

# THE GRAND CANON

A Worldwide Bibliography

*of the*

Grand Canyon *and* Lower Colorado River  
Regions in the United States and Mexico

16<sup>th</sup> to 21<sup>st</sup> Centuries

**Volume 1, Part B: Bibliography**

FIFTH EDITION

111,000 CATEGORIZED AND AUGMENTED CITATIONS FOR  
PUBLICATIONS FROM AROUND THE WORLD IN 115 LANGUAGES

Earle E. Spamer



A Raven's Perch Digital Production



**RAVEN'S PERCH MEDIA**

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

THE GRAND CANON : A WORLDWIDE BIBLIOGRAPHY OF THE GRAND CANYON AND LOWER  
COLORADO RIVER REGIONS IN THE UNITED STATES AND MEXICO, 16th TO 21st CENTURIES  
Volume 1, Part B: Bibliography  
Fifth Edition

CATALOGERS NOTE  
canon: *a standard or  
essential list of works*

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**The Grand Canon**  
*not* The Grand Canyon

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# THE GRAND CANON

A WORLDWIDE BIBLIOGRAPHY OF THE GRAND CANYON AND LOWER COLORADO RIVER REGIONS  
IN THE UNITED STATES AND MEXICO

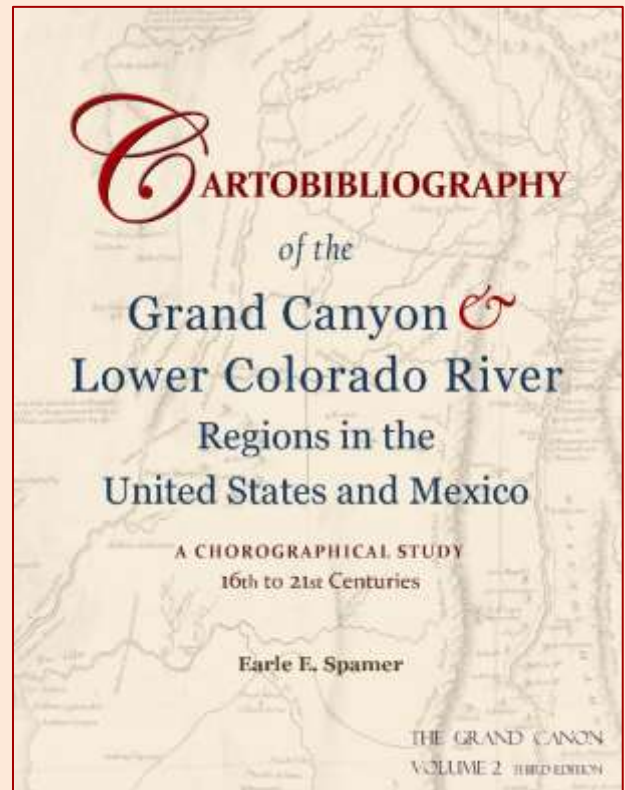
## 25

### CARTOBIBLIOGRAPHY

PART 25, as originally composed, was restricted to “general” maps. That content has been transferred to [THE GRAND CANON Volume 2, CARTOBIBLIOGRAPHY, 3rd Edition](#), downloadable from Raven’s Perch Media <https://ravensperch.org>

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The CARTOBIBLIOGRAPHY lists all general maps. Added to it now are specialized map products that are cited in other parts and appendices within Volume 1/Part B (for example, geologic and topographic maps that are separately listed therein). The CARTOBIBLIOGRAPHY is a consolidated and comprehensive listing for all maps that relate to the Grand Canyon and Lower Colorado River regions of the U.S. and Mexico.



GENERAL INFORMATION FOLLOWS

**Also consult the following separately available productions from  
Raven's Perch Media**

**Mapping Grand Canyon: A Chronological Cartobibliography and Chorographical Study.** 2nd Edition (2025).

*Arrangement:* 1) Puerto de Bucareli (1777-1884); 2) Big Canyon (1853-1910); 3) Great Canyon (1853-1879); 4) Grand Canyon (1868-present)

Extensively illustrated.

15 MB, 314 pp.

[https://ravensperch.org/wp-content/uploads/2025/01/MAPPING-GRAND-CANYON\\_2nd-ed.pdf](https://ravensperch.org/wp-content/uploads/2025/01/MAPPING-GRAND-CANYON_2nd-ed.pdf)

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**The Colorado River of the West: Cartographic Styles of the 16th to 19th Centuries.** (2023)

*Arrangement:* Introduction. 1. Insular California; 2. Peninsular California Displaying Variant Heads of the Gulf; 3. Colorado River Absent; 4. Linear Colorado River; 5. Modified Linear Colorado; 6. The Egloffstein Model and Variants; 7. Parallel Green and Grand Rivers as Colorado Tributaries; 8. The Colorado's Bactrian Course Through the Grand Canyon; Appendix—Selected Early Maps of Historical Importance.

Extensively illustrated.

25 MB, 208 pp.

<https://ravensperch.org/wp-content/uploads/2023/05/CRWest.pdf>

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## GENERAL INFORMATION ABOUT THE CARTOBIBLIOGRAPHY

[lines on this page are NOT hyperlinks]

### ARRANGEMENT OF THE CARTOBIBLIOGRAPHY

#### INTRODUCTION AND FRONT MATTER

**SECTION 1** — MAPS OF THE 16TH–18TH CENTURIES [IN ALPHABETICAL ORDER BY AUTHOR/CREATOR]

**SECTION 2** — MAPS OF THE 19TH–21ST CENTURIES [IN ALPHABETICAL ORDER BY AUTHOR/CREATOR]

**SECTION 3** — CHRONOLOGICAL LIST OF ALL ITEMS IN SECTIONS 1 & 2 [BY YEAR]

**SECTION 4** — GUIDES TO QUADRANGLES USED FOR TOPOGRAPHIC, GEOLOGIC, AND OTHER  
REFERENCE MAPS OF THE UNITED STATES AND MEXICO

**SECTION 4A** — Guides to Quadrangles for Topographic and Geologic Maps in the **GREATER  
GRAND CANYON REGION** Produced By the U.S. Geological Survey  
[FORMERLY THE APPENDIX TO PART 11 OF VOLUME 1]  
SEE TABLE OF CONTENTS FOR SECTION 4A ON NEXT PAGE

**SECTION 4B** — Guides to Quadrangles Used for Topographic and Geologic Maps of the **LOWER  
COLORADO RIVER REGION** of Produced by the U.S. Geological Survey and by  
Mexico’s Instituto Nacional de Estadística y Geografía and as Also Used By the  
Servicio Geológico Mexicano  
[FORMERLY THE APPENDIX TO PART 24 OF VOLUME 1]  
SEE TABLE OF CONTENTS FOR SECTION 4B FARTHER BELOW

**SECTION 4C** — Guides to Quadrangles Used for U.S. Census Bureau Governmental Unit Reference  
Maps

See also “[Statistical Summary of Cartographical Items](#)” farther below

**TABLE OF CONTENTS FOR SECTION 4A IN THE *CARTOBIBLIOGRAPHY***

**Guides to Quadrangles for Topographic and Geologic Maps of the Greater Grand Canyon Region Produced by the U.S. Geological Survey**

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**7.5' (1:24,000-scale)** topographic quadrangles in Arizona for the greater Grand Canyon region

**ALPHABETICAL LIST**

7.5' (1:24,000) quadrangles

**STREAM-ORDER LIST OF COLORADO RIVER QUADRANGLES ONLY**

7.5' (1:24,000) quadrangles through which the Colorado River flows in lower Glen, Marble, and Grand Canyons (in order, from Glen Canyon Dam to Grand Wash Cliffs)

**7.5' (1:24,000-scale)** topographic quadrangles in Arizona for the **western Grand Canyon area**

**7.5' (1:24,000-scale)** topographic quadrangles in Arizona for the **eastern Grand Canyon area**

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**1:48,000-scale** topographic quadrangles in Arizona (greater Grand Canyon region)

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**15' (1:62,500-scale)** topographic quadrangles in Arizona (greater Grand Canyon region)

**ALPHABETICAL LIST**

15' (1:62,500-scale) quadrangles in Arizona

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**30' × 60' (1:100,000-scale)** topographic quadrangles in Arizona (greater Grand Canyon region)

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**1:250,000-scale historic topographic quadrangles** in Arizona (greater Grand Canyon region); *various survey dates and later editions, 1886–1937*

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**1° × 2° (1:250,000-scale)** topographic quadrangles in Arizona (greater Grand Canyon region)

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**Addendum. Landsat information**

## TABLE OF CONTENTS FOR SECTION 4B IN THE *CARTOBIBLIOGRAPHY*

### Outline of Topographic Quadrangle Coverage for the Lower Colorado River Region

#### ***U.S. Maps***

#### ***Guides to Quadrangles for Topographic and Geologic Maps of the Lower Colorado River Region Produced by the U.S. Geological Survey***

**7.5' (1:24,000-scale)** topographic quadrangles in **Arizona** (greater lower Colorado River region)

**7.5' (1:24,000-scale)** topographic quadrangles in **Nevada** and **Nevada/Arizona** (greater lower Colorado River region)

**7.5' (1:24,000-scale)** topographic quadrangles in **California/Arizona** (greater lower Colorado River region)

#### **ALPHABETICAL LIST**

U.S. Geological Survey 7.5' (1:24,000) quadrangles depicted on the previous charts of Arizona, Nevada, and California

#### **ALPHABETICAL LIST OF COLORADO RIVER QUADRANGLES ONLY**

U.S. Geological Survey 7.5' (1:24,000) quadrangles through which the lower Colorado River flows in Arizona, Nevada, and California (*from Separation Canyon to Mexico*) AND Mexico's Instituto Nacional de Estadística, Geografía e Informática 1:50,000 quadrangles through which the Río Colorado flows in Baja California and Sonora (*from the U.S.–México boundary to Golfo de California*)

#### **STREAM-ORDER LIST OF COLORADO RIVER QUADRANGLES ONLY**

U.S. Geological Survey 7.5' (1:24,000) quadrangles through which the lower Colorado River flows in Arizona, Nevada, and California (*in order, from Separation Canyon to Mexico*) AND Mexico's Instituto Nacional de Estadística, Geografía e Informática 1:50,000 quadrangles through which the Río Colorado flows in Baja California and Sonora (*in order, from the México–U.S. boundary to Golfo de California*)

***(continued)***

GENERAL INFORMATION ABOUT THE *CARTOBIBLIOGRAPHY*

**TABLE OF CONTENTS FOR SECTION 4B IN THE *CARTOBIBLIOGRAPHY* (continued)**  
**Outline of Topographic Quadrangle Coverage for the Lower Colorado River Region (continued)**

