 24.367 **Geologic map of the Hidden Hills and vicinity, Mohave County, northwestern Arizona.** U.S. Geological Survey, *Miscellaneous Field Studies Map MF-2387*, scale 1:31,680, text 23 pp.

DeLorme Mapping

- 2002 25.151 **Arizona atlas and gazetteer.** Yarmouth, Maine: DeLorme, 5th ed., 76 pp.

Underhill Foundation, AND Grand Canyon Trust

- 2002 25.156 **Federal lands of the Colorado Plateau region.** *Plateau Journal*, 6(1) (Spring/Summer): inside back cover.

U.S. Geological Survey, Grand Canyon Monitoring and Research Center

- 2002 10.48 **A guide to the Colorado River in the Grand Canyon (from Glen Canyon Dam to Pierce Ferry). March 2000 contours and river-mile systems.** Flagstaff, Arizona: U.S. Geological Survey, Grand Canyon Monitoring and Research Center, Flagstaff Field Center.
Glen Canyon Dam to Pearce Ferry. 590 maps in one-half mile segments. Sheets headed "River Mile -15" to "River Mile 279.5"; mileages begin with Mile 0 of Birdseye (1924, ITEM NO. [10.119](#)). Maps plot mileage points for GCMRC study, Birdseye, and the markers from the Grand Canyon river guides of Belknap and of Stevens; the GCMRC plots are refined to 0.1 mile points. Actual coverage of GCMRC points go upstream not quite to Mile -15.3 and does not actually go to the dam.
Hardcopies can be generated at various scales from computer-data files; e.g., 1:4,000 (4 inches = ¼ mile); contour intervals 2 m on land, 1 m on river surface.

2003

Adventure Cycling Association

- 2003 25.164 **Bicycle touring map : Grand Canyon connector : Cedar City, UT to Tempe, AZ.** Missoula, Montana: Adventure Cycling Association, 1 sheet.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Arizona Trail Association

- 2003 25.193 **39 : Grand Canyon North Rim.** [Phoenix]: Arizona Trail Association. [Topographic map of passage 39 of the Arizona Trail. Map produced by U.S. Bureau of Land Management, Arizona State Office of Mapping Sciences, and Public Information and Resources Group.]
- 2003 25.194 **40a : Kaibab Plateau South S.** [Phoenix]: Arizona Trail Association. [Topographic map of passage 40a of the Arizona Trail, southern portion of Kaibab Plateau South passage. Map produced by U.S. Bureau of Land Management, Arizona State Office of Mapping Sciences, and Public Information and Resources Group.]
- 2003 25.195 **40b : Kaibab Plateau South N.** [Phoenix]: Arizona Trail Association. [Topographic map of passage 40b of the Arizona Trail, northern portion of Kaibab Plateau South passage. Map produced by U.S. Bureau of Land Management, Arizona State Office of Mapping Sciences, and Public Information and Resources Group.]
- 2003 25.196 **41a : Kaibab Plateau Central S.** [Phoenix]: Arizona Trail Association. [Topographic map of passage 41a of the Arizona Trail, southern portion of Kaibab Plateau Central passage. Map produced by U.S. Bureau of Land Management, Arizona State Office of Mapping Sciences, and Public Information and Resources Group.]
- 2003 25.197 **41b : Kaibab Plateau Central N.** [Phoenix]: Arizona Trail Association. [Topographic map of passage 41b of the Arizona Trail, northern portion of Kaibab Plateau Central passage. Map produced by U.S. Bureau of Land Management, Arizona State Office of Mapping Sciences, and Public Information and Resources Group.]
- 2003 25.198 **42a : Kaibab Plateau North S.** [Phoenix]: Arizona Trail Association. [Topographic map of passage 42a of the Arizona Trail, southern portion of Kaibab Plateau North passage. Map produced by U.S. Bureau of Land Management, Arizona State Office of Mapping Sciences, and Public Information and Resources Group.]
- 2003 25.199 **42b : Kaibab Plateau North N.** [Phoenix]: Arizona Trail Association. [Topographic map of passage 42b of the Arizona Trail, northern portion of Kaibab Plateau North passage. Map produced by U.S. Bureau of Land Management, Arizona State Office of Mapping Sciences, and Public Information and Resources Group.]
- 2003 25.200 **43 : Buckskin Mountain.** [Phoenix]: Arizona Trail Association. [Topographic map of passage 43 of the Arizona Trail. Map produced by U.S. Bureau of Land Management, Arizona State Office of Mapping Sciences, and Public Information and Resources Group.]

Billingsley, George H., AND Dyer, Helen C.

- 2003 24.364 **Geologic map of the upper Hurricane Wash and vicinity, Mohave County, northwestern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2410*, scale 1:31,680, text 23 pp.

Billingsley, George H., AND Graham, Scott E.

- 2003 24.365 **Geologic map of the lower Hurricane Wash and vicinity, Mohave County, northwestern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2396*, scale 1:31,680, text 27 pp.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Billingsley, George H., AND Wellmeyer, Jessica L.

- 2003 24.232 **Geologic map of the Mount Trumbull 30' × 60' quadrangle, Mohave and Coconino Counties, northwestern Arizona.** *U.S. Geological Survey, Geologic Investigations Series, I-2766*, scale 1:100,000, text 36 pp.

Black, Bronze

- 2003 25.163 **The Colorado River SuperGuide map of the Grand Canyon.** Flagstaff, Arizona: Dragon Creek Publishing, 1 sheet (2 sides). (SuperGuide Maps.)

Global Graphics

- 2003 25.204 **Wilderness in your pocket : Grand Canyon panoramic map.** Oceanside, California: Global Graphics, 1 sheet, 2 sides.

- 2003 25.316 **Wilderness in your pocket : Grand Canyon panoramic map : mapa panoramica : carte panoramique : Panoramakarte.** [No place]: Smith-Southwestern, 1 sheet, 2 sides. [Multilingual title.]

Copyright 2003; publication date is later (copy acquired new in 2013). Recto is stylized, panoramic oblique-aerial view. Verso is topographic map, "**Grand Canyon National Park—South Rim**", scale 1:24,000, contour interval 40 feet.

Hereford, Richard

- 2003 24.236 **Map showing Quaternary geology and geomorphology of the Lonely Dell reach of the Paria River, Lees Ferry, Arizona.** *U.S. Geological Survey, Geologic Investigations Series, I-2771*, 1 sheet, scale 1:5,000.

See also accompanying pamphlet by Robert H. Webb and Richard Hereford (2003), *Comparative Landscape Photographs of the Lonely Dell Area and the Mouth of the Paria River*, 21 pp.

Lindemann, Linda Lou

- 2003 10.55 **Colorado River briefs for a trip through the Grand Canyon.** (Updated edition, illustrated by Dan K. Lindemann.) Catalina, Arizona: Lundquist Press, 8th printing, 152 pp. [Spiral-bound, yellow covers.]

National Geographic Society

- 2003 25.167 **Grand Canyon National Park, Arizona, USA.** Evergreen, Colorado: National Geographic Maps, revised, scale *ca.* 1:63,360. (Trails Illustrated Map.)

U.S. Forest Service, Southwestern Region; AND U.S. Forest Service, Geometronics Service Center

- 2003 25.236 **Kaibab National Forest, North Kaibab Ranger District, Arizona, 1994 : America's great outdoors.** Albuquerque: U.S. Forest Service, Southwest Region, revised, 1 sheet.

2004

Billingsley, George H.; Beard, L. Sue; Priest, Susan S.; Wellmeyer, Jessica L.; AND Block, Debra L.

- 2004 24.368 **Geologic map of the lower Grand Wash Cliffs and vicinity, Mohave County, northwestern Arizona.** *U.S. Geological Survey, Miscellaneous Field Studies Map MF-2427*, scale 1:31,680, text 23 pp.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Billingsley, George H.; Priest, Susan S.; AND Felger, Tracey J.

- 2004 24.360 **Geologic map of Pipe Spring National Monument and the western Kaibab-Paiute Indian Reservation, Mohave County, Arizona.** *U.S. Geological Survey, Miscellaneous Investigations Map I-2863*, scale 1:31,680, 1 sheet.

G. M. Johnson and Associates

- 2004 25.209 **City street map : Flagstaff, Sedona, Grand Canyon.** Burnaby, British Columbia: G. M. Johnson and Associates, Ltd.

Martin, Tom, AND Whitis, Duwain

- 2004 10.71 **Guide to the Colorado River in the Grand Canyon : Lees Ferry to South Cove.** Flagstaff, Arizona: Vishnu Temple Press, [108] pp. (RiverMaps™ series, published by Duwain Whitis and Barbara Vinson, Buda, Texas.) [March 2004. Spiral-bound. Maps prepared using AutoCAD with Land Development Desktop add-in; layout in Microsoft Word.⁴⁶]

First commercially available ed. under this imprint. For true 1st ed. see Whitis and Vinson (2001, [ITEM NO. 10.45](#)).

National Geographic Visitor Center Grand Canyon

- 2004 25.357 **Map of the Arizona Trail [recto] : What to do at the Grand Canyon South Rim [verso].** Washington, D.C.: National Geographic, 1 sheet.
Verso includes shaded relief map of Grand Canyon Village area and adjacent canyon, overprinted with locations and scenic highlights, scale 1 inch = *ca.* 0.55 mile, and informational text.
Uncertain whether there are later printings. Cited copy acquired new in 2016 includes information:
Recto: "National Geographic Visitor Center Grand Canyon Proudly supports the Arizona Trail Association". "Copyright © Arizona Trail Association".
Verso: "Map compliments of the National Geographic Visitor Center." "Courtesy of Nature Valley™". "Copyright © 2004 National Geographic Society, Washington, D.C."

Starr Map Co.

- 2004 25.168 **Discovery map : Grand Canyon, Williams and Historic Route 66, Arizona : souvenir map and guide.** Anacortes, Washington: Starr Map Co., "1st Edition".

Time Traveler Maps

- 2004 25.174 **The Colorado Plateau : map and guide to public lands on the Colorado Plateau and its borderlands.** Mancos, Colorado: Time Traveler Maps, 2nd ed., foldout, 2 sides, scale 1:1,250,000.

⁴⁶ Points relating to production, editions, and printings of the RiverMaps series were provided by Duwain Whitis (February 2021). The date given in square brackets as a note within a citation is Whitis's record of the date of delivery from the printer, thus the date of availability. These dates with months do not appear in the publications themselves.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

2005

Adventure Cycling Association

2005 25.165 **Bicycle touring map : Grand Canyon connector : Cedar City, UT to Tempe, AZ.** Missoula, Montana: Adventure Cycling Association, revised, 1 sheet.

Karto+Grafik

2005 25.655 **USA : Sud Rocheuses—Grand Canyon.** Montreuil, Seine-Saint-Denis, France: Blay-Foldex, scale 1:700,000. [Legend in English, German, and French.]

Lindemann, Linda Lou

2005 10.56 **Colorado River briefs for a trip through the Grand Canyon.** (Updated edition, illustrated by Dan K. Lindemann.) Santa Clara, California: DeHarts Printing Services, 9th printing, 154 pp. [Spiral-bound, pictorial topographic map covers.]

Martin, Tom, AND Whitis, Duwain

2005 10.54 **Guide to the Colorado River in the Grand Canyon : Lees Ferry to South Cove : second edition.** Flagstaff, Arizona: Vishnu Temple Press, [108] pp. (RiverMaps™ series, published by Duwain Whitis and Barbara Vinson, Buda, Texas.)
April 2005. Spiral-bound. Maps prepared using AutoCAD with Land Development Desktop add-in; layout in Microsoft Word.⁴⁷

Reed, John C., Jr.; Wheeler, John O.; AND Tucholke, Brian E.

2005 24.832 (COMPILERS) **Geologic map of North America.** Boulder, Colorado: Geological Society of America, Decade of North American Geology, Map 001, scale 1:5,000,000.
See also Garrity and Soller (2009, ITEM NO. [24.833](#)).

Time Traveler Maps

2005 25.554 **Colorado Plateau adventure : map and directory : a comprehensive collection of the world's most diverse guided adventures.** Mancos, Colorado: Time Traveler Maps, foldout, 2 sides (texts on verso), scale 1:1,335,000.

2006

Arizona State Land Department

2006 25.295 **Military training routes/Coconino County.** [Phoenix]: Arizona State Land Department, scale 1:445,000. [Data from Luke Air Force Base, 2003.]

2006 25.297 **Military training routes/Mohave County.** [Phoenix]: Arizona State Land Department, scale 1:455,000. [Data from Luke Air Force Base, 2003.]

⁴⁷ Points relating to production, editions, and printings of the RiverMaps series were provided by Duwain Whitis (February 2021). The date given in square brackets as a note within a citation is Whitis's record of the date of delivery from the printer, thus the date of availability. These dates with months do not appear in the publications themselves.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Billingsley, George H.; Block, Debra L.; AND Dyer, Helen C.

- 2006 24.271 **Geologic map of the Peach Springs 30' × 60' quadrangle, Mohave and Coconino Counties, northwestern Arizona.** *U.S. Geological Survey, Scientific Investigations Map 2900*, 16 pp., 1 sheet, scale 1:100,000.

Billingsley, George H.; Felger, Tracey J.; AND Priest, Susan S.

- 2006 24.238 **Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona.** *U.S. Geological Survey, Scientific Investigations Map 2895*, 22 pp., 1 sheet, scale 1:100,000.

