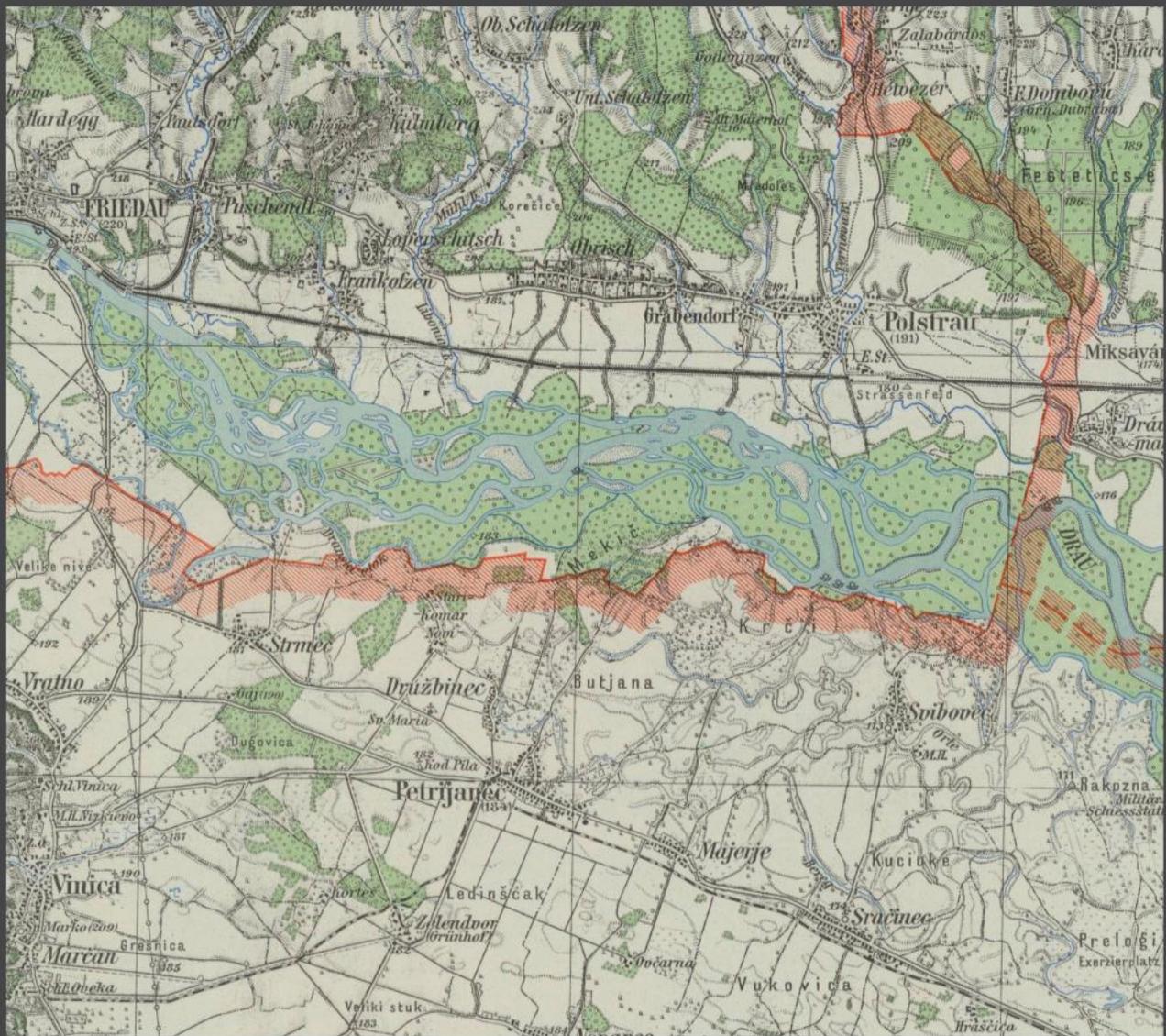




# CALAFIA

THE JOURNAL OF THE CALIFORNIA MAP SOCIETY

SEPTEMBER 2021



*Detail: Spezialkarte von Österreich ... Sheet #5456, portion of Drava river valley (p. 26)*



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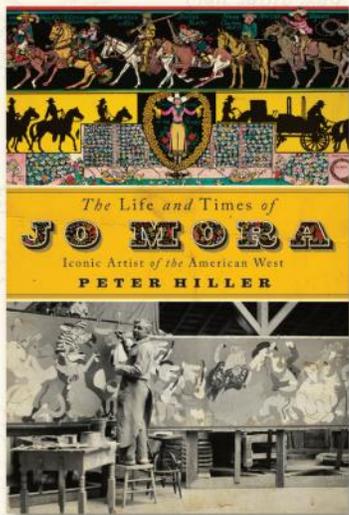
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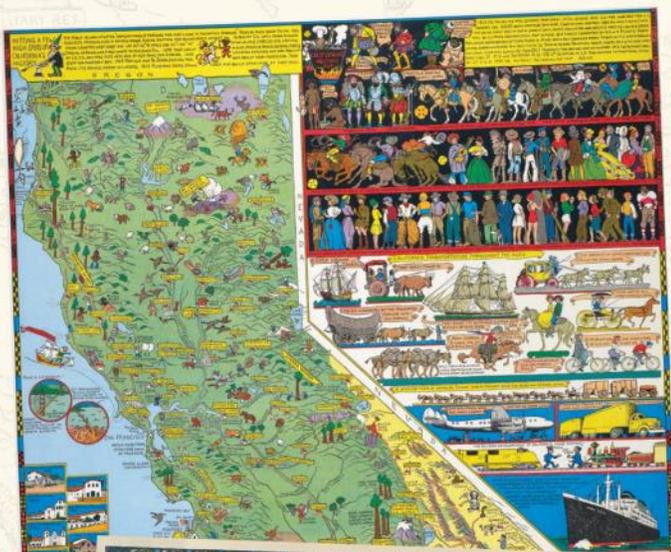
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# CALAFIA

THE JOURNAL OF THE CALIFORNIA MAP SOCIETY  
Volume 2021, Issue 2 — September 2021  
[www.californiamapsociety.org](http://www.californiamapsociety.org)

Our 90th  
Regional  
Meeting!

## Fall Conference Meeting — Zoom Sessions September 25, 2021 9:00AM to 12:15PM

9:00am - Welcome, President Ron Gibbs and Vice President Courtney Spikes

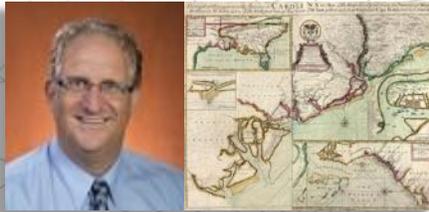
9:10am - **Mapping the Haitian Revolution**



**Stephanie Curci**, Phillips Academy Andover.

Recent Chair of the English Department, Stephanie is a specialist of Haitian history and culture. Stephanie partnered with a colleague to create an award-winning, interactive website that uses maps to detail the history of Haiti and its revolutionary history. Its purpose is to help students of all ages understand the complicated narrative of the Haitian Revolution across space and time. *Presentation followed by Q&A.* (<https://www.mappinghaitianrevolution.com/>)

10:00am - **Indigenous Floridians in the Time Before Memory**



**Professor Andrew Frank**, Florida State University.

Dr. Frank is an ethnohistorian who specializes in the history of the Florida Seminoles and the Native South. He is the author of *Before the Pioneers: Indians, Settlers, Slaves, and the Founding of Miami* (University Press of Florida, 2017). This talk decolonizes the history of Florida to connect the modern Seminole and Miccosukee Indians with their diverse ancestors who lived in the territory in the fifteenth century. Outsiders have long justified the dispossession of Indian lands

by denying Seminole kinship with their Calusa, Tequesta, and Ais ancestors and their lands. A closer look at maps, archaeological and historical evidence supports the Seminole's oral testimony. *Presentation followed by Q&A.*

10:50am – Break

11:00am – **Breaking the Third Wall: Going Beyond Traditional Hillshade**



**Mr. Sean Conway**, Orthoimagery Technical Expert.

Mr. Conway uses his formidable technological skills to transform vintage maps into stunning, three-dimensional relief maps by meticulously rendering elevation data. You can see some of his work at Muir Way ([www.muir-way.com/collections/vintage-relief](http://www.muir-way.com/collections/vintage-relief)). *Presentation followed by Q&A.*

11:50am - Closing, President Ron Gibbs and Vice President Courtney Spikes

12:00 - 12:15pm - Membership Social Time

Three ways to **REGISTER** to receive the Zoom Link and login information:

Click this [LINK](#) to go to the Registration page

Go to our website and select *Events*: <https://californiamapsociety.org/>



## PRESIDENT'S LETTER

RONALD S. GIBBS, MD  
CMS PRESIDENT

Dear Society Members and Friends,

When I wrote the last President's Letter in January 2021, the world remained in the grip of the COVID-19 pandemic. With the development of safe and highly effective vaccines and with ongoing control practices, we have seen dramatic decreases in cases and, in many areas, a return to nearly normal life. COVID-19 has highlighted the power of maps to explain the pandemic's status to the American public. Initially, there were maps showing case rates and, more recently, maps showing vaccination rates.

During the past 18 months, when there were no live meetings, our map society has responded with a robust series of virtual regional Bay Area Map Group (BAMG) and Greater Los Angeles Mappers (GLAM) meetings. These meetings have been attended by large, national audiences. So special thanks to Tom Paper (VP, Northern California), Courtney Spikes (VP, Southern California), Nagin Cox, and Mike Schembri for arranging these superb meetings. We have also been able to attend the virtual meetings of other North American map societies, notably the monthly meetings of the Washington DC Map Society. These have been co-sponsored by the California Map Society and six other map societies.

As another result of the pandemic, beginning in November 2020, the presidents of the North American map societies have had quarterly ZOOM meetings. The presidents represent the California Map Society and those of Washington DC, Boston, New York, Chicago, Texas, and the Rocky Mountains. In March, we were joined by a representative of the International Map Collectors' Society (IMCoS). The societies are working together on coordinating schedules, ideas for expanding membership, recognition of journal advertisers, and further collaboration.

We are especially proud of our society's excellent journal *Calafia* and the dedicated work of Juliet Rothman, Editor, and Fred DeJarlais, Publisher. CMS and the Washington (DC) Map Society are the only American map societies that regularly publish a journal. Juliet and Fred have continued having a theme for several of the articles, and in this issue, the theme is war maps. It is a special thrill that Tom Paper, Courtney Spikes, and I have collaborated on one of these articles.

I also want to express my deepest appreciation to all CMS officers who have put forth great effort during these difficult



times: John Fleming, Treasurer; Ken Habeeb, Secretary; Fred DeJarlais, VP Membership; Juliet Rothman, VP Publications; David Kalifon, VP IT; Jon Jablonski, Immediate Past President; Courtney Spikes, VP, Southern California; and Tom Paper, VP, Northern California.

Growth in CMS membership remains important to support our mission, and a terrific idea has been to gift a membership to a family member or friend. With the fall 2021 programs occurring virtually and with a virtual overlay planned for our future live meetings, the benefits of membership are available to those outside Los Angeles and The Bay Area. I hope you will give renewed thought to gifting CMS membership to family, friends, or students.

This summer, through the efforts of Past President Jon Jablonski, CMS is also working on our ongoing support for the Rumsey Map Center. This unique center, located at Stanford University, provides extraordinary programs, lectures, and exhibits. It also is a repository for scholarly work and sponsors an annual essay contest for students. Working with Salim Mohammed, Head and Curator of the center, CMS is a founding supporter. As soon as the Stanford campus opens, I hope many of you will visit the Rumsey!

I look forward to greeting our members virtually at the fall Zoom meeting on Saturday, September 25 and to face to face greetings at future meetings. I wish you all good health and safety.

Best wishes,  
Ronald S. Gibbs, MD

## EDITOR'S NOTE

JULIET ROTHMAN  
CALAFIA EDITOR

Our Fall edition is unusual: it includes both a very wide range of subjects, and a fascinating in-depth exploration of war cartography, the theme for this edition. As I gathered articles, it seemed as though word of our theme had spread widely, enabling us to include seven articles related to war maps, rather than the 3 only that had originally been planned.

The war-themes articles begin with Courtney Spikes, Ron Gibbs, and Tom Paper's wonderful exploration of the maps used by the British during the American Revolutionary War, followed by Nick Kanas' presentation of astronomer and Civil War cartographer O.M. Mitchel. The remaining five articles all focus on a major conflict of the 20<sup>th</sup> Century – World War II - with each author providing insights and details of different aspects, different armies and governments, and different circumstances for the creation and use of maps. Two authors draw from UC Berkeley's special collection of cap-

tured German maps: Susan Powell examines maps of France, and Heiko Mühr an Austrian Spezialkarte. Leonard Rothman, the “Globologist,” shares details of an official US State Department WW II globe, used to plan both ground and air missions both in Europe and the Pacific, while Carol Spack presents a careful description of the little maps of Paris which the American Red Cross provided to soldiers visiting the city while on leave, the second article of her 4-part series. It is especially interesting to contrast this article to Susan Powell’s as they both focus on France. The article on the Ebstorff map by Leonard Rothman and myself examines what happened to a cartographic treasure, during the bombings and military maneuvers of the war in Europe. And Fred DeJarlais’ Carto-Quiz for this edition is focused on—you guessed it—war maps. Take up his challenge and see what you find! (I did VERY poorly myself!)

The wide range of subjects in this edition include Christopher Tyler’s presentation of the second part of his fascinating history of the naming of America, as he shares that the names given to locations on maps play a major role in the “naming” of a location. Victoria Kovalenichikova shares her process for creating maps using the earth’s natural materials – with a little help from GIS! Cherie Northon’s “My Favorite Map” article focuses on the very interesting murals of Miguel Covarrubias, originally created for the 1939 Golden Gate International Exhibition, and I explore a current exhibit at the Osher Map Library at the University of Southern Maine in Portland, which uses interviews with students and locals, and relates them to maps from their collection.

Courtney Spikes’ Apps for Maps provides a fascinatingly broad and very thorough examination of apps that help us to explore “Mother Nature” in her many dimensions, some of which may be familiar, while others offer new sources for us to explore. Bill Warren’s review of Peter Hiller’s book on Jo Mora shares special details of the life and work of this California cartographer. Our “Meet our Member” article features Emily Yang, a new and very enthusiastic members of our Society, and Jon Jablonski shares the work of our “Map Mentors” program. We honor two recently lost members, Elizabeth Kalifon and Richard Umansky. They will be greatly missed!

We hope to “see” you at our Fall meeting in Southern California. Arranged by Vice President Courtney Spikes, this meeting features a very interesting program, with Zoom hosting in the very capable hands of Northern California Vice President, Tom Paper. It will be a great opportunity to enjoy being together and sharing all of our very special cartographic interests!

**Calafia : The Journal of the California Map Society**

Juliet Rothman, Editor  
 Fred DeJarlais, Publisher  
 Submissions should be directed to Juliet Rothman: [rothman@berkeley.edu](mailto:rothman@berkeley.edu)

## CMS EDUCATION FUND

The California Map Society Education Fund was established in 2014 by the Society to sponsor an annual lecture by a noted author or other expert in the field of cartography. Lectures are held at the David Rumsey Map Center at Stanford University, which co-sponsors the program. Also, soon after the lecture is held at one or more venues in Southern California. The Fund provides transportation, accommodations, and an honorarium for the speaker. In addition, in a new initiative originated by the Rumsey Center staff, the Fund will co-sponsor with the Center an annual Guest curatorial program. As part of our contribution to cartographic education, our regional conferences also often include student presentations, supported by prizes for the presenters generated from CMS general funds.

The Education Fund has been successful in achieving its financial goals for our first five-year term. **The Board of Directors has authorized an extension of the program for another five-year term.** Several major donors have helped us begin the process of funding the second five-year term of the program. We encourage other past contributors to extend their generosity and help us to continue this worthy program. We hope that members who have yet to contribute to the Fund will make a financial commitment to the program.

### Gold

Anonymous  
 Pat Boyce  
 Fred DeJarlais  
 John Fleming  
 Nick Kanas  
 Leonard Rothman

### Silver

Warren Heckrotte  
 Steve Hicks  
 Glen McLaughlin

### Bronze

Juan Ceva	Vincent Mazzucchi
William Eaton	Donald Phillip
Anthony Farndale	George Piness
Ron Gibbs	Dorothy Raphaely
Robert Graham	Walter Schwartz
Philip Hoehn	Julie Sweetkind-Singer
Wally Jansen	Bill Warren
Barbara Keck	Amy Worth

The Society is grateful for our contributor’s support of this important program. Please consider adding your name to this very special list by making a donation to the Fund!

# CMS SPRING MEETING

MAY 5 & MAY 15, 2021

JULIET ROTHMAN

The CMS Spring Conference was presented on Zoom on May 1 and May 15, with three speakers each day, as well as a business meeting on May 1 following the speakers. Attendance at each session was excellent, with over 80 attendees from all over the United States and even overseas!

Our May 1st session began with a special treat: after Ron Gibbs, our President, opened the meeting, Nagin Cox, who works at NASA on the Mars mission, showed us a special photo taken by Curiosity, currently working on its mission on Mars. Our speakers followed: first, **Benjamin Grant**, the founder of the "Overview" project, begun in 2012, presented the concept of the Overview Effect – the change in perspective that can occur when the earth is viewed from above. With slides and maps of aerial views, Benjamin illustrated what has inspired him to consider how humans have impacted and changed the planet. "Overview" may be accessed on the web at [over-view.com](http://over-view.com).

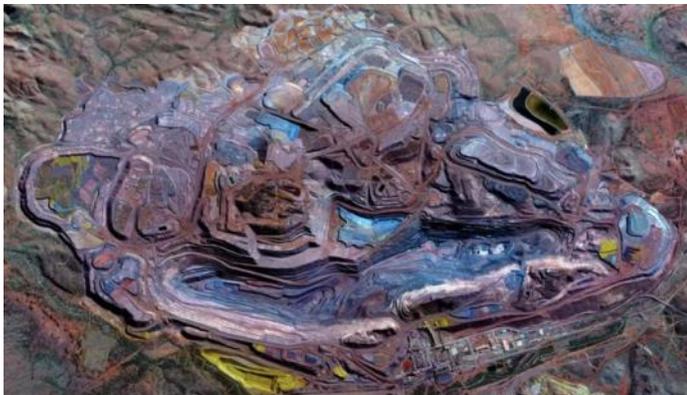


Figure 1. Iron ore mine in Australia. Screenshot from presentation.

**Daniel Crouch's** presentation, *Contagious Cartography: A Panorama of Pandemics and Plagues*, was very relevant to the time! He shared an image of the oldest recorded plague death was from 2000 BC and reminded us that pandemic



Figure 2. Skeleton of plague victim, c. 2000 BC. Screenshot from presentation

was, in fact, a Greek word. His presentation illustrated plague and pandemic maps through history, all the way through the modern HIV-Aids, Asian Flu, SARS, Swine Flu, and Ebola, to our current COVID-19 pandemic, and shared that all of the more recent are now tracked through a Global Ecosystems Database. **Steve Hanon** presented fascinating maps of the Spanish Empire in the New World, moving from the 15th and 16th centuries to the modern maps of cargo and ports which are used for shipping. He also shared that prior to the



Figure 3. Sebastian Munster, from his *Geographia universalis vetus et nova*, c. 1545. Screenshot from presentation.

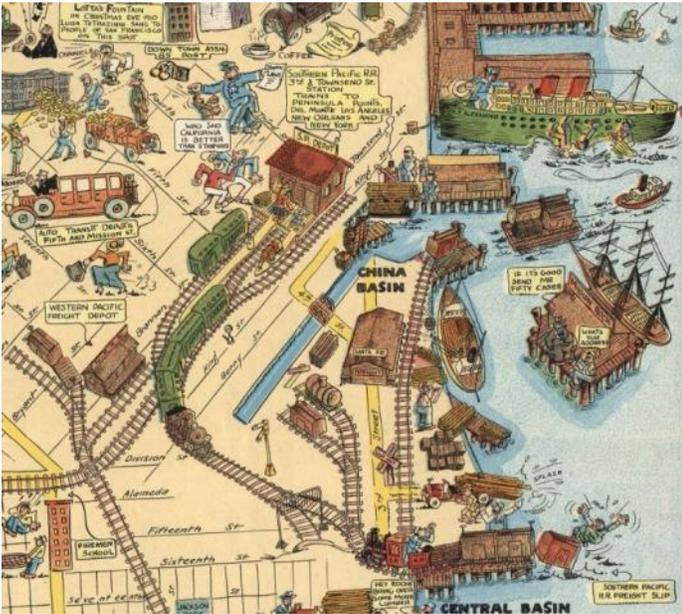
common age of travel, maps and the pictures on the maps were the way that people learned about the world and about other civilizations, cultures, tools, armaments, dress, and the landscapes around them.