**7.5' (1:24,000-scale)** topographic quadrangles in the **greater Lake Mead region of Arizona and Nevada**

**ALPHABETICAL LISTS FOR IMPOUNDMENTS IN THE LOWER COLORADO RIVER**

**LAKE MEAD:** U.S. Geological Survey 7.5' (1:24,000) quadrangles on which the Lake Mead impoundment is mapped (*Separation Canyon, Grand Canyon, to Hoover Dam*)

**LAKE MOHAVE:** U.S. Geological Survey 7.5' (1:24,000) quadrangles on which the Lake Mohave impoundment behind Davis Dam is mapped

**LAKE HAVASU:** U.S. Geological Survey 7.5' (1:24,000) quadrangles on which the Lake Havasu impoundment behind Parker Dam is mapped

**IMPERIAL RESERVOIR:** U.S. Geological Survey 7.5' (1:24,000) quadrangles on which the impoundment behind Imperial Dam is mapped

**MITRY LAKE:** U.S. Geological Survey 7.5' (1:24,000) quadrangle on which the impoundment behind Laguna Dam is mapped

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**15' (1:62,500-scale)** topographic quadrangles in **Arizona, Nevada, and California** (lower Colorado River region)

**ALPHABETICAL LIST**

U.S. Geological Survey 15' (1:62,500) quadrangles in Arizona, Nevada, and California

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**30' × 60' (1:100,000-scale)** topographic quadrangles in **Arizona** and adjacent California (lower Colorado River region)

**30' × 60' (1:100,000-scale)** topographic quadrangles in **Nevada** and adjacent Arizona and California (lower Colorado River region)

**30' × 60' (1:100,000-scale)** topographic quadrangles in **California** and adjacent Arizona (lower Colorado River region)

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*(continued)*



GENERAL INFORMATION ABOUT THE *CARTOBIBLIOGRAPHY*

**TABLE OF CONTENTS FOR SECTION 4B IN THE *CARTOBIBLIOGRAPHY* (continued)**  
**Outline of Topographic Quadrangle Coverage for the Lower Colorado River Region (continued)**

**1° × 2° (1:250,000-scale)** topographic quadrangles in **Nevada** and adjacent Arizona and California (lower Colorado River region)

**1° × 2° (1:250,000-scale)** topographic quadrangles in **Arizona** and adjacent Nevada and California (lower Colorado River region)

**1° × 2° (1:250,000-scale)** topographic quadrangles in **California** and adjacent Arizona (lower Colorado River region)

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**1:250,000-scale historic topographic quadrangles** in **Arizona, Nevada, and California** (northern portion of the lower Colorado River region); *various survey dates and later editions, 1886–1942*

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**LOWER COLORADO RIVER–SALTON SEA–IMPERIAL VALLEY REGION**

**7.5' (1:24,000-scale)** topographic quadrangles in southeastern California encompassing the lower Colorado River, Imperial Valley and Salton Sea regions

**ALPHABETICAL LIST**

7.5' (1:24,000) quadrangles in the Salton Sea–Imperial Valley region and east to the Colorado River

**(continued)**

**TABLE OF CONTENTS FOR SECTION 4B IN THE *CARTOBIBLIOGRAPHY* (continued)**

**Outline of Topographic Quadrangle Coverage for the Lower Colorado River Region (continued)**

***Mexican Maps***

**Guides to Quadrangles for Topographic Maps of the  
Río Colorado Region in Mexico Produced by the  
Instituto Nacional de Estadística y Geografía**

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**1:250,000-scale** topographic quadrangles in **Mexico** [primary grid system]

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**1:50,000-scale** topographic quadrangles in Mexico in the region of the **Río Colorado and Alto Golfo de California**

**ALPHABETICAL LIST**

Mexico's Instituto Nacional de Estadística, Geografía e Informática 1:50,000 quadrangles in the Valle de Mexicali and Río Colorado areas of Baja California and Sonora

**STREAM-ORDER LIST**

Mexico's Instituto Nacional de Estadística, Geografía e Informática 1:50,000 quadrangles through which the Río Colorado flows in Baja California and Sonora (*in order, from the México-U.S. boundary to Golfo de California*)

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**1:1,000,000-scale** topographic quadrangles in Mexico in the region of the **Río Colorado and Alto Golfo de California**

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**Named Quadrangles (on Geological Maps Produced by Servicio Geológico Mexicano)**

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The "Abstract", "Notice", "Statistical Summary", and "Introduction" that follow are copied from the *Cartobibliography* (THE GRAND CANON Volume 2)

GENERAL INFORMATION ABOUT THE *CARTOBIBLIOGRAPHY*

**ABSTRACT**

THE CARTOBIBLIOGRAPHY is Volume 2 of *THE GRAND CANON : A Worldwide Bibliography of the Grand Canyon and Lower Colorado River Regions in the United States and Mexico*. It itemizes and often describes details on maps produced worldwide from the 16th to 21st centuries. Many citations for historical maps before the 20th century are chorographical; attention is on part of the map rather than the whole, in order to describe how the Grand Canyon and lower Colorado River regions are portrayed. Thus the principal purpose of the map may not be mentioned, such as when a map is of wider interest to cartographic historians for content that is unrelated to the physical geography of the Southwest (for example, a map that delineates newly drawn political boundaries in areas that are outside the geographical area of interest here). In some instances, remarks correct or amplify the work of earlier bibliographers. All forms of maps are listed: general, geologic and physiographic, and certain specialized maps; to which is added a complete guide to all scales of topographic map quadrangles in the greater Grand Canyon–lower Colorado River regions in the U.S. and Mexico, produced by the U.S. Geological Survey and Mexico’s Instituto Nacional de Estadística y Geografía (as also used by the Servicio Geológico Mexicano). The kinds of maps cited here vary. Many are standalone productions, while others are included in atlases or accompany reports of explorations, some of them as large fold-outs, others as maps loosely laid in or even grouped in separate covers. Maps that appear as illustrations within books and periodicals are not generally considered. Neither are manuscript maps considered, although a few significant ones are cited; those that are of seminal importance in the history of the Grand Canyon and the Southwest. Notes added to these citations provide more detailed information that describe relationships between features of physical geography, for the benefit of users who may thus determine that a map should be more closely examined, or it may suggest to them that a map is not of interest to work at hand. The Cartobibliography divides maps into two major groups: 16th–18th centuries, and 19th–21st centuries; and there is a separate, consolidated chronological list of these maps. The 16th to 18th centuries in this region recorded human interactions that focused on the lower Colorado River, by international parties with interests in the region. Only manuscript maps ventured to embrace the area that now is known to be the Grand Canyon. The 19th century saw the first sponsored explorers in three centuries spanning the region, eventually delineating the Colorado River and its tributaries correctly, discovering again the Grand Canyon. And the 20th century witnessed an explosion of general and scientific maps of the region, including topographic mapping at large scales. More specifically detailed bibliographical products and statistical surveys can be derived from this Cartobibliography.

GENERAL INFORMATION ABOUT THE *CARTOBIBLIOGRAPHY*

REGARDING TRANSFERS FROM  
THE GRAND CANON, VOLUME 1

The Cartobibliography is Volume 2 of **THE GRAND CANON : *A Worldwide Bibliography of the Grand Canyon and Lower Colorado River Regions in the United States and Mexico***. It greatly expands upon what was Part 25 in the 1st–3rd Editions of **THE GRAND CANON** (2012, 2015, 2019).

Given the special nature of maps, atlases, and similar productions, and considering the great size of the Cartobibliography alone, it was deemed more serviceable to segregate these citations from the main bibliography, to create a new, comprehensive compendium that serves a specialized audience. So Part 25, which was restricted to “general” maps, was detached and reformatted. Into it also were merged all the other, usually specialized, maps that are cited in other parts and sections of the bibliography (for example, geological maps). Citations copied from parts of the bibliography other than Part 25 are still present in their original places because they topically complement the content of those units.

The Cartobibliography maintains the general format followed in **THE GRAND CANON** Volume 1/Part B (Bibliography), about which see extended explanations in Volume 1/Part A (Introduction). It also keeps in place each citation’s unique Item Number (or registration number) and special bibliographical cross-listings. Accordingly, the Item Numbers displayed in the Cartobibliography also divulge their original topical placements in Volume 1.

Citations that were *transferred* from the original Part 25 of **THE GRAND CANON** (“general” maps) can be identified by the Item Number prefix “**25.**”; other prefixes (*copied* from **THE GRAND CANON** Volume 1) are:

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 in the Lower Colorado River region, which complement the geology citations pertaining to the Lower Colorado River region separate-coverage group of the bibliography), with a guide to topographic map quadrangles *transferred* from the “Appendix to Part 11”
18. *copied* from Part 18 (physical environment of the Grand Canyon region and Southwest)
19. *copied* from Part 19 (biology and ecology 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), with a guide to topographic map quadrangles *transferred* from the “Appendix to Part 24”

GENERAL INFORMATION ABOUT THE CARTOBIBLIOGRAPHY

Statistical Summary of Cartographical Items in  
THE GRAND CANON Volume 2 (*Cartobibliography*, 3rd Edition, 2025)

		CARTOBIBLIOGRAPHY CITATION COUNTS			
FROM TGC VOL. 1	Section 1	Section 2	Section 4	TOTAL	
<b>Part 9</b>		246		<b>246</b>	
<b>Part 10</b>		106		<b>106</b>	
<b>Part 11</b>		343	694	<b>1,037</b>	
<b>Part 18</b>		2		<b>2</b>	
<b>Part 19</b>		2		<b>2</b>	
<b>Part 24</b>		454	391	<b>845</b>	
<b>Part 25</b>	714	1,723		<b>2,437</b>	
<b>TOTAL</b>	<b>714</b>	<b>2,876</b>	<b>1,085</b>	<b>4,675</b>	

*Section 3* is omitted from this table because it replicates, in chronological order, the contents of Sections 1 and 2. Additions that will appear in future editions of the Cartobibliography will employ the same system of Item Number enumeration: “General” maps will continue to use the **25.** prefix as derived from the topical arrangement of THE GRAND CANON and will appear only in the Cartobibliography; newly cited specialized maps will be assigned their respective prefixes as outlined above *and* will appear in both the Cartobibliography and the respective thematic parts of Volume 1/Part B of THE GRAND CANON.

Regarding the Sections 1–4 of the Cartobibliography, see the “[Arrangement](#)” table at the beginning of this General Information, above.