Also available only as downloads from U.S. Geological Survey publications website are geologic maps of the thirty-two 7.5' quadrangles (scales 1:24,000) within the Valle 30' × 60' quadrangle, all of which can be accessed directly from this webpage: <https://pubs.usgs.gov/sim/2006/2895/24k/images/> (accessed 10 July 2024). Quadrangles are as follows:

- 2006 24.239 **National Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]
- 2006 24.240 **Supai Camp quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]
- 2006 24.241 **Hualapai Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]
- 2006 24.242 **Baldy Basin quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]
- 2006 24.243 **Box K Ranch quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]
- 2006 24.244 **Metzger Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]
- 2006 24.245 **Tusayan West quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]
- 2006 24.246 **Tusayan East quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]
- 2006 24.247 **Dike Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]
- 2006 24.248 **Supai Camp SE quadrangle.** [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2895*. [7.5' quadrangle, scale 1:24,000.]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

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| 2006 | 24.249 | Hazen Hole Tank quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.250 | Rosebud Tank quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.251 | Little Harpo Canyon quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.252 | Howard Hill quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.253 | Red Butte SW quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.254 | Red Butte quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.255 | Rose Well Camp West quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.256 | Rose Well Camp East quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.257 | Black Tank quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.258 | Tin House quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.259 | Markham Dam quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.260 | Miller Tank quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.261 | Valle Tank quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.262 | Molly Ann Draw quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

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| 2006 | 24.263 | Rhodes Canyon quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.264 | Big Bud Tank quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.265 | Bishop Lake quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.266 | Howard Spring quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.267 | Red Hill Ranch quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.268 | Mixon Tank quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.269 | Howard Lake quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2006 | 24.270 | Hobble Tank quadrangle. [As part of 1:100,000 scale] Geologic map of the Valle 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2895.</i> [7.5' quadrangle, scale 1:24,000.] |

GeoGraphic Publishers

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| 2006 | 25.212 | Insight : Phoenix. [Munich, Germany]: GeoGraphic Publishers (distributed by American Map Corp., Maspeth, New York).
Verso includes Grand Canyon map, scale 1:270,000. |
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Murphy, Shane, AND Staveley, Gaylord

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| 2006 | 10.63 | Ammo can interp : talking points for a Grand Canyon river trip. Flagstaff, Arizona: Canyoneers, 1st ed., 223 pp. ("Beta version, subject to revision".) ("Designed, written, and illustrated by Shane Murphy with Gaylord Staveley. Indexed by Shane Murphy with C. V. Abyssus [<i>pseudonym of</i> Richard D. Quartaroli] and Suzy Flint. Edited in whole or part by C. V. Abyssus, Brad Dimock, Brad Ilg, Christa Sadler, Larry Stevens and Roy Webb.") [Limited distribution.]
Two states, both 2006; both indicate 1st ed., 1st printing; <i>1st state</i> cover in color, <i>2nd state</i> black-and-white, about one month later, with no textual changes.
Formats: <i>1st state</i> , paper, 9.5 × 6.5 in. (height × width), coil binding (single, clear) adds 0.5 in. to width, compresses when ammo can lid is closed; <i>2nd state</i> , paper, 9 × 6 in., coil binding (double, black), which fits better in ammo can.
<i>NOTE:</i> Points for this title, 1st-3rd eds., compiled by Richard Quartaroli. |
| 2006 | 10.82 | Ammo can interp : talking points for a Grand Canyon river trip (edited in whole or part by C. V. Abyssus [<i>pseudonym of</i> Richard D. Quartaroli]). Flagstaff, Arizona: Canyoneers, 2nd ed. ("3" [<i>i.e.</i> 3rd printing in sequence]), 220 pp. ("Designed, written and |

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

illustrated by Shane Murphy with Gaylord Staveley".) [Color. 9 × 6 inches.] [Limited distribution.]

Cline Library, Northern Arizona University, catalog record cites as (square brackets and ellipsis thus): ["Designed, written, and illustrated by Shane Murphy and Gaylord Staveley; edited in whole or part by C. V. Abyssus, . . . [et al.]".

2nd ed. does not denote printings.

NOTE: Points for this title, 1st-3rd eds., compiled by Richard Quartaroli.

Starr Map Co.

2006 25.169 **Discovery map : Flagstaff and vicinity, Arizona : souvenir map and guide.** Anacortes, Washington: Starr Map Co., 6th ed.

U.S. Bureau of Land Management, National Science and Technology Center

2006 25.173 **Arizona Strip visitor map, Arizona.** U.S. Bureau of Land Management, National Science and Technology Center.

2007

Belknap, Buzz, AND Evans, Loie Belknap

2007 10.60 **Belknap's waterproof Grand Canyon river guide : all new edition.** Evergreen, Colorado: Westwater Books, 111 [112] pp.

This is the last printing of the Belknap Grand Canyon guides that employs for river mileages just the system based on the 1924 U.S. Geological Survey Plan and Profile (see Birdseye, 1924, *ITEM NO.* [10.119](#)).

Billingsley, George H.; Priest, Susan S.; AND Felger, Tracey J.

2007 24.274 **Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona.** *U.S. Geological Survey, Scientific Investigations Map 2977*, scale 1:100,000, 1 sheet, 33 pp.

Also available only as downloads from U.S. Geological Survey publications website are geologic maps of the thirty-two 7.5' quadrangles (scales 1:24,000) within the Cameron 30' × 60' quadrangle, all of which can be accessed directly from this webpage: <https://pubs.usgs.gov/sim/2007/2977/24k/images/> (accessed 10 July 2024). Quadrangles are as follows:

2007 24.275 **Grandview Point quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977*. [7.5' quadrangle, scale 1:24,000.]

2007 24.276 **Grandview Point NE quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977*. [7.5' quadrangle, scale 1:24,000.]

2007 24.277 **Hellhole Bend quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977*. [7.5' quadrangle, scale 1:24,000.]

2007 24.278 **Coconino Point quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S.*

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

- Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.279 **Cameron North quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.280 **Cameron NE quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.281 **Goldtooth Point quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.282 **Appoloosa Ridge quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.283 **Harbison Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.284 **Peterson Flat quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.285 **Willows Camp quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.286 **Coconino Point SE quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.287 **Cameron South quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.288 **Cameron SE quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.289 **The Landmark quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

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| 2007 | 24.290 | Gold Spring quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.291 | Dog Knobs quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.292 | Lockwood Canyon quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.293 | Campbell Francis Wash quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.294 | Gray Mountain. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.295 | Wupatki NE quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.296 | Badger Spring quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.297 | Rock Head quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.298 | Ebert Mountain quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.299 | Chapel Mountain quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.300 | SP Mountain quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 2977.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2007 | 24.301 | East of SP Mountain quadrangle. [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. <i>U.S.</i> |

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

- Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.302 **Wupatki SW quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.303 **Wupatki SE quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.304 **Standing Rocks.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.305 **White Water Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*
- 2007 24.306 **Wupatki NE quadrangle.** [As part of 1:100,000 scale] Geologic map of the Cameron 30' × 60' quadrangle, Coconino County, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 2977. [7.5' quadrangle, scale 1:24,000.]*

Eastman, Steven A.

- 2007 24.352 **Arizona physiographic areas.** *Arizona Geological Survey, Digital Information DI-10, 1 sheet.*

G. M. Johnson and Associates

- 2007 25.210 **City street map : Flagstaff, Sedona, Grand Canyon.** Burnaby, British Columbia: G. M. Johnson and Associates, Ltd.

Guia Roji [firm]

- 2007 25.522 **Red Vial : Ciudad de Mexicali : area metropolitana : city map : indice de calles y colonias con su localizacion : 2007-08.** México: Guia Roji S.A. de C.V., 1 sheet (2 sides), scale 1:22:500. *[In Spanish.]*

Lindemann, Linda Lou

- 2007 10.68 **Colorado River briefs for a trip through the Grand Canyon.** (Updated edition, illustrated by Dan K. Lindemann.) Santa Clara, California: DeHarts Printing Services, 10th printing, 154 pp. [Spiral-bound, pictorial topographic map covers.]

Martin, Tom, AND Whitis, Duwain

- 2007 10.59 **Guide to the Colorado River in the Grand Canyon : Lees Ferry to South Cove : third edition : mileage revised per GCMRC.** Flagstaff, Arizona: Vishnu Temple Press, [110] pp. (RiverMaps™ series, published by Duwain Whitis and Barbara Vinson, Buda, Texas.) [GCMRC: Grand Canyon Monitoring and Research Center.]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

June 2007. Spiral-bound. Maps prepared using AutoCAD with Land Development Desktop add-in; layout in Adobe InDesign.⁴⁸

Emendations available online in 2007: "RiverMaps *Guide to the Colorado River in the Grand Canyon* Mileage and Name Revisions for the Third Edition April, 2007" (9 pp.).

Murphy, Shane, AND Staveley, Gaylord

- 2007 10.79 **Ammo can interp : talking points for a Grand Canyon river trip.** Flagstaff, Arizona: Canyoners, 2nd ed., 220 pp. [Color. 9 × 6 in.] ("Designed, written, and illustrated by Shane Murphy with Gaylord Staveley. Indexed by Shane Murphy with C. V. Abyssus [*pseudonym of* Richard D. Quartaroli] and Suzy Flint. Edited in whole or part by C. V. Abyssus, Brad Dimock, Brad Ilg, Christa Sadler, Larry Stevens and Roy Webb. Second edition revisions and layout by Theresa Stacy-Ryan, tmsr Design Delivery.") [Limited distribution.]

NOTE: Points for this title, 1st-3rd eds., compiled by Richard Quartaroli.

Sky Terrain

- 2007 25.171 **Grand Canyon National Park.** Boulder, Colorado: Sky Terrain, 2nd ed., scale 1:40,000.

Timmons, J. Michael, AND Karlstrom, Karl

- 2007 24.307 **Geologic map of the Butte fault/East Kaibab monocline area, eastern Grand Canyon, Arizona** (with field data supplemented by Joel Pederson and Matt Anders). Grand Canyon, Arizona: Grand Canyon Association, in cooperation with the New Mexico Bureau of Geology and Mineral Resources, 2 sheets, scale 1:24,000.

2008

Anonymous

- 2008 25.753 **The Grand Canyon; explore secret campsites, white-knuckle rapids, and uncrowded trails in America's most iconic national park.** *In:* The Charted World [SECTION]. *Backpacker*, 37(6) (August): 144.
Generalized map, with generalist information.

Arizona Exposure

- 2008 25.525 **Free map! Northern Arizona Exposure 2008. What's inside?** Flagstaff, Arizona: Arizona Exposure, 1 sheet, 2 sides.
Promotional advertising brochure with illustrated regional map on verso.

⁴⁸ Points relating to production, editions, and printings of the RiverMaps series were provided by Duwain Whitis (February 2021). The date given in square brackets as a note within a citation is Whitis's record of the date of delivery from the printer, thus the date of availability. These dates with months do not appear in the publications themselves.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Belknap, Buzz, AND Evans, Loie Belknap

- 2008 10.124 **Belknap's waterproof Grand Canyon river guide : all new edition.** Evergreen, Colorado: Westwater Books, 111 [112] pp.
2nd printing. This printing concurrently employs two river mile systems: the 1924 U.S. Geological Survey Plan and Profile (see Birdseye, 1924, [ITEM NO. 10.119](#)), and the 2002 U.S. Geological Survey, Grand Canyon Monitoring and Research Center survey ([ITEM NO. 10.48](#)).

Billingsley, George H.; Priest, Susan S.; AND Felger, Tracey J.

- 2008 24.316 **Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona.** *U.S. Geological Survey, Scientific Investigations Map 3035*, scale 1:100,000, 1 sheet, 23 pp.
Also available only as downloads from U.S. Geological Survey publications website are geologic maps of the thirty-two 7.5' quadrangles (scales 1:24,000) within the Fredonia 30' × 60' quadrangle, all of which can be accessed directly from this webpage: <https://pubs.usgs.gov/sim/3035/24k/images/> (accessed 10 July 2024).
Quadrangles are as follows:
- 2008 24.317 **Colorado City quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.318 **Moccasin quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.319 **Kaibab quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.320 **Fredonia quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.321 **Shinarump Point quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.322 **Muggins Flat quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.323 **Buck Pasture Canyon quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.324 **Coyote Buttes quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

- Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.325 **Maroney Well quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.326 **Pipe Valley quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.327 **Pipe Spring quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.328 **Clear Water Spring quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.329 **White Sage Flat quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.330 **Le Fevre Ridge quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.331 **Cooper Ridge quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.332 **House Rock Spring quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.333 **Wild Band Pockets quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.334 **Sunshine Ridge quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]
- 2008 24.335 **Findaly Tank quadrangle.** [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. *U.S. Geological Survey, Scientific Investigations Map 3035*. [7.5' quadrangle, scale 1:24,000.]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

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| 2008 | 24.336 | Gunsight Point quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.337 | Toothpick Ridge quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.338 | Warm Springs Canyon quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.339 | Jacob Lake quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.340 | House Rock quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.341 | Heaton Knolls quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.342 | Robinson Canyon quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.343 | Grama Spring quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.344 | Jumpup Point quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.345 | Sowats Point quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.346 | Big Springs quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

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| 2008 | 24.347 | Telephone Hill quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |
| 2008 | 24.348 | Cane quadrangle. [As part of 1:100,000 scale] Geologic map of the Fredonia 30' × 60' quadrangle, Mohave and Coconino Counties, northern Arizona. <i>U.S. Geological Survey, Scientific Investigations Map 3035.</i> [7.5' quadrangle, scale 1:24,000.] |

Black, Bronze

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| 2008 | 25.221 | Grand Canyon map and guide : geology, history, facts, photos, rapids. Flagstaff, Arizona: Dragon Creek Publishing, 2 maps on 1 sheet, plastic. (Vision Quest Maps.) |
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Borch GmbH

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| 2008 | 25.220 | Las Vegas : Las Vegas and region, Las Vegas and national parks : Grand Canyon National Park, Grand Canyon Village. [Inning am Ammersee, Germany]: Borch GmbH, 7th ed. [Folded map.] |
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Doelling, Hellmut H.

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| 2008 | 24.814 | (COMPILER) Geologic map of the Kanab 30' × 60' quadrangle, Kane and Washington Counties, Utah, and Coconino and Mohave Counties, Arizona. <i>Utah Geological Survey, Miscellaneous Publication 08-2DM</i> , 1 sheet (scale 1:100,000). |
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Martin, Tom, AND Whitis, Duwain

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| 2008 | 10.65 | Guide to the Colorado River in the Grand Canyon : Lees Ferry to South Cove : fourth edition : mileage revised per GCMRC. Flagstaff, Arizona: Vishnu Temple Press, [110] pp. (RiverMaps™ series, Buda, Texas.) [GCMRC: Grand Canyon Monitoring and Research Center.]
September 2008. Spiral-bound. Maps prepared using AutoCAD with Land Development Desktop add-in; layout in Adobe InDesign.
2nd printing October 2009, 3rd printing July 2011, 4th printing July 2012.
NOTE: There is no way by which to determine the different printings of the 4th ed. (<i>fide</i> Duwain Whitis to Richard Quartaroli, March 15, 2021).
NOTE: 1st printing with black-and-white interior photos as with earlier eds.; transitioned to color photos throughout for one of the later printings, although all have not yet been seen to determine which printing. (Note added March 29, 2021, <i>fide</i> Richard D. Quartaroli.) |
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U.S. Bureau of Land Management; AND U.S. National Park Service

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| 2008 | 25.222 | Grand Canyon-Parashant National Monument. U.S. Bureau of Land Management, and U.S. National Park Service, map.
Depicts boundaries. Also shown are Paiute, Grand Wash Cliffs, Mount Logan, and Mount Trumbull Wilderness areas. |
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MAPPING GRAND CANYON

Grand Canyon (1868–Present)

2009

Belknap, Buzz, AND Evans, Loie Belknap

- 2009 10.125 **Belknap's waterproof Grand Canyon river guide : all new edition : updated with campsites and new USGS mileage points.** Evergreen, Colorado: Westwater Books, 113 pp.
3rd printing. This printing concurrently employs two river mile systems: the 1924 U.S. Geological Survey Plan and Profile (see Birdseye, 1924, [ITEM NO. 10.119](#)), and the 2002 U.S. Geological Survey, Grand Canyon Monitoring and Research Center survey ([ITEM NO. 10.48](#)).

G. M. Johnson and Associates

- 2009 25.477 **Grand Canyon panoramic map : including Route 66 travel map and history of Route 66.** [AND] **Historic Route 66 travel map : including Grand Canyon panormaic map : California, Arizona, New Mexico, Texas, Oklahoma, Kansas, Missouri and Illinois.** Burnaby, British Columbia: G. M. Johnson and Associates, 1 sheet (2 sides).
Two different panel titles, recto and verso for display. Grand Canyon map (without separate title) is an oblique artistic view of the region from Lake Powell (in distance) to Hermits Rest.