On May 15, Ron opened our meeting, immediately followed by our gracious Zoom host, **Tom Paper**, who described his journey into the field of maps and eventually into his wonderful Digital Gallery. Tom explained how to access the gal-



Figure 4. Tom Paper's *Digital Gallery* camera setup at the home of CMS member Richard Breiman. Screenshot from presentation.

lery and illustrated some of the special features of his high quality, organized, accessible, and well-curated maps. He was followed by **Jim Schein's** thorough presentation of the Cartographic History of San Francisco. Jim's maps began with California as an island, then moved to the discovery of San



**Figure 5.** South of Market/Mission Bay detail from Harrison Goodwin's pictorial map of San Francisco, 1927. Screenshot from presentation.

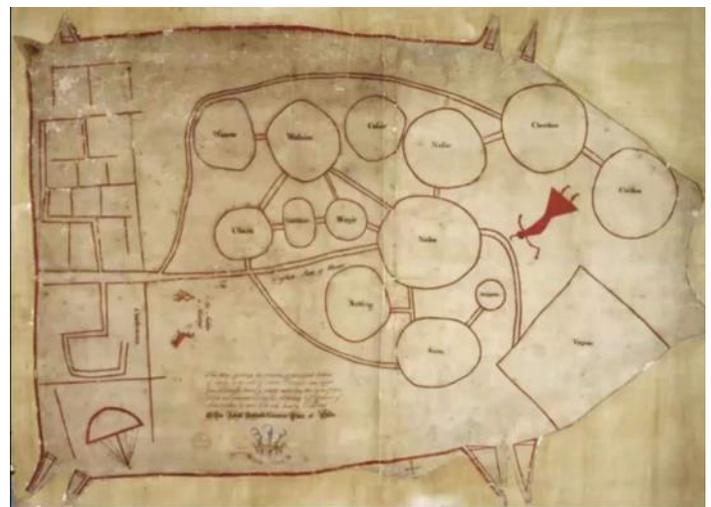
Francisco Bay, the gold rush, land distribution, property lines, and surveys, landfill and the buried ships that still exist under modern buildings, Chinatown and its 1883 restrictions as well as its houses of prostitution, opium, and bars, a map of the city for visitors to the Pan Pacific exhibition, and, finally, a 1927 map of "places of interest." A wonderful picture of the very diverse cultures and stories that make up the city of San Francisco still today!

**Courtney Spikes'** *History and Cartography of Waterloo* presentation provided a wonderful journey through the life of Napoleon, first with a series of paintings of different periods of his life, then with an absolutely special series of cartoons, some French and some British, which took us through Napoleon's life until his engagement in the famous Battle of Waterloo. Maps with battle lines were interspersed throughout and helped to clarify the events at Waterloo.

**Susan Schulten's** fascinating presentation, *How Maps Made America*, took us through the history of mapping America. She presented an indigenous map by Cherokee and Chickasaw tribal leaders as a proposal for a new trade agreement with Governor Nicholson of the Carolinas for the bear-skin trade and illustrated France and Great Britain's competition for dominance in the Ohio Valley through maps. She shared a map that might have been made by Washington on his mission to Lake Erie, which then enabled him to really



**Figure 6.** "The Plumb-Pudding in Danger." William Pitt and Napoleon divide the world, 1805. Screenshot from presentation.



**Figure 7.** Map probably drawn by a member of the Cherokee or Chickasaw tribe and likely used for negotiations with the Colony of South Carolina. c. 1718. Screenshot from presentation.

know the "lay of the land." Her Map of America for German Immigrants led to a discussion of opportunities, routes of travel, and the many differences between the North and the South, and a Night Club Map of Harlem map illustrated a wide range of entertainment and activities. She also shared the thoughts of Richard Edes Harrison, who challenged the Mercator projection, and the isolationism it supported by demonstrating the global importance of wartime Germany through its aeronautical relevance to all of the United States.

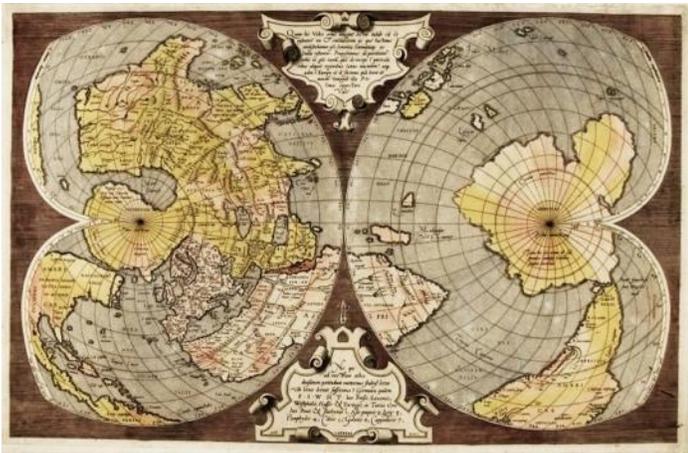
To end this wonderful conference, we have Susan Schulten's words: "Maps capture a moment in time and also influence that moment in time."

The Spring 2021 CMS Conference has been recorded and is available through the California Map Society website.

# THE CHECKERED HISTORY OF THE NAMING OF AMERICA: EARLY 16<sup>TH</sup> CENTURY FORAYS

CHRISTOPHER TYLER

*This is the second part of the two-part article on the early history of the naming of America. In the first part (Calafia, Spring 2021), it was shown that the name AMERICA was not used at all for the North American continent before 1538. Here the gradual adoption of the name for each continent is traced up to the end of the 18<sup>th</sup> century.*



**Figure 1.** Gerhard Mercator, *World map on double cordiform projection*, 1538. Image courtesy of Wikimedia Commons.

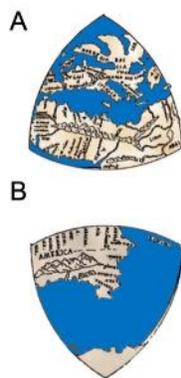
Although the name *AMERICA* was first introduced early in the 16th century to honor explorer Amerigo Vespucci, it was not applied to both continents for three decades until it appeared in a baroque cartographic projection by Gerhard Mercator in 1538 (Fig. 1), a the name of a very different form from the famous cylindrical projection that he developed 30 years later. Nevertheless, it soon dropped out of regular use, even for the southern continent, until the turn of the 17th century and was only securely established in its modern usage about a century later. It is particularly noteworthy that even Amerigo Vespucci's nephew, Juan Vespuche, avoided the use of the term *AMERICA* for either the South or the North American continents in both his 1524 and 1526 world maps.

### The Origin of the Mercator Double Cordiform Projection

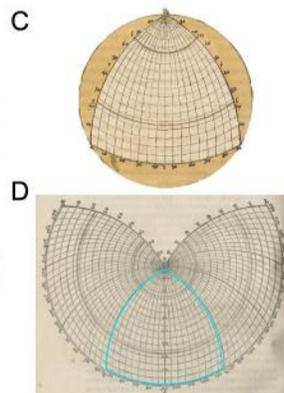
We can ask where Mercator gained the impetus to apply the name *AMERICA* to the North American continent. The inspiration for his curious double-heart-shaped form of

world map can be traced to the spherical triangle concept found in Leonardo da Vinci's octant map of ~1505 (see Fig. 2 A,B). This map was one of the first to use the name *AMERICA*, though only the South American continent was known at that time, as described in the first part of this article (Calafia, Spring Issue, 2021). (Da Vinci's map based on spherical triangles, a minimally-distorted projection within each octant and was the first to encompass the whole globe in a single projection, Tyler, 2017) Figs. 2C, D show Oronce Finé's illustration of how to develop these octants into an integral form for the similar projection in his *Sphaera Mundi* compendium of maps of the world. This concept was evidently the impetus for the cardioid (heart-shaped) projection developed by German mathematician Johannes Stabius and first used by Bernardo Sylvanus in 1511 (Fig. 2E, overlaid with a root pair of da Vinci spherical triangles). Sylvanus follows da Vinci in using the name *AMERICA* for the solitary South American continent.

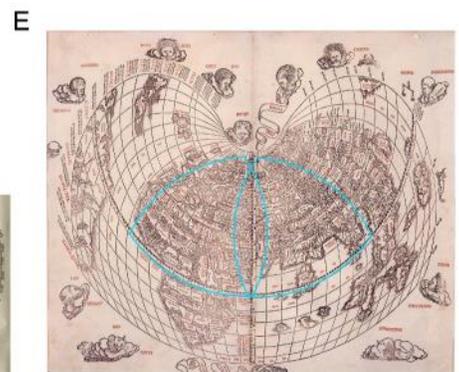
Mercator's double cordiform mappamundi (Fig. 1) also adds the North American continent missing from both Sylvanus' and Finé's earlier versions. As further confirmation of its connection back to Leonardo da Vinci, Mercator's map is unique among its predecessors in using all three of da Vinci's territorial labels in this northern region: *AMERICA*, *Terra Florida*, and *Bacalar* (lower left quadrant in Fig. 1), though in slightly different forms. Moreover, he follows da Vinci in showing the north coast of Africa as an almost unitary curve, minimizing the major deflection of the coastline from Tunis



**Figure 2 A,B.** From da Vinci's octant map, c. 1505



**Figure 2 C, D.** Octants to integral form, Oronce Finé, 1531



**Figure 2 E.** Root pair of da Vinci spherical triangles overlaid on the cardioid projection of Sylvanus, 1511

to the Gulf of Sidra. These features confirm that Mercator must have somehow had access to da Vinci's original conception, although Mercator uses the label *AMERICAE*, the plu-

ral form in Latin for “The Americas,” for both the North and South American continents (see Fig. 1). It was not until thirty years later that Mercator developed his famous cylindrical “Mercator projection” in 1569. By that time, however, he had dropped the *AMERICAE* designation and, even at this late date, labels the two continents *INDIA NOVA!*

Similarly, as documented in the name usages tabulated in Table 1, many well-known cartographers of the mid-16th century avoided committing to any name for the progressively extending knowledge of the continent (such as Jerome Münster, Pierre Desceliers, Sebastian Caboto, Guillaume Le Testu, and Urbano Monte). Remarkably, by the late 16th century, the world maps of Abraham Ortelius (1570, oval format), Rumold Mercator (1587, Gerhard's son), and Jodocus Hondius (1595) had even gone further to adopt the



Figure 3. Willem Blaeu, *Nova Totius Terrarum Orbis Geographica ac Hydrographica*, 1606. Image courtesy Nations Online Project.

Table 1

Cartographer	Date	Names for America	
		South	North
Mercator	1538	AMERICAE	AMERICAE
Caboto	1540	DIE NIEUWE WELT	FRANCESCA
Münster	1540	DIE NIEUWE WELT	Terra Florida
Rotz	1542	*	*
Testu	1542	AMERIQUE	[CANADA]
Brousson	1543	*	*
Caboto	1544	*	*
Münster	1544	ORBIS	NOVIS
Desceliers	1550	AMERIQUE	[CANADA]
Frisius	?1553	AMERI	QUE
Gastaldo	1561	*	NUEVA HISPANIA
Gutierrez	1562	*	*
Forlani	1565	*	*
Münster	1569	AMERICA	Terra Florida
G. Mercator	1569	TERRA NOVA	INDIA
Ortelius	1570	*	AMERICA SIVE INDIA NOVA
Teixeira	1573	PERU	TERA NOVA
G. de Jode	1578	PERU	NUOVA FRANCIA
Bünting	1581	AMERICA	*
Monte	1587	PERU	*
R. Mercator	1587	*	AMERICA SIVE INDIA NOVA
Visscher	1587	*	*
Münster	1569	AMERICA	AMERICA NOVA
Plancius	1590	PERUVANA	MEXICANA [AMERICA SIVE INDIA NOVA]
C. de Jode	1593	AMERICA	AMERICA
C. de Jode	1593		FRA[N]CIA NOVA
Plancius	1594	PERUVANA	MEXICANA [AMERICA]
Hondius	1595	*	AMERICA
Wright-Molyneux	1599	*	*
Solis	1603	AMERICA O NUEVAS INDIAS	*
Blaeu	1606	AMERICA MERIDIONALIS	AMERICA SEPTENTRIONALIS
van den Keere	1608	AMERICA / AMERICA MERIDIONALE	AMERICA / AMERICA SEPTENTRIONALIS
Geelkercken	1616	AMERICA MERIDIONALIS	AMERICA SEPTENTRIONALIS
Angelocrator	1616	*	*
Angelocrator	1628	*	AMERICA SEPTENTRIONALIS
Eckbercht	1630	AMERICA MERIDIONALIS	AMERICA SEPTENTRIONALIS
Mazza	1643	PERUV.	*
Visscher II	1658	AMERICA MERIDIONALIS	AMERICA SEPTENTRIONALIS
van Shagen	1682	AMERICA MERIDIONALIS	AMERICA SEPTENTRIONALIS
Boormeester	1685	AMERICA MERIDIONALIS	AMERICA SEPTENTRIONALIS
Berry	1680	SOUTH AMERICA	NORTH AMERICA
Sanson & Jaillot	1691	AMERIQUE MERIDIONALE	AMERIQUE ou L'INDE OCCIDENTALE / AMERIQUE SEPT.
Moll	1703	SOUTH AMERICA	NORTH AMERICA
Gouwen	1721	AMERIQUE ou L'INDE OCCIDENTALE / AMERIQUE MERIDIONALE	AMERIQUE ou L'INDE OCCIDENTALE / AMERIQUE SEPT.
Seutter	1730	AMERICA MERIDIONALE	AMERICA SEPTENTRIONALIS
Bowen	1744	SOUTH AMERICA	NORTH AMERICA
Bowen	1780	SOUTH AMERICA	NORTH AMERICA
Bellin	1748	*	[NOUVEAU FRANCE]
De L'Isle	~1775	AMERICA MERIDIONALE	AMERICA SEPTENTRIONALIS
Kitchin	1799	SOUTH AMERICA	NORTH AMERICA

reverse strategy of dropping the *AMERICA* designation for the South American continent and use it only for the North. Until the 17th century, the only cartographers to use the name again for both the northern and southern continents were Sebastian Münster in 1569 and Cornelis de Jode in 1593. Conversely, de Jode's map of North America, although entitled “*AMERICA PARS BOREALIS, FLORIDA, BACCALA, CANADA CORTEREALIS*,” actually names the northern continent *FRA[N]CIA NOVA* (curiously misspelling the country designation). Thus, other than Münster and de Jode, the later 16th century still evinced a surprising dearth of the use of the name *AMERICA* for either the northern or the southern continents of this burgeoning landmass.<sup>1</sup>

### Establishment of the Dual-Continental Nomenclature

The dawn of the 17th century seemed to give the name *AMERICA* a new lease of life, beginning with the world map of Willem Blaeu, in Latin (Fig. 3), first published in Amsterdam in 1606. It is noteworthy that the North American continent in this map has now ballooned to greater than the combined widths of Europe and Asia and still has a rather shaky grasp on the form of the coastline of its eastern seaboard. Interestingly, California, which had been recently explored by Cortès, is shown in its true configuration of a peninsula at this early date. In terms of nomenclature, Blaeu's (1606) map introduced the unwieldy phrase *AMERICA SEPTENTRIONALIS* for the northern continent, accompanied by *AMERICA MERIDIONALIS* for the southern one (the two Latin adjectives being astronomical terms for 'north and 'south', respectively). This Latin formulation gained popularity for the remainder of the 17th century (see lower section of Table 1).

The 18th century saw a new tradition of simplifying the names to their modern forms of *South America* and *North America*, thus continuing the convention begun by Mercator, in 1538, of treating the whole hemisphere as a single meg-continent. The first example seems to be the double-hemispheric globular map (Fig. 4) by London cartographer William Berry (1680). Note that, although the Americas are considerably more realistic than a century earlier, California, which had been viewed as an elongated peninsula for a century or more, was now reconfigured by Berry as an island<sup>2</sup>. Moreover, only half of Australia had been mapped by this time, by Dutch traders who had named it *New Holland*. This format was shortly followed by Berry's collaborator Herman Moll's (1703) world map celebrating the English circumnavigations of Drake more than a century earlier, together with two later ones. Many of Berry and Moll's maps were dedicated to Queen Anne of England, whose imperial aspirations ranged from Ireland to India, France, and parts of the Americas. From Ruderman's 2017 biography of Moll<sup>3</sup>, we learn that their circle of coffee-house friends included the scientist Robert Hooke, the archaeologist William Stuckley, the renowned adventure authors Jonathan Swift and Daniel Defoe, and the English explorer/pirates William Dampier, Woodes Rogers, and William Hacke. Through these contacts, Berry and Moll gained a great deal of privileged cartographic information that was included in their maps.

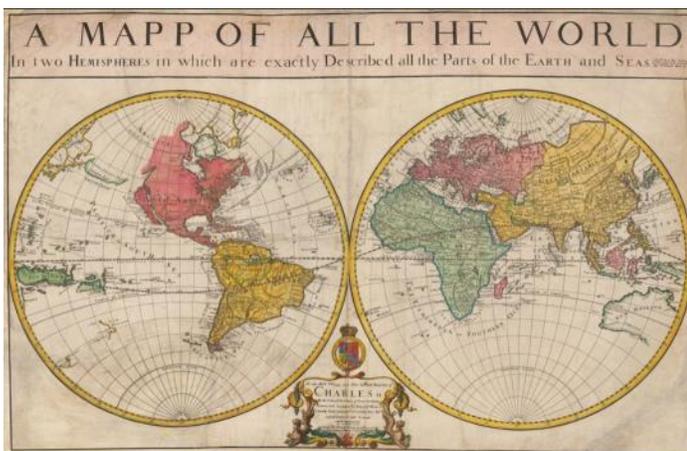


Figure 4. William Berry, *A Mapp of All the World*, 1680. Image courtesy of the New York Public Library.

### Conclusion

The cartographic use of the name *AMERICA* for the two continents of the Western Hemisphere has had a surprisingly checkered history in the two centuries since the name was introduced in the first decade of the 16th century. It was used only sporadically for the southern continent in the proliferation of world maps for the next thirty years, was not applied to the northern continent at all in this period, and soon dropped out of regular use even for the southern continent (Tyler, 2021). The name *AMERICA* then came back into

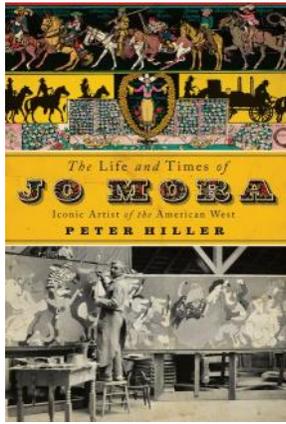
sporadic use for both continents, starting with Mercator's early mappamundi of 1538 but, paradoxically, tended to be applied only to the northern continent later in that century. It was reintroduced in its Latin form for both continents at the turn of the 17th century and was first used in its English form of *NORTH* and *SOUTH AMERICA* in William Berry's world map in 1680. However, this modern English usage<sup>4</sup> did not become securely established until the end of the 18th century.

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### Endnotes

- <sup>1</sup> Note that Table 1 represents a good-faith effort at a comprehensive overview of world maps from the 16th through 18th centuries, but some will inevitably have been missed, so they should be considered to be only representative of the full list.
- <sup>2</sup> California was first depicted as an island by Antonio de Herrera y Tordesillas in 1622, after 80 years of being consistently mapped as a peninsula.
- <sup>3</sup> The close collaboration between William Berry and Herman Moll is attested by the Composite Atlas compiled by Berry, Moll, and fellow cartographers, containing a total of 64 maps and seven leaves of geographical tables, which sold at Christie's in 2013 for £47,475 (<https://www.christies.com/en/lot/lot-5685675>).
- <sup>4</sup> As may be noted from Table 1, world maps from non-English speaking countries typically labeled the American continents in Latin toponyms rather than their own language.



*The Life and Times of Jo Mora, Iconic Artist of the American West*, by Peter Hiller. (Layton, Utah: Gibbs Smith, 2021, 324 pp., numerus illustrations, \$30.00 U.S. hard-cover).

REVIEWED BY BILL WARREN

For map lovers - Ortelius, Briggs, Kino, Mora. Iconic California mapmakers. Joseph Jacinto “Jo” Mora, (1876-1947), was much more than that. Born in Uruguay, son of a gifted Spanish sculptor and French descent mother, Jo was their second son. The family returned their roots in Spain, but in 1880 the family immigrated to Perth Amboy, New Jersey. Jo’s father was recognized for his skills in architectural sculpture. He received commissions for decorative elements on public buildings all over the East Coast. Joseph was a bright student and followed in his father’s footsteps through Art School. But in addition to his art, Jo began to write. At 17 years of age, his journals set a pathway for the rest of his life.

This book is authored by Peter Hiller, curator of the Jo Mora Trust. A fair portion of the book is printed in italics because it is drawn directly from Mora’s diaries and journals. Jo Mora was a gifted writer whose words flow easily across the page, spinning his story better than any biographer might.