## INTRODUCTION

[This is edited from the *Cartobibliography* (THE GRAND CANON Volume 2, Third Edition, 2025, <https://ravensperch.org>) and is inserted here for its informational content within the full context of THE GRAND CANON. Additional text and illustrations are present in the Introduction in the *Cartobibliography*. Enumerated footnotes continue in order for the present volume.]

MAPS! What a glorious enterprise! They capture places as they were, or imagined. They steal from us hours of study, and hours more of idle infatuation. They teach. They mesmerize. And they hide away and have to be sought out. Compared to book sellers, there are few map sellers. This was as true centuries ago as it is today, even though a map is more likely to turn a head than will a book.

Since THE GRAND CANON series comprises a bibliography that focuses on everything published about a defined geographical space, there is every reason to expect the same “everything” among the maps. In this Cartobibliography, which is Volume 2 of the series, that expectation fails. At the outset we compete with the state and commercial suspicions of the earliest periods, when information for maps comprised the secrets of monarchs, mariners and merchants—that much is well understood. In older times printing blocks and plates were shared, inherited, and otherwise reused in various fashions, often copied, sometimes plagiarized; many with modifications, substantiated and baseless alike. In more recent times, in the 19th century notably, we feel the angst of ateliers who, to make a living, frequently turned out new maps (and maps that posed as new, often barely revised if only to change the date). Sometimes there were multiple editions during a year (confusingly for us now) that may or may not have meant to keep up with rapidly revised political boundaries and civil concerns. Physical geography often fell to the wayside, with some maps using outdated bases on which the new boundaries were printed. As I explain, many of these reissues are not kept up with in this Cartobibliography because the changes do not pertain to physical geography. Just as frequently, I surely have missed numerous maps that I otherwise *would* have captured for citations.

But, a lot of maps are hard to examine. First, one has to find them, then often work with unwieldy rolls or immense flat sheets—they are notoriously difficult to organize and store, too. Once, in order to examine maps one had to travel to far-flung places that held copies that were of interest or by requesting a repository to photograph of the map (usually in black-and-white and perhaps not of the best resolution). Now, there are so many important maps that can be viewed online that it seems that most everything must be there. (Of course not.)

INTRODUCTION FROM THE CARTOBIBLIOGRAPHY (THE GRAND CANON VOLUME 2)

We are beneficiaries of institutions and governments that have digitized maps and make them available online. Some dealers maintain online libraries of past offerings. Even so, not nearly everything is online and sometimes miscataloging or misinformation leads us astray; not all of the digitized maps are in adequate resolutions, either, for very detailed study. Though the modern digital environment has made map inspection incredibly more easy, we nonetheless are, pointedly, at the mercy of those who choose which maps to digitize, and to the creators of websites.

But about the days of personal inspections, consider the position and predicament of Adolf Erik Nordenskiöld in 1889:

... even printed maps of this period [15th–16th centuries] have become very rare, and extensive collections of them are only to be found in a few libraries. Many of the most important of these documents are therefore not easily accessible to students—a difficulty the unfavorable influence of which may be traced even in elaborate geographical treatises of the most distinguished authors.<sup>93</sup>

Concluding, Nordenskiöld hoped that his work would “promote new discoveries in the recesses of libraries and map-collections”. (What he would have thought of the world wide web!)

**Citation Styles and Dates.** This Cartobibliography does not strictly follow formal cataloging rules because it is meant to show precise, sometimes peculiar, data without adapting to some issues of conformity. The precise transcription of names and titles in particular, which may include faithful reproduction of some typographical elements and errors, is done so that those users who may not be able to see an original product can profit from the exact textual appearance and context.

The primary purpose of this Cartobibliography is to record cartographical data that relate to the Grand Canyon and lower Colorado River regions—a so-called chorographical analysis. It is not meant to be fully a cartobibliography that preserves the overall context of the map, nor does it record nuances that are a part of more proper historiographical cartobibliographies. Dates generally reflect the dates of publication, more so than dates that

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<sup>93</sup> A. E. Nordenskiöld, *Facsimile-atlas of the early history of cartography with reproductions of the most important maps printed in the XV and XVI centuries*. Translated from the Swedish original by Johan Adolf Eklöf, Roy. Swed. Navy and Clements R. Markham, C.B., F.R.S. (Printed by P. A. Norstedt & Söner, Stockholm, 1889), 141 pp., 51 plates. [coverage to 1550, actually]. Also a facsimile reprint 1961, 1970, Kraus Reprint Corp., New York. Also a facsimile reprint, with new introduction by J. B. Post (Dover Publications, Inc., New York, 1973). Original Swedish edition: *Facsimile-Atlas till kartografiens äldsta historia innehållande afbildningar af de riktigaste kartor tryckta före år 1600* (Printed by P. A. Norstedt & Söner, Stockholm, 1889).

INTRODUCTION FROM THE CARTOBIBLIOGRAPHY (THE GRAND CANON VOLUME 2)

may appear on a map. In many cases, dates are adopted from those that are recorded or interpreted by cartobibliographers and cartographical librarians in their catalogs.

It might be awkward to read the names of some of the early map producers, for whom customarily their names are standardized; for example (as published, with standardized names in **bold type**):

Homann, Iohannes Baptista	<b>Homann, Johann Baptist</b>
Hondio, Iud.	<b>Hondius, Jodocus</b>
Ianssonius, Iohannes <i>or</i> Ianßonius, Ioannes	<b>Jansson, Jan</b>
Janvier (S <sup>r</sup> ) (Sieur de Janvier)	<b>Janvier, Jean Denis</b>
De l'Isle (M.) (Monsieur De l'Isle)	<b>L'Isle, Guillaume de</b>
Pisani, Octauij <i>or</i> Pisani, Octavy	<b>Pisani, Octavio</b>
Quadum, Mathium	<b>Quad, Matthias</b>
Sanson (S <sup>r</sup> ) (Sieur de Sanson)	<b>Sanson d'Abbeville, Nicolas</b>
Vaugondy (M. de) (Monsieur de Vaugondy)	<b>Robert de Vaugondy, Didier</b>

I purposely retain the spellings as published, to protect the contemporary presentation of these maps; again, for those users who may not be able to examine the originals (the titles are similarly shown as published, employing all typographical elements). It is not my intention to render a standardized authority list nor a formulaic homogeneity of titles. The original context of these maps, as presented in their items, is preserved for historical and cartobibliographical precision, as a means to place as much of a map in front of the user in the absence of an accompanying illustration.

Overall, the style of citation herein regretfully varies, a reflection of changes in how this Cartobibliography was compiled during more than 50 years in the Grand Canyon–Lower Colorado River Bibliography project. Despite having re-edited a fair number of citations on the run, I apologize for not having had the time to devote to a wholesale re-citing of the items now in this more elaborate Cartobibliography. (Five decades of accumulation is a long time for one person, and finding again many of these items would be a prodigious task, even with so many things now online!) On the whole, most of the older forms of citation have been emended.

The typographical format of citations in this Cartobibliography differ from the rest of [THE GRAND CANON](#). Usually, titles in this work are in *italics*, while all else is in conventional Roman type. However, it seemed to me that the map citations, particularly those of the earlier (pre-20th century) maps, necessarily focus on a map title that may appear within a larger work. Further, the chorographical analysis of many of these maps, although separated within [square brackets], merged rather confusingly with the balance of a sometimes lengthy



INTRODUCTION FROM THE CARTOBIBLIOGRAPHY (THE GRAND CANON VOLUME 2)

citation. In order to make this Cartobibliography more convenient to read, particularly for those who are scanning for information, the titles of maps, specifically, are rendered in **Arial type**. In this fashion the map titles will stand out from the *italicized titles* of products in which they may appear. My chorographical analysis, if any, appears in dark blue Verdana font, preceded by a pointer (►) so as to clearly distinguish these texts if they should appear in a monochrome copy. The principal purpose is to easily segregate cartobibliographical information from my chorographical remarks (more than 3,000 such notes appear herein). The use of color is not particularly important; only that users who engage the original format of this Cartobibliography may isolate those passages more easily. Further, the use of a pale cream page color is purposely used to reduce eye strain, and thus the dark blue color unobtrusively contrasts with it while attracting the reader's attention; especially useful in citations full of information.

With the focus solely on the Colorado River and its landscapes, this compendium may ignore important interpretive data on the maps—data that are not necessary for the objectives of [THE GRAND CANON](#). The Cartobibliography's purpose is to also capture the variant spellings of the rivers of interest and adjacent place names when such are given; not always an objective of cartobibliographers. More to the point, this work zooms in to detail the river courses in the region of interest. Maps of larger areas are understood to embrace this region; no special remarks are made unless required. Many maps are overlooked here because they display no rivers, or at least none that can be attributed to the Colorado River in its various early geographical forms and names. Should someone, someday, wish to finely compare the nuances of the delineation of the Colorado River and others nearby—knowing full well that such depictions even into the 19th century are mnemonic at best—this Cartobibliography can be a source book for many, if not most, of the maps that may need to be examined. In some cases, ornamental maps on the title-pages or as frontispieces to old volumes show the region of interest here at such tiny scales that they are not appropriate to analyze for this Cartobibliography, as they were diagrammatic rather than informational.

The scholarly studies of—and critical arguments about—the usefulness and impact of the kinds of cartographical projections used over time are worthwhile readings, even among their bewildering hundreds. But this Cartobibliography—and this bibliographer—having only the chorographical focus, does not address these aspects, the same as it does not address the historiographical position a map may hold among scholars. Such a pedestrian focus on the Colorado River, however it may be shown on these maps, is the direct outgrowth of this Cartobibliography as Volume 2 of [THE GRAND CANON](#); and as such it completely ignores many fascinating, often remarkable, elements of these maps.

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On early maps in particular, the methods of projection are also not of concern here because of the chorographical focus on what is usually a relatively small part of the whole map. The scales of the maps cited herein range from world maps at one end (with their tiny areas of interest to this Cartobibliography) to large-scale maps at the other end, which focus on the mouth of the Colorado River (perhaps best exemplified by Padre Kino's 1701 demonstration that California is *not* an island, first published in 1705, despite the fact that many cartographers for years afterward chose to ignore the evidence he had seen for himself). Thus, in the citations herein many maps will include my own chorographical analysis of the area of interest here in order to distinguish how our region of interest was portrayed. Even so, for the most part the area we know as the lower Colorado River region was rarely one of cartographic negotiation, but rather its depiction was seemingly an autonomous reflex—an acceptance of the status quo when it was easier to re-use engraved plates or to simply copy from others, right or wrong, for an area of the world of relatively little interest. Sometimes this was in the extreme, such as when a plate was exactly reused, or with a minor emendation to title or imprint, even decades after its creation, without regard to geographical corrections made by other cartographers during that time.