Garrity, Christopher P., AND Soller, David R.

- 2009 24.833 **Database of the Geologic Map of North America—adapted from the map by J.C. Reed, Jr. and others (2005).** *U.S. Geological Survey, Data Series 424*, 7 pp. + digital files online at <https://pubs.er.usgs.gov/publication/ds424> (last accessed 9 December 2024).
Refer to Reed *et al.* (2005, [ITEM NO. 24.832](#)).

Hayes, Derek

- 2009 25.853 **Historical atlas of the American west : with original maps.** Berkeley, California: University of California Press, 288 pp. [See: Colorado River, pp. 18, 22, 27, 33, 40, 42, 43, 66, 74, 131, 167, 177, 178, 185, 187, 195, 241, 251-253; Grand Canyon, pp. 16, 40, 177, 178, 222; John Wesley Powell, pp. 8, 160, 177, 178; Glen Canyon Dam, pp. 43, 178; Hoover Dam, pp. 162, 198, 224, 238-239, 259; Lake Mead, pp. 162, 238, 259; Lake Havasu, pp. 241, 253, 257.]

Levias, Matthew, AND Jake, Vivienne

- 2009 25.540 **Salt Song Trail map of Nuwuvi (Southern Paiute) sacred landscapes, culture areas and bands.** San Francisco: The Cultural Conservancy, The Salt Song Trail Project and the Chemehuevi Cultural Center. [Poster.]

Lindemann, Linda Lou

- 2009 10.69 **Colorado River briefs for a trip through the Grand Canyon.** (Updated edition, illustrated by Dan K. Lindemann.) Santa Clara, California: DeHarts Printing Services, 11th printing, 154 pp. [Spiral-bound, pictorial topographic map covers.]

National Geographic Maps

- 2009 25.311 **Grand Canyon : Bright Angel Canyon, North and South Rims : National Park, Arizona, USA : outdoor recreation map : revised regularly, waterproof, tear-resistant.** Evergreen, Colorado: National Geographic Maps, 1 sheet, 2 sides. (Trails Illustrated Map™, no. 261.) ("Expanded coverage, 1:35,000 scale, Grand Canyon Village, Bright Angel and

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

North and South Rim Trails, backcountry regulations and permit information.”) (“GPS compatible. Full UTM grid.”)

Scale *ca.* 1:35,000, contour interval 50 feet. Global Positioning System.

- 2009 25.312 **Grand Canyon east : Grand Canyon National Park, Arizona, USA : outdoor recreation map : revised regularly, waterproof, tear-resistant.** Evergreen, Colorado: National Geographic Maps, 1 sheet, 2 sides. (Trails Illustrated Map™, no. 262.) (“Marble Canyon and Horsehoe [*sic*] Mesa, Kaibab Plateau, Vermillion [*sic*] Cliffs National Monument, backcountry regulations and permit information.”) (“GPS compatible. Full UTM grid.”)
Scale *ca.* 1:90,000, contour interval 100 feet. Vermilion Cliffs National Monument. Global Positioning System.

- 2009 25.313 **Grand Canyon west : Grand Canyon National Park, Arizona, USA : outdoor recreation map : revised regularly, waterproof, tear-resistant.** Evergreen, Colorado: National Geographic Maps, 1 sheet, 2 sides. (Trails Illustrated Map™, no. 263.) (“Grand Wash Cliffs and Thunder River, Toroweap Cliffs, Grand Canyon-Parashant National Monument, backcountry regulations and permit information.”) (“GPS compatible. Full UTM grid.”)
Scale *ca.* 1:90,000, contour interval 100 feet. Global Positioning System.

U.S. National Park Service, Geologic Resources Inventory

- 2009 24.850 **Geologic map of Pipe Spring National Monument.** [No place]: U.S. National Park Service, Geologic Resources Inventory, digital format (PDF). (“Digital geologic data and cross sections for Pipe Spring National Monument, and all other digital geologic data prepared as part of the Geologic Resources Inventory, are available online at the NPS Data Store: <http://science.nature.nps.gov/nrdata/>.”)
Source map is Billingsley *et al.* (2004, *ITEM NO.* [24.360](#)).

2010

Arizona State Land Department

- 2010 25.299 **Arizona surface management responsibility.** Phoenix: Arizona State Land Department, scale 1:800,000.

Belknap, Buzz, AND Evans, Loie Belknap

- 2010 10.126 **Belknap’s waterproof Grand Canyon river guide : all new edition : updated with campsites and new USGS mileage points.** Evergreen, Colorado: Westwater Books, 113 pp. (“Fourth printing of ALL NEW EDITION: 2010 (Revised 1/31/10)”.)
Beginning with this printing, the Belknap Grand Canyon guides employ for river mileages only the system from the 2002 U.S. Geological Survey, Grand Canyon Monitoring and Research Center survey (*ITEM NO.* [10.48](#)).

Billingsley, George H., AND Priest, Susan S.

- 2010 24.350 **Geologic map of the House Rock Valley area, Coconino County, northern Arizona.** *U.S. Geological Survey, Scientific Investigations Map 3108*, 1 sheet, scale 1:50,000; pamphlet, 23 pp.

Blair, J. Luke; Hanks, Thomas C.; AND Young, Richard A.

- 2010 24.356 **Maps for the workshop** [ABSTRACT]. *In: CR_Evolution_2: Origin and Evolution of the Colorado River System II Workshop: May 24-26, 2010, Flagstaff, Arizona*, 1 p.
Shaded-relief and color-coded digital topographic maps. The maps were presented as posters at the workshop and were posted online at

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

<https://sites.google.com/site/crevolution2/home/files> (accessed 8 January 2011; reaccessed 4 February 2021; not accessible, 10 July 2024).

Brown, Kristin M., AND Billingsley, George H.

- 2010 24.351 **Map showing geologic structure, cultural and geographic features, and geologic cross sections of northwestern Arizona.** *In*: Alpine, Andrea E. (ed.), Hydrological, geological, and biological site characterization of breccia pipe uranium deposits in northern Arizona. *U.S. Geological Survey, Scientific Investigations Report 2010-5025*, Plate 1 (in pocket), scale 1:375,000.

DeLorme Mapping

- 2010 25.327 **Arizona atlas and gazetteer.** Yarmouth, Maine: DeLorme, 8th ed., 68 pp.

Earthwalk Press

- 2010 25.259 **Grand Canyon National Park hiking map and guide : 2 topographic maps in 1 : Bright Angel Trail, Hermit Trail to Grandview Trail.** (Text copyright Helen H. Larson.) La Jolla, California: Earthwalk Press. ("1st Edition".)

Great Pacific Recreation and Travel Maps

- NO DATE 25.315 **Grand Circle road and recreation : Arches, Bryce Canyon, Canyonlands, Grand Canyon, Zion national parks of southern Utah and northern Arizona. 1st edition. Large scale, fully indexed, scenic byways.** Bellevue, Washington: Great Pacific Recreation and Travel Maps, 1 sheet, 2 sides. [2010?]
Maps credited to California State Automobile Association, San Francisco.

Moosetrak Maps

- 2010 9.902 **Grand Canyon hiking mapbook : rim to rim and day hikes. Edition 1 (Spring 2010):** [*sic*]. Lawrence, Kansas: Moosetrak Maps, 32 pp. (Copyright Downs Geomatrix, LLC.) [An on-demand publication.]
Copy seen has title-page thus, but title-page verso indicates "Edition 2 (Fall 2010):" [*sic*]; pagination title-page, title-page verso, i-v, 1-32. Cover title: *Grand Canyon hiking mapbook : rim to rim and day hikes*.

National Geographic Society

- 2010 25.245 **Colorado River basin : lifeline for an arid land.** Washington, D.C.: National Geographic Society, 1 sheet, side [1]. ("Text by Jonathan Waterman, author; Cheryl Hargrove, editor. Illustration by Samuel Velasco. Design by Robert E. Pratt.")
Fold-out map accompanies Waterman, Jonathan, *Running dry : a journey from source to sea down the Colorado River* (Washington, D.C.: National Geographic, 2010). Side [2] is "Colorado River Basin; balancing a limited supply with an increasing demand".
- 2010 25.1751 **Bureau of Land Management : National Landscape Conservation System : America's national conservation lands.** [Washington, D.C.]: National Geographic Society, scale 1:3,571,000. (Joel K. Bourne, ed. Texts by Joel Connolley. Design by Robert E. Pratt.)

Waterman, Jonathan [Waterman, Jon]

- 2010 25.945 *Running dry : a journey from source to sea down the Colorado River.* Washington, D.C.: National Geographic, 305 pp., separate fold-out **MAP**.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

2011

Arizona Exposure

- 2011 25.310 **Free map! Northern Arizona Exposure 2011. What's inside?** Flagstaff, Arizona: Arizona Exposure, 1 sheet, 2 sides.
Promotional advertising brochure with illustrated regional map on verso.

Belknap, Buzz, AND Evans, Loie Belknap

- 2011 10.127 **Belknap's waterproof Grand Canyon river guide : all new edition : updated with campsites and new USGS mileage points.** Evergreen, Colorado: Westwater Books, 119 [120] pp.
("Fifth printing of ALL NEW EDITION: 2011 (Revised 1/31/11)".)

Dragon Creek Publishing

- 2011 25.317 **Grand Canyon map and guide : geology, history, facts, photos, diagrams : an all-in-one resource for: hikers, visitors, rafters, backpackers : waterproof, tearproof, 2nd edition, revised, updated.** Flagstaff, Arizona: Dragon Creek Publishing, 1 sheet, 2 sides.

Enote, Jim, AND McLerran, Jennifer

- 2011 25.1686 (EDS.) **A:shiwí A:wán ulohnanne / The Zuni world.** [Zuni, New Mexico]: A:shiwí A:wán Museum and Heritage Center; and [Flagstaff, Arizona]: Museum of Northern Arizona, 88 pp. [Bilingual title, in Zuni and English.]
Art exhibition volume. Zuni cultural mapping, including Grand Canyon.
The volume effectively comprises an **ATLAS** of Zuni artists' memory map portrayals of Zuni lands and history. Most items embrace aspects of the Grand Canyon and its peoples, created from a cultural connections trip on the Colorado River through Grand Canyon conducted by Zuni tribal members. The volume accompanies an exhibition of the artwork at the Museum of Northern Arizona.

Murphy, Shane, AND Staveley, Gaylord

- 2011 10.80 **Ammo can interp : talking points for a Grand Canyon river trip.** Flagstaff, Arizona: Canyoners, 3rd ed., revised ed. ("4" [*i.e.* 4th printing in sequence]), 222 pp. [Color. 9 × 6 inches.] ("Original edition designed, written, and illustrated by Shane Murphy with Gaylord Staveley. Indexed by Shane Murphy with C. V. Abyssus [*pseudonym of* Richard D. Quartaroli] and Suzy Flint. Edited in whole or part by C. V. Abyssus, Brad Dimock, Brad Ilg, Christa Sadler, Larry Stevens and Roy Webb. Third Edition revisions by Gaylord Staveley and Wayne Ranney. Third edition layout by Theresa Stacy-Ryan, tmsr Design Delivery.") [Limited distribution.]
Two states: February 2011, 3rd ed., revised ed., "4"; and 3rd ed., "4".
A stated 4th printing is not a 4th ed. but "an exact reprint [of the 3rd ed.] with the exception of a thicker back cover before the plastic back cover, one that Aspen Press left off the 3rd." (*fide* R. D. Quartaroli, 27 June 2014).
Subsequently (*ca.* 2014) made more readily available by sale through Canyoners website. A copy was obtained in 2014 which still was the 3rd, revised ed.
NOTE: Points for this title, 1st-3rd eds., compiled by Richard Quartaroli.]

Sky Terrain

- 2011 25.309 **Grand Canyon National Park.** Boulder, Colorado: Sky Terrain, 1 sheet, 2 sides.
(Cartography by Kent Schulte.) ("Detailed, accurate, and beautiful. 8 USGS quads,

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

308 miles (495km) of trails; 2 maps at 1:40,000 scale cover the vast central core of the park.”) (Contour interval 100 feet.)

2012

Belknap, Buzz, AND Evans, Loie Belknap

2012 10.128 **Belknap’s waterproof Grand Canyon river guide : all new edition : updated with campsites and new USGS mileage points.** Evergreen, Colorado: Westwater Books, 119 [120] pp. (“Sixth printing of ALL NEW EDITION: 2012 (Revised 1/31/12)”.)

Benchmark Maps

2012 25.330 **Arizona road and recreation atlas : the Grand Canyon State.** Medford, Oregon: Benchmark Maps, 7th ed., 112 pp.

Billingsley, George H.; Stoffer, Philip W.; AND Priest, Susan S.

2012 24.361 **Geologic map of the Tuba City 30’ × 60’ quadrangle, Coconino County, northern Arizona.** U.S. Geological Survey, *Scientific Investigations Map 3227*, 31 pp., 3 sheets. Includes eastern Grand Canyon.

Lindemann, Linda Lou

2012 10.76 **Colorado River briefs for a trip through the Grand Canyon.** (Updated edition, illustrated by Dan K. Lindemann.) Page, Arizona: Dan Lindemann, 12th printing, 154 pp. (Printed by DeHart’s Media Services, Santa Clara, California.) [Spiral-bound, pictorial topographic map covers.]

North Star Distributing

2012 25.308 **Road map of Arizona and the Four Corners area. Including: Recreation areas, national parks, monuments and famous ghost towns : in easy-to-read print.** Scottsdale, Arizona: North Star Distributing, 1 sheet, 2 sides. (Copyright North Star Mapping.)

Rogers, Roberta

2012 25.283 (ARTIST) **Discovery map : Flagstaff and vicinity, Arizona : souvenir map and guide.** Waitsfield, Vermont: Discovery Map International, Inc., 1 sheet, 2 sides. Schematic map with advertisements on verso.

Taylor, S. S. [Taylor, Sarah Stewart]

2012 25.934 *The Expeditioners and the treasure of Drowned Man’s Canyon.* (Illustrations by Katherine Roy.) Dexter, Michigan: McSweeney’s McMullens, 375 pp. Young-reader fiction. Story line follows young Expeditioners in search of a lost treasure of gold taken by Spanish soldiers in 1567. Plot takes place mostly in “Northern Arizona”, where near Flagstaff is “Drowned Man’s Canyon” and “Azure Canyon”. A **MAP** is somewhat reminiscent of the area of Grand Canyon between Deer Creek and Havasu Canyon, with the canyon of the Colorado River seemingly represented by Azure Canyon, and Havasu Canyon seemingly represented by Drowned Man’s Canyon. (E.E.S.)