In 1903 he set out on horseback to explore and draw historical California. His sketches of riders and horses and his photographs and watercolors of scenery from this trip are charming. In his saddlebag he carried a diary of Fray Crespi, given to him by his friend Charles Lummis. He spoke colloquial Spanish to fellow travelers but kept his diaries and letters home in English. He faithfully recorded the architectural details of missions he passed through, then changed gears to visit California’s Gold Country. From there he traveled the native Southwest. All the while he wrote detailed letters to his parents cataloging his daily activities. The Southwest became the inspiration of the rest of his life and art. Jo returned to California, married Grace and they raised two children while living in Mountain View. Enticing his parents to join them, Jo and his father founded Domingo and J.J. Mora, Sculptors. They accepted sculpture commissions for the Bohemian Club and many public buildings in the Bay Area. Jo designed a diorama of the Portola Expedition done for the 1939 World’s Fair. Jo Mora went on to author and illustrate

two books, *Trail Dust and Saddle Leather* in 1946, and *Californios* in 1949.

OK. So what about the good stuff? It takes 211 pages to get to Chapter 9: “Mapping History: Cartes”, (Jo Mora’s name for maps). Mora’s first two maps drawn in 1926-27 (Fig. 1) were commissioned by S. F. B. Morse (distant cousin of the telephone inventor) to publicize Hotel Del Monte in Monterey and property in Del Mar Forest. Jo’s son Jo Junior encouraged his father to expand his mapping horizon, resulting in the first version of his California map. This book includes a full-page version of the 1945 revised map, but not the 1927 original version, which many consider more interesting. His National Park maps of Yosemite, Yellowstone, and Grand Canyon were done originally in 1931 in black and white. The Curry Company asked him to produce a colored version of Yosemite in 1941, which would become perhaps his best-known map. His carte of San Diego was commissioned by department store magnate George W. Marston.

In 1942 Mora created the City of Los Angeles map, probably his most elaborate. The map was dedicated to his old friend Charles Lummis. By this time, Mora had perfected his characteristic style of many vignettes around the outside and across the face of his maps. The 1945 California map was his last map as his attention then turned towards depiction of horses and Indians.

Mora had a number of careers, sculptor, children’s book writer and illustrator, cartoonist for the *Boston Herald*, creator of dioramas and numerous works of public art. His most prolific years were spent in Carmel. There he designed and produced the important Junipero Serra Centograph in honor of that pioneer priest.

This book does not follow Jo Mora’s career in a chronological order. Various vignettes cut across his trail. The book includes numerous illustrations of his work. The author carefully chronicles where examples of his artwork can be found. Reading Mora’s story in his own words is really the highlight of this book’s examination of this multifaceted gifted artist and writer.

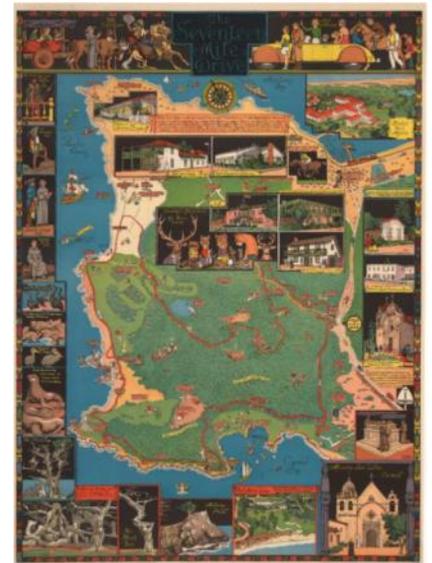


Figure 1. Jo Mora, *Seventeen Mile Drive*, 1927 (published). Image courtesy of New World Cartographic.

MAPPING HERE & THERE:  
MEETINGS AND EXHIBITS  
OF INTEREST TO MEMBERS

Due to space considerations, *Mapping Here and There* is now focusing primarily on map meetings and events in the United States. For a global perspective, readers will be directed to John Docktor's excellent website. In addition, the coronavirus pandemic has affected meeting plans locally, nationally, and globally, with many societies and venues adopting a virtual meeting format or cancelling meetings entirely until future guidelines are developed. We are only able to include the information derived from their various websites by the time of our publication.

For a more current status update, readers are encouraged to consult venues and websites directly. We will return to our regular format for meeting and event descriptions as soon as it is possible for us to do so.

A Full Calendar of Meetings and Events Worldwide is available on **John Docktor's** website at: [www.docktor.com](http://www.docktor.com)

"THE MAP MENTORS"  
A NEW CMS PROGRAM

Are you an atlas collector starting to look at wall maps? Have you been having a hard time scratching your acquisitive itch during the pandemic? Are you just starting out and trying to figure out where to find the best deals?

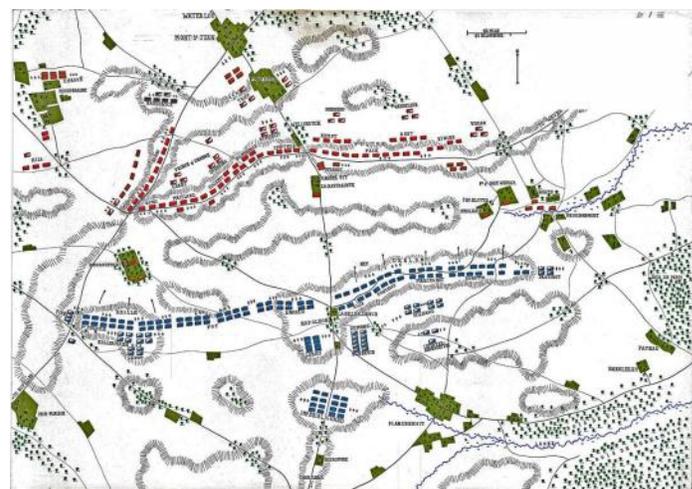
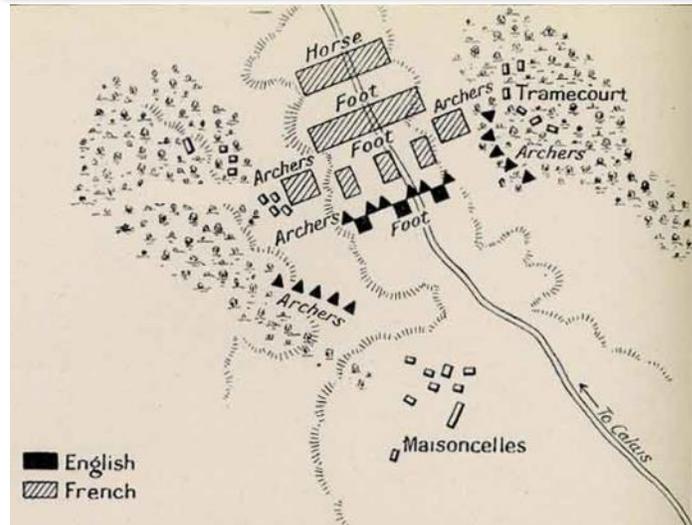
Map Mentors is the Society's informal matchmaking service to help you.

As a librarian, my institution and professional organizations were there to help me learn about vendors and auction houses. How to properly raid other universities' collections as they downsize. And how to wait for a year for the price of that expensive new electronic product to come down. A couple years ago, a member pointed out to the Society that the equivalent does not exist for the amateur collector. Hence, Map Mentors.

If you would like a Map Mentor, the Society is happy to connect you with a more experienced collector whose interests align with yours. Simply contact Jon Jablonski ([jonjab@ucsb.edu](mailto:jonjab@ucsb.edu)) and he will get you started.

CARTO-QUIZ

Name the Battle or War!



Note: Some notations have been intentionally obscured.

# O. M. MITCHEL: A TALE OF TWO CALLINGS

NICK KANAS, M.D.

Ormsby MacKnight (O.M.) Mitchel was a “Renaissance Man” with two callings: Father of American Astronomy and Civil War Hero. He was born in Union County, Kentucky on August 28, 1810. His father died when he was three, and the family moved to Ohio to be with relatives. His intelligence was recognized early on, and he was admitted to the Military Academy at West Point on June 23, 1825, receiving a special young age waiver. He graduated with honors in 1829 and was assigned to the Military Academy as an Assistant Professor of Mathematics. He resigned his commission on September 30, 1832 to study and then practice law in the rapidly growing frontier city of Cincinnati.

## Father of American Astronomy

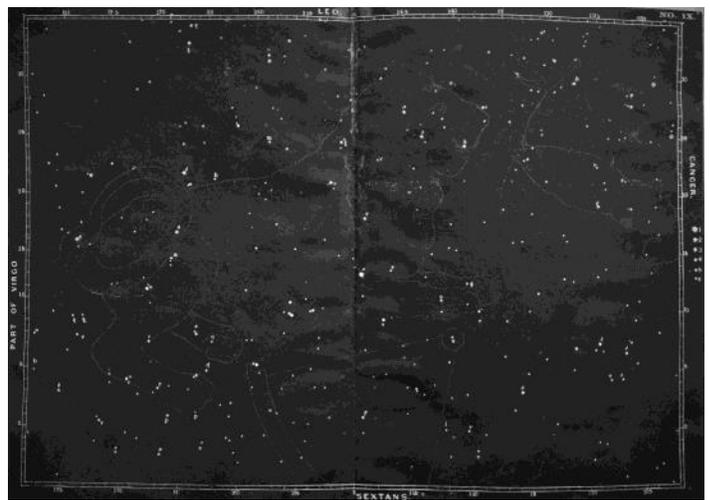
In 1834, Mitchel was appointed Professor of Mathematics, Philosophy, and Astronomy at the new Cincinnati College. Frustrated at the lack of observing facilities, he gave a series of popular lectures on astronomy and announced plans to build a major observatory funded through membership in a new Cincinnati Astronomical Society. On June 16, 1842, he sailed for Europe to study observational techniques and to find a telescope. In Munich, he purchased an excellent telescopic object glass with a diameter of over 11 inches.

Back in Cincinnati, a four-acre site was donated for the observatory on top of Mt. Ida. The cornerstone was dedicated on November 9, 1843 by former President John Quincy Adams, an astronomy supporter. Shortly before it became operational on April 14, 1845, a fire burned down the college, but the observatory was spared. Mitchel used his diverse background to earn income for himself and the observatory. He worked as a railroad surveyor and consulting engineer, was Adjutant-General of Ohio, gave popular public lectures on astronomy in several American cities, and sold railroad bonds in Europe.

The 11-inch refracting telescope was the largest in the Western Hemisphere until the installation of the 15-inch refractor at Harvard College Observatory in 1847. Mitchel directed an active astronomy program, documenting a transit of Mercury over the Sun on May 8, 1845; discovering that Antares was a double star; recording the orbital characteristics of several double stars; and making a number of observations of sunspots, planets, comets, and nebulae. From 1846 to 1848, he published the *Sidereal Messenger*, the nation’s first astronomical journal. In 1848/1849, he invented a revolving disc chronograph that allowed an observer to make and send accurate timings of celestial events, and in 1849 he invented a “declinometer” that was used for measuring differences in

stellar distances. He wrote several popular books: *The Planetary and Stellar Worlds* (1848) and its British edition called *The Orbs of Heaven, or, The Planetary and Stellar Worlds* (with his name erroneously spelled with two “L’s”); *Popular Astronomy* (1860); and *The Astronomy of the Bible* (1863). Editions of these books are available today at modest prices.

Mitchel made significant contributions to celestial cartography. He revised Elijah Burritt’s popular American astronomy book, *The Geography of the Heavens* (1833), along with its accompanying *Atlas*. Mitchel’s book revision (1848) listed both Burritt (who had died) and himself as authors and was similar in format to Burritt’s book. However, the revised atlas was quite different (Fig. 1). Entitled *Atlas Designed to Illustrate Mitchel’s Edition of the Geography of the Heavens*, it only listed Mitchel’s name, there were 24 expanded star maps (instead of six like in the Burritt version), the stars were white



**Figure 1.** A double-page star map showing the region around Leo, from Mitchel’s *Atlas Designed to Illustrate Mitchel’s Edition of the Geography of the Heavens*. Note the white stars on the black background and the faint constellation outlines.

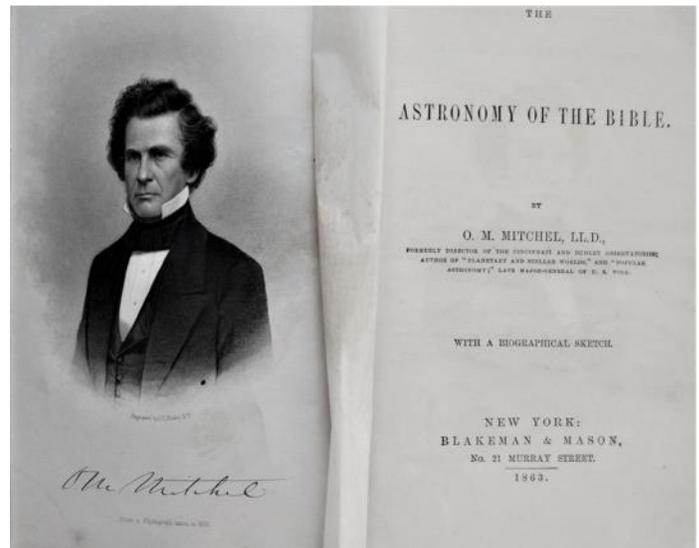
against a black background, the constellation outlines were faint, and it included images of deep-sky objects.

Mitchel also made drawings of planetary surfaces. In one of the plates from *Popular Astronomy*, there were two depictions of Mars as seen from the Cincinnati Observatory. In the lower map dated “Aug 5<sup>th</sup>, 1845” (Fig. 2, next page), there was a nearly circular white extension protruding from the left side of the polar cap at the top. This represented the area announced by Mitchel in 1846 as a mountainous region where snow persisted while the rest of the cap receded during the Martian spring. Images from robotic spacecraft have not shown mountains here but a south-facing scarp that retains frost protected from sunlight. It is still called the “Mountains of Mitchel”.

In 1852, Mitchel was asked to provide plans for the new Dudley Observatory in Albany, New York, and in 1860, he was appointed its director.



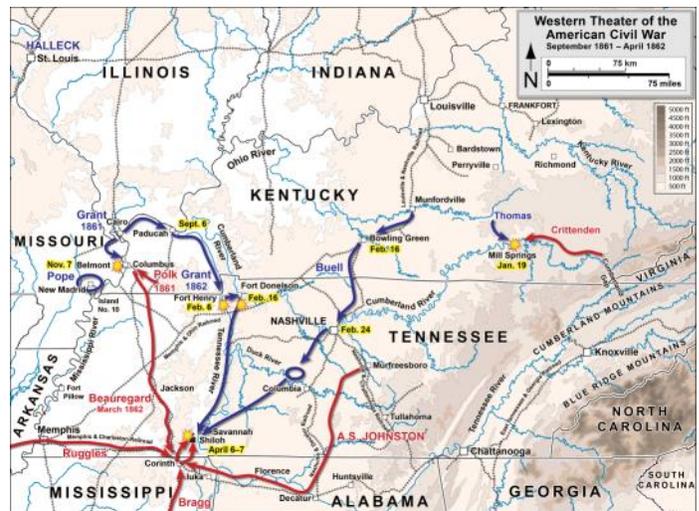
**Figure 2.** This engraving from the 1874 edition of Mitchell's *Popular Astronomy* shows two drawings of Mars made at the Cincinnati Observatory. Note in the lower image the white extension protruding from the left side of the polar cap representing the "Mountains of Mitchell."



**Figure 3.** This illustration of O. M. Mitchell is the frontispiece of his book *The Astronomy of the Bible*, published posthumously in 1863. Note his signature below the picture.

ply routes for the Confederacy. The fear was that the Confederate Army would first reinforce Chattanooga from Atlanta, then launch a counterattack going west.

In early April, James Andrews, a 33-year-old civilian quinine smuggler turned Union spy, proposed to Mitchell a daring raid to disrupt the Western & Atlantic Railroad. It involved a group of men moving south through Georgia, boarding a train as passengers near Atlanta, confiscating the train as it moved north along the Western & Atlantic line, and burning bridges and cutting train tracks and telegraph lines behind it. Simultaneously, Mitchell was to move his forces east and take over Chattanooga, which now could not be reinforced from the south. Mitchell approved Andrews' plan and helped him enlist volunteers from his division.



**Figure 4.** Map of the Western Theater of the American Civil War during the time that Mitchell was active in the area. Note the important railroad line from Memphis to Chattanooga, the city that was the destination of both Mitchell and Andrew's Raiders. Courtesy of Hal Jespersen, [www.cwmaps.com](http://www.cwmaps.com).

### Civil War Hero

When the Civil War broke out, Mitchell patriotically put his astronomical work on hold and re-enlisted in the Union Army (Fig. 3). On August 9, 1861 he was appointed Brigadier General and was assigned to fortify Cincinnati. He commanded the Third Division of the Army of the Ohio during the campaigns of Tennessee and Northern Alabama during the winter of 1861-1862, when he was involved with the occupation of Nashville, the first Confederate state capital to fall to the Union.

He moved his division out of Nashville to Murfreesboro, arriving March 20, 1862. The intention was to continue south and disrupt the Memphis & Charleston Railroad, which was part of a major west-east rail link between Memphis and Richmond (Fig. 4). In between was Chattanooga, an important rail crossing that also was the terminus of the Western & Atlantic Railroad coming up from Atlanta. Capturing Chattanooga would seriously disrupt these major sup-

Twenty-two of the men, known as “Andrews’ Raiders,” rode the rails down to Marietta, just north of Atlanta. On April 12, 1862 they boarded the train called the *General* as it was going north, and seven miles later confiscated it during a breakfast stop at Big Shanty. The departing train was observed from a hotel dining room by its conductor, William Fuller, who immediately pursued it on foot. At locations along the way, he commandeered people, a hand car, two small trains, and finally the powerful south-bound steam engine called the *Texas*, which because it could not turn around on the single track continued the pursuit in reverse! A dramatic six-hour chase transpired for nearly 89 miles. Because the *General* was delayed for over an hour at Kingston to allow south-bound trains to pass, the pursuers kept close. Despite cutting rail lines and telegraph wires, the raiders were prevented from destroying any bridges and were stopped later that day 18 miles south of Chattanooga, when the rain-soaked wood in the tender was ineffective in refueling their engine. They scattered, but all were captured and taken into custody.

Andrews and seven of his men subsequently were hanged as spies. The remaining 14 raiders were placed in prison camps. Eight later escaped to freedom, and the remaining six were exchanged for Confederate prisoners in the spring of 1863. These six were the first men in American history to be awarded the newly created Medal of Honor, which subsequently was given to 13 of their colleagues. Although the raid failed, it showed that Union troops could be just as daring and brave as Confederate troops, and it had a great impact on morale. It became the subject of several books and a Walt Disney movie in 1956 called *The Great Locomotive Chase*.

As this raid was in progress, Mitchel seized Huntsville on April 11, 1862, thus disrupting the Memphis & Charleston Railroad line. This blocked reinforcements from Chattanooga traveling west to join Confederate General Beauregard’s depleted army near Shiloh. Also on April 11, Mitchel was promoted to Major General, and on May 10 his picture graced the cover of *Harper’s Weekly*, with an accompanying article heralding his brilliant and dashing exploits in Northern Alabama. Mitchel repeatedly appealed to his boss, General Buell, who had recently participated in the bloody battle at Shiloh, to send reinforcements so that he could attack Chattanooga. Buell characteristically delayed action, and the opportunity was lost. Frustrated by this inaction, Mitchel requested reassignment. In July he was relocated to Washington, D.C., and in mid-September he was sent to command the Tenth Army Corps at Hilton Head, South Carolina. His troops captured a fort on the St. John’s River, disrupted the Charleston & Savannah Railroad line, and drew troops under General Beauregard out of Savannah. He also founded a model village populated and governed by freed negro slaves, which the inhabitants named Mitchelville. Unfortunately, yellow fever was rampant in this area, and Mitchel was stricken with this dis-

ease on October 26 and died on October 30. His body was transported north and buried at Green-Wood Cemetery in Brooklyn.

Thus ended the career of a truly remarkable American. The restored locomotive *Texas* rests in the Atlanta History Center, and the *General* is displayed in the Southern Museum of Civil War and Locomotive History in Kennesaw, Georgia (formerly Big Shanty).