These chorographical points are less of a concern once we engage publications that are specifically about the Grand Canyon–Colorado River regions, such as with the 20th- and 21st-century larger-scale maps and Colorado River guides. The citations of these follow more conventional bibliographical form, comparable to those in Volume 1/Part B of [THE GRAND CANON](#), although for consistency the bold-type title forms are used throughout the Cartobibliography.

As elsewhere in [THE GRAND CANON](#), the arrangement of citations is by the author or creator of the work, with items for the same author listed then in chronological order by year. Some citations in the Cartobibliography may be seen to adhere to the citation style used during the earlier decades of this bibliography—title, followed by place of publication and publisher. More recently added citations follow more traditional cartobibliographical styles that replicate all information displayed in a map's title panel or cartouche, even publisher's information, and precisely cite capitalizations and most typographical elements. Information that is not part of the title block or caption, such as discrete border notes that credit the engraver or delineator, are quoted (“separately within parentheses”). The disparities of older and newer citation styles should not be too distracting since many citations were reformatted during the process of editing more recent editions [THE GRAND CANON](#). Hybrid forms of citations might be noticed by observant readers. Still, the data are there.

As with bibliographies in general, cartobibliographies use many different styles of citation; they may differ even by which names are the primary reference. (One may see this for

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themselves when comparing this Cartobibliography to others.) Some lists adhere more closely to the engravers of early maps rather than to the responsible delineators; others to publishers. It is, however, not always clear as to whom to give bibliographical credit, especially during the long time when map plates were borrowed, or reused by subsequent generations of a family of cartographers, or copied outright for reuse (sometimes, pirated). Here I have followed, as closely as possible, the method of citing original creators as cited from data on the maps themselves, and the actual dates of publication even though a date on a map may be earlier than its publication date. For example, a map may be included in a later-published atlas, or historians of cartography and printing may have determined alternate dates from those presumed, or have corrected outright errors.

Some cartobibliographies focus on the historiography of maps, as represented at the times they were delineated. The purpose of this Cartobibliography is to follow dates of publication, hence public availability. Sometimes I have had to rely on the interpretations made by library catalogers. 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 with which they can be found, should they be needed for more in-depth study or have to be re-cited; and of course many citations add descriptive notes that pertain to the physical geography of the Colorado River region.

Unlike more rigorously compiled and annotated cartobibliographies, a citation herein is not meant to describe the whole map in detail; after all, it focuses really on the region embraced by [THE GRAND CANON](#). One will notice that sizes of maps are omitted, as are scales except for those maps on which scales are printed, nor are line breaks in titles and texts denoted. In the titles of maps, I have resorted to citing those printed in all-capital letters by instead using initial capitals in principal words. While it might have been preferable to cite all-capitalized titles precisely, the typographical discordance with citations brought forward from earlier editions of this Cartobibliography would be stark. So I have conceded to the form of initial capitals, a format that is anyway easier to read than all capitals, particularly in the bold type format employed for map titles (but not volume titles) as used in the citations herein. Though some legacy citations from the earliest editions may follow the format of all lower-case title citation, there are no longer many of these to be distracting, and they have not been updated because the maps have not been reexamined.

The use of the terms "caption" and "legend" are used precisely; they discern placement on a map. A "caption" is type along the top of the map; "legend" is a notation beneath or beside an element of the map. Titles are cited by their prominence, if more than one appears on a map; for example, when a cartouche and a caption or legend are both present. Occasion-

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ally, a map will have more than one title, perhaps in different languages. These are cited equally, but separately.

**Translating and Transliterating.** I had considered including approximate, if not precise, **translations** in *all* of the non-English citations in this Cartobibliography, to assist users who do not know these languages. However, I do not provide universal translations for the reason that many of them would not be at all satisfactory, peculiar if not erroneous, due to linguistic nuances and contextual variances that might not be recognized except by readers fluent in those languages, particularly with older dialects and spellings of centuries past. I could have included translations for some, and not others, but in the end I feel that such an arbitrary selection would detract from the overall dependability meant to be conveyed by [THE GRAND CANON](#). Nonetheless, in a bibliography that is principally in English, information that is presented in a non-Roman orthography is decidedly “foreign” to users who are not familiar with those orthographies, and further, that transliterations alone are not likely to be as helpful as they seem to be. So, *for citations in non-Roman orthographies I do usually provide both a transliteration and a translation in English*. This is, of course, to facilitate reading by users who could not otherwise even mouth the words, but with the original orthography in hand it will help if one digitally copies to use in searches, or presents the information to someone who can help find the item.

Because I do not read the non-Roman orthographies, and inasmuch as they are effectively unintelligible to users like me who are familiar only with Roman orthography, I provide non-Roman titles and other information in the original orthographies usually accompanied by both a transliteration and a translation in English. The non-Roman information has been extracted digitally from web sources, particularly WorldCat and specific library catalogs that have recorded information in non-Roman orthographies. Occasionally I have had to resort to printing from a digitized copy of the map, then using optical-character recognition (OCR) to render the texts in digital format that could be copied into the bibliography. For details, this often depended upon a satisfactory digital resolution (with thanks to those who made the online originals available at good resolutions).

Most transliterations and translations herein have been obtained through the use of Google Translate online. Admittedly, Google Translate is imperfect, insofar that it is a so-called “neural machine translation service” that translates a sentence at a time, which over time has “learned” to construct better and more grammatically correct sentence structure and word selections. In some cases, I have taken texts and reconstructed some sentences, phrases or words (sometimes back and forth between English and the non-English language as checks) to provide more sensible information, then tested the reformatted translation

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again as a whole. I have not often been disappointed in the result, though in a few instances I discarded a translation that was obviously awry in favor of one that is simply adequate.

I make this note here so that users of this Cartobibliography can take into consideration any perceived negative aspects, beyond those currently recognized, of Google’s programming interface during the timeframe when the interpretations were made, during the late 2010s and after. Still, the translations obtained for this Cartobibliography are reasonably good, if not accurate, often because many items are technical in nature and not subject to more erudite or “literary” nuances. And of course, the use of the original non-Roman orthographies do make the cited items accessible to those who can read them, or who seek the help of librarians and others who can read them.

This note also applies to the corresponding **transliterations** that appear in this Cartobibliography. In many bibliographies, titles and other information in non-Roman characters are usually cited in transliteration only, often because the non-Roman character set is not available to the printer (or to the author of the bibliography). While transliteration is somewhat helpful, in that the information can be “sounded out”, variant transliteration schemes for some languages render the citation less precise, less intelligible, to users who follow other schemes. For the non-Roman orthographies, I have had to rely on Google Translate’s transliterations exactly. Again, note of this is given in the event of future recognition of issues with Google Translate’s methodologies in the late 2010s and later, the period during which I have used it. Particular schemes of transliteration are not indicated in this Cartobibliography because the sources referred to rarely provide such information, even when I have obtained the information from a library’s catalog.

In this Cartobibliography, as well as in [THE GRAND CANON](#) overall, citations that have long, compacted passages of non-Roman orthography, transliteration, and English translation are difficult to visually tease apart. I have devised a method of colorizing some of this information to make specific portions stand out more clearly. The original title, being the key bibliographical component, is printed in black as usual; it may be followed by a transliteration [in gray font between brackets], then an English translation [in light red font between brackets].<sup>94</sup> (*An example is shown below.*) In any case, I believe that if a person cannot read a foreign language—and does not have the opportunity to obtain a translation—further access to that item may be moot if, in the case of maps, specific interest goes beyond just the graphical presentations.

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<sup>94</sup> The gray and light red fonts are used for the visual convenience of those working with the original digital version of this bibliography, so that the transliteration and the translation in English are more noticeable amidst the original data and notational texts. Text in supplemental colors may yet be distinguishable even when a black-and-white printout from this bibliography is referred to. Colors have no special significance to the data presented in this bibliography.

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Hirose, Hakaki [広瀬はかき]

- 1862 25.1404 図 新路航海環 [read right to left] [Kankai kōro shinzu] [New map of sea routes]. [In Japanese.]  
 World map. Title displayed as printed on map; Library of Congress provides “other title”, 環海航路新圖, which, besides reading left to right, differs somewhat in orthography. [cont’d.]  
 Library of Congress gives publication data (with ellipsis and square brackets thus): “Kyōto : Katsumura Jiemon ... [and 2 others]; Edo : Suharaya Mohē ; Bunkū 2 [1862]”, with note, “Kotenseki sōgō mokuroku, 2013-09-11 (環海航路新図 (かんかいこうろしんず), 地図 1 枚; 著者: 広瀬包章; 出版事項: 須原屋茂兵衛 <江> 他 3, 文久 2).” (this is illustrated at <https://www.loc.gov/item/2013588000/>).  
 ▶ On the map, “カリホルニア” [California] (similar to the modern orthography, カリフォルニア) is separated from the mainland by “東紅海” [East Red Sea] [*i.e.*, Gulf of California]. Rivers on the continents are not labeled, but the Colorado River is shown reaching the head of the gulf, with a wildly imaginative drainage basin reaching far into the continent. In addition, the map seems to portray the routes of railroads in the United States, including in the Southwest the (proposed) 32nd parallel route.

Traditional and simplified character forms of Chinese both appear through THE GRAND CANON, depending upon whether the original publication or a library catalog record was followed. For transliterations, the pinyin system of romanization is usually followed for Chinese text, again based on the sources. These will be recognized by the inclusion of diacritical marks in the pinyin texts. However, some older citations may be represented in other transliteration systems as used by the sources seen. Further, some Chinese monosyllabic and polysyllabic transliterations are as taken from online catalogues or from automated translations, without regard to linguistic precision in the language itself. These may be displayed either as a “solid” or compound transliteration, which forms a series of long, single “words”, or sometimes appear as a string of single-syllable sounds; again, as used by the sources consulted. Similarly, Japanese mono- and polysyllabic transliterations appear in various forms herein. These are only guides, and no attempt has been made at standardization.

**Cartobibliographical Details.** Historical geography—indeed, the analysis of maps at minimum—is a vast academic study and avocational pursuit, even one of simple pleasurable indulgence. This Cartobibliography gathers those maps that in some fashion display the lower Colorado River–Grand Canyon region. Maps that omit the rivers of this region are usually overlooked here. For the most part, only published maps are listed, although a small number of manuscript maps are included. Manuscripts are restricted to those that are of primary importance to the historical geography of this part of the Southwest, sometimes as the immediate if not sole source for maps published later, or that document important “firsts”; their citations include pertinent notes. Still, one has only to see the cartobibliographies or catalogs of major map repositories to recognize the tremendous number of 16th

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century and later manuscript maps that are pertinent to the region covered here, which of course should be consulted in the pursuit of historiographical studies.