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Timmons, J. Michael, AND Karlstrom, Karl

- 2012 24.363 **Geologic map of eastern Grand Canyon, Arizona** (with field data supplemented by Joel Pederson and Matt Anders). 2 sheets, scale 1:24,000.
Accompanies: Timmons, J. Michael, and Karlstrom, Karl (eds.), Grand Canyon geology: Two billion years of earth's history. *Geological Society of America, Special Paper 489*, 156 pp.
This map *after* Timmons and Karlstrom (2007, [ITEM NO. 24.307](#)), "Geologic map of the Butte fault/East Kaibab monocline area, eastern Grand Canyon, Arizona". Published in cooperation with Geological Society of America, University of New Mexico, New Mexico Bureau of Geology and Mineral Resources, Grand Canyon Association, U.S. National Science Foundation, U.S. National Park Service.

U.S. National Park Service

- 2012 25.291 **Grand Canyon-Parashant National Monument**. U.S. National Park Service, revised ed., scale ca. 1:400,000.

2013

Belknap, Buzz, AND Evans, Loie Belknap

- 2013 10.129 **Belknap's waterproof Grand Canyon river guide : all new edition : updated with campsites and new USGS mileage points**. Evergreen, Colorado: Westwater Books, 119 [120] pp. ("Seventh printing of ALL NEW EDITION: 2013 (Revised 1/15/13)".)

Billingsley, George H., AND Priest, Susan S.

- 2013 24.370 **Geologic map of the Glen Canyon Dam 30' × 60' quadrangle, Coconino County, northern Arizona**. *U.S. Geological Survey, Scientific Investigations Map 3268*, 41 pp., 3 sheets, scale 1:50,000.
Includes northern portion of Marble Canyon.

Grand Canyon Chamber and Visitor's Bureau

- NO DATE 25.323 **Visitor's guide to the Grand Canyon South Rim : "The REAL Grand Canyon" : year 'round vacation destination**. Grand Canyon, Arizona: Grand Canyon Chamber and Visitor's Bureau, 1 sheet, 2 sides. [Noted with printing codes; copy acquired in 2013.]
Stylized oblique-view maps without scale, with promotional information for local businesses.

Martin, Tom, AND Whitis, Duwain

- 2013 10.75 **Guide to the Colorado River in the Grand Canyon : Lees Ferry to South Cove : fifth edition**. Flagstaff, Arizona: Vishnu Temple Press, [110] pp. (RiverMaps™ series, Buda, Texas.) [June 2013. Spiral-bound. Maps prepared using ArcGIS, layout in Adobe InDesign.⁴⁹] [2nd printing December 2014.]

⁴⁹ Points relating to production, editions, and printings of the RiverMaps series were provided by Duwain Whitis (February 2021). The date given in square brackets as a note within a citation is Whitis's record of the date of delivery from the printer, thus the date of availability. These dates with months do not appear in the publications themselves.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

RKH Verlag

- 2013 25.653 **Kalifornien Süd und Zentral mit Las Vegas.** [Westerstede]: RKH Verlag. Scale 1:2,500,000. [In German.]
Includes Grand Canyon.

Stevens, Larry [Stevens, Lawrence E.]

- 2013 10.77 **The Colorado River in Grand Canyon : a river runner's map and guide to its natural and human history : 2013 edition.** Flagstaff, Arizona: Grand Canyon Wildlands Council, Inc., 144 pp.
Cover title: **The Colorado River in Grand Canyon : river map and guide.**
"Copyright transferred to Grand Canyon Wildlands Council, Inc. for the 2013 edition, 1st printing, 2013." Printed by Ram Offset Lithographers, White City, Oregon. Spiral-bound; in sequence, the 7th ed.
Also a web-accessible supplementary document: Stevens, Larry, *The Colorado River in Grand Canyon: A River Runner's Map and Guide to its Natural and Human History : Complete and Fully Numbered Reference List for the 2013 Edition*, <https://www.wildarizona.org/grand-canyon-wildlands-council/>, xxi pp. (new link accessed 9 December 2024). (Cover title for this supplement: *References : the Colorado River in Grand Canyon: River Map and Guide.*)
NOTE: The river guide also includes generalized strip maps for Tanner Trail, South Kaibab Trail, Bright Angel Trail, Hermit Trail, South Bass Trail, and Havasu Canyon Trail (pp. 139-141).

2014

Belknap, Buzz, AND Evans, Loie Belknap

- 2014 10.130 **Belknap's waterproof Grand Canyon river guide : all new edition : updated with campsites and new USGS mileage points.** Evergreen, Colorado: Westwater Books, 119 [120] pp. ("Eighth printing of ALL NEW EDITION: 2014 (Revised 1/15/14)".)

Black, Bronze

- 2014 10.85 (COMPILER, DESIGNER) **The Colorado River through Grand Canyon : Canyon Explorations/Expeditions guide interpretive manual.** Flagstaff, Arizona: Canyon Explorations/Expeditions, 200 pp. [pagination includes covers].
Cover title: **Canyon Explorations/Expeditions guide interpretive manual : the Colorado River through Grand Canyon.**
Proprietary spiral-bound 8½ × 11-inch wide publication for the use of Canyon Explorations/Expeditions employees. "Text by: Justin Salamon, Bronze Black, Givney Siemion, Kelsey Wogan, Marieke Taney, Josh MacNaughton, Laura Chamberlin, Susan Hamilton, and Deanna Sanderson. Editing by Joel Russell, Kelsey Wogan, and Bronze Black. Photography was provided by many talented and generous photographers Book design, illustrations, cover photography, and compilation by Bronze Black." "Printed and bound by: Ram Offset, Portland, Oregon". Quotations from title-page verso (p. [4]). Number of copies produced not determined.
- 2014 10.86 **Regions of Grand Canyon and mile by mile maps.** *In:* Black, Bronze (compiler, designer), *Canyon Explorations/Expeditions guide interpretive manual : the Colorado River through Grand Canyon.* Flagstaff, Arizona: Canyon Explorations/Expeditions, pp. 180-197.
Proprietary publication for the use of Canyon Explorations/Expeditions employees. See Black (2014) **ITEM NO.** 10.85).

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Grand Canyon Chamber and Visitor's Bureau

- 2014 25.358 **Grand Canyon : official map : Grand Canyon National Park South Rim, "The Heart of the Grand Canyon"**. Grand Canyon, Arizona: Grand Canyon Chamber and Visitor's Bureau, 1 sheet, 2 sides. ("314".)
Stylized oblique-view maps without scale, with promotional information for local businesses.
NOTE: Not to be confused with "The Heart of the Grand Canyon", variants of which are cited herein under National Geographic Society, Cartographic Division (1978, 1990, 1999).

Stevens, Larry [Stevens, Lawrence E.]

- 2014 10.81 **The Colorado River in Grand Canyon : a river runner's map and guide to its natural and human history : 2014 edition**. Flagstaff, Arizona: Grand Canyon Wildlands Council, Inc., 144 [148] pp.
Cover title: **The Colorado River in Grand Canyon : river map and guide**.
"Copyright transferred to Grand Canyon Wildlands Council, Inc. for the 2013 edition, 1st printing, 2013." Printed by Ram Offset Lithographers, White City, Oregon. Spiral-bound; in sequence, the 8th ed.
Title-page specifies "2014 Edition", title-page verso indicates "2nd Printing 2014" (*i.e.*, 2nd printing of 2013 ed.). This ed. contains corrections to typographical errors but text remains otherwise unchanged; blank pages [145-148] added for notes; and improved color and contrast in photographs.
NOTE: The river guide also includes generalized strip maps for Tanner Trail, South Kaibab Trail, Bright Angel Trail, Hermit Trail, South Bass Trail, and Havasu Canyon Trail (pp. 139-141).

U.S. Forest Service; AND U.S. National Park Service

- 2014 25.346 **Grand Canyon NP and Kaibab NF : flight hazard and retardant avoidance map**. [No place]: U.S. Forest Service, and U.S. National Park Service, 1 sheet.
"Grand Canyon Fire & Aviation 04/11/2014". "Aeronautic Sectional on this map is dated 03/06/2014 Aviation Hazards from August, 2012". Scale in nautical miles. Retardant avoidance pertains to areas designated in fire management as places where the dropping of fire retardants should be avoided.

2015

Arizona Exposure

- 2015 25.526 **Free map! Northern Arizona Exposure 2015**. [No place]: Arizona Exposure, PLLC, 1 sheet, 2 sides.
Promotional advertising brochure with illustrated regional map on verso.

Belknap, Buzz, AND Evans, Loie Belknap

- 2015 10.131 **Belknap's waterproof Grand Canyon river guide : all new edition : updated with campsites and new USGS mileage points**. Evergreen, Colorado: Westwater Books, 119 [120] pp. ("Ninth printing of ALL NEW EDITION: 2015 (Revised 1/1/15)".)

Borch GmbH

- 2015 25.352 **Southwest-USA : American Southwest, Grand Canyon National Park, Las Vegas—The Strip, Greater Los Angeles, LA downtown, San Francisco, San Francisco Bay Area, Phoenix, San**

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Diego, San Diego downtown : updated, durable, water-repellent, write-on/wipe-off surface.
[Hauzenberg]: Borch GmbH, 16th ed. (Scale 1:3,000,000.) [Folded map.]

O'Connor, Jim, AND Colón, Daniel

2015 25.897 *Where is the Grand Canyon?* New York: Grosset and Dunlap (Penguin Group (USA) LLC), 108 pp., fold-out [detachable] **MAP**.
Young-reader title.

Smith, Stephanie

2015 25.478 **The Colorado Plateau.** [Flagstaff, Arizona]: Grand Canyon Trust, 1 sheet.
("Celebrating 30 Years; Grand Canyon Trust".)
State 1: poster size, scale 1 inch = ca. 33 miles.
State 2: smaller, folded version.

Terra Prints [firm]

2015 25.626 **Grand Canyon National Park from space.** [No place]: Terra Prints, 1 sheet.
U.S. Geological Survey Landsat 8 Operational Land Imager photo of Grand Canyon region, Lees Ferry to Lake Mead; image taken in April 2015. Packaged in plastic tube with informational sheet affixed. No imprint or copyright data appear on the print. Informational sheet notes "© 2015 Terraprints.com". "The image has been sharpened to the sensor's 15 meter pan-chromatic band to increase detail on the resulting scene."

U.S. Bureau of Land Management, Arizona Strip District

2015 25.516 **Arizona Strip : visitor map : 2015.** St. George, Utah: U.S. Bureau of Land Management, Arizona Strip District Office, Revision 7, 1 sheet, scale 1:160,000.
East and west half on two sides of one sheet.

U.S. Forest Service

NO DATE 25.496 **Tusayan Ranger District.** [U.S. Forest Service], 1 sheet. [2015?]
Motor vehicle use map. Sheet includes more detailed inset maps: "Tusayan", "Upper Basin", "Ten-X".

2015 25.495 **Motor vehicle use map : North Kaibab Ranger District : Kaibab National Forest : America's Great Outdoors : Arizona : 1 September 2015.** U.S. Forest Service, 1 sheet. (FS-873-3072.)
Sheet includes more detailed **INSET** maps: "Jacob Lake", "Orderville Tank", "Big Ridge", "De Motte Park", "Pine Hollow", "Road Hollow", "Swamp Ridge", "Tipover", "Bear Lake".

2016

Arizona Exposure

2016 25.527 **Free map! Northern Arizona Exposure 2016.** [No place]: Arizona Exposure, PLLC, 1 sheet, 2 sides.
Promotional advertising brochure with illustrated regional map on verso.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Belknap, Buzz, AND Evans, Loie Belknap

- 2016 10.132 **Belknap's waterproof Grand Canyon river guide : all new edition : updated with campsites and new USGS mileage points.** Evergreen, Colorado: Westwater Books, 119 [120] pp. ("Tenth printing of ALL NEW EDITION: 2016 (Revised 10/5/15)").

Fedarko, Kevin, AND McBride, Pete

- 2016 25.816 Losing the Grand Canyon. Two adventurers set out on a 650-mile trek through the Grand Canyon. They faced danger and hardship—and saw firsthand how development could spoil one of America's most beloved places. *National Geographic*, 230(3) (September): 114-139 [pp. 124-129 comprise recto and verso of three-panel fold-out that includes **MAP**, "Contested Canyon", pp. 124-126].

Holland, Robert F.

- 2016 10.88 **Dr. Bob's map of Colorado River in Grand Canyon, Lee's Ferry to Separation Rapid, Coconino and Mojave [sic] Counties, Arizona.** [Auburn, California?]: [no imprint], 68 pp. (66 maps). ("Photobase from 2013 USDA NAIP county mosaics. Topography from USGS 24k series, various dates. Shaded relief from 2013 USGS 1/3 arc-second DEMs, calculated for noon on the summer solstice. UTM 12 NAD 27 coordinates in blue. Cartography by Dr. Bob Copyright © 2016 Robert F. Holland, Ph. D.") [Spiral-bound, 11 × 17-inch format, on water-resistant paper.]

Martin, Tom, AND Whitis, Duwain

- 2016 10.87 **Guide to the Colorado River in the Grand Canyon : Lees Ferry to South Cove : sixth edition.** Flagstaff, Arizona: Vishnu Temple Press, 119 pp. (RiverMaps™ series, Buda, Texas.) Spiral-bound. Maps prepared using ArcGIS, layout in Adobe InDesign.⁵⁰ Page 1 is title-page verso.

National Geographic Maps

- 2016 25.592 **Grand Canyon : North and South Rims : Grand Canyon National Park, Arizona, USA : outdoor recreation map : revised regularly, waterproof, tear-resistant.** Evergreen, Colorado: National Geographic Maps, 1 sheet, 2 sides. (Trails Illustrated Map™, no. 261.) [Scale ca. 1:50,000, contour interval 100 feet.]

Sky Terrain

- 2016 25.524 **Grand Canyon National Park.** Boulder, Colorado: Sky Terrain, 5th ed., 1 sheet, 2 sides. (Cartography by Kent Schulte.) ("Waterproof, tear tough, mileage, shaded relief, topography, trail descriptions, full GPS grid, backcountry use areas, 1:40,000 scale, 308 miles (495km) of trails covers the vast central core of the Park".) (Contour interval 100 feet.) [Global Positioning System.]

Stevens, Larry [Stevens, Lawrence E.]

- 2016 10.84 **The Colorado River in Grand Canyon : a river runner's map and guide to its natural and human history : 2016 edition.** Flagstaff, Arizona: Grand Canyon Wildlands Council, Inc., 148 pp.
Cover title: **The Colorado River in Grand Canyon : river map and guide.**

⁵⁰ Points relating to production, editions, and printings of the RiverMaps series were provided by Duwain Whitis (February 2021).

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

“Copyright transferred to Grand Canyon Wildlands Council, Inc. for the 2013 edition, 1st printing, 2013.” Printed by Ram Offset Lithographers, White City, Oregon. Spiral-bound; in sequence, the 9th ed.

Title-page specifies “2016 Edition”, title-page verso indicates “3rd Printing 2016” (*i.e.*, 3rd printing of 2013 ed.). This ed. contains corrections to typographical errors but text remains otherwise unchanged; blank pages 145-148, previously added for notes, now enumerated.

NOTE: The river guide also includes generalized strip maps for Tanner Trail, South Kaibab Trail, Bright Angel Trail, Hermit Trail, South Bass Trail, and Havasu Canyon Trail (pp. 139-141).