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# AMERICAN RED CROSS MAP OF PARIS (1944)

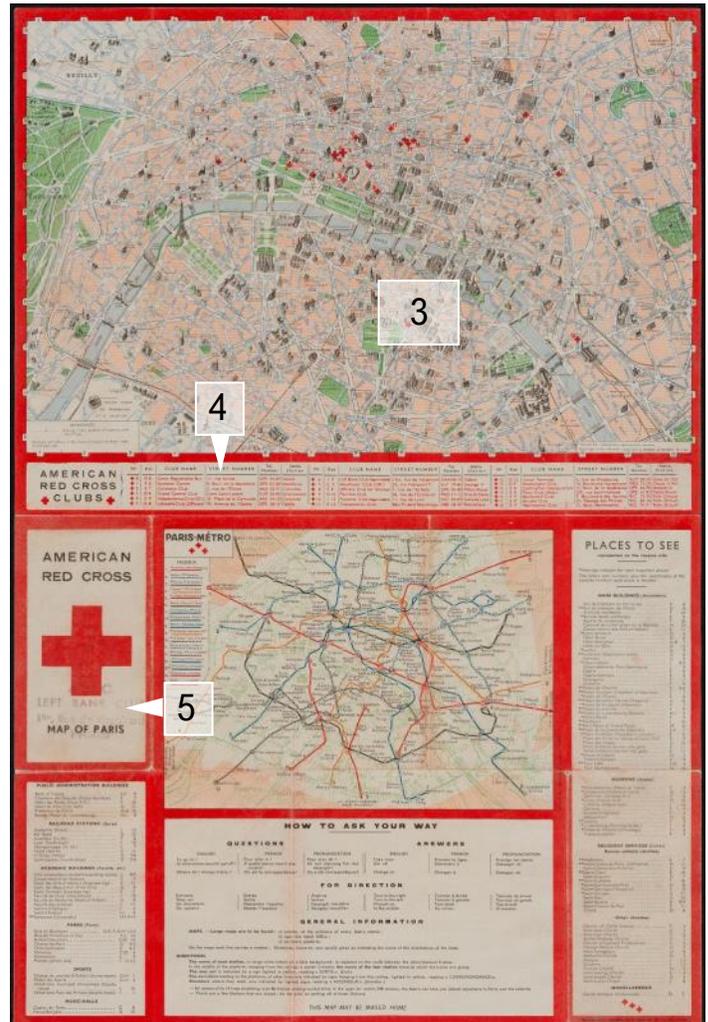
CAROL J. SPACK

PART TWO OF A FOUR-PART SERIES

**I**ntroduction. There are many ways to read a map. One of my favorites is to discover something in the map that was not necessarily drawn as a principal feature or intended as the subject of the map itself but which in fact once identified reveals another major theme of the map. This element might be the map publication date, or an image, or an unlabeled feature or a fragment of text. This revealed theme might arise from the map itself as if the map were a kind of hologram that when tipped to its side shows a competing image. This essay is about how in reading a map we might look for such clues, and in particular how we might do so where the subject matter of a map is a city or town, or urbanization itself.

This essay is an exercise about critical reading. In keeping with the theme of this edition of the *Calafia Journal*, for this four-part essay series I have chosen different kinds of town or city maps (American) published or authored in the 19th and 20th c. that I have studied in the past few years.<sup>1</sup> My research into each of these maps began with a focus on each work's art, symbolism, geography, author and explicit themes. The discovery in each instance was that hiding in plain sight was at least one feature of each map that also revealed an unanticipated story. Looking at an antique or contemporary map for camouflaged themes intrigues me for a variety of reasons. One reason is that it provides motivation to read a map deeply. Another reason is that looking for complexity in the art of each map sharpens one's eye for discerning persisting themes of American thought and culture. This kind of critical thinking eschews formulas, or ideology and permits the creative pleasure of wondering why. An antique or historic map thus revealed becomes as contemporary as the ideas it embodies.

The **American Red Cross Map of Paris** (1944)<sup>2</sup> (Fig. 1) is a small, colorful folding pocket guide on one sheet published in Paris in 1944 by the American Red Cross. American G.I.'s and the Allies entered Paris on August 19, 1944 through August 25, 1944 to liberate Paris from Nazi German occupation. On August 25 Paris was liberated, and almost immediately this map was distributed by the American Red Cross to American and allied troops, which it continued to do through 1945.<sup>3</sup> Paris after its liberation became a U.S. military leave center that relied on Red Cross Clubs operated at the request of the United States government by the American Red Cross for the American armed forces in the European theatre.<sup>4</sup> The American Red Cross acquired seventeen hotels (with staff) in Paris with a total of approximately 8,000 beds to create these clubs. By some accounts, there were throughout this period, in constant arrival or exit, over 12,000 American soldiers on leave on a two or three day pass assigned to an American Red



**Figure 1.** American Red Cross folded pocket guide, color lithograph, single sided map printed on blank verso of repurposed c. 1914 German language map of Dundalk, Ireland. Blondel La Rougery, Paris copyright 1944. See also Figure 2, next page.

Cross club in Paris. They arrived by train, truck or car. This small American Red Cross Map of Paris (**Red Cross Map**) was there to greet each service person and provide directions to his or her American Red Cross Club for lodging, meals and social life. Thus this 1944 map is a Paris city guide, an American military personnel guide and an extension of American society at home.

The color and motif of the map identify it immediately as belonging to the American Red Cross: the organization's large red cross logo is the most prominent feature on the cover<sup>5</sup>, the map sheet is framed in the same distinctive red as the map cover's logo, and appearing on the map of central Paris are 18 small, numbered Red Cross logos, one identifying the Regis-

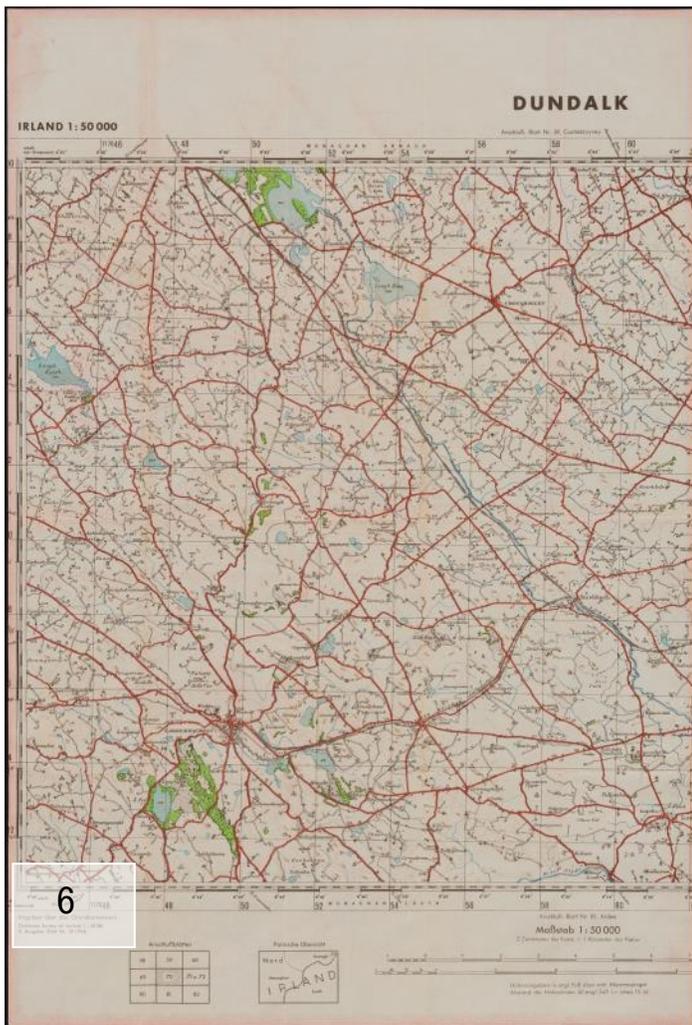


Figure 2. Verso of American Red Cross pocket guide—see Fig. 1.

tration Bureau and the seventeen others each identifying the location of an American Red Cross Club. The particulars of each American Red Cross Club are printed in red in a wide, framed chart placed just below the Paris pictorial map. Even the Paris Métro map has three small Red Cross logos, evocative of the French *fleur-de-lis*. The map's printer and copyright holder "*Blondel La Rougery, Paris 1944*" appears in the lower right margin of the map along with the admonition that the map may not be reproduced "*Reproduction, même partielle, interdite.*"

The American Red Cross designed this map for the American service members in its care. We may therefore read this map through the eyes of these intended map owners as well as through those of the American Red Cross itself. The **Red Cross Map** place names are printed in French and the many map tables are printed in French and English. Our reading of the map benefits from two kinds of scans. First, to enjoy the pictorial map of Paris with its fine details of palaces, formal gardens, cathedrals and historic monuments. Second, to parse the role of the map in the hands of the American service

members on leave in Paris and also consider how this map reveals matters not pertaining to Paris at all.

What can the style of this map tell us? Based on its style, paper, and printing technique the **Red Cross Map** looks like a 20th century map AND suspending disbelief we might readily file this title under 20th c. "tourist map." And in some respects it is. The pictorial nature of the Paris map, the bird's eye view of fine, historic architecture, large parks, and Paris' distinct neighborhoods shows Paris from the Middle Ages to the 19th century within a preserved urban plan. All of this is conveniently laid out on one small sheet for an immediate grasp of the city form and is readable while sitting on a train map in hand, or if grabbed at breakfast before heading out to be a tourist. The engaging and functional color scheme of our map uses bright green to identify parks and gardens as landmarks. The Seine is a calm blue arc running under labeled bridges, useful landmarks and Paris city blocks are colored with a soft pink to permit fine black printed street names and numerous place names to be legible. For ease of navigation the Paris map has an alpha numeric border, typical of tourist guide maps. Charts with information about "Places to See" are keyed to the map. The small paper map is also a neat souvenir, foldable in a small envelope, as the map line at the bottom of the sheet suggests - "This Map May Be Mailed Home." There is no price marked on the map—it was given out by the American Red Cross as a public service. Perhaps this also lends a carefree aspect to our ubiquitous map.

The practical content of the **Red Cross Map** is modeled on a tourist map. The tourist it is tailored for is the WWII American service person in Paris on two-or three-day leave from active duty and who is well met if curious about the city's history, culture and recreation - someone who may never have traveled at all. The American Red Cross also designed this map as an essential guide to housing, meals, entertainment and transportation. The detailed content of the guide is laid out in two maps and several printed tables. The first map, as noted, is a pictorial map of central Paris. The second map is a transportation map showing the Paris Métro, and train stations. Together, the style and content of these maps lead inescapably to the conclusion that the visitor to Paris using this map is at leisure and liberty to take the Paris Métro or to depart Paris from the international train stations to other parts of Europe. The Paris Métro map encourages the reader to explore: "*By means of its 14 lines stretching over 86.4 miles underground, 6 miles in the open air and its 348 stations, the Metro can take you almost anywhere in Paris and the suburbs...*" Thus the American Red Cross makes its *deus ex machina* appearance on the map to remove any doubt about how to get from place to place in Paris and reach essential services.

The **Red Cross Map** charts provide typical tourist guide tips for an American English speaker abroad. The chart titled "How to Ask Your Way" has English/French questions and

answers. Another chart titled "Places to See" lists "the most important places" using an asterisk system to set priorities. Under the heading "Main Buildings (Monuments)" the Tour Eiffel and Arc de triomphe de l'Étoile each have two asterisks. Among "Museums" the Louvre have two as well. "Religious Services" are organized under two sub-headings: "Roman catholic churches" of which seven churches are highlighted with asterisks, notably **\*\*Notre-Dame-de-Paris (Cathedral)**"; and "Other churches", such as the Church of Christ Scientist, American Church, Scotland Presbyterian, Main Synagogue, Mosque, Quakers, Russian Church and Saint-Lukes Chapel. If 72 hours was too short a period to visit these places, the pictorial aspect of the map could be read later. All place names in each chart are keyed to an image on this pictorial map.

What cognitive dissonance arises from this 1944 **Red Cross Map!** Imagine being handed a colorful tourist guide with drawings of fancy little buildings, a summer blue Seine and vast greenswards, gardens and a forest—the Bois de Boulogne and Paris' other formal city parks—a scant two months and two and a half weeks after D-Day, the Allied launch of the Normandy Invasion on June 6, 1944 when 156,000 American, British and Canadian troops landed on Normandy beaches and fought their way into France through German fire. No trace to be found on this map of Allied battles that drove Nazi German army units east from Normandy, of ruptured bridges and abandoned military vehicles as shown on certain U.S. regimental pictorial maps, such as those of the U.S. 79th Regiment Division.<sup>6</sup> Blondel La Rougery of Paris, the map printer, drew upon a map library of pictorial French tourist maps ready to go, descendants of Turgot's 1739 view of Paris and 19th c. editions with detailed axonometric drawings of every building in central Paris, of the Seine with wooden barques and ornate spires on Notre Dame. The American Red Cross designed its Map of Paris with Blondel to embody an immediate albeit brief resumption of normalcy for its WWII combat clients on leave in Paris.

The one new "military" element in the **Red Cross Map** are the symbols and text on the map about the new American Red Cross Central Registration Bureau and seventeen American Red Cross Clubs in Paris. The Club names on the "American Red Cross Clubs" chart (Fig. 4) illustrate the variety of U.S. military personnel in Paris. The small text of this chart uniquely is in red. The small font on this map relays outsized information.

Hiding in plain sight within this "American Red Cross Clubs" chart among club names with literal

No	Key	CLUB NAME	STREET NUMBER	Tel. Number	Metro Station
0	+	Centr. Registration Bur.	11, rue Scribe	OPE 93-09	Opera
1	E 8	Rainbow Corner	8, Boul. de la Madeleine	OPE 03-80	Madeline
2	E 7	Columbia Club	2, rue de l'Elysee	ANI 52-51	Concorde
3	D 8	Grand Central Club	Gare Saint-Lazare	EUR 36-80	Saint-Lazare
4	E 9	Independence Club (Of.)	10, Place de la Concorde	ANI 24-10	Concorde
5	E 8	Lafayette Club (Officers)	39, Avenue de l'Opera	OPE 58-16	Opera
6	+	Left Bank Club (Negro-staffed)	1 bis, rue de Vaugirard	DAN 88-10	Odéon
7	E 5	Mayflower Club (Of.)	53, rue François-1er	ELY 79-86	George V
8	F 8	Officers Club for Women	7, rue de l'Echelle	OPE 04-80	Palais-Royal
9	D 10	Pavillon Club	36, rue de l'Equiquier	PRO 17-15	Siro-St-Denis
10	E 9	Polomac Club (Negro-staffed)	11, rue de Lyon	DID 05-09	Gare de Lyon
11	E 12	Transatlantic Club	8bis, Pl. de la Republique	OBE 58-20	Republique
12	+	Union Terminal	5, rue de Strasbourg	BOT 58-50	Gare de l'Est
13	D 9	Washington Club	136, Boulevard Haussmann	PRO 72-29	Chaus-sée d'Ant.
14	E 9	Continental Headquarters	16, Boul. de la Madeleine	OPE 44-99	Madeline
15	E 9	Patio Club (Wac)	9, Boulevard des Italiens	RIC 75-35	Rich.-Drouot
16	E 9	Boleyn Club	24, Passage des Princes	RIC 83-16	Rich.-Drouot
17	E 9	Arcade Club	21, Boul. Montmartre	RIC 91-71	Rich.-Drouot
18	+	Montmartre Club			



Figure 3. Portion of map showing location of No. 6 "Left Bank Club (Negro-Staffed)"

Figure 4. Listing of the American Red Cross Clubs in Paris.

meaning, history references, and place names are terms with meanings in code. Information in parenthesis following certain club names is a code that left no room for ambiguity, the American Red Cross author's goal and the client's need. For the 1944 American service person the "American Red Cross Clubs" chart was necessary reading as it is for our study of this guide map as we apply the second kind of scan referred to above. These terms confirm that even when they were on leave in Paris as tourists, American service personnel lived and worked in a ranked society, and a racially segregated American army.

It is simple enough to read down the Club list chronologically from No. 0 ("Centr. Registration Bur.") to No.18 ("Montmartre Club") and across each column to learn the club address, telephone number and Paris metro station. Some club names are literal and denote military rank required to enter, others former hotel names, local historic events or individuals. Some club names require additional cues. For example, no.4, the "Independence Club (Of.)" and No. 5 "Lafayette Club (Officers)" are two of three clubs reserved for officers. The terms in parenthesis are an unambiguous cue. No. 15 is "Patio Club (Wac)" the cue in parenthesis addressed to Women's Army Corp personnel. No. 8 "Officers Club for Women" is a self explanatory, literal club name.

By itself on the southern bank of the Seine, No. 6, "Left Bank Club (Negro-Staffed)" at Rue Vaugirard near the Sorbonne (Fig. 3) has a different set of cues than those for clubs designated for service women or ranking military officers. One cue for Club No. 6 is its map lo-

cation, a historically avant garde neighborhood consisting of the 5th and 6th arrondissement that also includes the Latin Quarter. This unique and solitary geographic club placement was a choice by the American Red Cross and perhaps the U.S. Military command. Certainly the terms in parenthesis on the Red Cross Club Chart for the Left Bank Club, while not immediately obvious as to their full meaning, are not ambiguous about there being a racial distinction to this club. The terms "Negro-Staffed" are meant to denote that this club is for African American U.S. Army men as is Club No. 10, the "Potomac Club (Negro-Staffed)." That a "whites only" term does not appear on the *American Red Cross Clubs* chart for the fifteen other clubs also reflects an official American Red Cross and U.S. military policy that segregation's cues themselves followed certain rules. The author of the map's club chart and all of the readers of the map's club chart well understood the rules. The male soldiers on leave to visit Paris were coming from a racially segregated army.<sup>7</sup> By contract, the women of the Women's Army Corp (WAC) were not. Notably the American all volunteer Stage Door Canteen was open to all.<sup>8</sup>

A distinguishing feature of our example of the **American Red Cross Map of Paris** is a large purple ink stamp: "*A.R.C. LEFT BANK CLUB 1 bis, Rue de Vaugirard, Paris*" on the



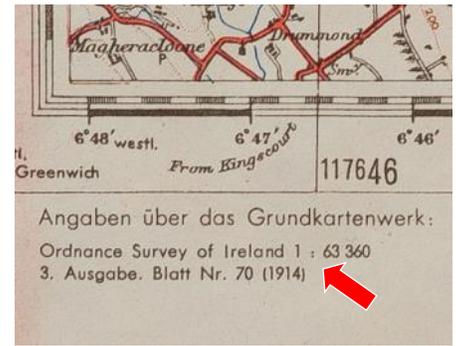
**Figure 5.** Purple stamp appearing on the author's copy of the American Red Cross Map of Paris.

cover. The ink stamp (*Fig. 5*) refers to club No. 6 described above. The American Red Cross likely stamped the cover. This map therefore would have been of particular interest to an African American serviceman and may have been brought back to the United States by him at the end of WWII. I do not know if generally **Red Cross Map** guides had similar ink stamps with the club name on the covers.

There is a final non-Red Cross element that distinguishes our map and offers insights about conditions in Paris after August 25, 1944. The format of our map is designed as a single sided map. Our map was printed in Paris immediately following Paris' liberation and should be understood in the context of 1944 shortages in the French civilian population of food, fuel and medicine. Our example of the **Red Cross Map** is printed on paper Blondel La Rougery repurposed from its old

map print runs and thus illustrates a paper shortage even for a client paying for thousands of maps. Our map is printed on the blank verso of a panel of a German language topographic map (*Fig. 2, page 16*) section titled "Dundalk" in the top margin, the lower left corner reading "Ordnance Survey of Ireland...Blatt Nr. 70 (1914)." Dundalk, County Louth is on the north east coast of Ireland, just below Northern Ireland. (*Fig. 6*) I am aware of no connection between 1944 Paris and 1914 Dundalk.

This last feature on the verso of our American Red Cross map sheet challenges the overall premise of the two maps of Paris on the front of the sheet that life and tourism in Paris have returned to normal, and that historic central Paris is the same as it ever was before Nazi German occupation. Blondel de la Rougery likely did not anticipate in the near term needing a map for German speaking customers. Therefore, repurposing blank paper on the back of German text seems logical. The cumulative trauma in Paris of Nazi occupation, the deportation from France to concentration camps and intended genocide of its entire Jewish population, and others, and the ongoing Allied fighting in the WWII European theatre to defeat Nazi Germany are the context for the printing of our map. Thus, hiding in plain sight, on the back of our map is further cartographic proof that this map was printed locally in wartime when certain social and political realities in both the United States and France would dictate not only the imagery and coded text of the **American Red Cross Map of Paris**, but the paper on which it was printed.



**Figure 6.** German language notation on verso of Red Cross Map.

#### Endnotes

<sup>1</sup> The six maps in this four-part essay series are: **Map of the Town of Ellsworth Hancock Co. Maine from Actual Survey by D.S. Osborn**, E.M. Woodford, publ., Philadelphia, 1855 [please see April, 2021 issue.]

**Georgia. Daniel Sturges, Surveyor General of Georgia** (manuscript) *Certified Survey Plan dated April 21, 1808*, Milledgeville, Georgia

**American Red Cross Map of Paris.** Blondel La Rougery, Paris 1944

**Seattle Transit System Operation as of May 12 1940.** [Seattle, Washington]

## Map of the Mining Claims Butte and Vicinity Montana

Compiled and Published by Harper, Macdonald & Co.  
Butte, Silver Bow County Montana 1907

## Map of the City of Boston Massachusetts

Published by The City Planning Board November 1926.  
[Boston, Massachusetts]

<sup>2</sup> American Red Cross folded pocket guide, color lithograph, single sided map printed on blank verso of repurposed c. 1914 German language map of Dundalk, Ireland. Blondel La Rougery, Paris copyright 1944

Dimensions: 14 1/4" x 20 1/4" open

Condition: professionally flattened, some wear at fold lines, good color

For full map particulars and in some cases an extensive essay on each of the maps cited in this Calafia series please read further at [www.spackantiquemaps.com](http://www.spackantiquemaps.com).