This Cartobibliography is a documentary effort, describing how the Grand Canyon–lower Colorado River region of North America was portrayed on published maps, correctly or incorrectly. This is far less so a contribution to cartobibliography in its strictest sense, although in a few instances it corrects or amplifies the work of earlier bibliographers. Yet neither is the Cartobibliography meant to be a “collector’s guide” since it is beyond the scope of this Cartobibliography to document, in any detail, states and variants of maps (although in a few cases such distinctions are noted, particularly for items whose states seem to not have been recognized before).

There are hundreds more general maps that surely could be listed in this Cartobibliography; most additions have been opportunistic. In every case, these maps are cited for the geographic information they illustrate regarding the lands that fall within the geographic boundaries defined by [THE GRAND CANON](#), even when the *subject* of the map may be extralimital. Annotations indicate details of interest within the scope of the bibliography. Whether or not one of the principally extralimital maps freely borrowed a base map from a pre-existing map, as was often the case, or created a new, even if whimsical, interpretation, is not a central concern here; only that the map portrays in some measure the Colorado River region and may be examined for that information.

Some users may notice that various reprinted and plagiarized editions of maps are not cited; specifically, those of the early cartographical publishers who produced numerous variants and editions. Bear in mind as well that it was not unusual for plates by one cartographer to be reused by another; others simply copied them, with variations. It has not been practical to follow through on some of these replicated editions, but one should also specifically keep in mind the compound of editions based on inherited plates and the individually creative work of the genealogical and cartographical business lineage of Gerard Mercator, Rumold Mercator, Jodocus Hondius, Hendrik Hondius, and Jan Jansson, superseded in force by the family of Joan, Cornelius, and Willem Blaeu. Another family group among cartographers cited herein are the Sansons—Nicolas Sanson d’Abbeville and his grandson, Pierre Moullart-Sanson, who was the uncle of Gilles Robert de Vaugondy, also cited herein. Users will find some of these family works cited herein, but the listings even for the region of interest are not comprehensive. Similarly, since maps were copied, updated, and reprinted, one may also note that some maps of a particular cartographer may be published posthumously, or credited to them for decades afterward (even in revision). The sudden cessation of the use of some plates does not necessarily reflect a geographically pertinent decision not to reuse them. Rather, for example, references to the destruction of Joan Blaeu’s plates in a fire during 1672

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reveal a reason for the end to such reuse. Mishap, and disposal or metal recycling following a publisher's death, also are likely reasons.

The kinds of maps cited here vary. Many are standalone productions, while others are maps that accompany reports of explorations; some of them as large fold-outs, others as loose maps accompanying those reports. A significant number of atlas plates are also cited here, which sometimes note different production dates compared to the dates of the publications in which they appeared. (In large measure, it is the publication date—the date of public availability—that determines the date cited in *this Cartobibliography*. Thus the user may see a date that differs from one that appears in other cartobibliographies that focus on dates of supposed original creation.) Again, this Cartobibliography, and THE GRAND CANON overall, usually uses dates of publication for its citations. Sometimes it is difficult to distinguish by these bibliographical citations standalone maps from those that were published as part of more widely embracing documents, often because they are now seen separately for sale or have been received by repositories as separates.

It is difficult to stringently keep to maps that were made specifically as separate publications, to isolate them from maps that were included in reports and atlases. Such a separation was the intent of the Grand Canyon–Lower Colorado River Bibliography project at its beginning (in the 1970s). For the reasons mentioned here, as well as for informational interest, the focus was broadened. It is reasonable to cite some of the included maps due to their significance to studies of the regions they embrace; many of these have likewise been cited in other cartobibliographies, notably those by Wheat that are cross-referenced here. They are also cited because they may be available separately from dealers who had either acquired the maps individually or who had broken them from the volumes in which they appeared; thus, without information on provenance, they can be mistaken for separate publications. Even in other cartobibliographies the distinction is not always made clear. Further, maps prepared by one cartographer as a separate production may be included in a volume compiled by another cartographer or author. Still, they are discrete maps.

So it is justifiable for a broadly focused work such this one to cite maps that appear within larger works, such as major reports and atlases. The relationship of individual maps from broken volumes is not always represented in the library catalogs or the sales offerings of map dealers, and even during my own research such information may have eluded me. While libraries may catalog these maps as separate items, they may or may not have accompanying notes that identify the original source; it may have not been known to them. Some libraries may also separately catalogue included maps as a matter of analytic cataloging, which is not necessarily obvious to general users. While informed scholars and sellers may understand such original relationships, the information does not always reach the more



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“common” level of the catalog record by which many users come to know of these items. In this Cartobibliography, frankly, it is less important to work out these omissions since it is the identifiable map itself—and the pertinent information conveyed by it—that is cited and described.

Many maps are now cited herein that are within less obvious publications, like instructional texts or even Bibles; they are cited usually for some unusual perspective, but their numbers are not great since the prime focus of this Cartobibliography is mostly on those separately published maps and atlas sheets just mentioned. When maps are known (to me or my sources) as being a part of a larger work, they are so indicated; otherwise, the maps are cited on their own merits, and future bibliographers may make emendations as needed. At least, the maps are cited. Any blurriness of context is not intended but may be the result of incomplete information either from a source or from the interpretation of the map itself. With respect to the geographical information conveyed about the Colorado River region, these issues are less important because, as noted, this Cartobibliography has a predominantly chorographical perspective; that is, the focus is finer than the map as a whole, such as on rivers.

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 herein. 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. 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 physical 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 [see examples illustrated in the separate section in the *Cartobibliography*, “Examples of Discordant Geographies in Simultaneously Published Maps”.] The commercial map publishers should have known better, though in some cases even the government cartographers are caught in the act.

With many of the 16th to 19th century maps cited here, in reading the descriptions of the parts of maps that are pertinent to the region covered herein, it might seem—to use an

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“analog” analogy—as if one were listening to a “scratched record” when the maps seem to repetitively relay the same description of the parts described here. The repetition is unavoidable because this Cartobibliography is not a prolonged analytical text but a bibliography; that is, each citation stands alone. I wholly ignore the fundamental errors of some maps, particularly among the earliest ones—the imagined coastlines, mythical straits, invented seas and lakes, and improbable rivers—except when it was pertinent to note it. These are more the attention of cartographical and historical scholars, while this Cartobibliography looks only to the physical geographies of southwestern North America through which flows the Colorado River. Besides, amidst the drone of repetitive notes in these citations there are occasional variations—sometimes little surprises. Were I to record just the surprises it would violate the directing purpose this work to cite the whole of everything found, for the benefit of users who will have greatly varying needs and expectations.

It is, further, not always sufficient to say that one or another map is “representative” of “many such” maps of a particular time, and to ignore the others. In seeking some measure of comprehensiveness, as here in this Cartobibliography, all of them should be cited with as much information as possible in order to compare content and presentation. How often has a reader been disappointed, even with a richly illustrated book, when many maps are mentioned on the fly, without any further note? With the citations here one may be assured of a good starting point to find as many as are of interest to the region on which [THE GRAND CANON](#) focuses.

If one pays close attention, one will see the onward representation of the same, often inaccurate, geographical elements or the arrival of new elements (inaccurate and truthful 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 were drawn onto maps 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”, although sometimes the display was ingenuously atrocious. 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.

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There are many well-known cartographic fantasies that appear in these maps. To gain a fine sense of this, one has only to read Chapter 8 of Wheat's (1957) Volume I, on the "Products of the Commercial Ateliers, 1750-1800". (See farther below regarding Wheat's cartobibliographies.) The notes that accompany a citation here are mostly restricted to a general description of how the Colorado River, its tributaries, and the landscape along its course are portrayed. The citations are not so much geographical as they are chorographical. Although such focus can draw attention away from the map's *intended* function, in the context of THE GRAND CANON these chorographically focused points are of greater importance.

Part 2 (General Publications) in THE GRAND CANON Volume 1/Part B includes numerous volumes in which specific maps are noted as pertaining to the regions covered by this Cartobibliography, usually relating to the Colorado River. In previous editions of the bibliography these publications of cartographic interest remained segregated from Part 25 (the former "general maps" section) because the listings in Part 2 often embrace significantly more textual information that is pertinent to the overall coverage presented by THE GRAND CANON. However, the Cartobibliography presents selected ones among these more general citations, so as to provide more convenient use by those who are searching for pertinent, even important, cartographic materials for the region embraced here. Most data in the citation are brought forward into the Cartobibliography.

The availability of digitally scanned maps online is useful for examining maps and atlas sheets from numerous sources, including those in the Library of Congress and various regional and institutional collections as well as ephemeral listings by dealers. As these sources continually emend their online holdings, the user will be more at an advantage by conducting new searches at any time.

The Cartobibliography does not include probably thousands of "casual" maps such as those that appear on the pages of serial articles or interspersed in the texts of books (there are a few important exceptions). It also does not contain citations for publications "about" the science or art of cartography, about historical aspects of mapping, or the historiographical aspects of a particular map. Its purpose is not to describe the cited maps from the viewpoints of human history and the development of cartography, but to place the portrayal of physical features of the Colorado River basin in temporal perspective.

The overall objective in compiling this Cartobibliography is to provide an idea of what is available—knowing well that there is far more that is not documented here. Ideally, an illustrated cartobibliography would be very useful (and enjoyable), but given the need to wrest the academic, legal, and fiduciary means to bring such a work into being, it will have to be up to another person or party and in another venue. This, at least, is a framework erected

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for the use of those interested in the changing geographical aspects of the Grand Canyon–lower Colorado River region. The descriptions of those parts of the maps that are pertinent to this Cartobibliography are provided for their interest, considering that it is not usually practical to compare all of these maps in person, at one time.

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.<sup>95</sup>

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 old when its materials are looked at with refreshed vision.

**Nomenclature for *Río Colorado* and Colorado River.** Historical, bibliographical, and cartographical research in the region covered by this Cartobibliography can be confusing given the number of names by which the Colorado River has been known since the first European report 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 (a name that, incidentally, also is used for the Colorado in Mexico and which also was used in non-Spanish publications and maps, especially in the 19th century).