U.S. Bureau of Land Management, Arizona Strip District

- 2016 25.513 **Arizona Strip : visitor map : 2016.** St. George, Utah: U.S. Bureau of Land Management, Arizona Strip District Office, Revision 7, 1 sheet, scale 1:160,000. (2016-0172-P.) East and west half on two sides of one sheet.
NOTE: Revision 7 is same indication as for 2015 map.

U.S. Forest Service, Southwestern Region; AND U.S. Forest Service, Geospatial Service and Technology Center

- 2016 25.515 **Kaibab National Forest : Tusayan and Williams Ranger Districts, Arizona, 2016.** [Albuquerque, New Mexico]: U.S. Forest Service, Southwestern Region, and Salt Lake City: Geospatial Service and Technology Center, 1 sheet, scale 1:126,720. (RG-R3-07-10.)

2017

Annerino, John, AND Chen, Hilda

- 2017 25.1671 **Hiking Trails of Grand Canyon National Park.** *In: Hiking the Grand Canyon : a detailed guide to more than 100 trails : commemorative hiker's edition.* New York: Skyhorse Publishing, 356 pp., **MAP.**
Map is a removable fold-out, compiled by John Annerino, drawn by Hilda Chen, for trails in eastern Grand Canyon; single side, 20¾ × 31¾ inches, black and green on glossy stock.

Belknap, Buzz, AND Evans, Loie Belknap

- 2017 10.89 **Belknap's waterproof Grand Canyon river guide : all new expanded edition : includes additional pages! : new read-as-you-run format : Glen Canyon Dam to Lees Ferry : expanded geology photo section.** Evergreen Colorado: Westwater Books, 127 [128] pp. (“First printing of ALL NEW EXPANDED EDITION: 2017 (2/17/17).”)
This new ed. includes that reach of Glen Canyon between Glen Canyon Dam and Lees Ferry, which previously had been appended in the Belknap maps for Canyonlands (see Belknap and Belknap, 1974; Belknap *et al.*, 2006).

Dent, Bonnie

- 2017 25.546 (ARTIST) **Discovery map : Grand Canyon, Williams and Historic Route 66, Arizona.** Waitsfield, Vermont: Discovery Map International, Inc., 14th ed., 1 sheet, 2 sides.
Schematic map with advertisements on verso.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Horton, John D.; San Juan, Carma A.; AND Stoesser, Douglas B.

- 2017 24.380 **The State Geologic Map Compilation (SGMC) geodatabase of the conterminous United States.** *U.S. Geological Survey, Data Series 1052*, 46 pp. + appendices (text, as introductory material for interactive map online, <https://doi.org/10.3133/ds1052>; last accessed 9 December 2024).

Nally, Dave

- 2017 10.109 **Grand Canyon Colorado River rafting : pocket topo guides and maps : 280 river miles, rapid ratings and tips, hiking and technical trails, campsite locations and info, side canyons and points of interest, perfect for rafters, kayakers, packrafters : compact, lightweight, waterproof, tear resistant!** [No place]: DNally, 1 sheet (2 sides), "Average scale 1:180,000 1 inch = 3 miles".
Lees Ferry to Pearce Ferry, strip-map format in 13 panels; sheet 12 × 18 inches, 3¾ × 6 inches folded.

National Geographic Maps

- 2017 25.990 **Arizona.** Washington, D.C.: National Geographic Maps, 1 sheet, scale 1:766,000, shaded relief.
Wall map, 33 × 40½ inches.

North Star Mapping

- 2017 25.1868 **Road map of Arizona the Grand Canyon State : North Star Mapping : Includes: metro Phoenix guide, metro Tucson guide, Grand Canyon area map, Salt River lakes area map, national parks and state parks guide, mileage chart.** [No place]: North Star Mapping, 1 sheet, 2 sides.

Smith, Stephanie

- 2017 25.529 **The Grand Canyon.** [Flagstaff, Arizona]: Grand Canyon Trust, 1 sheet.
Grand Canyon National Park.
Stated 1st ed.
State 1: 18 × 36 inches, scale 1 inch = 5 miles.
State 2: 11¾ × 24 inches, scale 1 inch = ca. 7½ miles.]

Stevens, Larry [Stevens, Lawrence E.]

- 2017 10.92 **The Colorado River in Grand Canyon : a river runner's map and guide to its natural and human history.** Flagstaff, Arizona: Grand Canyon Wildlands Council, Inc., 148 pp.
Cover title: **The Colorado River in Grand Canyon : river map and guide.**
"Copyright transferred to Grand Canyon Wildlands Council, Inc. for the 2013 edition, 1st printing, 2013." Printed by Ram Offset Lithographers, White City, Oregon. Spiral-bound; in sequence, the 10th ed.
Title-page verso indicates "4rd Printing 2017 [*sic*]" (*i.e.*, 4th printing of 2013 ed.). This ed. contains corrections to typographical errors but text remains otherwise unchanged; blank pages 145-148, previously added for notes, now enumerated.
NOTE: The river guide also includes generalized strip maps for Tanner Trail, South Kaibab Trail, Bright Angel Trail, Hermit Trail, South Bass Trail, and Havasu Canyon Trail (pp. 139-141).

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Time Traveler Maps

- 2017 25.555 **Diné Bikéyah : Navajo Lands.** Mancos, Colorado: Time Traveler Maps (Ool kili Yik'égó Naaghaai), 3rd ed., 1 sheet, North-South oblique perspective foreshortened, East-West scale 1 inch = ca. 15 miles. [Place names in Navajo and English.]
Eastern edge of Grand Canyon and Marble Canyon depicted; on Colorado River only Na'ni'á Hatsoh (Navajo Bridge) is labeled.

Water Education Foundation

- 2017 25.1681 **The Colorado River Basin.** [Sacramento, California]: Water Education Foundation. 4th ed. 1 sheet.
Design by Graphic Communications. Cartography by U.S. Bureau of Reclamation and Graphic Communications. Text by Water Education Foundation. Photo credits on sheet. River basin includes those parts in Mexico.

2018

Belknap, Buzz, AND Evans, Loie Belknap

- 2018 10.133 **Belknap's waterproof Grand Canyon river guide : all new expanded edition : includes additional pages! : new read-as-you-run format : Glen Canyon Dam to Lees Ferry : expanded geology photo section.** Evergreen Colorado: Westwater Books, 127 [128] pp. ("Second printing of ALL NEW EXPANDED EDITION: 2018 (1/31/18)".)

Benchmark Maps

- 2018 25.591 **Arizona road and recreation atlas : the Grand Canyon State.** Santa Barbara, California: Benchmark Maps, 10th ed., 106 pp.

Blakey, Ronald C., AND Ranney, Wayne D.

- 2018 21.7358 **Ancient landscapes of western North America : a geologic history with paleogeographic maps.** Chum, Switzerland: Springer (Springer Nature), 228 pp.

Cosmic Ray [pseudonym] [Brutti, Ray]

- 2018 25.968 **Cosmic Ray's Grand Canyon guide to the gods : a simple guide to the monuments, temples, pyramids, colonnades, buttes, towers, thrones, castles, spires, shrines, formations and mountains in Grand Canyon National Park in Arizona.** [No place]: Cosmic Ray Publications, laminated folded sheet.
Two sides; keyed text on reverse.

Crow, Ryan

- NO DATE 10.112 **Grand Canyon geologic map river guide : draft.** [No place]: U.S. Geological Survey, 19 leaves [cover sheet, pages 7-19 only (river strip maps)]. [2018.]
"Geologic map data reformatted by the NPS (accessible from the NPS data store at <https://irma/nps.gov/DataStore/> [data not located 16 February 2019]) and again by Ryan Crow for display as a river guide. This product is preliminary and is subject to revision. It is being provided for testing purposes only. Although the geologic maps at its core have been reviewed and approved for distribution the guide itself has not been reviewed or approved formally by the U.S. Geologic Survey (USGS)."
Maps created from several geologic maps: Billingsley and Hampton (2000, ITEM NO. 24.219); Billingsley and Priest (2013, ITEM NO. 24.370); Billingsley and Wellmeyer

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

(2003, **ITEM NO.** 24.232); Billingsley, Block and Dyer (2006, **ITEM NO.** 24.271); Billingsley, Stoffer and Priest (2012, **ITEM NO.** 24.361).

G. M. Johnson and Associates

- 2018 25.1014 **Large print : Arizona : easy to read state map.** Vancouver, British Columbia: G. M. Johnson and Associates Ltd.
Verso display panel reads: **Easy to read : Arizona : large print state map.** Larger print is used for principal geographic names, but local features are in more conventionally sized print.
INSET maps include "Grand Canyon Village".

ITMB Publishing/International Travel Maps

- 2018 25.1859 **USA Southwest : Scale 1:900,000 : Arizona, California, Nevada, Utah : Waterproof.** (Yusuke Ujimaya, Mark Ramsay, Tran Dinh Cuong, Phuong Vu, eds.; Lan Joyce, ed.-in-chief.) Richmond, British Columbia, Canada: ITMB Publishing/International Travel Maps, 3rd ed., 1 sheet (2 sides).

Martin, Tom, AND Whitis, Duwain

- 2018 10.110 **Guide to the Colorado River in the Grand Canyon : Lees Ferry to South Cove : seventh edition.** Flagstaff, Arizona: Vishnu Temple Press, 119 pp. (RiverMaps™ series, Buda, Texas.) [2nd printing 2019.]
Spiral-bound. Maps prepared using ArcGIS, layout in Adobe InDesign.⁵¹ Page 1 is title-page verso.

Sky Terrain

- 2018 25.1858 **Grand Canyon National Park.** Boulder, Colorado: Sky Terrain, 7th ed., 1 sheet, 2 sides. (Cartography by Kent Schulte.) ("Waterproof, tear tough, mileage, shaded relief, topography, trail descriptions, GPS grid, backcountry use areas, 1:40,000 scale, 308 miles (495km) of trails covers the vast central core of the Park".) (Contour interval 100 feet.) [Global Positioning System.]

Smith, Stephanie

- 2018 25.632 **The Grand Canyon.** [Flagstaff, Arizona]: Grand Canyon Trust, 2nd ed., 1 sheet. [Grand Canyon National Park.] [11¾ × 24 inches, scale 1 inch = ca. 7½ miles.]

Time Traveler Maps

- 2018 25.556 **Colorado Plateau and its borderlands.** Time Traveler Maps, 4th ed., 1 sheet, scale 1:1,250,000.
In conjunction with the Peaks, Plateaus and Canyons Association.
- 2018 25.559 **John Wesley Powell's 1869 Colorado River exploring expedition : into the unknown.** Mancos, Colorado: Time Traveler Maps, 1 sheet, scale 1:900,000.
Green and Colorado Rivers, Green River, Wyoming to mouth of Virgin River, Nevada.
State 1: Heavy laminated stock, 26 × 36 inches, rolled, poster-style, map with chronological narrative and illustrations; one side.

⁵¹ Points relating to production, editions, and printings of the RiverMaps series were provided by Duwain Whitis (February 2021).

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

State 2: Heavy laminated paper, 26 × 36 inches, folded to 4 $\frac{5}{8}$ × 10 $\frac{1}{4}$ inches, pasted within laminated heavy stock illustrated yapped wrap 5 $\frac{1}{8}$ × 10 $\frac{1}{2}$ inches; wrap title adds, “Illustrated Map & Adventure Anthology” and blurb, “The most entertaining rendition of Powell’s 1869 expedition ever created. A must-have for any Grand Canyon visitor, river rat on the Colorado or dreamer of epic adventures!”; recto same as rolled State 1, verso adds illustrated texts.

2019

Belknap, Buzz, AND Evans, Loie Belknap

2019 10.134 **2019 Belknap’s waterproof Grand Canyon river guide : 50th anniversary edition commemorating: Grand Canyon National Park centennial (1919-2019), Major Powell’s expedition sesquicentennial (1869-2019).** Evergreen Colorado: Westwater Books, 127 [128] pp. (“50th ANNIVERSARY EDITION: 2019 (1/31/19)”.)

Cool Owl Sales, Inc.

NO DATE 25.987 **Arizona.** [No place]: Cool Owl Sales, Inc. [2019.]
Poster map.

Dent, Bonnie

2019 25.642 (ARTIST) **Discovery map : Grand Canyon, Williams and Historic Route 66, Arizona.** Waitsfield, Vermont: Discovery Map International, Inc., 16th ed., 1 sheet, 2 sides.
Schematic map with advertisements on verso.

Great Pacific Recreation and Travel Maps

2019 25.1864 **Grand Circle road and recreation : ideal for trip planning & touring : Arches, Bryce Canyon, Canyonlands, Grand Canyon, Zion national parks of southern Utah and northern Arizona : large scale, fully indexed, scenic byways.** Issaquah, Washington: Great Pacific Recreation and Travel Maps, 2nd ed., 1 sheet, 2 sides.

Gushue, T. M.

2019 10.113 **Colorado River mile system, Grand Canyon, Arizona.** *U.S. Geological Survey, Data Release*, <https://doi.org/10.5066/P9IRL3GV>; last accessed 9 December 2024.
ONLINE RESOURCE. USGS ScienceBase link:
<https://www.sciencebase.gov/catalog/item/5b2185ace4b092d96528747b> (last accessed 7 July 2024).
Glen Canyon Dam to Pearce Ferry.
“These data represent the centerline and measured increments at hundredths, tenths and whole miles, along the centerline of the Colorado River beginning at Glen Canyon Dam near Page, Arizona and terminating near the inflows of Lake Mead in the Grand Canyon region of Arizona, USA. The centerline was digitized using Color Infra-Red (CIR) orthophotography collected in March 2000 as source information and a LiDAR-derived river shoreline representing 8,000 cubic feet per second (CFS) as the defined extent of the river. Every effort was made to follow the main flow of the river while keeping the line approximately equidistant from both shorelines. The centerline feature class has been created to more accurately map locations along the Colorado River downstream of the Glen Canyon Dam. River miles and river kilometers were developed from measurements along this line. The incremental point feature classes were derived from the centerline of the Colorado River datasets. Specifically, the points were generated from nodes extracted from the centerline endpoints of the tenth mile line feature class. The Grand Canyon Monitoring and Research Center

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

(GCMRC) river mileage was cross-checked with commercially available river guides and always fell within one mile of the guides, usually corresponding within a half mile. Additionally, these data were subjected to internal review by GCMRC scientists and commercial boatmen with decades of river travel experience on the Colorado River. River Mile 0 was measured from the USGS concrete gage and cableway at Lees Ferry, Arizona—as per the Colorado River Compact of 1922—with negative river mile numbers used in Glen Canyon and positive river mile numbers downstream in Marble and Grand Canyons. These data were updated in March 2015 using newer orthorectified imagery collected in May of 2009 and 2013, both at approximately 8,000 CFS. Due to extended drought conditions that have persisted in the U.S. Southwest, lake levels have dropped dramatically, especially at Lake Mead. A stretch of the Colorado River corridor that was part of Lake Mead in year 2000 has returned to a flowing river once again, and with a different channel that has not previously existed. All changes to the original centerline are downstream of River Mile 260 which is just upstream of Quartermaster Canyon in western Grand Canyon. New river miles and river kilometers were developed from this updated centerline.”