<sup>3</sup> The American Red Cross Map of Paris was given out to soldiers and civilians who visited Paris after its August, 1944 liberation by the Allies. [Red Cross Map of Paris | From the Collection to the Classroom](#)

<sup>4</sup> For a critical view of the U.S. Army's role and behaviour during the liberation of Paris, please see, [American Crimes and the Liberation of Paris: Robbery, Rape and Murder by... - Kenneth D. Alford - Google Books](#)

For a discussion of the American soldier's arrival in Paris and cautionary travel guides published by the U.S. Army for soldiers entering Paris please see: ["A Delirious Welcome to Anyone in Uniform:" The GI Experience in Paris, July - September 1944 - A Delirious Welcome to Anyone in Uniform: The GI Experience in.pdf](#)

<sup>5</sup> Please see for history of the Red Cross logo, [Red Cross Emblem Symbolizes Neutrality, Impartiality](#)

<sup>6</sup> For an extensive discussion of segregation in American Red Cross Clubs and the U.S. Army please see [American Red Cross Clubs for blacks in WWII Paris – Auction Finds](#). An 1945 edition of our map is shown and discussed, with additional references to African-American newspapers and experience during WWII.

<sup>7</sup> The American all volunteer Stage Door Canteen that began in WWII as a single location in New York City, and spread to other American cities, and Paris and London was heralded for non-segregated access. [The Original Stage Door Canteen | The National WWII Museum | New Orleans](#)

<sup>8</sup> The 1945 edition of the **American Red Cross Map of Paris** was apparently double sided, with the pictorial Paris map laid out back to back with the Paris Métro Map and charts. See n. 6 above.

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# “SUITABLE FOR SHOOTING” GERMAN WWII MAPPING OF FRANCE

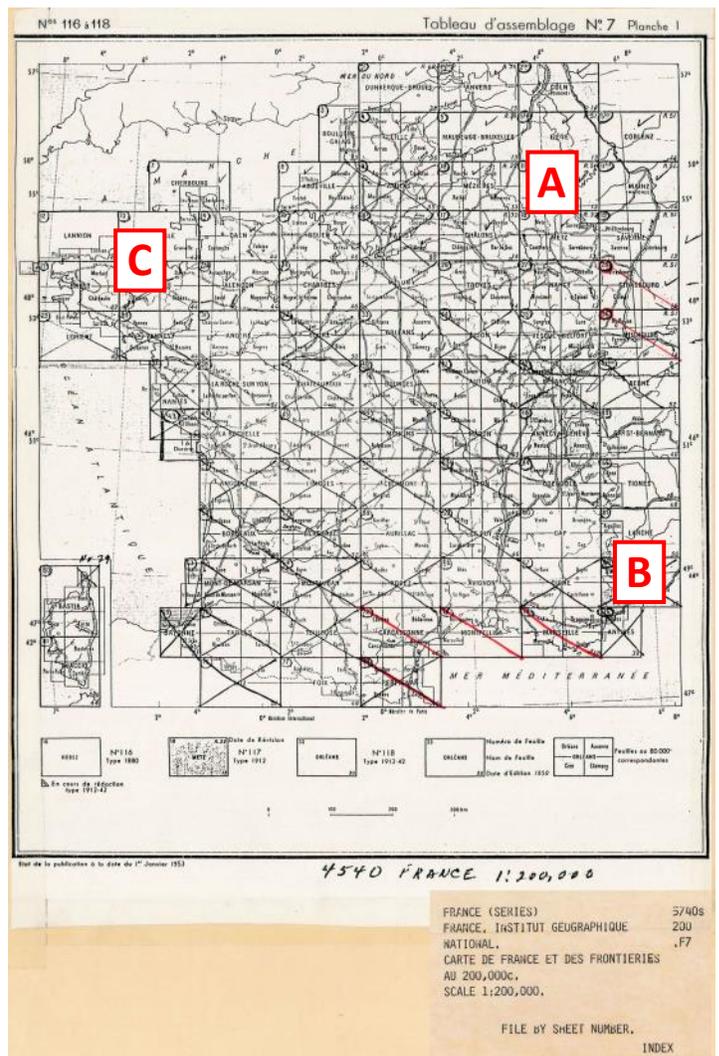
SUSAN POWELL

During World War II (WWII) the German military had great interest in creating detailed and accurate maps of strategic areas of France. However, this was not an easy task and required different strategies and methods for different regions of the country. Wartime mapping products also were published with less finesse than those published during peacetime national mapping programs. German topographic sheets of France produced during WWII were released in various stages of update and with varying standards in order to meet the most urgent needs of wartime operations. Military planning and shifting front-line conditions dictated the geographic focus, while the cartographers made do with whatever source materials were available resources.

The *Frankreich 1:25,000* map sheets published by the German military during WWII illustrate the difficulties of producing consistent and accurate mapping during wartime. Nearly 500 of these sheets captured from the German military were distributed by the Army Map Service in the post-war years to the University of California Berkeley (UCB) Library. The UCB Earth Sciences & Map Library recently scanned and made these sheets available online as part of the WWII German Captured Maps Collection (Powell and Mühr, 2020).

The *Frankreich 1:25,000* topographic map set covers France at a scale detailed enough to show individual cultural landmarks and buildings. To create this map set, German military cartographers drew on a variety of source maps that came out of the deep and rich tradition of French topographic mapping and scientific cartography. The nineteenth-century mapping series known as the “Carte de l’Etat-major au 1:80 000” was remarkable for its time and covered the entirety of France. It also served as the basis for smaller-scale mapping series of France, such as the 1:200,000 and 1:600,000 series. In the first part of the twentieth-century, the French began a more detailed national mapping program at a scale of 1:50,000, as well as surveys initiated during World War I at the even more detailed 1:20,000 scale (known as “Plans directeurs”). The detailed French mapping and surveying initially focused on the militarily-significant eastern border areas of France, and work on this project was far from complete by the beginning of WWII (it was not completed until the 1970s) (Böhme, 1989).

The German military mapped France at various scales during WWII. For interior areas of the country, the smaller-scale map sets, which gave less detail, were sufficient. For example, the smaller 1:200,000 scale set required only 78 sheets to cover the entire country, as seen from the index (Fig. 1). The



**Figure 1.** Index to the 1:200,000 French map set showing complete coverage of France in 78 sheets at this scale (UCSB Library).

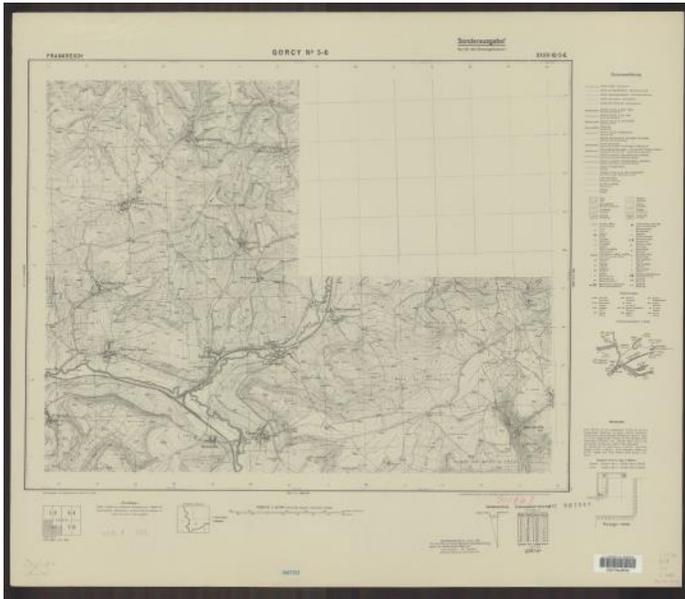
**KEY:** A = Fig. 2; B = Fig. 3 & Fig. 4; C = Fig. 5

1:200,000 sheets could also be based directly on the existing French set and therefore required much less effort to update. In contrast, the 1:25,000 set would take thousands of sheets to completely cover France. Additionally, because there were no pre-existing maps at this scale of France, all of the sheets produced at 1:25,000 required some adaptation from existing sheets. This meant that the Germans had to prioritize which sheets of the detailed and labor-intensive 1:25,000-scale maps to produce. The locations selected to be mapped by the Germans reveal that the coastal and border regions were of primary importance to the German military.

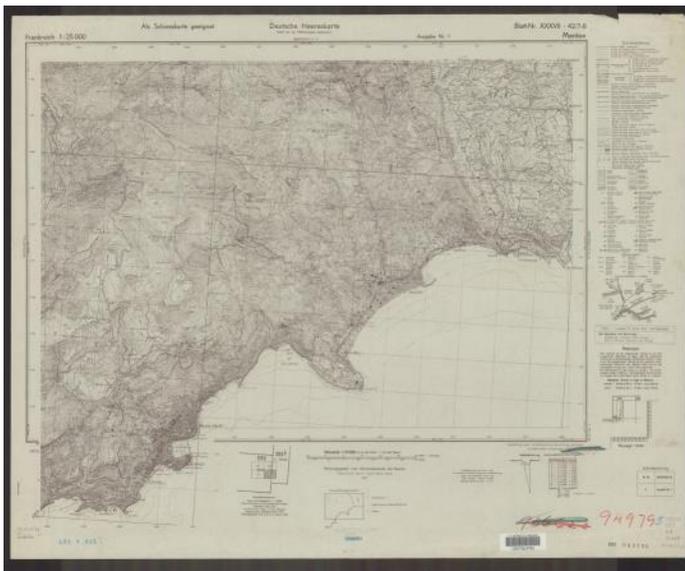
For some regions of interest, the German military cartographers could draw on existing large-scale mapping produced earlier by the French, such as the 1:20,000 maps. In addition to being more detailed, these maps also had the advantage of using a newer triangulation network which intersected with the German triangulation network (“German Cartographic and Map Collecting Agencies: The Geodetic Bases of German Cartography” 1948). This meant that the Germans did not

have to update the reference systems of sheets based on these maps.

Two examples in the UCB collection of *Frankreich 1:25,000* sheets derived from the large-scale 1:20,000 French



**Figure 2.** The Gorcy 5-6 sheet (No. 32:10/5-6) from the *Frankreich 1:25,000* set was published in 1939 and is an early example of German large-scale mapping of France.



**Figure 3.** The Menton sheet (No. 37:42/7-8), also from the *Frankreich 1:25,000* set, was published in 1943 as a “Deutsche Heereskarte” and shows some additional standardization.

maps are the Gorcy 5-6 sheet (No. 32:10/5-6) published in 1939 (Fig. 2) and the Menton sheet (No. 37:42/7-8) published in 1943 (Fig. 3). Both of these sheets cover areas in eastern France: Gorcy 5-6 along the French/Belgian border, and Menton along the French/Italian border, including a portion of the coast along with Monte Carlo and Monaco. The detail reproduced on these maps is very fine, including details such

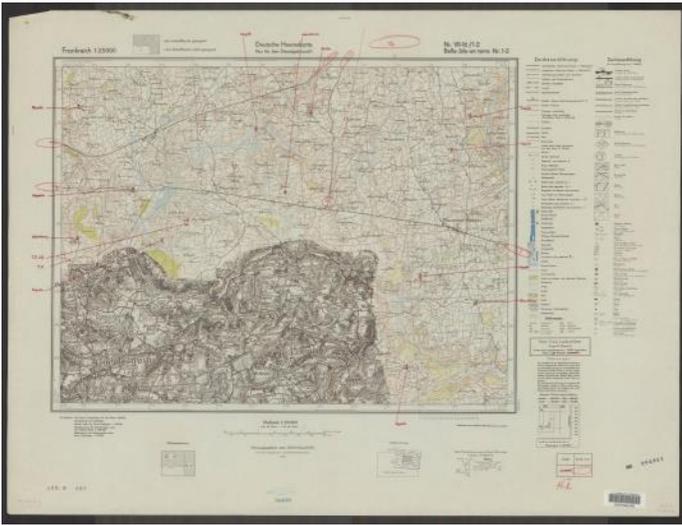


**Figure 4.** Detail from the Menton sheet (No. 37:42/7-8) showing roads, buildings, and cliffs along the coast.

as urban landmarks and perspective drawings of the coastal cliffs (see Fig. 4). The map of Menton, published five years after the earlier Gorcy 5-6 sheet, includes some additional features in the margins such as a “bundling diagram” (*Ballenbezeichnung*) that reports key information in a standardized way—and is a first edition of the “Deutsche Heereskarte” standard. The differences between these two maps reflect the increasing standardization of the German wartime mapping efforts.

As noted above, prior to WWII, France had not yet completed detailed mapping for all regions. For areas of strategic interest that lacked pre-existing detailed mapping, German military cartographers were forced to get creative. Because the old 1:80,000 French maps were tied to an outdated and less accurate geodetic network, re-mapping these areas also required significant work to align with contemporary German triangulation networks (“German Cartographic and Map Collecting Agencies: The Geodetic Bases of German Cartography” 1948).

The UCB WWII German Captured Maps Collection includes another sheet from the *Frankreich 1:25,000* set that illustrates many of these difficulties. This particular sheet—Belle-Isle-en-terre Nr. 1-2 (No. 7:16/1-2)—covers a part of the Brittany region of France near the northwest coast and was printed in 1943 (Fig. 5, next page). Sources listed on the sheet include triangulation data from the old 1:80,000 scale map series of France, measurements from aerial photographs (only available for a portion of the sheet), placenames from the 1:80,000 French maps, road classification information from commercially produced 1:200,000 Michelin maps, and contour lines and elevation points from old French survey documents at a scale of 1:40,000. German military cartographers had to contend with this wide variety of geographic scales and types of cartographic information in order to create the new mapping.



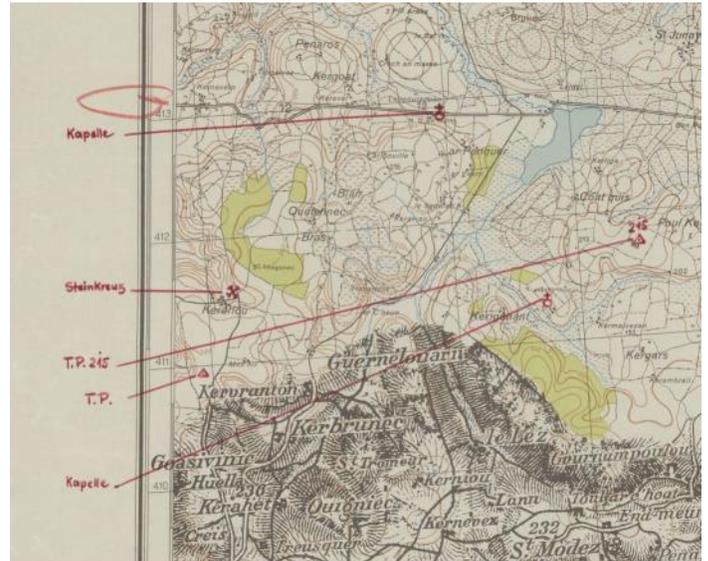
**Figure 5.** The Belle-Isle-en-terre Nr. 1-2 sheet (No. 7:16/1-2), also from the *Frankreich 1:25,000* set, was published in 1943. Cartographers drew on a wide range of source materials to produce this updated, detailed mapping.

The 1943 edition Belle-Isle-en-terre sheet illustrates the quick production schedule forced by the war. The need to produce, print, and distribute maps with the latest intelligence was more critical than waiting for complete, updated information for a given sheet. As can be seen, this particular sheet was printed without updated mapping for some areas, as the current aerial photograph data only covered a portion of the area. The air photo coverage is documented in the margins of the map (Fig. 6). The cartographers added additional clarification with a marginal diagram indicating which portions of the map were suitable for shooting ("Als Schießkarte geeignet") and which were not ("Als Schießkarte nicht geeignet").

The Belle-Isle-en-terre map is an example of how German cartographers worked throughout the war on updates. The German military viewed this mapping as an ongoing project, not only in terms of the accuracy of the terrain and cultural features, but also the accuracy of how the map sheets fit together. On the particular copy of the Belle-Isle-en-terre sheet held by UC Berkeley, a surveyor has left hand-written notes marking the location of survey points. The sites of most of these points are likely horizontal triangulation survey markers inserted into stable cultural features, such as chapels ("Kapelle") or stone crosses ("Steinkreuz"). Others are marked with "T.P." to indicate a turning point, where the surveyor



**Figure 6.** Detail of flight diagram. It indicates the dates and coverage of the air photos used to update the map.



**Figure 7.** Detail of hand-written survey markings.

would place their transit, theodolite, or level gun (Fig. 7). Differences in map sheets within a single topographic set can illuminate the impact of the realities of wartime mapping. Patterns emerge between different regions of a country, between different strategic locations within a region, and even between areas on a single sheet. These sheets tell compelling stories of the pace and nature of wartime cartography.

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**Susan Powell** is the GIS & Map Librarian at the University of California Berkeley, where she manages the library's physical map, air photo, and geospatial data collections and helps patrons use them in research and teaching. She also serves as the subject liaison for Berkeley's geography department. Susan's research interests include digital transformation of collections, spatial humanities, and Mongolian studies. She holds a BA in Geology from Oberlin College and both an MLIS and an MA in Geography from Indiana University - Bloomington.

# A UNIQUE U.S. STATE DEPARTMENT WORLD WAR II GLOBE

LEONARD A. ROTHMAN, M.D.

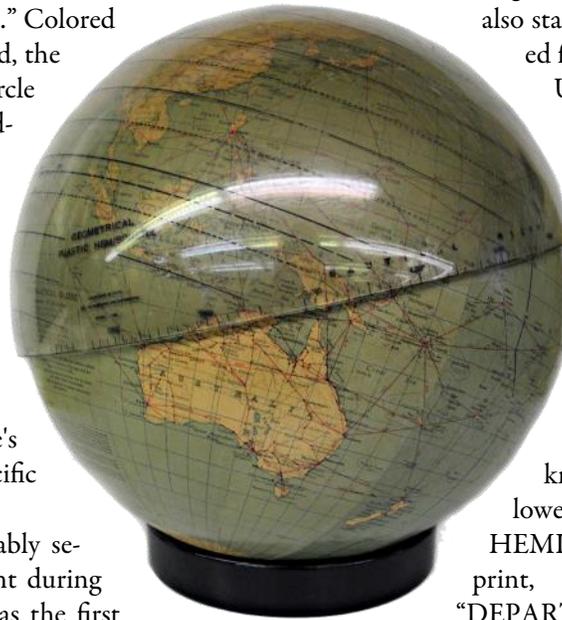
A personal favorite in my globe collection, this U.S. State Department World War II globe (Fig. 1, center) is simply titled “AERONAUTICAL GLOBE.” Its description, printed directly on the globe, notes that it is a “12-inch terrestrial table globe” (12.12in with circular base stand), with “copyright by Weber Costello Company except as to modifications made in material added by the GOVERNMENT OF THE UNITED STATES.” Colored in pale green for water and tan for land, the globe also delineates the “great circle course,” as well as “certain 1937 boundaries in Europe and for Japan and the USSR, other boundaries including new *de facto* and peace treaty boundaries, state or provincial boundary frames for island groups.” The scale, as determined on the globe, is 1:41.375.000, with 653 miles to one inch. These empirical statements are verified on the globe’s legend, which is located on the Pacific Ocean.

This aeronautical globe was probably selected for use by the U.S. government during this period in history because this was the first war in which the United States military could fly rapidly to any place in the world. The information contained on the globe would enable accurate planning and assessment, as the globe includes multiple red lines, which indicate distances in miles.

There is a hole at the center of the Arctic and the center of the Antarctic, indicating that the globe was originally manufactured to rotate on a stem that was mounted permanently on a base. Presumably, the government cartographers purposely removed the stem and mounting but did not attach the globe onto a ring base. This provided the potential for omni-directional rotation for easy study of any area of the earth. Interestingly, this is the same mounting as that used for the 50-inch globe, also by Weber and Costello, which was presented to President Roosevelt and other officials by the Defense Department.

**Figure 1.** (Central image above) Weber and Costello Company, globe. Image courtesy of Murray Hudson, Antique Maps, Globes, & Prints. All other images courtesy of the author.

*Quotation marks are used to identify empirical statements on the globe and its Lucite (acrylic) cap.*

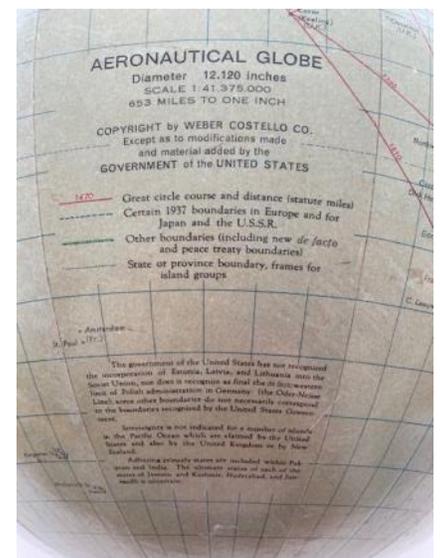


The bottom part of the legend on the globe itself (Fig. 2) states that: “The government of the United States has not recognized the incorporation of Estonia, Latvia, and Lithuania into the Soviet Union, nor does it recognize as final the *de facto* western line of Polish administration in Germany (the Oder-Neise Line) and do not necessarily correspond to the boundaries recognized by the United States government.” It

also states that “The sovereignty is not indicated for certain Pacific Islands claimed by the United States, and also by the United Kingdom, or New Zealand.” Finally, the legend states: “Adhering princely states are included within India and Pakistan” and that “The ultimate status of each of the states of Jammu and Kashmir, Hyderabad, and Junagadh is uncertain.”