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

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<sup>95</sup> Carl I. Wheat, *Mapping the Transmississippi West, 1540-1861. Volume One. The Spanish entrada to the Louisiana Purchase, 1540-1804*. San Francisco: Institute of Historical Cartography (1957), pp. 7, 9-10. [Two illustrative cases in point are the profusion of atlases produced by Gerard Mercator and Ioudocus Hondius, 1585-1637, and by Johannes Janssonius, 1638-1681, which mostly have not been attempted to list herein. See for a complete analysis of these works, including lists of the new maps that appear in each of numerous editions, two papers by Johannes Keuning: “The History of an Atlas. Mercator–Hondius”, *Imago Mundi*, Volume 4 (1947), pp. 37-62, and “The Novus Atlas of Johannes Janssonius”, *Imago Mundi*, Volume 8 (1951), pp. 71-98. For a third illustrative case, see in Section 1 the remarks under [Ptolemy](#), regarding the profusion of editions, originally from Ptolemy’s historic work of the Second Century, *Geography*.]

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present-day Utah to the sea. (The name “Colorado” was legislatively applied to the Grand River by the U.S. Board on Geographic Names in 1921, to allow the Colorado River to locate its headwaters in the state of Colorado, although geomorphological purists continue to recognize the Green River as the headwater main stream of this river basin.) Names in this list include those from manuscript and published materials, cartographical and textual, and misspellings. Some, particularly those from the 19th or 20th centuries, are mixtures of Spanish and other languages. Some names are misapplied from, or confused with, other rivers as a matter of presumption.

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]

Collerado 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*]

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*]

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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*]  
 Ouintas 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*]  
 Río Colorado del Occidente [*and as Rio Colorado d'Occidente*]  
 Río Colorado del Oeste  
 Rio Colorado del Sur  
 Río Colorado Grande [*and as Rio Colorado Grande*]  
 Río Colorado Grande de la California  
 Río Colorado Grande de los Martyres  
 Rio Colorado of California  
 Rio Colorado of the Gulf of California  
 Rio Colorado of the North  
 Rio Colorado or Grand River [*sic*]  
 Rio Colorado or North River [*also in translations*]  
 Rio Colorado or of the North [*sic*]  
 Rio Colorado ot Totontoac [*sic*]  
 Rio Colorado ou R[ivière]. Verde [*sic, in French; labeled for the reach between the Bear River (Utah) and Little Colorado River (Arizona)*]

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- R[io] Coralado [*although the name seems to conflate Rio Colorado and Rio Coral (Gila River), the river's poor portrayal nonetheless is distinct from the similarly poorly portrayed Gila River drainage*]
- Rio 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."*]
- Rio de Aguchi, ò de Bona Guia [*in Italian*]
- Río de Alarcon
- Río de América Septentrionale
- Rio de Anguchi [*in Latin source*]
- Río de Buena Guía [*and as Rio de Bona Guia*]
- Rio de Colorado [*and as Rio-de-Colorado*]
- Rio 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 Rio Grande del Norte, which is the Rio Grande of the Gulf of Mexico*]
- Río del Tízón [*and variant contemporary spellings; e.g., "Taon", "Teco", "Tecon", "Teçon", "Thicon", "Ticon", "Tiguex", "Tisan", "Tison", "Tocon", "Toucan"*]
- Rio Gran de Colorado [*may only be due to awkward map lettering of Rio Grande Colorado*]
- Río Grande [*not Rio Grande del Norte, which is one name for the Rio 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
- Rio Green [*in Russian*]
- Río Misterioso
- Río Totontec [*also as Rio Totontec and Rio Tontontec; see also under "T"*]<sup>96</sup>
- River Colorado
- Riv[ier]. Colorado of Del Norte [*in Dutch*]
- R[ivièr]. 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*]

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<sup>96</sup> Obscure; the name *Totontec* usually pertains to a presumed Indigenous "kingdom". Regarding *Totontec* 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; in Portuguese, which is an ebook only and thus is not otherwise cited in [THE GRAND CANON](#)), p. 149.

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Tigna fiume [*in Italian*, “Ringworm River”]  
 totonan[-*illegible*] F[luvius] [*sic, in Latin*] [*see also* Río Totontec]  
 Tontonteach f[iume]. [*in Italian*] [*see also* Río Totontec]  
 Totontec fluvius [*in Latin*] [*see also* Río Totontec]  
 Western Colorado

The Colorado had also been referred to as the “Seedskeeter”, “Seedskadee”, and variant spellings, which are corruptions of an Indigenous American pronunciation actually for the Green River (in the upper basin area). The Little Colorado River has been given comparably overlapping names, including a redundant “Río Colorado”.

***Puerto de Bucareli.*** 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 Spain<sup>97</sup> 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.<sup>98</sup> 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.

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<sup>97</sup> Alexander von Humboldt, *Essai politique sur le royaume de la Nouvelle Espagne : ouvrae qui présente des recherches sur la géographie du Mexique . . . .* (Chez F. Schoell, Paris, 1808). (Numeous reprintings and translations.)

<sup>98</sup> 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.’)



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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 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 shown on Miera’s maps]	

The cartographical depictions of the *puerto*, however, have varied, usually plotted without an understanding of Garcés’s original intent.<sup>99</sup>

***Sierra de la Lanterna.*** Several maps in this Cartobibliography label a mountainous area as “Sierra de la Lanterna”, a forgotten name for the Kaibab Plateau, which is probably misplaced. The name is perhaps a misspelling of the Spanish *linterna* (lantern), but the origin or significance of this geographical name has not been identified. In one gazetteer from 1854 it was identified with geographical coordinates that verify its placement where exists the

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<sup>99</sup> See further in the *Cartobibliography* itself. See also the separate publication, Earle E. Spamer, *Mapping Grand Canyon: A Chronological Cartobibliography* (Raven’s Perch Media, 2nd ed., 2024, <https://ravensperch.org>). It includes a section devoted to cartographical products that record *Puerto de Bucareli*, 1877–1884.

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Kaibab Plateau: “Sierra de la Lanterna, a mountain range in the N. part of the Territory of



*Detail from John G. Parke, “Map of the Territory of New Mexico compiled by Bvt. 2<sup>nd</sup> Lt. Jno. G. Parke, U.S.T.E. assisted by M<sup>r</sup>. Richard H. Kern. by order of Bvt. Col. Jno. Munroe. U.S.A. comdg. 9<sup>th</sup> Mil. Dept, drawn by R. H. Kern. Santa Fé, N.M. 1851. Constructed under general orders from Col. J. J. Abert, Chief of Topog<sup>r</sup>. Eng<sup>r</sup>s.” [U.S. Army, Topographical Engineers], New York: J. and D. Major (1851). This seems to be the first appearance of the name “Sierra de la Lanterna”. (Spamer 25.160, Wheat III:730)*

The parallel Green and Grand Rivers are delineated in a fashion that was frequently grossly misinterpreted on maps of this period. The geographic placement of the confluence is downstream from the confluence of the San Juan River (which is seen entering from the right of this view); the Little Colorado River (out of view to the south in this detail) flowed westwardly to a Colorado confluence that would be nearly in today’s southern Nevada. [For more on the variant delineations of the Colorado River, see in Earle E. Spamer, *The Colorado River of the West: Cartographic Styles of the 15th to 19th Centuries* (Raven’s Perch Media, 2023, <https://ravensperch.org/wp-content/uploads/2023/05/CRWest.pdf>, 25 MB).]

New Mexico, lat. about 36° 20’ N., long. 112° 15’ W.”<sup>100</sup>

See the following Cartobibliography items that note this geographical feature with a relatively short-lived use of less than two decades (listed chronologically): Parke [1851, [ITEM](#)

<sup>100</sup> Baldwin, Thomas, 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*] does appear once 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 like as displayed in the figure on the next page). The same geographical placement 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).

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NO. 25.160], Disturnell [1853, ITEM NO. 25.688]; J. H. Colton and Co.; Monk [1854, ITEM NO. 25.1269]; [1854, ITEM NO. 25.1267; 1855, ITEM NO. 25.646; 1855, ITEM NO. 25.737]; Anonymous [1855, ITEM NO. 25.965]; Bartholomew [1856, ITEM NO. 25.1106]; Desilver [1856, ITEM NO. 25.1240]; Mitchell [1856, ITEM NO. 25.972]; Colton [1857, ITEM NO. 25.646]; Rogers and Johnston [1857, ITEM NO. 25.728]; Mitchell [1860, ITEM NO. 25.973]; and Andriveau-Goujon [1862, ITEM NO. 25.1005; 1867, ITEM NO. 25.725].)

**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), a definitive study and 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 invaluable. Each volume also contains numerical indices. (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.)

For the most part, only those maps that were printed (that is, not manuscripts) are cross-listed to Wheat herein (though for the purposes of his magisterial work he includes a large number of manuscript maps). Necessarily, only the maps that clearly pertain at least in part to the region covered by this Cartobibliography, with informative labels or the delineation of rivers, are cross-listed to Wheat. Many of Wheat’s citations are extralimital to this Cartobibliography, and many more that could be listed here are omitted usually because they repeat numerous previous editions of a map. Note as well that some pertinent maps listed by Wheat are not included here because I have not seen them, in any form. Conversely, some maps, though Wheat mentions other editions of them, are listed herein from editions seen by me but not by Wheat, so of course they have no cross-listing to Wheat. Take note, too, as Wheat (1963, Volume V, p. xii) has informed, that “. . . our interest centered upon pioneering rather than commercial maps . . .”, thus another reason for maps cited here that may not have appeared in Wheat’s compendium. And further, Wheat rarely cites maps published in the texts of serial publications, but where he has, and the maps are pertinent to the present cartobibliography, his citations are cross-listed here. In any case, the most pertinent maps are cross-listed.

The format used herein lists items by 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.

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For example, WHEAT I:70 [with illustration facing p.48] would usually be cited only as “Wheat 70”, but I add the volume number (“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, some 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 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.

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.] [“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. (Incidentally, none of the fold-out plates are pertinent to the present Cartobibliography.) As a matter of convenience, I list these special and on-demand reprints here:

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NO DATE [1995?]. Storrs-Mansfield, Connecticut: Maurizio Martino, and Parsippany, New Jersey: About Books, 5 volumes in 6. ["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.)

**Notes About the Earliest Works (mid-16th Century).**<sup>101</sup> The history of the American Southwest is rich, exhaustively studied, rife with political and economic contention and cultural ambivalence. That history necessarily embraces the publication records of European and, later, American institutions and writers. Native Americans had as well lived in and journeyed through the Southwest for uncounted centuries before the first European forays into this part of North America in the sixteenth century. But, it is the publishing tradition of Europe that begins documenting the corroborative, citable, and obtainable records of reportable activities and observations carried out in this region at specific times; and so this is our bibliographical starting point.