Lonely Planet

- 2019 25.624 **Grand Canyon National Park planning map.** [No place]: Lonely Planet, 1st ed., 1 sheet, 2 sides.
Packaged in booklet-like folder with a sheet of stickers for use personalizing the map. Elevations shown by shaded colors. Includes inset maps. Verso contains area map and illustrated texts.

National Geographic Maps

- 2019 25.1683 **United States Southwest : adventure travel map : revised regularly, waterproof, tear-resistant.** Evergreen, Colorado: National Geographic Maps, 1 sheet, 2 sides. (Adventure Map no. 3121.) (Scale 1:300,000.)

Stevens, Larry [Stevens, Lawrence E.]

- 2019 10.116 **The Colorado River in Grand Canyon : a river runner's map and guide to its natural and human history.** Flagstaff, Arizona: Grand Canyon Wildlands Council, Inc., 148 pp.
Cover title: **The Colorado River in Grand Canyon : river map and guide.**
“Copyright transferred to Grand Canyon Wildlands Council, Inc. for the 2013 edition, 1st printing, 2013.” Printed by Ram Offset Lithographers, White City, Oregon. Spiral-bound; in sequence, the 11th ed.
Title-page verso indicates “5th Printing 2019” (*i.e.*, 5th printing of 2013 ed.). This ed. contains corrections to typographical errors but text remains otherwise unchanged; blank pages 145-148, previously added for notes, now enumerated.
NOTE: The river guide also includes generalized strip maps for Tanner Trail, South Kaibab Trail, Bright Angel Trail, Hermit Trail, South Bass Trail, and Havasu Canyon Trail (pp. 139-141).

2020

Allgemeiner Deutscher Automobil-Club

- 2020 25.652 **ADAC TourSet : gut geplant und gut gereist; auf den besten Routen; zu den schönsten Plätzen; mit den wichtigsten Tipps USA 305; Arizona, Utah : TourSet, Urlaubsführer : Phoenix, Salt Lake City, Bryce Canyon, Grand Canyon, Monument Valley, Tucson.** München: Allgemeiner Deutscher Automobil-Club. [In German.]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Belknap, Buzz, AND Evans, Loie Belknap

- 2020 10.135 **2020 Belknap's waterproof Grand Canyon river guide : over 50 years in print : expanded edition—updated yearly : read-as-you-run format.** Evergreen Colorado: Westwater Books, 127 [128] pp. ("OVER 50 YEARS IN PRINT: 2020 (1/1/2020)".)

Global Graphics

- 2020 25.1867 **State in your pocket : Arizona road map : plus street maps of Phoenix, Tucson, Flagstaff, Yuma, Grand Canyon Village.** [No place]: Global Graphics, 1 sheet, 2 sides. Arizona map is scale 1:1,000,000.

National Geographic Maps

- 2020 25.1853 **National parks of the United States : destination touring map and guide : revised regularly, waterproof, tear-resistant.** Evergreen, Colorado: National Geographic Maps, 1 sheet, 2 sides. (Scale 1:5,183,000.) (Copyright 2019 National Geographic Partners LLC, Washington, D.C.)
Text on verso. Map includes some national monuments and national recreation areas.

Winters, Chase; Meyer, Dalton; AND Suri, Jake

- 2020 24.849 (POSTER LAYOUT) **Geologic map of Grand Canyon National Park, Arizona.** [No place]: U.S. National Park Service, Natural Resource Stewardship and Science, Geologic Resources Inventory, digital format (PDF), accessible through <http://go.nps.gov/gripubs> and through <http://npshistory.com/publications/grca/geologic-map-2020.pdf>. ("This map displays geologic map data compiled by the National Park Service Geologic Resources Inventory. It is not a substitute for site-specific investigations.") ("Source Scale 1:24,000". "GRI Data Date 2013".) (Last accessed 9 December 2024.)
Compiled from eight published maps: Billingsley and Hampton (2000, *ITEM NO.* 24.219), Billingsley and Priest (2013, *ITEM NO.* 24.370), Billingsley and Wellmeyer (2004, *ITEM NO.* 24.232), and Billingsley *et al.* (2006, *ITEM NOS.* 24.271, 24.238; 2007, *ITEM NO.* 24.274; 2008, *ITEM NO.* 24.316; 2012, *ITEM NO.* 24.361). Dated September 2020, but does not include the latest revisions to the Grand Canyon stratigraphic column (2020).

2021

Belknap, Buzz, AND Evans, Loie Belknap

- 2021 10.142 **2021 Belknap's waterproof Grand Canyon river guide : over 50 years in print : expanded edition—updated yearly : read-as-you-run format.** Evergreen Colorado: Westwater Books, 127 [128] pp. ("OVER 50 YEARS IN PRINT: 2020 (1/1/2021)".)

Fonseca Martínez, Arlin Brighith; Mexia Durán, Kevin; Ramírez Salamanca, Gustavo Adolfo; AND Iriondo, Alexander

- 2021 24.858 Generalized digital lithological map of northern Mexico and southwestern United States of America. Mapa digital litológico generalizado del norte de México y suroeste de Estados Unidos de América. *Terra Digitalis* (Universidad Nacional Autónoma de México, *a través del* Instituto de Geografía, Circuito de la Investigación Científica s/n, Ciudad de México), 5(1): 1-8 (<https://doi.org/10.22201/igg.25940694e.2021.1.85>) + Static map (<https://doi.org/10.22201/igg.25940694e.2021.1.85.177>) and Interactive map (<https://doi.org/10.22201/igg.25940694e.2021.1.85.178>) + Supplemental

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Material online (<https://doi.org/10.22201/igg.25940694e.2021.1.85.180>) [51] pp. Scale 1:1,000,000. [Text in English; bilingual title and abstract.] [Last accessed 9 December 2024.]

The northern boundary of the map is at the parallel along the northern boundaries of Arizona and New Mexico; eastern boundary embraces most of Texas; western boundary is in the Pacific Ocean, with ocean floor topography shown; southern boundary is at the parallel of Mazatlán, Sinaloa.

Martin, Tom, AND Whitis, Duwain

- 2021 10.144 **Guide to the Colorado River in the Grand Canyon : Lees Ferry to South Cove : eighth edition.** Flagstaff, Arizona: Vishnu Temple Press, and Buda, Texas: RiverMaps, LLC, 119 pp. (RiverMaps™ series.) [2nd printing September 2022.]
"First printing, April 2021" (p. 1). Spiral-bound. Page 1 is title-page verso. Water-resistant pages as with previous eds., but covers of less substantial stock, laminated.

Smith, Stephanie

- NO DATE 25.1907 **The Grand Canyon Protection Act. A permanent ban on new uranium mines on 1 million acres of public lands for the project of the Grand Canyon and all who depend upon it.** [Flagstaff, Arizona]: Grand Canyon Trust. [2021.]
Delimits mineral withdrawal boundary and 2020 mining claim concentration, and showing locations of active and other existing and proposed uranium mines.
Digital format (PDF) accessible through Grand Canyon Trust website, <https://grandcanyontrust.org/resources>.

Stevens, Larry [Stevens, Lawrence E.]

- 2021 10.145 **The Colorado River in Grand Canyon : a river runner's map and guide to its natural and human history.** Flagstaff, Arizona: Grand Canyon Wildlands Council, Inc., 148 pp.
Cover title: **The Colorado River in Grand Canyon : river map and guide.**
"Copyright transferred to Grand Canyon Wildlands Council, Inc. for the 2013 edition, 1st printing, 2013." Printed by Ram Offset Lithographers, White City, Oregon. Spiral-bound; in sequence, the 12th ed.
Title-page verso indicates "6th Printing 2021" (*i.e.*, 6th printing of 2013 ed.). This ed. contains corrections to typographical errors but text remains otherwise unchanged; blank pages 145-148, previously added for notes, now enumerated.
NOTE: The river guide also includes generalized strip maps for Tanner Trail, South Kaibab Trail, Bright Angel Trail, Hermit Trail, South Bass Trail, and Havasu Canyon Trail (pp. 139-141).

U.S. Bureau of Land Management, Arizona Strip District Office

- 2021 25.1752 **St. George Basin Travel Management Area : Arizona Strip Field Office.** [St. George, Utah]: U.S. Bureau of Land Management, Arizona Strip District Office, scale 1:65,000.
Principally the area north of Grand Canyon-Parashant National Monument and south of St. George, Utah.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

2022

Anonymous

- NO DATE 25.1892 **Grand Canyon National Park Map : Illustrated Trails.** [No imprint], booklet format, [38] pp. with laminated wraps. [An on-demand publication.] [Copy acquired as new, 2022.]
Portions of shaded-relief topographic maps overprinted with trail and other symbols. Text interleaved, comprising travel advice. No credits.
Note: The cover displays a photograph of Horseshoe Bend, in Glen Canyon.

Belknap, Buzz, AND Evans, Loie Belknap

- 2022 10.147 **Belknap's waterproof Grand Canyon river guide : over 50 years in print : expanded edition—updated yearly : read-as-you-run format.** Evergreen, Colorado: Westwater Books, 127 [128] pp. ("OVER 50 YEARS IN PRINT: 2022".)
Inside front cover mistakenly printed upsidedown, but replaced with a correctly oriented paste-in.

Moon [firm]

- 2022 25.1891 **Best of Grand Canyon. Make the most of one to three days in the park.**
In: Hull, Tim, *Best of Grand Canyon.* Berkeley, California: Avalon Travel (Hachette Book Group), [map] 1 sheet, loose in rear pocket. [Cover of volume adds: *Make the most of one to three days in the park. Top sights, top hikes, top scenic drives.*]
No date on map. ("© moon.com".) With folded-panel title as cited.
Recto, "The Grand Canyon", maps all of Grand Canyon National Park, with five insets, "Bright Angel Trail", "North Kaibab Trail", "Rim Trail", "Widforss Trail", and "River Trail".
Verso, "North and South Rims", is a physiographical map of eastern Grand Canyon with two insets, "Grand Canyon Village" and "Cape Royal Drive", with Rim Trail, Bright Angel Trail, and North Kaibab Trail highlighted in red.

Smith, Stephanie

- NO DATE 25.1888 **Lifeways of the Little Colorado River.** [Folded and laid in with: *Lifeways of the Little Colorado River.* [Flagstaff, Arizona]: Grand Canyon Trust.] 1 sheet. [2022.]
The map, recto and verso, depicts the course of the Little Colorado River, from headwater to the Grand Canyon; the eastern and central parts of the Grand Canyon are also depicted. Map includes physiography. The booklet is devoted to Native American cultural perspectives of the Little Colorado River and its landscape.
- NO DATE 25.1908 **Havasupai Gardens (Ha'a Gyoh).** [Flagstaff, Arizona]: Grand Canyon Trust. [2022.]
Digitally displayed shaded-relief topography of Bright Angel Trail, with Havasupai Gardens marked.
Digital format (PDF) accessible through Grand Canyon Trust website, <https://grandcanyontrust.org/resources>.
- NO DATE 25.1909 **Traditional Connections to the Grand Canyon.** [Flagstaff, Arizona]: Grand Canyon Trust. [2022.] ("This map displays ancestral areas associated with certain tribes, as reflected by past archaeological and ethno-historic research. Where possible, these areas have been created based upon tribal knowledge and resources, but are

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

provisional and have the inherent limitation of imposing lines on a fluid and evolving reality.”)

Displays areas of traditional cultural interest of Havasupai, Hualapai, Diné (Navajo), Yavapai-Apachi, Hopi, Zuni, and Southern Paiute.

Digital format (PDF) accessible through Grand Canyon Trust website, <https://grandcanyontrust.org/resources>. Two formats: 1) General area displayed with overlapping areas; 2) same, with added inset maps for individual tribes.

Weber, Joe

- 2022 25.2105 *Mapping historical Las Vegas : a cartographic journey*. Reno and Las Vegas: University of Nevada Press, 343 pp.
Although this title is a book, it includes substantial text and numerous accompanying **MAPS** that relate to the Lake Mead region and western Grand Canyon. Each map provides informational overlays on a shaded-relief physiographic base.

2023

Belknap, Buzz, AND Evans, Loie Belknap

- 2023 10.148 **Belknap's waterproof Grand Canyon river guide : over 50 years in print : expanded edition—updated yearly : read-as-you-run format**. Evergreen, Colorado: Westwater Books, 127 [128] pp. (“OVER 50 YEARS IN PRINT: 2023”.)
Now printed on new paper, ViaStone, made from limestone (*fide* Richard D. Quartaroli).

Grand Canyon Tribal Coalition

- 2023 25.2101 **Proposed Baaj Nwaavjo I'tah Kukveni Grand Canyon National Monument. April 10, 2023**. [No imprint], 1 sheet.
Boundaries superimposed on a part of an unidentified map from U.S. Bureau of Land Management, Arizona State Office, scale 1:180,000.
“The Grand Canyon Tribal Coalition consists of leadership representatives of the Havasupai Tribe, Hopi Tribe, Hualapai Tribe, Kaibab Paiute Tribe, Las Vegas Band of Paiute Tribe, Moapa Band of Paiutes, Paiute Indian Tribe of Utah, Navajo Nation, San Juan Southern Paiute Tribe, Yavapai-Apache Nation, Pueblo of Zuni, and the Colorado River Indian Tribes.” (U.S. House of Representatives, Natural Resources Committee Democrats, media advisory, April 7, 2023 [last accessed 9 December 2024], <https://democrats-naturalresources.house.gov/media/media-advisories/media-advisory-grijalva-sen-sinema-to-join-tribes-in-call-for-potus-to-designate-baaj-nwaavjo-itah-kukveni-grand-canyon-national-monument>.)
[Map last accessed 9 December 2024 at https://democrats-naturalresources.house.gov/imo/media/doc/Proposed%20Baaj%20Nwaavjo%20I'tah%20Kukveni%20Grand%20Canyon%20NM%20Map_20230410.pdf.]

Lindemann, Linda Lou

- 2023 10.150 **Colorado River briefs for a trip through the Grand Canyon : Updated edition 2023 : Compiled by: Linda Lou Lindemann : Illustrated by: Dan K. Lindemann : Updated by: John E. Buggenhagen**. [No imprint], 14th printing, 188 pp. (Distributed by 1st Avenue Whitewater, Page, Arizona. Printed by DeHart's Media Services, Inc., San Jose, California.) [Spiral-bound, laminated pictorial topographic map covers.]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

National Geographic Maps

- 2023 25.2107 **Grand Canyon National Park day hikes.** [No place]: National Geographic Partners, LLC., [24] pp. [including wraps]. (Trails Illustrated Topographic Map Guide, 1711.) Booklet format. Cover includes, "17 Trails; Trail Mileages; Difficulty Ratings; Trail Descriptions; Detailed Elevation Profiles; Waterproof, Tear-resistant" and "MAP+APP" promotional note.] [Descriptive text, with double-page topographic maps: "Grand Canyon Village; Shuttle System and Information", and maps enumerated 1-17: "1, South Rim; Dripping Springs from Hermits Rest", "2, South Rim; Santa Maria Spring from Hermits Rest", "3, South Rim; Rim Trail: Maricopa Point to Hermits Rest", "4, South Rim; Rim Trail: South Kaibab to Maricopa Point", "5, South Rim; 3-Mile Resthouse from Bright Angel", "6, South Rim; Plateau Point from Bright Angel", "7, Skeleton Point from [sic] South Kaibab", "8, South Rim; Horeshoe [sic] Mesa from Grandview", "9, North Rim; North Rim Lookout Tower", "10, North Rim; Uncle Jim Trail", "11, North Rim; Transept Trail", "12, North Rim; Widforss Point", "13, North Rim; Supai Tunnel from North Kaibab", "14, North Rim; Manzanita Resthouse from North Kaibab", "15, North Rim; Point Imperial", "16, North Rim; Ken Patrick Trail from Point Imperial", "17, North Rim; Cape Final".