The globe includes an extremely rare, perfectly fitting lucite cap—so rare that no other well-fitting cap is known to exist. The title appears near its lower edge: “GEOMETRIAL PLASTIC HEMISPHERE” and, just below, in small print, appears the attribution: “DEPARTMENT OF STATE DIVISION OF

GEOGRAPHY AND CARTOGRAPHY MARCH 1944.” (Fig. 5, next page) The cap, with its vertical and horizontal lines, (Fig. 3, next page) can be used to determine the latitude and distance of any location on the globe. Area can be determined by its 1.5x1.5 inch square, (Fig. 4, next page) which is placed near the bottom edge, indicating square miles. The square has 100 internal .25x.25 inch squares, which can be used to determine smaller areas. Finally, also on the lower edge of the hemispheric cap, is a circumferential nautical meter, as well as a



**Figure 2.** Weber and Costello Company, globe, legend.

statute mileage meter. These tools enable the calculation of distances and exact locations for meetings, rescues, the distribution of soldiers and supplies, bombing run distances, and bombing locations with their areas of collateral damage.

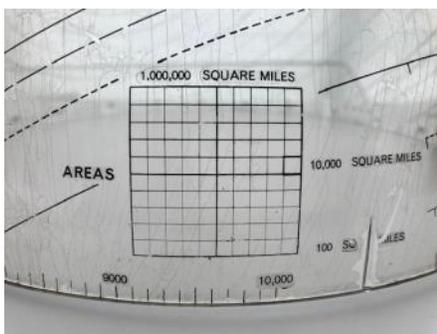
While this globe did not have the accuracy of the navigational and bombing instruments in airplanes of the period, large globes, and large maps, it provided an excellent visual tool for planners on the ground, and appears to be a pre-cursor of the virtual visualization of distant military plans of action and instant documentation of results that is available today.

The Weber Costello Company delivered globes, maps and other educational supplies to schools and the general public, as well as to all levels of government. It was located in Chicago, Illinois, and was a member of informally-competing Chicago globe-makers of the late 19th to mid 20th century. The group included Weber Costello, Cram, Replogle, Denoyer-Geppert, Rand McNally, and Nystrom. These companies sold both to the public and to each other. They either made the gores themselves or had them created in England.

The Weber Costello Company's ancestral history is well known. In Chicago, the Holbrook Company appears to have morphed into the A.H. Andrews Company, which made globes in the 1860s. The Andrews Company bankrupted. Then, the C.F. Weber Company, which was originally Los Angeles-based, bought the Andrews globe division and continued to manufacture globes in Chicago. In 1907, either by a sale or merger, the Weber Company became the Weber Costello Company, which produced globes from 1907 to the mid-20th century, and then dissolved into history.

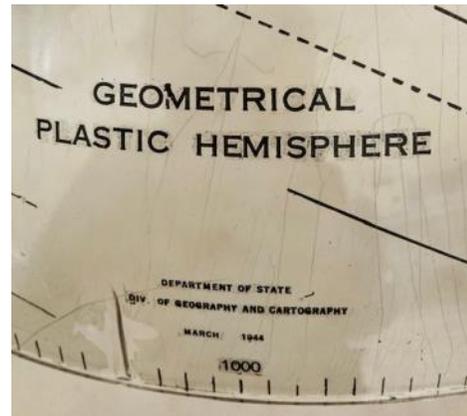


**Figure 3.** Weber and Costello Company, globe and cap, applications for use in determining distances.



**Figure 4.** Weber and Costello Company, globe cap, applications for use in determining area.

The U.S. government statements on this globe, and the “Department of State 1944” date imprinted on the lucite hemispheric cap, document this globe's position as a United States Government World War II war globe. It is significant that there are to date very few known copies of the globe and no other known copy of a perfectly fitting hemispheric cap. (Fig. 5) The apparently secretive scarcity, and the general lack of references or information regarding its status and history, also add to its unique position as a definitive and possibly the official United States World War II Globe.



**Figure 5.** Weber and Costello Company, portion of globe cap showing date (1944).

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# THE LONG SHADOW OF VIENNA'S MILITARY GEOGRAPHICAL INSTITUTE AND ITS SPEZIALKARTE 1:75,000

HEIKO MÜHR

Beginning in the 1840s, the Kaiserliches und Königliches Militärgeographisches Institut, (*Fig. 1*) the Imperial and Royal Military Geographical Institute of the Austro-Hungarian monarchy, published thousands of quality topographic sheets covering much of Central and Eastern Europe, areas where the Habsburg empire had strategic interests. The Institute had been created in 1839 through a merger of two older Habsburg mapping institutions, the Imperial and Royal Military Geographical Institute (Milan, Lombardy) and the Topographic-Lithographic Institution of the Imperial and Royal General Quartermaster Staff (Kretschmer, 2004).

In 1841, Joseph Freiherr von Skribanek, (*Fig. 2*) a staff officer with extensive mapping experience, became director of the Militärgeographisches Institut. Skribanek, a scientifically-minded officer, was able to secure the reestablishment of the Ingenieur-Geographen Korps, the Corps of Topographic Engineers. His extensive experience as cartographer, and his interest in printing technology skillfully guided the new institution. In 1851, the Militärgeographisches Institut received special recognition when its maps of the Vienna region and of Italy, produced under Skribanek's supervision, won the Council Medal of the Great Exhibition at the Crystal Palace in London.

The quality of the Habsburg mapping program was greatly extended by the Military Geographical Institute's adaptation

of the Bessel Ellipsoid, which fit especially well with the geoid curvature of Europe. The ellipsoid data, published in 1841 by Friedrich Wilhelm Bessel, a professor of astronomy at the University of Königsberg, were then the best and most modern data available for mapping the figure of the Earth. Another forward-looking innovation instituted by Skribanek was the use of the metric system from the beginning of his tenure, even though the Austro-Hungarian monarchy did not adopt the system until 1871.

In recognition of the high quality of their work, Austrian surveyors were admitted into neighboring countries. The Military Geographical Institute made a sustained effort to survey and map southeastern Europe, and geodetic base points in Romania were measured during the 1855-



**Figure 2.** Joseph Freiherr von Skribanek (1788-1853). Lithograph by Josef Kriehuber, 1850. Source: Wikimedia Commons.

1857 Austrian occupation of the area which followed the Crimean War. Austrian geodetic surveys of the European territory of the Ottoman Empire, carried out within the framework of the International Arc Measurements covered much of the Balkans between 1871 and 1875. The Greek government also requested assistance with surveying and mapping the Greek national territory. An Austrian geodetic mission worked in Greece until 1896, and trained local personnel there. Astronomical observations were obtained throughout the Balkans, mainly along the specific travel routes of the surveyors. Other points, primarily mountain peaks, were determined by triangulation



**Figure 1.** The building in the center housed the Militärgeographisches Institut. Parade grounds, Josefstädter Glacis, Vienna, Austria, 1860. Unknown photographer. Source: Wikimedia Commons.

(intersection) from the astronomical points. These datasets were later used in the compilation of the Austrian 1:75,000 and 1:200,000 map series which were published by the Military Geographical Institute (Kovács and Timár, 2009).

The Franzisco-Josephinische Landesaufnahme (1869 to 1887), also known as the Third Military Mapping Survey of the Austro-Hungarian Empire, resulted in further important advancements in the quality of survey work and terrain mapping. It was conducted by plane table, based on a new framework of horizontal and vertical control points, which met



**Figure 3.** Globe on the roof of the building in Vienna, Austria, which was occupied by the Militärgeographisches Institut until 1920. Peter Haas, photographer. Source: Wikimedia Commons.

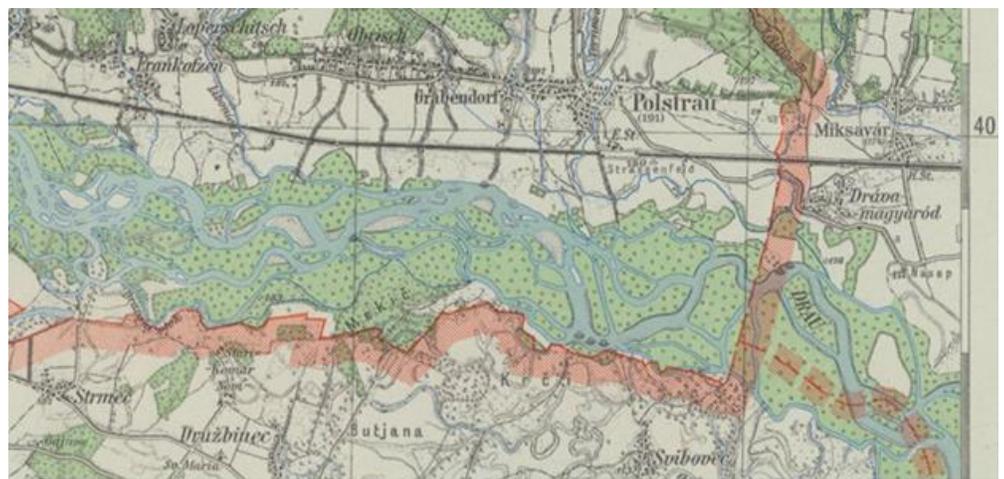
current European level measurement standards. Recording sheets on a scale of 1:25,000 were created to document the progress of the work, and Transylvania, Hungary, and the Austrian Tyrol were the first crown lands to be surveyed. Coastal areas were covered with the support of the Hydrographic Office in Pola, Istria, and surveys conducted in Bosnia and Herzegovina, administered by Austria-Hungary since 1878, completed the Third Military Mapping Survey of the Austro-Hungarian Empire. In total, the Franzisco-Josephinische Landesaufnahme survey consisted of 2,780 topographic recording sheets, which covered all the crown lands of the Habsburg Empire (Regele, 1955).

The Militärgeographisches Institut issued a number of iconic map series, including the *Spezialkarte der Österreichisch-Ungarischen Monarchie im Masse 1:75,000*. The Institute produced a total of 752 quadrangles in this legendary map

series between 1873 and 1889, covering the entire Habsburg empire. The *Spezialkarte* sheets were derived from the 1:25,000 recording sheets. Compiled on the polyeder (polyhedral) projection, each *Spezialkarte* sheet extended 15 minutes in latitude and 30 minutes in longitude. Draftsmen working on this project received special cartographic training and drew these sheets in uniform style for reproduction by photogravure. The first edition was uncolored, but the second, published in 1887-1888, showed woodland areas colored in green (Kretschmer, 2006).

Another well-known Austrian map series produced by the Military Geographical Institute, the *Generalkarte von Mitteleuropa 1:200,000*, was derived from the *Spezialkarte 1:75,000*. Each *Generalkarte* sheet covered one degree of latitude and longitude. Between 1889 and 1915, 282 sheets were produced, with both sets covering areas of Europe where the Habsburg empire had strategic interests, from Nice to Odessa, from Berlin to Istanbul.

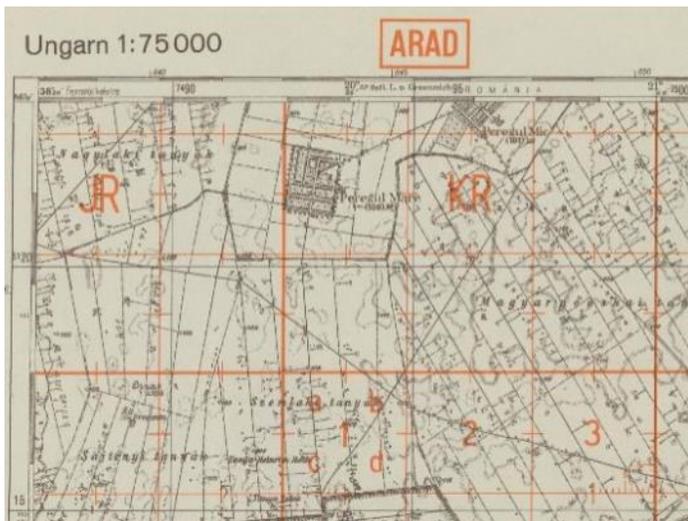
The Militärgeographisches Institut was disbanded in 1920, after the collapse of the Austro-Hungarian monarchy at the end of World War I. Its former staff found employment in various surveying and mapping organizations in the Habsburg empire's many successor states, and also in Italy, Spain, Turkey, and Brazil. The downsized Republic of Austria reorganized its surveying and mapping program, the geodetic and topographical departments of the former Militärgeographisch-



**Figure 4.** *Spezialkarte von Österreich, von Ungarn, und der Tschechoslowakei 1:75,000*, sheet #5456 Pettau, shows parts of the Drava river valley, with the borders of Nazi Germany, Hungary, and Croatia. Last updated 1943 by Vienna's regional survey center, administratively subordinated to Germany's civilian mapping agency, Reichsamt für Landesaufnahme.

es Institut were transferred to the civilian Federal Office of Metrology and Surveying, the Bundesamt für Eich-und Vermessungswesen. The cartographic and map reproduction departments of the Militärgeographisches Institut were reconstituted as Kartographisches Institut.

Austria's Kartographisches Institut, and Hungarian, Czechoslovak, and German mapping agencies continued to



**Figure 5.** *Spezialkarte von Österreich, von Ungarn, und der Tschechoslowakei 1:75,000*, sheet #5566 Arad és Perjámos, Sonderausgabe IX 1940, modified for military use, with German Gauss-Krüger grid overprinted in orange with an early version of the Army Messaging Web, the Heeresmeldenetz.



**Figure 6.** Map series *Deutsche Karte 1:50,000 der Alpen- und Donau-Reichsgaue*, sheet #5151 West, Zederhaus. Source map data from *Spezialkarte 1:75,000*. Overlaid with German Army Grid, the Deutsches Heeresgitter. With a list of numbered trigonometrical survey points in the lower left margin which are shown on the map.

issue updated versions of the *Spezialkarte 1:75,000* sheets during the interwar years. In 1936, the Kartographisches Institut began updating sheets with an overlaid red Gauss-Krüger grid. It also began to repurpose *Spezialkarte* map data. In 1938, the Institut began issuing sheets of a new multicolored map series, the *Österreichische Karte 1:25,000*, and a derived series, the *Österreichische Karte 1:50,000*.

In March 1938 Nazi Germany annexed the Republic of Austria. This was an important steppingstone in Adolf Hitler's plans for waging a war of conquest, and, in Vienna, the Nazi regime gained access to important facilities, resources

and capabilities. Representatives of German civilian and military mapping agencies moved quickly to incorporate the Austrian government's institutions active in the fields of surveying and mapping within their own systems. Germany's civilian Land Survey Office, the Reichsamt für Landesaufnahme, established a new regional survey center in Vienna, absorbing Austria's Kartographisches Institut and also the mapping and surveying staff of the Federal Office of Metrology and Surveying. The German military incorporated the Austrian Army's Survey office, the Heeresvermessungsstelle.

Rather than reinvent the wheel, Germany's World War II military planners worked pragmatically within the established Austrian framework, mapping parts of central and southeastern Europe. They issued German military topographic map series that were closely based on Austrian map series, whose long histories reached far back into the 19<sup>th</sup> century. The Militärgeographisches Institut, though defunct since 1920, continued to cast its very long shadow.

A German military map series, the *Spezialkarte von Österreich, von Ungarn, und der Tschechoslowakei 1:75,000*, was published until 1944. It was based on 1:75,000 source maps issued from 1924 through 1939 by various Central European mapping agencies. During World War II, *Spezialkarte* sheets also provided source map data for various other German military map series, which covered large parts of central and southeastern Europe at a scale of 1:50,000. (Fig. 6)

The UC Berkeley Library acquired 420 sheets of this German World War II military topographic map series through the depository program of the U.S. Army Map Service (AMS) in the late 1940s. A U.S. Army's military intelligence unit had collected these maps in Germany between October 1944 and September 1945, in the final months of World War II. Today these maps are part of UC Berkeley's German World War II Captured Maps collection (Powell and Mühr, 2020).

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*Continued at SPEZIALKARTE, page 33*

# THE FORTUNES OF WAR: BRITISH BATTLE MAPS OF 1776

RONALD S. GIBBS, COURTNEY SPIKES, AND THOMAS PAPER

When the American Revolution broke out, the British public eagerly awaited news of the war fought 3,000 miles away across the turbulent Atlantic Ocean. Detailed maps of North America became a vital resource for English subjects unfamiliar with the colonies. The high demand for battle maps forced London publishers to rapidly shorten their turnaround time. In fact, British map makers often published just three months after an action; a remarkably short interval knowing that it typically took four to six weeks just to cross the Atlantic during the 1770s. These war maps ranged in size and scope with some large scale "Seat of the War" maps, while others depicted specific campaigns or illuminated the details of a critical battle.

In this article, we will explore two handsomely detailed battle maps. Both can be explored on the digital exhibit "George Washington and the American Revolution," within The Digital Gallery ([www.thedigitalgallery.org/exhibits/40](http://www.thedigitalgallery.org/exhibits/40)). The first map depicts one of the biggest American disasters of the war: the capture of Fort Washington by British-Hessian forces in mid-November 1776. The second map shows the twin American victories that propelled the cause of independence: the Battle of Trenton and the Battle of Princeton. These two American wins occurred just six weeks after the British capture of Fort Washington. From these two maps, we will demonstrate how eighteenth century Londoners and twenty-first century cartophiles could gain perspectives of the terrain, tactics and outcomes so critical to the early stages of the American Revolution.

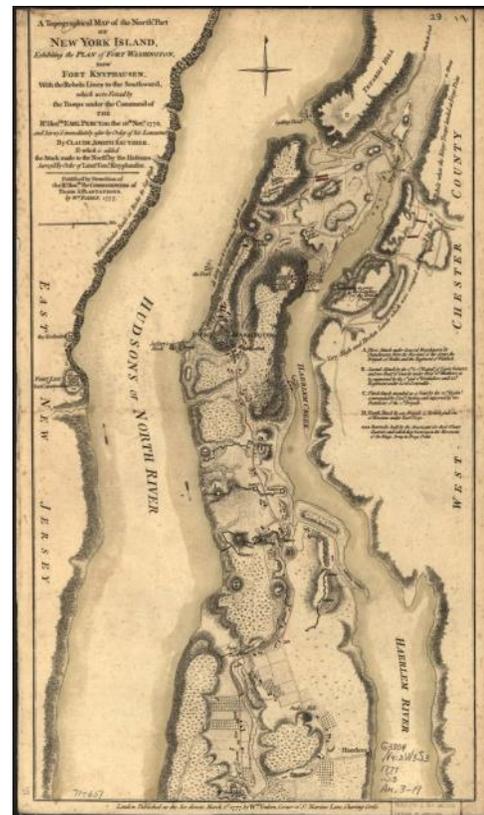
Both maps were published by William Faden (1749-1836), one of the most prominent London map makers and dealers of his time. After working with a partner for three years, Faden took sole ownership of the business the same year the colonies proclaimed their independence from British rule. Under his leadership and acumen, the business thrived and by the time the American War of Independence ended, Faden would receive a royal appointment as Geographer to King George III.

To provide context for our first map, it is important to understand Britain's initial battle strategy. The British forces were to invade New York City in order to split the New England colonies to the north from the mid-Atlantic and Southern colonies. General William Howe set out to accomplish this task with a large, invading British force, numbering 30,000 soldiers. Between August and November of 1776, General Howe outmaneuvered and outfought American General George Washington's much smaller army of only 20,000 troops in a series battles that took place in Long Is-

land, Manhattan, and Westchester County. When General Washington was forced to retreat from Manhattan in October, he decided to leave one fort, in the upper part of the island, to defend itself.

The first map (Fig. 1) shows William Faden's richly detailed topography of the northern part of Manhattan in November 1776. The map was drawn by Claude Joseph Sauthier under the direction of General Howe. William Faden remarkably published his first version in London as early as March 1, 1777, just three and a half months after the battle. As indicated by its title, this map depicts the narrow aspect of the island, less than three-fourths of a mile across, and with two sets of hills running in a north-south direction, one set along the Hudson River and another along "Harlem Creek."