Thus far the earliest item cited in [THE GRAND CANON](#) is a cartographical product from *circa* 1535. Of course, this predates the earliest European records of contact with the region of interest here—1539 for the Colorado River, and 1540 for the Grand Canyon. My selection of two pre-dating items closest to 1539, from *circa* 1535 and from 1536, is purposeful; both are map products. Since maps (including gores for globes) were the first printed materials to convey information about the region, for comparison I have cited maps that were recently available at the close of the 1530s, in order to provide a graphic idea of the European under-

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<sup>101</sup> Repeated from the Introduction to [THE GRAND CANON](#) (Volume 1/Part A) so as to retain this information now within Volume 2 (the Cartobibliography). The majority of the "earliest works" cited in [THE GRAND CANON](#) are cartographical productions.

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standing of this part of the world on the verge of the new geographical reports just noted. And it followed Hernán Cortés’s 1535 arrival at the tip of Baja California that serves as an ideological launch point for a conscious recognition of a gulf/strait off the west coast of New Spain, as opposed to open ocean to the Orient.<sup>102</sup>

The set of gores for a lost globe, printed without attribution perhaps in Nuremberg circa 1535, imaginatively present the west coast of America running westward north of the equator, merging directly with “India” without an intervening ocean.<sup>103</sup> Similarly, gores by Caspar Vopell, printed in Cologne in 1536, depict the same arrangement, with “Hispania Nova” immediately south of and on the same land mass as “Asia Orientalis”.<sup>104</sup> This gives some perspective of the knowledge of southwestern North America in the 1530s. To offer citations in this bibliography for printed maps earlier than those just mentioned would be superfluous.<sup>105</sup>

The first of the world maps by Sebastian Münster, “*Typus Orbis Universalis*” (Basle, 1540) portrays “*Terra florida*” at longitude 260° (contemporary Spanish reckoning) on the western edge of the map; on the eastern edge it continues as “*Temistitan*”, the west coast of which is simply crenulated north–south along the 250° meridian. Correctly it is ignorant of the explorations then underway in the regions of New Spain. At least the American and Asian continents are separated in the northern latitudes by “*Oceanvs Orientalis*”.<sup>106</sup>

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<sup>102</sup> [See more fully the Notes for Section 1 in the *Cartobibliography*.]

<sup>103</sup> Anonymous. [Set of printed gores for a lost globe.] Nuremberg[?] [ca. 1535], 12 gores. (ITEM NO. 25.373).

<sup>104</sup> Caspar Vopell, *Nova & Integra Universi Orbis. Descriptio*. (Cologne, 1536). [Three sections only of gores for a globe.] (ITEM NO. 25.374).

<sup>105</sup> As a matter of historical interest, the great map by Martin Waldseemüller, *Universalis Cosmographia Secundum Ptholomaei Traditionem et Americi Vespuccii Aliorūque Lustrationes* (Strassburg, 1507) — on which “America” appears for the first time — presumptuously depicts a mountainous land beyond the eastern edge of North America, labeled, “*Terra Vlteri<sup>9</sup> Incognita*” (A Further Unknown). On this map these imagined mountains line the entire west coast of North America. The portrayal is, in fact, more than which was usually shown by mapmakers of the day; the expanses beyond the eastern coast often were conveniently replaced by ornamentation or simply passed off the map sheet altogether. (I am tempted to include this 1507 work in this bibliography since it does figuratively, even if imaginatively, portray the region beyond its horizon that includes the area covered by this bibliography. However, I would also have to include regionally uninformative and superfluous publications between 1507 and 1535, which is not useful.) [See also the [Notes for Section 1](#) herein.] [Also take note that the Waldseemüller map was copied to create gores for a globe, by Johann Schöner (1517), which are illustrated online by the Library of Congress at <https://www.loc.gov/item/2016586441/>. Although these gores are fragments, America is distinctly shown among them, wherein the North American continent is like that of Waldseemüller’s portrayal, including the modified notation, “*Vltorius incognita terra*”, but which omits the mountainous ornamentation abutting Waldseemüller’s map edge and substitutes an actual, though imaginative, western coastline on the Pacific.]

<sup>106</sup> Sebastian Münster, *Geographia universalis vetus et nova . . . Claudii Ptolemaei Alexandrini . . .* Basiliae: Apud Henricum Petrum (1540). (ITEM NO. 25.375.)

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The second edition (1542) of Sebastian Münster’s geographical work<sup>107</sup>, in which appears a map that depicts the western coast of North America, demonstrates the practical and intentional slowness of communication in that day. The map is still devoid of anything that we would recognize as having come from the Spanish expeditions. In 1542 there was perhaps time enough after the encounters with the Colorado River and Grand Canyon when something could have been published, even if only from leaked information or hearsay; but cartography in that day was embedded in and embodied the political secrecy of nations and not readily shared, and just as likely the goings-on at the far end of a remote arm of the sea may not have inspired inquiry. So there is nothing known today from that earliest part of the incursionary period.

The “Ulpius Globe” [WHEAT I:4], made in 1542 by Euphrosynus Ulpius probably in Rome, is effectively a manuscript, being unique. The 15½-inch globe, mounted on a wooden stand, is fashioned in copper with mostly Latin inscriptions, including “REGIONES ORBIS TERRAR QVAE AVT AVETERIBTRADITAE, AVT NOSTRA PATPVQ MEMORIA COMPERTÆ SINT EVPHROSYNVS VLPIVS DESCRIBE BAT ANNO SALVTIS M.D. XLII” (Regions of the terrestrial globe handed down by ancients, or discovered in our memory or that of our fathers delineated by Euphrosynus Ulpius 1542), with the dedication, “MARCELLO CERVINO S.R.E. PRESBITERO CARDINALI D.D. ROME” (Marcello Cervino, Cardinal Presbyter, Sancta Romana Ecclesia, Doctor Divinitatis, Rome). It is most well known for its inclusion of the east American explorations that included what today is New York harbor, in 1524, by Giovanni de Verrazano, whose 1529 map was likely used for this globe. As for the southwestern portion of North America, it features today’s Mexico as “Nova Hispania” and “Nova Galetia”, with no figure of the Gulf of California. Northwest of that region there is undefined openness—plain copper—that likely represents the supposed great western sea, which on this globe is intimated to occupy virtually the whole of the center of North America; its northern boundary is lightly implied but there is no southern boundary. The region would have been effectively unknown to Verrazano, of course, but neither did Ulpius have the information that had recently been acquired by the more recent Spanish explorations.<sup>108</sup>

It was, then, Sebastian Cabot who is supposed to be the first to produce a map depicting something in the region around the head of the Gulf of California, in 1544. It included infor-

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<sup>107</sup> Münster, *Novae insvlae, XVII nova tabvla*. In: Münster, *Geographia universalis, vetus et nova complectens Claudii Ptolemaei Alexandrini enarrationis libros VIII*. Basileae: apud Henricum Petrum, [2nd ed.] (1542). (ITEM NO. 25.307.)

<sup>108</sup> The Ulpius Globe is today in the New-York Historical Society (<https://emuseum.nyhistory.org/objects/6206/>). See also <http://myoldmaps.com/renaissance-maps-1490-1800/367-the-ulpius-globe/367-ulpiusglobe.pdf> (URLs last accessed 9 December 2024).

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mation gleaned from the expeditions of Ulloa in 1539 and Coronado in 1540–1542 and thus is the earliest published map known to portray any detail in the region of interest to this Cartobibliography.<sup>109</sup> Following on this, in 1548 there are two publications that further acknowledge the Colorado River region based on the Spanish explorations; one is dated (yet another edition of Ptolemy’s *Geography*), the second is attributed to that year (a map also by Münster).<sup>110</sup>

First-person reports about the Colorado River and the Grand Canyon originate in events of 1539 and 1540, respectively. The seminal event was with Francisco de Ulloa (died 1540), the navigator who in 1539 with ships of the fleet of Hernán Cortés (1485–1547) reached the mouth of the Colorado River at the head of the Gulf of California. His report appeared publicly two decades later in Venice, in 1556, there translated into Italian in Volume 3 of Giavanni Battista Ramusio’s *Della Navigazioni et Viaggi*.<sup>111</sup> Its first English translation was published by Richard Hakluyt in 1600.<sup>112</sup> There is, further, a subjective indication that news of the existence of the Colorado River may have been known as early as 1526, when Hernando Cortes wrote to Charles V that while exploring the western coast of California he dispatched a captain whose explorations “penetrat[ed] one hundred and thirty leagues inland”, who “described a very large river, which the natives told him was ten days’ march from its source, and about which, and the people inhabiting its banks, they told me many strange things.”<sup>113</sup>

Europeans’ arrival at the Grand Canyon came a year after the Colorado River was encountered, but by land. During 1539–1542 an incursionary army led by Francisco Vázquez

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<sup>109</sup> Sebastian Cabot, [No title], (Antwerp, 1544). (ITEM NO. 25.377, and illustrated in the front matter to the *Cartobibliography*.)

<sup>110</sup> Gastaldi, *La Geografia di Clavdio Ptolemeo Alessandrino . . . .* Gioã. Baptista Pedrezana (Venetia, 1548) (ITEM NOS. 25.378, 25.2150). Münster, *Die neuwe Iselen so zu insern seiten durch die kunig von Hispania im grossen oceano fefunder sindt* [Henricus Petri (Basle, 1548?)] (ITEM NO. 25.247).

<sup>111</sup> Francisco de Ulloa, *Relatione dello scoprimento che . . . va à far l’armata dell’ illustrissimo Fernando Cortese, . . . della quale armata fu Capitano il molto magnifico Caualliero Francesco di Ulloa . . . .* In: Ramusio, Giovanni Battista, *Terzo volvme della navigazioni et viaggi*; . . . Nella stamperio de Givnti (Venetia, 1556) leaves 339-354. (ITEM NO. 2.6438)

<sup>112</sup> Richard Hakluyt, *The principal navigations, voiages, traffiqves and discoveries of the English nation, made by sea or ouer-land, to the remote and farthest distant quarters of the earth, at any time within the compasse of these 1600 yeeres, deuided into three seuerall volumes, according to the positions of the regions, whereunto they were directed*. G. Bishop, R. Newberie and R. Barker (London, 1598). (ITEM NO. 2.3117)

<sup>113</sup> Francis Augustus MacNutt (translator, ed.), *Letters of Cortes : the five letters of relation from Fernando Cortes to the Emperor Charles V : Volume Two*. G. P. Putnam’s Sons (The Knickerbocker Press) (New York and London, 1908), p. 354 (ITEM NO. 2.28006). For an earlier edited printing in Spanish see Enrique de Vedia, *Biblioteca de autores españoles [Volume 22]. Historiadores primitivos de Indias. Tomo primero*. M. Rivadeneyra (Madrid, 1858), p. 152 (ITEM NO. 2.6582): “. . . trajo me dió noticia de un muy gran rio, que los naturales le dijeron que habia diez jornadas de done él llegó, del cual y de los pobladores dél le dijeron muchas cosas extrañas.”