Smith, Stephanie

- 2023 25.2108 **Baaj Nwaavjo I'tah Kukveni–Ancestral Footprints of the Grand Canyon National Monument.** [Flagstaff, Arizona]: Grand Canyon Trust. ("Source [base map]: Bureau of Land Management Updated August 8, 2023".) Digital format (PDF) accessible through Grand Canyon Trust website, originally at this page: <https://www.grandcanyontrust.org/blog/biden-designates-baaj-nwaavjo-ita-h-kukveni-grand-canyon-national-monument> (accessed August 9, 2023).

2024

Huntoon, Peter W.; Billingsley, George H., Jr.; Breed, William J.; Sears, J. W.; Ford, Trevor D.; Clark, Malcolm D.; Babcock, R. S.; Brown, E. H.; *et al.*

- [2024] 24.902 **Geologic map of the eastern part of the Grand Canyon National Park, Arizona.** Grand Canyon, Arizona: Grand Canyon Association, 1 sheet. Facsimile of 1980 ed. (ITEM NO. 24.784), reproduced—not separately dated—by Museum of Northern Arizona as a poster in two sizes, 24 × 16 inches or 36 × 24 inches (original measures 60 × 42 inches); commemorated by a special exhibit, "The Grand Canyon Dragon Map", about the making of the map, on display at the museum 25 May 2024 through January 2025. Reproduction on heavy stock. This and other eds. is the so-called "Blue Dragon" map. (See also an article by Wayne Ranney, "Grand Canyon's 'blue dragon' rises again", *The Ol' Pioneer* (Grand Canyon Historical Society), 35(3) (Summer): 6-7.)

Siebers, Benjamin J.

- 2024 25.2479 **Illustration of the Grand Canyon region in northwestern Arizona showing major land holders and locations of some of the uranium mines in the region. Mine status and Tribal land names current as of March 2024.** [and] **Illustration of U.S. Geological Survey science at breccia pipe mines in the Grand Canyon region.** *In:* Walton-Day, Katherine, Siebers, Benjamin J., Hinck, Jo Ellen, Campbell, Kate M., and Croteau, Marie-Noële, Balancing natural resource use and extraction of uranium and other elements in the Grand Canyon region. *U.S. Geological Survey, Fact Sheet 2024-3003*, figures 1, 3 (pp. 1, 4). Art maps, colored.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Smith, Stephanie

- 2024 25.2470 **The Colorado Plateau.** [Flagstaff, Arizona]: Grand Canyon Trust. ("Map updated March 2024".)
". . . newly updated to include Baaj Nwaavjo I'tah Kukveni – Ancestral Footprints of the Grand Canyon National Monument (abbreviated BNK on the map), designated August 8, 2023". Digital format (PDF) accessible through Grand Canyon Trust website, originally at this page: <https://www.grandcanyontrust.org/map-colorado-plateau-2024-edition>.

U.S. Bureau of Land Management, Arizona State Office

- 2024 25.2496 **Baaj Nwaavjo I'tah Kukveni—Ancestral Footprints of the Grand Canyon National Monument : Route Inventory as of August 8, 2023.** [No place]: U.S. Bureau of Land Management, Arizona State Office; and U.S. Forest Service, Kaibab National Forest. (Seen as a PDF file. "This map intended to be plotted at 34 x 44 inches", "Map created: June 26, 2024".)
With township and range grid. Includes adjacent political and reserve units.

Young, Richard A.

- 2024 24.879 **Geologic map of the Hindu Canyon quadrangle, Mohave County, AZ.** (Cenozoic geology by Richard A. Young, 1962-2011; bedrock mapping updated from Billingsley et al., 1999. USGS Topographic map base: N3537.5 - W11330/7.5 (1967) Contour Interval 40 feet.)
In: Young, Richard A., Brief Cenozoic geologic history of the western Grand Canyon region on the Milkweed Canyon NW and Hindu Canyon 7.5' quadrangles with an emphasis on the exhumed Hualapai Plateau paleocanyons, Mohave County, AZ. *Arizona Geologic Survey, Contributed Map CM-24-A.* [Report, 48 pp., and map available separately online.
- 2024 24.880 **Geologic map of the Milkweed Canyon NW quadrangle, AZ.** (Cenozoic geology by Richard A. Young, 1962-2011; bedrock mapping updated from Billingsley et al., 1999. USGS Topographic map base: N3530 - W11322.5/7.5 (1967) Contour Interval 40 feet.)
In: Young, Richard A., Brief Cenozoic geologic history of the western Grand Canyon region on the Milkweed Canyon NW and Hindu Canyon 7.5' quadrangles with an emphasis on the exhumed Hualapai Plateau paleocanyons, Mohave County, AZ. *Arizona Geologic Survey, Contributed Map CM-24-A.* [Report, 48 pp., and map available separately online.
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MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Dates Undetermined

(maps or map products without even conjectural dates)

Anonymous

- NO DATE 25.1 **Deutsche Übersetzung Urlaubsplaner für Nordarizona.** Sedona, Arizona: Map-A-Zine, [8] pp. [In German.]
This is a translation to accompany Cox (no date, ITEM NO. 25.31), *Map-A-Zine of northern Arizona.* [Copy purchased new, 1994.]

American Association of Petroleum Geologists

- NO DATE 24.2 **Geothermal gradient of Arizona and western New Mexico. (Portfolio map area no. 18.)** American Association of Petroleum Geologists, 1 sheet.

Benchmark Maps

- NO DATE 25.129 **Arizona northwest road map : including Lake Mead, Hoover Dam, Lake Havasu.** Santa Barbara, California: Benchmark Maps, 2 sides, scale 1:400,000.
- NO DATE 25.131 **Arizona northeast road map : including Petrified Forest, Glen Canyon Dam, Canyon de Chelly, Oak Creek Canyon.** Santa Barbara, California: Benchmark Maps, 2 sides, scale 1:400,000.

Catch and Release Calendars

- NO DATE 25.26 **Lee's Ferry to Glen Canyon Dam : topographic map.** Flagstaff, Arizona: Catch and Release Calendars, with the cooperation of Ray Larkey, 1 sheet, scale 1:24,000, with fishing and lodging information on verso.

Cooper, J. R.; Cone, G. C.; AND Peirce, H. W.

- NO DATE 24.55 **Geologic map and cross-sections of Arizona.** Arizona Bureau of Geology and Mineral Technology, 1 sheet (loose-leaf format), explanation 2 pp.

Cox, Sonja

- NO DATE 25.31 **Map-A-Zine of northern Arizona.** [No imprint.] 1 sheet, 2 sides; with text. [Copy purchased new, 1992.]
Also seen with a separate [8]-page translation booklet in German (Anonymous, no date, ITEM NO. 25.1).

Fish-n-Map Company

- NO DATE 25.41 **L. Pleasant. Lee's Ferry (Colo. River below L Powell).** [No place]: Fish-n-Map Co., 1 sheet (2 sides). ("Lee's Ferry to Glen Canyon Dam" on one side.) [Copy acquired new, 1995.]
- NO DATE 25.289 **Lake Pleasant. Lee's Ferry (Colo. River below Lake Powell). With GPS!** [No place]: Fish-n-Map Co., 1 sheet (2 sides). ("Lee's Ferry to Glen Canyon Dam" on one side.) [Global Positioning System coordinates.] [Copy acquired new, 2013.]
- NO DATE 25.318 **Lake Powell South. With GPS!** [No place]: Fish-n-Map Co., 1 sheet, 2 sides. [Global Positioning System coordinates.] [Copy acquired new in 2013.]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Fred Harvey [firm]

- NO DATE 25.149 **Magic circle map of the Grand Canyon region.** [No place]: Fred Harvey.
Fred Harvey, no. 4075. Regional map centered on the Watchtower at Desert View.

Hansen, Russell H.

- NO DATE 10.47 **Colorado River map of the Grand Canyon.** Orem, Utah: Tour West (distributor), [49] pp.

Hearne Brothers

- NO DATE 25.281 **Flagstaff and Coconino County.** Scottsdale, Arizona: Hearne Brothers, cloth-mounted map on heavy-duty spring roller.

Hubbard Scientific Company

- NO DATE 25.214 **Grand Canyon, Arizona.** Northbrook, Illinois: Hubbard Scientific Company, plastic raised-relief map.

Base map "Prepared by the U.S. Army Topographic Command (FSGE), Washington, D.C., from Western United States 1:250,000, Series V502, Edition 3-AMS, Sheet NJ 12-10, 1970"; contour interval 200 ft with 100-ft supplementary contours.

- NO DATE 25.1880 **Grand Canyon National Park : an Adventureland Map : park map based on ERTS satellite imagery.** Chippewa Falls, Wisconsin: Hubbard Scientific, plastic raised-relief map, 21 × 21 × 1 inches. [Copy acquired new in 2018 (sold with or without frames; frames thin plastic in black or gold, and in oak).] [Earth Resources Technology Satellite.]

Displays eastern Grand Canyon in raised-relief vinyl, including two separate 3-raised-relief inserts. "Grand Canyon National Park" displayed with pre-enlargement boundary; Colorado River on map from Navajo Bridge nearly to Kanab Creek; horizontal scale 1 inch = ca. 8 miles, vertical scale 1/8 inch = 1000 feet. **INSETS:** "South Rim Trails", linear expanse of Inner Gorge about from Hance Creek west to Monument Creek; "North Rim Trails" (including North Kaibab Trail and Old Bright Angel Trail); insets horizontal scale 1 inch = ca. 1.2 miles, vertical scale 1/8 inch = 1000 feet.

Kanab/Kane County Office of Tourism and Film Commission

- NO DATE 25.325 **Southern Utah area map : Kanab/Kane County : "The Heart of the Parks".** Kanab, Utah: Kanab/Kane County Office of Tourism and Film Commission, 1 leaf (2 sides).

Recto map contains generalized map, including northern Arizona. Verso contains map of Kanab, Utah.

Lawrence, E.

- NO DATE 25.1672 [COMPILER] **Vintage prints : vintage maps : Grand Canyon.** [No imprint], [22] leaves. [An on-demand publication.]

A compilation of 20 good-quality, single-page reproductions of Grand Canyon maps, without credit, but seemingly from Library of Congress online postings. The statement (leaf [1] verso), "Images found in this book may have been retouched", seems to be a standard disclaimer used in similarly produced booklets. Three of the maps in this production are shown as white on black, apparently for artistic effect.

[Copy acquired new, November 2020.]

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

National Geographic, AND Waterford Press

- NO DATE 25.355 **Grand Canyon National Park adventure set : map and naturalist guide : trail map, naturalist guide.** [No place]: National Geographic, and Waterford Press.
Set comprises map, *Grand Canyon : Bright Angel Canyon, North and South Rims : National Park, Arizona, USA : Trails Illustrated Topographic Map* no. 261; and *Field guide to the Grand Canyon : an introduction to familiar plants and animals* by James Kavanagh. Packaged with wrap, which also indicates on verso, "Map & Naturalist Guide Set".

National Geographic Society

- _____ 25.71 **Close-up: USA. Regional map and travel planner. No. 3. The Southwest : Arizona, New Mexico, Colorado, Utah.** Washington, D.C.: National Geographic Society, folded map in folder.

Robitaille, Chris

- NO DATE 25.625 (ARTIST) **Grand Canyon National Park.** [No place]: Xplorer Maps, 1 sheet, scale 1.5 inches = 10 miles.
Hand-drawn portrayal of Grand Canyon, Lees Ferry to Lake Mead, with inset pictorial vignettes. Packaged in ornamental tube. Publisher's imprint does not appear on the map. Map indicates only "© Robitaille". Packaged with informational slip about the artist and Xplorer Maps. [Copy purchased new, March 2019.]

Tahoe Wood Maps

- NO DATE 25.562 **Grand Canyon National Park, Arizona, U.S.A.** [Reno, Nevada]: [Smart Craft Technologies, Inc.], wood relief map.
[Seen for sale as new, 2018.] Relief based on topographic contours. Places keyed to imprinted symbols.
State 1: 31 × 16 × 2 inches; 6.5 pounds.
State 2: 21 × 12 × 2 inches; 3.25 pounds.]

U.S. Army Engineer Department

- NO DATE 11.9468 **[Topographic atlas sheets prepared for an unrealized atlas of the western United States.]** U.S. Geographical and Geological Surveys West of the 100th Meridian. Scales 1:506,880.
Sheet 66, 35°40' to 37°20' N, 113°45' to 116°30' W, 4 eds., hachure.
Sheet 67, 35°40' to 37°20' N, 111°00' to 113°45' W, 2 eds., hachure and shaded, and a geological map for this area.
Sheet 75, 34°00' to 35°40' N, 111°00' to 113°45' W, hachure.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

Nonspecific Dates

(frequently updated editions or print-on-demand products)

Best Maps Ever

Print-on-demand series from <https://bestmapsever.com/> (accessed 7 March 2020)

_____ 25.991 **Arizona state parks and federal lands.** Ketchum, Idaho: Best Maps Ever. [18 × 24 inches.]

Muir Way [firm]

Print-on-demand products from <https://muir-way.com> (accessed 21 February 2021)

_____ 24.852 **Geologic map of the Grand Canyon National Park, Arizona.** [San Diego, California]: Muir Way.

Reproduction of the geologic map by Huntoon *et al.* (1976, **ITEM NO.** 24.93) on Fine Art paper (“archival paper and inks, 100% cotton, OBA-free and acid-free, heavyweight 21.5 mil, certified to last 100 years”; “Digital Elevation Data with shaded relief applied to the original 1976 map adding a 3D appearance” [from the Muir Way website, advertised there as “Grand Canyon 1976 Relief Map”]). This is a print-on-demand product (**copy acquired new in 2021**); available in three states—24 × 18 inches, 32 × 24 inches, 40 × 30 inches.

The 1976 original (and subsequent eds.) is the so-called “Blue Dragon” map. The Muir Way imprint or any credit to the firm does not appear on the map.

Raven Maps and Images

Print-on-demand series from <https://www.ravenmaps.com/>. Various states are listed; most are available on “art” paper or laminated. (Accessed 7 March 2020.) [This firm is unrelated to Raven’s Perch Media.]

_____ 24.835 **Arizona.** Medford, Oregon: Raven Maps and Images.
Lithograph physiographic map, 51 × 42 inches; elevation tints map, 36 × 30, 52 × 44 inches.