Fort Washington was a large, five-sided, open earthwork edifice with over 300 feet on each side. Situated at the highest point in Manhattan, the lone fort stood 230 feet above the Hudson River. That November, it was defended by 2,800

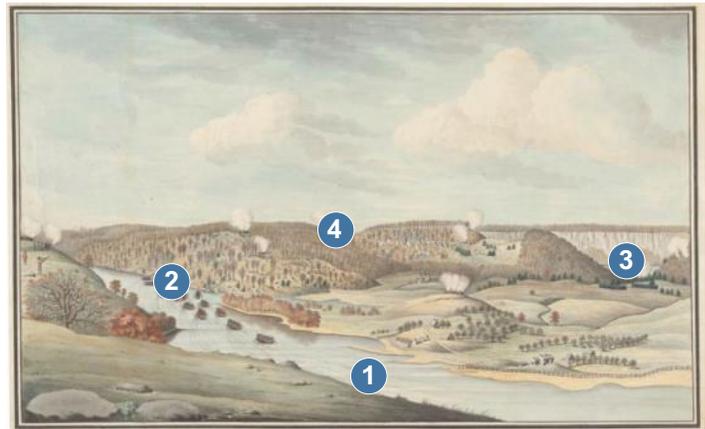


**Figure 1.** Faden, William. "A Topographical Map of the North Part of New York Island, Exhibiting the Plan of Fort Washington, now Fort Knyphausen, With the Rebels Lines to the Southward, which were forced ... on the 16<sup>th</sup> Novr 1776... London, March 1<sup>st</sup>, 1777." Showing upper Manhattan Island, with Fort Washington's location and the multi-pronged British-Hessian attack. Image courtesy of the Library of Congress.

men with diminishing supplies as Washington's troops retreated across the Hudson. The Americans believed the fort could defend itself for weeks and, if necessary, the men could escape down the hillside and cross the river to safety in New Jersey. But this thinking was seriously flawed because Fort Washington remained isolated and unsupported by other battalions. They had no shelters for protection from cannon-fire and no sources of water, other than carrying bucket-loads up from the river below. Lastly, the American officer in command was fatally overconfident of his position and thus the stage was set for disaster.

Recognizing the fort's vulnerability, British Commander in Chief General Howe launched a three-pronged attack with 8,000 troops on November 16. As shown in Figure 2 (Dot 1), General Knyphausen attacked from the north with Hessian troops who were German mercenary soldiers-for-hire. At Dot 2, a second attacking force, under General Cornwallis, made an amphibious landing at Harlem Creek and approached Fort Washington from the northeast. A third attacking column, shown at Dot 3, advanced from the south under General Percy.

Captain Thomas Davies of the Royal Artillery magnificently captured the terrain and the moment of the British amphibious attack in his watercolor painting (Fig. 3). Its perspective is looking southward, down Harlem Creek (Fig.



**Figure 3.** Thomas Davies's painting of the British amphibious attack on Fort Washington. View is looking southward down Harlem Creek (River) to the point where flatboats landed in northeastern Manhattan. Painting image courtesy of <https://commons.wikimedia.org/w/index.php?curid=22746056>.

fenders. Rather than holding out for weeks, the Americans surrendered in just five hours. General Washington watched the action through a spyglass from his position at Fort Lee, directly across the Hudson River in New Jersey (Fig. 2, Dot 4), and must have felt his heart sink. It was the biggest calamity of the war in the North. Fifty-nine Americans were killed and another ninety-six wounded. The rest of the 2,650 American troops were all captured; no one escaped. Great caches of arms were lost: 150 cannon, 3,000 muskets, and several hundred thousand cartridges. The Crown forces reported seventy-eight killed in action with 374 wounded. As a result of the loss, many in Congress and in the army immediately began to call into question Washington's reputation as Commander-in-Chief. Faden's quick, map-making turnaround of this important and impressive British victory fueled public confidence and support for the Crown.

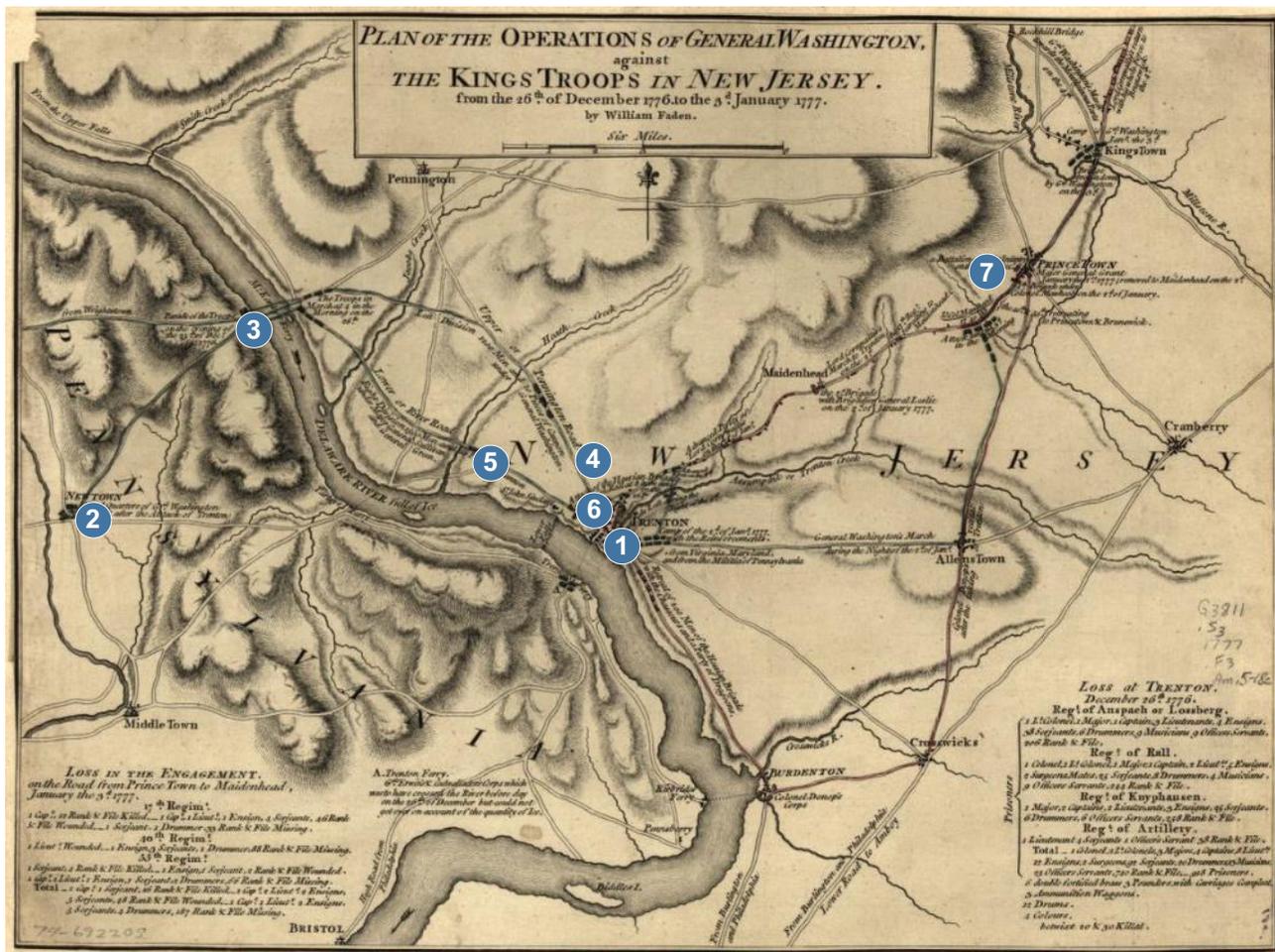
The second map (Fig. 4, next page) is entitled "Plan of the Operations of General Washington, against The King's Troops in New Jersey from the 26<sup>th</sup> of December 1776 to the 3d January 1777." This map was published by Faden on April 15, 1777, again just three and a half months after the battles. Following the loss of Fort Washington, the Americans retreated once again, this time all the way across New Jersey. Pursued by the King's forces, the Americans sought safety in Pennsylvania by crossing the Delaware River. Afterwards, Washington's engineers destroyed bridge access to follow them and his scouts stockpiled all boats from the New Jersey side for miles up and down the river. By mid-



**Figure 2.** Detail from Fig. 1 showing movements of the three British-Hessian attacking columns against Fort Washington.

3, Dot 1) towards the flatboats about to make the landing in northeastern Manhattan (Fig. 3, Dot 2). Across the narrow section of the island, we also get a peek at the Hudson River and the New Jersey palisades (Fig. 3, Dot 3). In Davies's watercolor, Fort Washington is located at Dot 4.

The outcome of the Battle of Fort Washington was never in doubt as the Crown forces simply overwhelmed the de-



**Figure 4.** Faden, William. “Plan of the Operations of General Washington, against The King’s Troops in New Jersey from the 26<sup>th</sup> of December 1776 to the 3d January 1777. London, April 15<sup>th</sup>, 1777.” Showing the Delaware River, McKonkey’s Ferry, where Washington’s crossing occurred, and the towns of Trenton and Princeton. Map image courtesy of the Library of Congress.

December, Washington’s army was secure on the Pennsylvania banks of the Delaware River, at least for a time. Yet, Washington still faced a great crisis. His men were demoralized after the losses in the New York region, and most enlistments were set to expire at the end of the year. Time appeared to be running out for Washington and the American colonies hope for independence. With his back to the wall, Washington responded with a plan for a daring, surprise attack.

The British, thinking that the Americans were beaten, set up their winter quarters in late December, leaving a string of posts from their headquarters in New York to the Delaware River. At the end of their line was an isolated contingent of 1400 Hessians in Trenton, New Jersey, right on the Delaware River (Fig. 5, Dot 1). It would be here that Washington decided to attack on the day after Christmas in 1776. He hoped to catch the Hessians with their guard down, recovering from their heavy holiday revelry. From the American camp at Newtown, Pennsylvania (Fig. 5, Dot 2), Washington’s army marched to McKonkey’s Ferry (Fig. 5, DOT 3) and, during a winter storm, completed a back-breaking crossing of the Dela-

ware by the early morning hours of December 26. In the face of the tempest, the army split into two columns, one under General John Sullivan who approached Trenton along the River Road (Fig.5, Dot 5). The other column (Fig. 5, Dot 4), under General Nathaneal Greene, who advanced along Pennington Road, one to two miles to the east. Washington rode with Greene’s column. The plan of attack was complex but, by the fortunes of war, the two American columns converged at the same time on Trenton village at eight o’clock in the morning. They achieved total surprise, killed the Hessian commander, and routed the Hessian force in less than an hour (Fig. 5, Dot 6). The Hessians suffered 22 killed, 83 wounded, and 900 captured. American losses were slight: four wounded and four killed. Encumbered by his load of Hessian prisoners and with other British and Hessian forces now on the alert, Washington wisely decided to march back to McKonkey’s Ferry and the safety of Pennsylvania.

One week later, Washington seized another opportunity and achieved a second victory, this time over British forces at Princeton (Fig. 4, Dot 7). With his men now exhausted from



**Figure 5.** Detail from Fig. 4, showing the two-pronged American attack on Trenton, one column marching along the River (or Lower) Road, the other along Pennington (or Upper) Road. Both attacking columns converged at Trenton at eight o'clock in the morning of December 26, 1776.

ten days of nearly constant marching and fighting in bitter weather, Washington gathered his captured materiel and brought his army to winter encampment in the hills around Morristown, New Jersey.

The twin victories at Trenton and Princeton gave new life to the cause of American independence and brought recognition to Washington as a nimble battlefield commander. The British now realized that they were headed for a much longer war than first anticipated. In fact, it would take another seven years before the American Revolution concluded and the colonies ultimately achieved their independence from England.

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# WHERE WILL WE GO FROM HERE: TRAVEL IN THE AGE OF COVID-19:

*AN EXHIBIT AT THE OSHER MAP LIBRARY*

JULIET ROTHMAN

On a recent trip to Maine, Leonard and I took the opportunity to visit the Osher Map Library and Smith Center for Cartographic Education in Portland. We were delighted to find their engaging current exhibit, conceptualized by Libby Bischoff, the Executive Director, uniquely focused at the point where the modern experience of the COVID pandemic interfaces with cartography. It begins with a section on the history of mapping pandemics, notes that the most frequently mapped disease was cholera, and traces disease mapping from Carl Ferdinand Weiland's German map of 1832 through 19th and 20th-century maps.

With this introduction, the exhibit moves on to its theme: travel plans disrupted and travels planned. Using a survey, the Center reached out to both students and the general community to explore their experiences with changes, cancellations, and challenges in travel plans and the various ways that these have impacted their lives. The responses were divided into four broad categories: Birthdays, Anniversaries, and Family Milestones, Weddings, Work-Related Travel, and Lost Study-Abroad Experiences. The responses received were then paired with maps from the Osher Library's collection.

A response from each category will serve to illustrate the process:

## **Birthdays, Anniversaries, and Family Milestones**

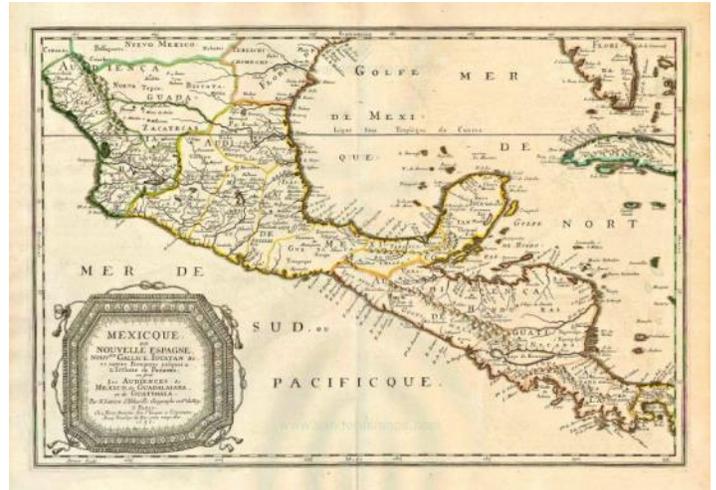
Mexico

"I would have been flying to Mexico City to attend a concert for my birthday in mid-March of 2020, but the border closed and the whole world shut down. This was a bummer, but not nearly as much of a bummer as it would be to catch COVID-19 or potentially expose someone vulnerable to the virus. Aside from that, instead of constantly traveling for work, I have been grounded for over a year. While I desperately miss the lifestyle of constant travel, I have also really taken advantage of this period of quiet and rest." (Fig. 1) - Caitlyn

## **Weddings**

Australia

"My older sister's wedding was scheduled for March 21, 2020, in Australia. Three days before our scheduled flight, Australia locked down the country, requiring anyone entering the country to quarantine for 14 days. Since there were not 14 days until the wedding at that point, it made it impossible for my family to attend. They decided to go forward with the



**Figure 1.** Pierre Mariette, J. Somer and Nicolas Sanson, *Mexico or New Spain, New Galicia, Yucatan, and other Provinces up to the Isthmus of Panama, 1656.*

wedding with only his immediate family (in attendance), given the COVID concerns. Since there are many visa issues, it made sense for them to go forward with the marriage. My sister is my best friend and not being able to be by her side on this big day was a very personal sadness. That being said, we know it could have been so much worse if a family member had become sick." (Fig. 2) - Haywood



**Figure 2.** Justus Perthes, *Map of Southeastern part of Australia showing the discoveries in interior New South Wales, 1846.*

## Work-Related Travel

### Czech Republic

"I was scheduled to present at the World Archaeological Congress in Prague in July of 2020, but the event was canceled. The World Archaeological Congress meets only once every four years, and I had been planning on presenting at this conference for some time. Conference participation is important to my tenure and promotion, and when meetings are canceled, it is difficult to fill that void. The World Archaeological Congress postponed this event until July 2022. I hope to attend." (Fig. 3) – Bonnie Newsom



**Figure 3.** Joris Hoefnagel, Georg Braun, and Franz Hogenberg, Prague, *Kingdom of Bohemia*, 1596.

### Lost Study-Abroad Experiences

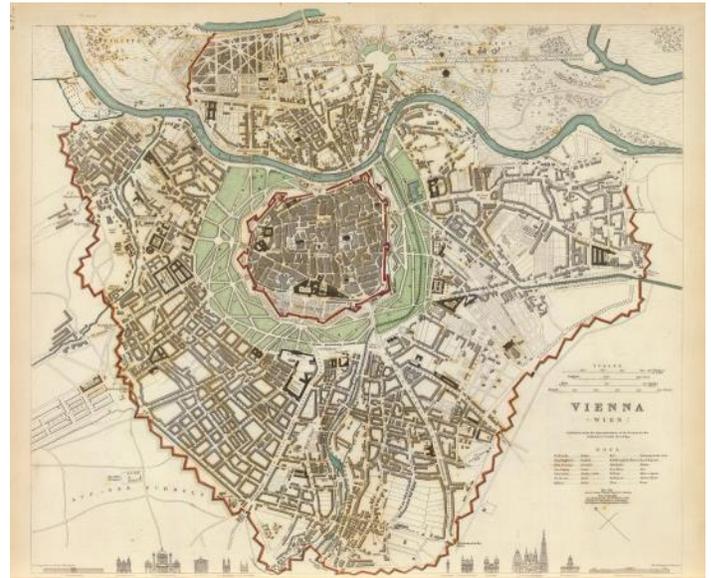
#### Vienna, Austria

"My travel plans included a two-week travel course in Vienna that was focused on music history and theory. These canceled plans impacted my life personally because it was the first time I was planning on hitting the milestone of my first plane ride ever and my first trip out of the United States. Education-wise, it would have also been great to build upon what I had learned about the general and musical history of Vienna all semester." (Fig. 4) – Nicole McFarland

The exhibit illustrates a tool that members, educators, public speakers, and those in the media might use to promote personal introspection and thought and presents a creative and very relevant use of cartography. It can be used in all settings, with all ages, and provides a wonderful ground for interesting discussions and considerations.

To view the entire exhibit, visit [www.oshermaps.org/exhibitions/travel-in-the-age-of-covid-19/](http://www.oshermaps.org/exhibitions/travel-in-the-age-of-covid-19/)

Images courtesy of the The Osher Map Library, University of Southern Maine.



**Figure 4.** J. Henschall, W.B. Clarke, *Vienna (Wien)* Found in Society for the Diffusion of Useful Knowledge (Great Britain) Maps of the Society . . . 1833.



*SPEZIALKARTE*, continued from page 27

Powell, Susan, and Heiko Mühr, 2020. "Capturing the Complex Histories of German World War II Captured Maps." *Journal of Map & Geography Libraries* 16 (2):166-193.

Regele, Oskar. 1955. *Beiträge zur Geschichte der staatlichen Landesaufnahme und Kartographie in Österreich bis zum Jahr 1918*. Vienna: Verlag des Notringes der Wissenschaftlichen Verbände Österreichs.

**Heiko Mühr**, a native of Bremen, Germany, arrived in northern California in May 2017. Heiko loves maps and their histories. He works with cartographic resources every day as Map Metadata & Curatorial Specialist at UC Berkeley's Earth Sciences & Map Library. Before he headed to the Bay Area Heiko worked with special collections in hilly southern Indiana, at Indiana University Bloomington, both in public service positions and as cataloger of those materials.

# A CARTOGRAPHIC CASUALTY OF WORLD WAR II: THE EBSTORF MAP

JULIET AND LEONARD ROTHMAN

Sitting dutifully at home in lockdown from the coronavirus, Juliet started to read “The Last Imaginary Place, A Human History of the Arctic World” by Robert McGhee. She has always been fascinated with the polar extremes and was eager to learn about those who lived in this environment. Not far into the book—on page 24, to be exact, she found a reference to a geographical map by the 13<sup>th</sup>-century scholar, Gervase of Tilbury. This was described as a massive, three-meter-wide circular map on vellum, which had been preserved at the convent of Ebstorf, Germany, then moved to Hanover, and then destroyed in a bombing raid in 1943. (McGhee, R., p. 24)

McGhee goes on to describe the map itself, which was designed over the figure of Jesus on the cross, with his “heart” in Jerusalem. He describes the Arctic regions on the map as an extension of Asia with various islands, and mountains ascending up the coast as “a barrier protecting Europe and southern Asia from the Land of Gog and Magog,” with two figures eating human body parts. The author had also placed two armed women, representing the “Land of the Amazons,” in the Arctic above Christ’s right hand. (Ibid, 25)

Fascinated and curious, and with plenty of free time, she consulted with Leonard. He was familiar with the map, with its destruction during World War II, and with sources for further information. He even owned the essential The History of Cartography, Volume 1 of which, edited by Harley and Woodward, included Woodward’s own detailed article on medieval *mappamundi*! Leonard’s research took us both on an interesting journey, which we invite you all to join.