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de Coronado (1510–1554) infiltrated the American Indian lands on the northern frontier of New Spain in what today is Arizona and New Mexico, venturing even onto the vast Great Plains farther east. As is well recorded historically, they had set out from today’s Mexico to rifle Cíbola of its riches, which as the Spanish learned soon enough was only the stuff of mis- and disinformation about the Indian pueblos.

In 1540, an expeditionary party under Pedro de Tovar traveled from the main army westward to the Hopi mesas in today’s Arizona. There they learned about a large river even farther to the west. This was of interest to them as a means to connect with the Gulf of California; the original plans of the expedition included resupply of the armed force by ship on the lower Colorado River, although that never happened. Tovar reported this news, and another party, about thirteen men under García López de Cárdenas, was dispatched to investigate. According to an account drawn up decades later, they journeyed twenty days,<sup>114</sup> their Hopi guides leading them to the rim of the Grand Canyon at a point described cursorily as a place where the Colorado River was visible and where low pines grew. This area is believed by many historians to have been at the eastern end of the canyon at or near the area now called Desert View. Others consider it may have been farther west, given the reported length of the journey and other evidence. This would have been closer to where in the early 20th century William Wallace Bass conducted tourists into the canyon on his mining trails near the Grand Scenic Divide.<sup>115</sup> The Spanish party was likely led along Native Americans’ long-established routes through this area; and apparently the guides purposely veered away from culturally significant areas such as the route that led to salt deposits near the confluence of the Little Colorado River. Grossly underestimating distances in the canyon, Capt. Pablo de Melgosa, Juan Galeros, and a third man whose name was not remembered by the chronicler, tried to descend to the river. They did not make it very far and swore that rock features down there were taller than the Tower of Seville, a landmark familiar to them back home that stood next to the city’s cathedral.<sup>116</sup> Without further record of the canyon, at

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<sup>114</sup> Flint and Flint have suggested that 20 days was written in error for 20 leagues. (Richard Flint and Shirley Cushing Flint, eds., translators, annotators, *Documents of the Coronado expedition, 1539-1542* : “they were not familiar with His Majesty, nor did they wish to be his subjects”. Southern Methodist University Press (Dallas, Texas, 2005, ITEM NO. 2.21426).)

<sup>115</sup> See items by [Ray Kenny](#) in [Part 16](#) [of Volume 1/Part B]. See also Earle Spamer, “...bigger than the great tower of Seville’: Sizing up the 1540 encounter in Grand Canyon”, *The Ol’ Pioneer* (Journal of the Grand Canyon Historical Society), Vol. 30, no. 3 (Summer 2019), pp. 11-12 (ITEM NO. 2.28399).

<sup>116</sup> The tower, *La Giralda*, still stands as part of the cathedral of Seville, Spain. Originally commissioned in 1184 as a mosque, it was completed in 1198. In Casteñeda’s day the tower was some three and a half centuries old but still lacked the upper portion of the present structure. A modest belfry was installed after its original ornamental top was felled in an earthquake in 1356. The present belfry, as well as the upper tower and the statue, “Faith”, were emplaced in 1558, eighteen years after Coronado’s men attempted to reach the bottom of the Grand Canyon. In 1540 the tower was about 300 feet tall. [See also Earle Spamer, “. . . bigger than the great tower

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least so far that is known to us today, the party returned to the main force in today's New Mexico.

Not until the 1560s was an account written down about the events of 1539–1542. It appeared in the manuscript “Relación de la Jornada de Cíbola” by Pedro de Castañeda de Nagera, who drafted it while in Culiacán, New Spain. However, the original manuscript is missing; the manuscript that survives today is a copy of it, made in Seville in 1596.<sup>117</sup> In turn the *Relación* did not appear in print for nearly three centuries after the events it records, when in 1838 Henri Ternaux-Compans published a translation in French.<sup>118</sup> An English translation did not appear until three and a half centuries after the events, when in 1896 George Parker Winship published the *Relación* for the first time in both Spanish and English, based of course on the 1596 copy.<sup>119</sup> As one might expect, memory, cultural conventions, translators' liberties, and modern re-readings produce somewhat different perspectives.

After the Cárdenas party left the Grand Canyon no European is known to have gone there for more than two centuries. In 1776 the Franciscan friar Francisco Tomás Garcés (1738-1781) journeyed from the lower Colorado River region to the lands of the Hualapai, Havasupai and Hopi people. He, fortunately for us, wrote his own record, though it, too, took a long time to see publication, in 1900.<sup>120</sup>

After all this, there are no surviving maps, save one in manuscript, that document the first European forays into the lower Colorado River and Grand Canyon regions—and that map only figures the Gulf of California, hence also the mouth of the Colorado. Perhaps the first document relating to the region considered within the larger purview of [THE GRAND CANON](#) contains the instructions from Viceroy Antonio de Mendoza to Hernando Alarcón,

of Seville': Sizing up the 1540 encounter in Grand Canyon", *The Ol' Pioneer* (Grand Canyon Historical Society), Vol. 30, no. 3 (Summer 2019), pp. 11-12 (ITEM NO. 2.28399).]

<sup>117</sup> Pedro de Castañeda, *Relación de la Jornada de Cíbola* (manuscript). This 1596 manuscript transcription of a lost original written in the 1560s is in the Obadiah Rich Collection of the New York Public Library. Sample pages of it have been published in facsimile during the 20th century. (See Castañeda, 1596, ITEM NO. 2.1909.) There is also another, brief account referred to as the *Relación del Suceso*, from another person who had accompanied the Coronado *entrada* in 1540; it, too, is known only from a 16th century copy (see the transcription and translation in Flint and Flint [Anonymous, 2005, ITEM NO. 2.21428]).

<sup>118</sup> Henri Ternaux-Compans, *Voyages, relations et mémoires originaux pour servir a l'histoire de la découverte de l'Amérique, publiés pour la première fois, en français, par H. Ternaux-Compans. [Volume 9.] Relation du voyage de Cibola, entrepris en 1540. Inédit.* Arthus Bertrand (Paris, 1838). (ITEM NO. 2.6265)

<sup>119</sup> George Parker Winship, The Coronado expedition, 1540-1542. *U.S. Bureau of Ethnology, 14th Annual Report* (1896), Part 1, pp. 329-613. (ITEM NO. 2.6973)

<sup>120</sup> Elliott Coues (ed., translator), *On the trail of a Spanish pioneer : the diary and itinerary of Francisco Garcés (missionary priest) in his travels through Sonora, Arizona, and California[,] 1775-1776 : translated from an official contemporaneous copy of the original Spanish manuscript, and edited, with copious critical notes by Elliott Coues.* Francis P. Harper (New York, 1900). (ITEM NO. 2.2132)

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regarding logistical support for Coronado’s *entrada* into the northern reaches of New Spain. This document, dated May 31, 1541, was not, however, available in print for centuries, thus it cannot be scored as an early “publication”. (A particularly reliable transcription and translation of these instructions was published by Richard and Shirley Cushing Flint in 2005.<sup>121</sup>)

A map of the Gulf of California was drawn in 1541 by Domingo del Castillo, a pilot in the second expedition that sailed to the Colorado River delta, in 1540. It was found among papers of the descendants of Cortés. Copied and engraved in 1769, it was published in 1770 by Francisco Antonio Lorenzana in *Historia de Nueva-España*.<sup>122</sup> Castillo’s is the earliest authentic delineation of the Gulf of California and the delta region, even though it depicts what may be the Gila River as a remarkable extension of the sea that would wrap around the north of Mexico. There are earlier 16th-century maps of the Pacific coast of North America, of course, but none even fully resolve the gulf, let alone the delta.<sup>123</sup>

The 16th-century dates noted herein are known with certainty; they establish the beginning of a published history, based on known documents, with which historians and aficionados of the Grand Canyon and the Colorado River are familiar. Might earlier published works yet be found, or more works from the 1540s at least? Perhaps; one may never know what may lay hidden or unrecognized even in the most well-known of collections, or in materials as yet unrecognized by historians and bibliographers.

<sup>121</sup> Antonio de Mendoza, The Viceroy’s instructions to Hernando Alarcón, May 31, 1541; Biblioteca del Escorial, Códice &-II-7, doc. no. LXVII. *In*: Flint, Richard, and Flint, Shirley Cushing (eds., translators, annotators), *Documents of the Coronado expedition, 1539-1542* : “they were not familiar with His Majesty, nor did they wish to be his subjects”. Southern Methodist University Press (Dallas, Texas, 2005), pp. 223-232. (ITEM NO. 2.3117)

<sup>122</sup> Hernán Cortés and Francisco Antonio Lorenzana, *Historia de Nueva-España, escrita por su esclarecido conquistador Hernan Cortes, aumentada con otros documentos, y notas, por el ilustrissimo Señor Don Francisco Antonio Lorenzana, Arzobispo de Mexico*. Imprenta del Superior Gobierno, del Br. D. Joseph Antonio de Hoyal (México, 1770). (ITEM NO. 2.14602) See also the Cortés–Lorenzana map reproduced in the the front matter [to the Cartobibliography].

<sup>123</sup> A richly illustrated historical discussion of early portrayals of the region of interest here is Dora Beale Polk’s *The Island of California: A history of the myth*, University of Nebraska Press (Lincoln, 1991, ITEM NO. 2.5096), although the citations for the numerous manuscript and published maps are imperfect (they are not listed in Polk’s bibliography nor identified in detail in the text). The early cartography of the west coast of North America is also very well reviewed and amply (though selectively) illustrated by Justin Winsor, “Discoveries on the Pacific coast of North America”, in Justin Winsor (ed.), *Narrative and critical history of America. Volume II. Spanish explorations and settlements in America from the fifteenth to the seventeenth century*. Houghton, Mifflin and Co. (Boston, 1886 [ITEM NO. 2.6991]). As Winsor astutely opined, such maps represent “shadowy and unstable surmise long continued” (p. 431).