_____ 25.988 **Arizona at night.** Medford, Oregon: Raven Maps and Images.
36 × 30, 53 × 44 inches.

U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service

_____ 25.105 **Sectional aeronautical chart : Las Vegas.** Washington, D.C.: U.S. National Ocean Service.
Serial. Various dates.

_____ 25.106 **Visual flight rules aeronautical chart : Grand Canyon.** Washington, D.C.: U.S. National Ocean Service.
Serial. Various dates.

MAPPING GRAND CANYON

Grand Canyon (1868–Present)

U.S. Federal Aviation Administration ⁵²

- _____ 25.729 **Las Vegas Sectional Aeronautical Chart.** U.S. Federal Aviation Administration, 1 sheet, scale 1:500,000.
Includes entire Grand Canyon region and northern part of the lower Colorado River region, including Lake Mead area.
Periodically updated; cited from 103rd ed., effective 27 February-13 August 2020.
- _____ 25.732 **IFR Enroute Low Altitude—U.S. L-8.** U.S. Federal Aviation Administration, 1 sheet, scale 1 inch = 10 nautical miles.
Enroute Instrument Flight Rules. Includes entire Grand Canyon region.
Periodically updated; cited from ed. effective 30 January-26 March 2020.]
- _____ 25.1837 **IFR Enroute High Altitude—U.S. H-4.** U.S. Federal Aviation Administration, 1 sheet, scale 1 inch = 20 nautical miles.
Enroute Instrument Flight Rules. Includes the entire region embraced by this Cartobibliography.
Periodically updated; cited from ed. effective 30 January-26 March 2020.

⁵² FAA VFR (Visual Flight Rules) raster charts are accessible online as PDF files or charts in compressed (ZIP) format (containing a TIF, geospatial and metadata files):
https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/vfr/.
IFR (Instrument Flight Rules) Enroute Aeronautical charts are accessible at:
https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/ifr/#area.
(URLs accessed 1 March 2020.)

Appendix

Río Colorado and Colorado River Nomenclature ⁵³

HISTORICAL, BIBLIOGRAPHICAL, AND CARTOGRAPHICAL research in the North American Southwest can be confusing given the number of names by which the Colorado River has been known since its first visit by Europeans in 1539. “Colorado River” appears elsewhere, too: in Texas (United States) and as “Río Colorado” or “Rio Colorado” in various places in the Spanish- and Portuguese-speaking world.

For the benefit of newcomers to the study of this region, and as a refresher for those who are more familiar with the region, a summary of names is below. The names pertain to the originally named stretch of the river, from the confluence of the Grand and Green Rivers in Utah to the sea. (The name “Colorado” was legislatively applied to the Grand River in 1921, to allow the Colorado River to locate its headwaters in the state of Colorado.)

Big Colorado River

“big stony river (the Colorado of the West)” [in a work of fiction; presumably taking the name from the Stony Mountains (Rocky Mountains)]

Boñaguia R[ivière] [*in French*]

Caramara flu[vius] [*in Latin*] [see Rio Coromara]

Collorado river [*sic*]

Collorado Fl[usse]. [*in German*]

Colorado de los Martyres

Colorado de l'Ouest

Colorado del Oeste

Colorado (des Westens) [*in German*]

Colorado Grande

Colorado-Ouest [*in French*]

Colorado River

Colorado River of California

Colorado River of Mexico

Colorado River of Sonora

Colorado River of the Gulf of California

Colorado River of the West

Coloratus fl[uvius]. seu Nord-Strom [*sic; in mixed Latin and German*]

⁵³ Names in this list include those from manuscript and published materials, and misspellings. Some, particularly those from the 19th or 20th centuries, may be mixtures of Spanish and other languages. A few names are misapplied from, or confused with, other rivers as a matter of presumption.

MAPPING GRAND CANYON

Appendix: Colorado River Nomenclature

Coloredo River
Cotorado R[ivière]. [*sic; in French*]
Firebrand River [*in translation of the original Spanish, Río del Tízón; see below*]
F[iume]. Colorato [*sic; in Italian*]
Fl[usse] Colora de los Martyres [*sic; in mixed German and Spanish*]
Fl[uvius]. boni præsidii [*in Latin*]
f[luvius]. Colerado [*sic; in Latin*] [*seen also corrected as f. Colorado*]
Gran Rio Colorado [*and as Gran Río Colorado*]
Grand Colorado [*applied to the Grand River*]
le grand fleuve Colorado ou du Nord [*in French*]
le grand rio Colorado [*in French; and as le grand rio Colorado de Californie*]
Great Colorado
Great Colorado of the Pacific
Great Colorado River [*and as Great Colorado*]
Great Rio Colorado of California
Great River of the Apostles [*a conflation of the Gila and lowermost Colorado Rivers as one stream*]
Green River or Colorado of the Gulf of California [*sic*]
Good Hope River [*in English; as a tributary to Tison R.*]
Martyrs River [*and as Martyr's River*]
Muddy River [*a literary liberty*]
Nord-Strom [*North River in German; see Coloratus*]
North River [*not the Rio Grande*]
Ouiquintas F[iume]. [*in Italian*]
Red River [*also applied to the Little Colorado River, and at least once in error to the San Juan River*]
Red River of California
Red River of the West
Río Buena Esperanza
Rio Colerado [*sic*]
Rio Colorabro [*sic*]
Rio Colorada [*sic*]
Río Colorado
Rio Colorado II [*presumably to distinguish it from the Rio Colorado of Texas*]
Rio Colorado (West)
Rio Colorado de California
Rio Colorado de la California
Rio Colorado de las Balzas
Rio Colorado de los Estados Unidos por el Norte [*sic*]
Río Colorado de los Martyres
Río Colorado de México
Río Colorado del Norte [*and as Rio Colorado del Norte*]

MAPPING GRAND CANYON

Appendix: Colorado River Nomenclature

- Río Colorado del Occidente [*and as* Río Colorado d'Occidente]
- Río Colorado del Oeste
- Río Colorado del Sur
- Río Colorado Grande [*and as* Río Colorado Grande]
- Río Colorado Grande de la California
- Río Colorado Grande de los Martyres
- Río Colorado of California
- Río Colorado of the Gulf of California
- Río Colorado of the North
- Río Colorado or Grand River [*sic*]
- Río Colorado or North River [*also in translations*]
- Río Colorado or of the North [*sic*]
- Río Colorado ot Totontoac [*sic*]
- Río Colorado ou R[ivière]. Verde [*sic, in French; labeled for the reach between the Bear River (Utah) and Little Colorado River (Arizona)*]
- R[ío] Coralado [*although the name seems to conflate Río Colorado and Río Coral (Gila River), the river's poor portrayal nonetheless is distinct from the similarly poorly portrayed Gila River drainage*]
- Río Coromara [*assumed by contemporary geographers to be that of Marco Polo's river in China; also seen as "R. de Coramara" and as "Caramara flu."*]
- Río de Aguchi, ò de Bona Guia [*in Italian*]
- Río de Alarcon
- Río de América Septentrionale
- Río de Anguchi [*in Latin source*]
- Río de Buena Guía [*and as* Río de Bona Guia]
- Río de Colorado [*and as* Río-de-Colorado]
- Río de Colorado of California [*sic*]
- El río de las Balsas [*also applied to a South American stream and to several locales in Mexico*]
- Río de los Martires [*and as* Río de los Martyres]
- Río de los Tiburones [*sic; in fiction*]
- Río del Norte [*not* Río Grande del Norte, *which is the Río Grande of the Gulf of Mexico*]
- Río del Tízón [*also as* Río Tizon; *and variant contemporary spellings, e.g. "Taon", "Teco", "Tecon", "Teçon", "Thicon", "Ticon", "Tiguex", "Tisan", "Tison", "Tocon", "Toucan"*]
- Río Gran de Colorado [*may only be due to awkward map lettering of Río Grande Colorado*]
- Río Grande [*not* Río Grande del Norte, *which is one name for the Río Grande of the Gulf of Mexico*]
- Río Grande Colorado
- Río Grande Colorado de los Martyres [*in 1710 manuscript, as* "Rº Gº Colorado de los Martyres"]
- Río Grande de Buena Esperanza
- Río Grande de Colorado
- Río Grande de los Cosninos
- Río Green [*in Russian, "Рио Грин" (meaning "Green River", correctly applied to the Green River and misapplied to part of the Colorado River)*]

MAPPING GRAND CANYON

Appendix: Colorado River Nomenclature

Río Mysterioso

Río Totontecac [*also as Rio Totontecanc and Rio Tontontecac; see also under "T"*] ⁵⁴

River Colorado

Riv[*ier*]. Colorado of Del Norte [*in Dutch*]

R[*ivière*]. Colorado ou des Martirs [*in French*]

Rivier de Colarado [*sic; in Dutch*]

rivière de Calorado [*sic; in French*]

Rivière de Coral [*in French, the Colorado mislabeled; should have been labeled on Gila River*]

Roode Rivier Colorado [*sic; in Dutch*]

Tigna fiume [*in Italian, "Ringworm River"*]

totonan[*-illegible*] F[*luvius*] [*sic, in Latin*] [*see also Río Totontecac*]

Tontontecanch f[*iume*]. [*in Italian*] [*see also Río Totontecac*]

Totontecac fluvius [*in Latin*] [*see also Río Totontecac*]

Western Colorado

The Colorado had also been referred to as the “Seedskeeter”, “Seedska-dee”, and variant spellings, which are corruptions of an Indigenous American pronunciation actually meant for the Green River (in the upper basin area). The Little Colorado River has been given comparably overlapping names, including a redundant “Río Colorado”.

⁵⁴ Obscure; the name *Totontecac* usually pertains to a presumed Indigenous “kingdom”. Regarding *Totontecac* see for example, William K. Hartmann, *Searching for golden empires : epic cultural collisions in sixteenth-century America* (University of Arizona Press, Tucson, 2014), p. 271 ff; and Helda B. Barracco, *Os "dourados" de Parima : um problema de anticomunicação* (EBRAESP Editorial, São Paulo, 1978), p. 149 (an ebook in Portuguese).



J. J. YOUNG, from a sketch by H. B. MÖLLHAUSEN.

Lith. of Savoy, Major & Knapp, 449 Broadway, N.Y.

CAMP — COLORADO PLATEAU



The RAVEN'S PERCH MEDIA colophon recalls this bird's habit of gathering and caching objects. Derived from original artwork by Balduin Möllhausen, it is a fine detail from the lithograph delineated by J. J. Young that is "General Report Plate VII" in Joseph C. Ives' *Report Upon the Colorado River of the West, Explored in 1857 and 1858* (Washington, 1861), which depicts a wintry camp just south of the Grand Canyon. The scene was sketched and described by Möllhausen on April 10, 1858, while he was perched in a nearby tree. He noted (in translation here), "a couple of ravens [*paar Raben*] croaked morosely on the bare branches of a dried-up fir tree as they waited impatiently for our departure, so that they could scout around the abandoned campsite for fat morsels." (Möllhausen, *Reisen in die Felsengebirge Nord-Amerikas bis zum Hoch-Plateau von Neu-Mexico, unternommen als Mitglied der im Auftrage der Regierung der Vereinigten Staaten ausgesandten Colorado-Expedition*. Hermann Costenoble, Leipzig, 1861, Vol. 2, p. 83.) Möllhausen's original watercolor painting is now in the Amon Carter Museum of American Art (Fort Worth, Texas; <https://www.cartermuseum.org/collection/character-high-table-lands-1988146>).

Raven's Perch Media was created in 2018, but Möllhausen's remarks on this very scene were not discovered until the translation was made for *Möllhausen's Grand Canyon*, another Raven's Perch Media production (2022).

About the Author

My first field of study was geology at Rutgers University in the 1970s. For several years afterward I was in commercial publishing, writing about computer technology — before personal computers. In the early '80s I began an established period of employment in natural history study collections, first at the New Jersey State Museum, then in the Academy of Natural Sciences of Philadelphia. My 18 years in the Academy's employ began in 1986; before that I had been for 12 years a student research assistant and volunteer there. While on staff I was at various times a collection manager in several departments and collections — invertebrate paleontology, paleobotany, mineralogy, malacology, general modern invertebrates (a collection of organisms other than mollusks, insects and arachnids), diatoms, and modern botany; and continued to volunteer in vertebrate paleontology. My publications have embraced each of these fields — as well as historical and bibliographical topics about the Grand Canyon and Colorado River regions.



Concurrently, for seven years I was editor and managing editor of the Scientific Publications branch of the Academy, which publishes peer-reviewed articles and monographs from authors around the globe in America's oldest uninterrupted line of serials on natural history, from 1817. My last five years at the Academy was as its Archivist, for which I had studied in the graduate program of Temple University's Department of History. On leaving the Academy in 2005 I continued my affiliation as an elected Research Associate. For the next 14 years I was Reference Archivist in the research library of the American Philosophical Society, a polymathic institution in Philadelphia founded in 1743 by Benjamin Franklin, whose staff supports the society's membership, visiting researchers from around the world, and graduate level researchers on society fellowships. Since November 2018 I am enjoying an active retirement continuing all of these interests.

Following two visits to the Grand Canyon in 1974 that included my first canyon hikes, I began work on a bibliography of the canyon and the lower Colorado River country. In 1981, the Grand Canyon Natural History Association (now the Grand Canyon Conservancy) published the first edition as a part of its new Monograph series of scholarly publications. A second edition appeared in 1990, with a supplement in 1993. In January 2000, a completely revised bibliography was placed on the Association's website, with its own URL, as a searchable database. Frequently updated, it was discontinued in 2021. In 2012, I privately published the first edition of *THE GRAND CANON*, a much-embellished resurrection of the print monograph, in digital format (PDF) that can be viewed in book layout on-screen or printed to paper. The fifth edition (2025), significantly revised, embraces the 16th to 21st centuries and now cites 111,000 items in 115 languages. (The separate *Cartobibliography* includes citations for maps of this period, with extensive chorographical notations.)

In 1989, the 28th International Geological Congress convened in Washington, D.C., which also offered an ambitious series of field trips across the United States, two of them on the Colorado River through Grand Canyon. My first river trip was with an IGC group. In 1990, I began working as a geology interpreter on yearly summer trips in Grand Canyon with a Colorado River outfitter, continuing this until 2001. I participated in two scientific study trips through the canyon under the Glen Canyon Environmental Studies program administered by the U.S. Bureau of Reclamation, on one of which I prospected for living mollusks, the first such investigation ever to have been made along this canyon river. In 1994, I had attended a Penrose Conference sponsored by the Geological Society of America, "From the Inside and the Outside: Interdisciplinary Perspectives on the History of Earth Science." This conference for the first time brought earth scientists and historians together to discuss how each group approaches research in these complementary fields; from it I developed new perspectives in my research activities, which extended into revisions of the Grand Canyon–Lower Colorado River bibliography. In 2000, I attended a geology symposium at Grand Canyon on "The Colorado River: Origin and Evolution," the proceedings of which were edited by Richard A. Young and me. In 2012 I was honored with the annual Pioneer Award from the Grand Canyon Historical Society. Among many affiliations I hold life memberships with the Grand Canyon Conservancy, the Grand Canyon River Guides, and the Arizona–Nevada Academy of Science.

EARLE E. SPAMER

(pronunciation: *Spah'mer*)



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