**Authorship:** The convent whose name is given to the map was given to the Benedictine nuns of Walsrode Abbey and became a place of pilgrimage. The abbey buildings have been fully preserved and continue to exist today as a Lutheran convent. There is a reproduction of the Ebstorf map in the convent. (Wikipedia, Ebstorf Abbey)

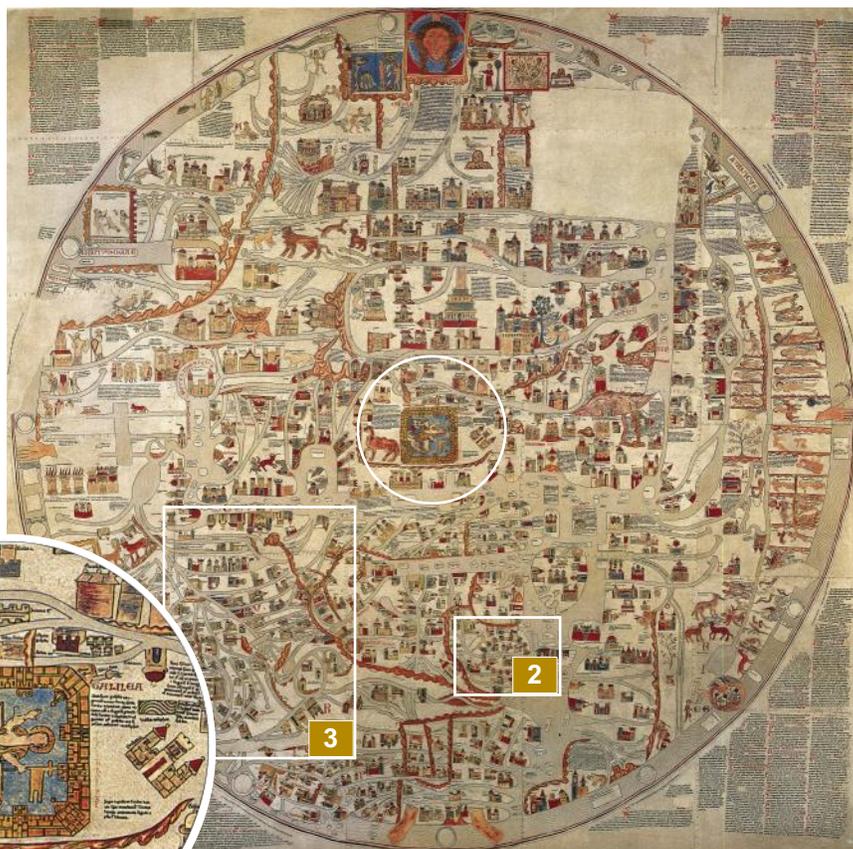


Figure 1. Reproduction of a facsimile copy of the Ebstorf Map. Image courtesy of Wikimedia Commons.

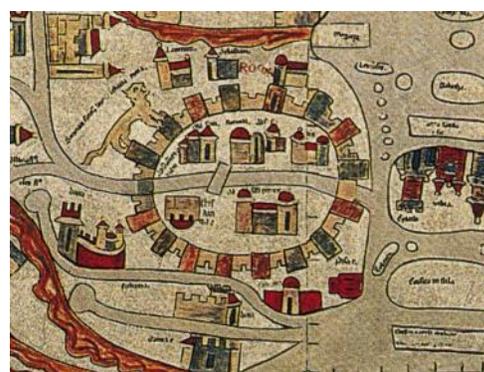


Figure 2. Inset—Rome

The Ebstorf map is an excellent example of a medieval *mappamundi*, which Woodward suggests is more of a “verbal description in a metaphorical sense,” meant to serve as a source of a

wide range of information, rather than a graphic, cartographic rendering (Woodward, D., p. 286-87). As distinct from portolan charts and regional or topographical maps, *mappamundi* are generally designed to present a predetermined amount of information in a chosen form, such as a circle, rectangle, oval, or another shape. (Ibid, p. 292)

Contemporary sources recognize that the authorship of this famous map is in dispute but generally attribute its crea-

tion to Gervase of Tilbury, who taught canon law (in English) in Bologna, Italy, from 1223 to 1234. The attribution is supported by Gervase's authorship of *Otia Imperialia*, written in 1211. This complex work contains a detailed history, geography, and mythology of the world, elements which are also included in the Ebstorf map. (henry-davis.com, slide 224 monograph).

A dissenting view, however, suggests otherwise: that the map was created by the nuns of Ebstorf convent, as it seems to feature various artistic styles and methodologies in its creation. This supports the theory that the map was the work of several artists, and the nuns of Ebstorf monastery were known for their skills in the arts. (Carrion, K.M.F., p. 2)

**Physical Features:** This very large map measured 12' by 12', and was created on 30 sheets of sheepskin parchment, all sewn together. It is the largest *mappamundi* ever recorded. (Woodward, D., p. 309). In 1838, the first attempts were made to preserve it, and it was brought to Berlin, "taken apart, cleaned, smoothed, and stretched." (Pischke, G., p. 155) Fortunately, phototypes, facsimiles, and a colored version of the map were created before the war, when the original was destroyed. More recently, in the 1950s, Rudolf Wieneke created four goatskin reproductions. (Ibid) Paper reproductions of the map are readily available today.

The map uses the typical T and O orientation, with East on the top and Jerusalem at the center. In this orientation, Asia is placed at the top (East), Africa in the lower right quarter (southwest), and Europe in the lower left quarter (northwest, Fig. 3 inset). The Don, The Nile, and the Mediterranean serve as division points (Woodward, D., p. 297). In the Ebstorf map, the figure of the crucified Jesus forms the basic underlying features, and the geography, history, and mythology of the known world are located over this religious image.

**Special Features:** The map has a huge number of entries—2345 of them. Fifteen hundred are texts, and 845 are pictures. It appears to contain all of the contemporary knowledge: theologically, geographically, historically, legendarily, and mythically, and to include events from the time of creation to the present day. (Pischke, G., p. 157) As Pischke states, it can be viewed "geographically as a map, didactically as an encyclopedic teaching means, iconographically as a depiction of God's creation of the world ... as a devotional image, politically as a symbol of power ... as a chronicle of the world, ... an illustrated Bible ... a collection of myths and legends ... even a zoological handbook." From this description, it seems to contain all that was known at the time it was created! (Ibid)

The earth is represented as the body of Christ, With the head at the top, East (next to Paradise), the feet at the bottom, West, and the hands at North and South, respectively. Jerusalem, at the map's heart (Fig. 1 circular inset), shows Christ



**Figure 3.** Inset—Lower left of the Ebstorf Map showing portions of Europe, Fig. 1, prior page.

rising from his tomb. From there, Asia stretches upward (eastward) "toward the rising sun and the Saviour's head." (Davis, H. p. 2) In Asia, the Garden of Eden, the Ganges, and the oracles consulted by Alexander the Great are depicted.

There are a very large number of Biblical motifs, such as Paradise, with Adam and Eve, Noah's Ark, the journey of the Israelites across the Red Sea, Hebron, Mt. Sinai, Babylon, Bethlehem, Nazareth, Caupernum, and Sodom and Gemorrah. The map includes many animals—large mammals such as elephants, reptiles, birds, and even insects, and creatures such as dragons. It includes cities, contemporary, Biblical, and mythical, both real and mythical people (such as cannibals, the Amazons mentioned earlier, cave dwellers and snake eaters), historical expeditions, such as those of Alexander, important moments from Greek and Roman history, physical features such as mountains, rivers, and islands, contemporary cities, and even the monastery at Ebstorf! (Pischke, p. 156-161) Two semi-mythical races with human characteristics are also included: the Amyctyrae, with their protruding lip, and the hippopodes, whose feet resemble horses' hooves, both within reach of Jesus' left hand can be attributed to the medieval period's

interest in bizarre and mythical creatures. (Woodward, p. 330). Henry Davis notes that the map is organized somewhat like a Roman road plan, with places and objects in the order in which a traveler might find them, drawn very heavily from Christian sources. The twelve circles in the cosmic ocean, homes of the cosmic winds are also included on the map. (Davis, H. p. 1)

**A Casualty of War:** We are all aware of the deaths and destruction caused by wars. We are even aware of the precious artwork, histories, and innumerable other pieces of humanity's past that are irrevocably lost in times of war—lost to looting, lost to bombing, simply missing with no record and no hope of recovery. The number of such losses from the two 20<sup>th</sup> century World Wars was well beyond imagining and are beyond recovery, as a simple google search will reveal. For those with special cartographic and geographic interests, the irrevocable loss of maps from other places and times under such circumstances is particularly poignant.

The Ebstorf map had been taken to Berlin for cleaning in 1888, then kept in single pieces in the Hasupfstaatsarchiv in Hanover. On October 8-9, 1943, Hanover was bombed by Allied forces, and the map was destroyed. Fortunately, the 25 phototypes, as well as a facsimile, preserve the details of this exceptional *mappamundi*.

However, this is only one example of the many losses wartime and political struggles have caused to society's treasures. A beautiful 1851 painting of Washington Crossing the Delaware by German-American artist Emanuel Leutze was also destroyed in a 1942 bombing raid. Leutze's work was exhibited in New York in 1851 and eventually found its way to Bremen, Germany, where it remained until it was destroyed by a bombing during World War II. There is an engraving of the work, created in 1853, as well as various studies and copies by other artists, but the original is gone. (<https://www.metmuseum.org/en/art/collection/search/11417>)

William Gropper, a painter, illustrator, and cartoonist, offered his services to the White House's Office of War Information during WWII, creating posters and paintings of legends and tall tales superimposed over a projection for the 48 states in a book entitled *America: Its Folklore*, which was widely distributed and used during the 1940's all over the country. In the 1950s, during the McCarthy era, however, Gropper was identified as a Communist sympathizer and became the very first blacklisted artist in the United States. His map, beloved by students and teachers alike, was declared subversive and disappeared from the public. All copies were destroyed, and today, while two remain in the Library of Congress, others are rare. (Wyatt, K.C.)

And currently—the map of the popular online video game Fortnite, developed by Epic Games, suddenly and unexpectedly went “dark” last fall, leaving five million young gamers sud-

denly map-less! Though the game will re-open in its 11<sup>th</sup> season, the loss of *this* map caused trauma all over the country! (Zilber, A.)

It is obvious from both reading and examining the Ebstorf map that it contains an enormous amount of information, presented in a very appealing and engaging manner. Our very brief exploration can only serve to whet the appetites of readers and serves as an invitation to explore and consider each of those 2345 entries, for each one holds time, a thought, an image, beauty, and the possibility of following each into new worlds of thought and experience.

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# APPS FOR MAPS: MAPPING MOTHER NATURE

COURTNEY SPIKES

Isn't it wonderful to learn something new about a friend? Our colleague and intrepid *Calafia* publisher, Fred DeJarlais, shared this incredible image of his San Francisco firefighter daughter, Lt. Julie DeJarlais of Station No. 13, as she finished her shift working one of the many fires last year in the Bay area. Fred pointed out that he relies on a web-based app, Wildfire Viewer, to map the progression of fires in real-time and help him track his daughter's fire assignments. So far this year, Julie has worked at three separate incidents, the Salt Fire, just north of Redding, the Beckwourth Complex Fire, close to Rte 395 and the Nevada border and currently at one of the largest ever recorded fires in California, the Dixie Fire, just a few miles from the devastating Camp Fire that consumed the town of Paradise in 2018. Fred can view the progression of the fire and containment on a daily basis. At the time, the app showed that the Dixie fire had consumed over 500,000 acres and was only thirty percent contained. This was one of the many wildfires Lt. DeJarlais has worked throughout her past nineteen years as a firefighter. And, with 15% female fighters in the San Francisco area and 8% nationwide, Julie also serves as an important role model for young girls everywhere.

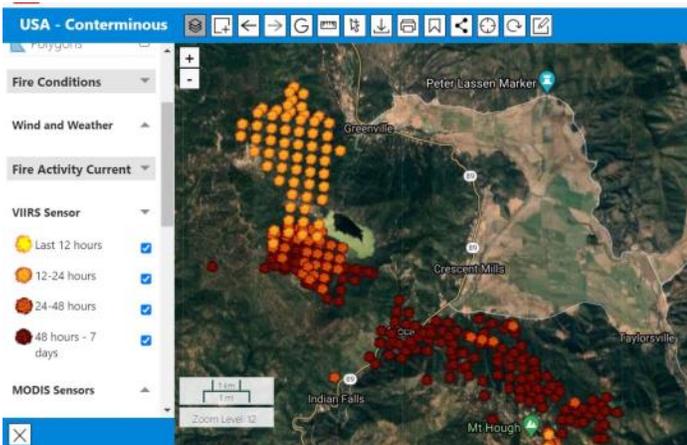


**Figure 1.** Lt. DeJarlais coming off a long shift from a wildfire in 2020.

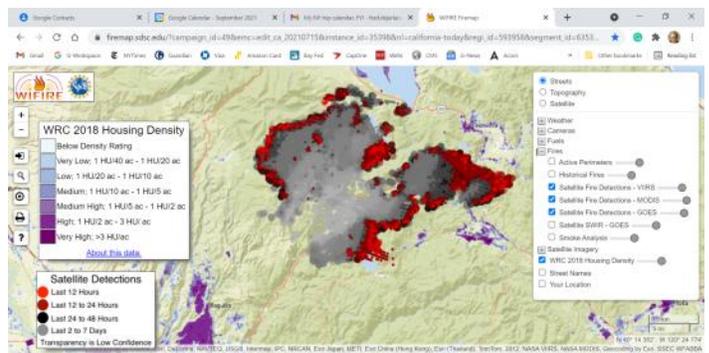
The **Wildfire Viewer** app (*Fig. 2*) was developed to provide public access to live NASA and GeoMAC wildfire data. A key feature of the program (<https://wildfireviewer.mapport.com/>) is the age-gradient visualization that shows the progressive spread of fires. This enables customers to assess fire movement and to interpret possible threats with a user-friendly interface. Timing is critical, and the app's data is garnered directly from NASA MODIS and VIIRS with hourly updates and GOES ABI detections at five-minute intervals. Wildfire Viewer maps cover eight regions of the world, including the United States, Canada, Mexico, South America, Australia, and New Zealand. Interestingly, the app also provides historical data on former fires where reliable records have been made public.

With a paid Wildfire Viewer account, it is also possible to download their mobile app, **MapPort**, to access location-based information and updates from their web account on a phone or mobile device. The subscription allows users to zoom official National Interagency Fire Center (NIFC) fire perimeters anywhere in the United States, along with current weather and wind conditions on the ground. **Wildfire Viewer** (an ENPLAN web map service) can be accessed with a ten dollar day-pass or with a longer subscription by the month (\$39) or half-year (\$159).

**WIFIRE** (<https://firemap.sdsc.edu/>) (*Fig. 3*) is a robust, free app that simulates and projects how quickly a real wildfire might spread and can even make projections on how many structures or people might be affected. It currently shows the location and status of every active wildfire in the US, and such advanced computer-based tools are now just as essential as a firehose in the current era of fighting wildfires. The technology, funded by the U.S. National Science Foundation, is made possible by a cyber-infrastructure that connects real-time weather information, infrared images from fire planes, satellite maps of terrain and brush, and other data to predict what a seemingly fickle wildfire might do next. WIFIRE also learns from past inaccuracies and quickly evolves its ability to predict fires with each bit of new data in real time. (from *HPC Wire*)



**Figure 2.** Wildfire Viewer image of the Dixie fire on 8/3/21. Multiple base map layers are available, with weather condition, historic fires and jurisdictional boundaries.



**Figure 3.** WIFIRE depiction of the Dixie fire on 8/5/21 with Housing Density layer turned on. Satellite imagery is updated every six hours. Background map is a "street" layer. Other backgrounds include "topography" and "satellite."

There are many other fire tracking apps available. Like **Wildfire Viewer**, these applications use real-time or near-real-time data from MODIS, VIIRS, USGS, and NOAA. The iOS **Fire Finder** app (\$0.99) can indicate location, fire perimeter data, and visuals of wildfires throughout the United States. It also allows users to easily share fire images and information. **Wildfire Info** (David Gross Apps) (Fig. 4) is available for free on both Google Play and Apple and offers wildfire data updated every five minutes across the U.S., Canada, Australia, and Europe. This app includes traffic information and enables users to copy the longitude/latitude details onto personal computer clipboards.



**Figure 4.** Wildfire Info image from the Android version of the app. Multiple layers of info are available.

The State of California's Department of Forestry and **Fire Protection** maps note details of fires that are ten acres or greater on their website (<https://www.fire.ca.gov/incidents/>). Other free, web-based app services that map wildfires include: **NASA Worldview** (<https://worldview.earthdata.nasa.gov/>), **InciWeb** (<https://www.inciweb.org/>), and the **Fire Information for Resource Management System (FIRMS US/CANADA)** (<https://firms.modaps.eosdis.nasa.gov/usfs/>), which will be taking over the US Forest Service's Active Fire Mapping program that is set to officially retire on 31 December 2021. Lastly, the **Fire, Weather, and Avalanche Center** (<https://www.fireweatheravalanche.org/fire/>) is a 501(c)(3) non-profit organization that includes often overlooked backcountry locations on their maps. For Californians who want to assess their own preparedness, get advice and helpful forms to assist with the creation of a custom fire-readiness-plan, check out the web-based **Cal Fire** app that also enables viewers to sign up for text notifications: (<https://www.readyforwildfire.org/>).

Another feature of living in California is the experience of earthquakes. I remember my first one in 1992, which felt more like a large truck driving by our apartment building and then coming to grips with the power of mother nature during the 1994 Northridge earthquake that toppled the 10 Freeway. Back then, we didn't have any apps, or internet access, to map the earthquake's scale and scope as we have at our fingertips today. All phone lines were down, and we relied on an old

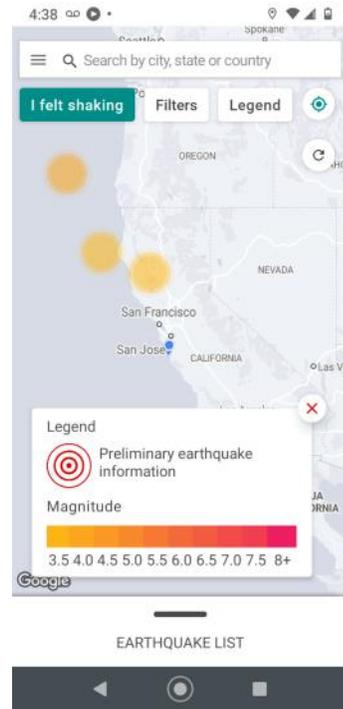
AM/FM battery-operated radio and a police officer who checked on our neighborhood for information about what was happening.

Nowadays, apps like **MyShake** (Fig. 5) offer earthquake information at a moment's notice and also provide early warning ShakeAlerts

(<https://myshake.berkeley.edu/>). This free app, which can be used with both Android and Apple, maps earthquakes around the world, provides damage reports and shares information from community members, the USGS, and global earthquake authorities. Founded by the UC Berkeley Seismology Lab, this app not only maps earthquakes for users, but also tracks seismic events with personal phones. The program's peer-reviewed algorithms and methodologies use smartphones to capture data that seismologists would otherwise be unable to access. Their hope is to build a global network of earthquake tracking so that areas without traditional resources can receive early detection and warnings to potentially save more lives.

The United States Geological Survey (USGS) has also created a user-driven map analysis of earthquakes that can be explored on its website (<https://earthquake.usgs.gov/data/dyfi/>). **Did You Feel It? (DYFI)** collects information from people who felt an earthquake and uses that data to create maps that reveal people's responses and the extent of damage. From the website's main page, one can fill out a DYFI form to share a personal experience or click on the Summary Maps section to see maps of DYFI responses, organized by year, in the U.S. and globally. The best interactive map is the **DYFI Annual Data Viewer**, found on the Summary Maps page, which shows the highest intensity felt at each 10 km block location for which they have data. Click on one of the small, color-coded squares to see details about the date and magnitude of the earthquake, along with the number of DYFI responses.

In the Golden State, awareness of our water supply is essential. The Pacific Institute provides an interactive map that charts **California Urban Water Use**, where readers can compare regions and months across years from 2015 to 2021 (<https://pacinst.org/gpcd/map/>). The California Water Impact Network website also has an informative overview of the



**Figure 5.** MyShake image from Android version, 8/7/21 snapshot.

state's water supply and storage (<https://www.c-win.org/california-map>), while the United States Geological Survey's web-based application, **Streamer**, (Fig. 6) maps rivers all over



**Figure 6.** Streamer image tracing the course of the Snake-Columbia Rivers to the Pacific Ocean.

the country and tracks every upstream and downstream movement from any water source (<https://txpub.usgs.gov/DSS/streamer/web/>). The Streamer app can also identify rivers, streams, and bodies of water, no matter how small, throughout California and the United States.

Did you know that more than fifty percent of California's citizens get their fresh water from the California Delta watershed? It is the fifth-largest watershed on Earth and flows over 7 million acre-feet of water each year – just imagine that many football fields covered with one foot of water to understand the enormity of our Delta.

With its 26 rivers and 750 known species of plants and animals, Congress designated the California Delta in 2019 as the first National Heritage Area in the state (<https://www.nps.gov/places/sacramento-san-joaquin-delta-national-heritage-area.htm>). Historically, the land between the Sacramento and San Joaquin Rivers was home to the second-largest population of indigenous people in North America before European contact. After the Gold Rush years, this important ecosystem of marshland and native peat was converted into arable cropland with the introductions of levees. Today, the Delta is enjoyed by all, with its heritage sites and 700 miles of waterways with fishing, agritourism, birding and more. Although not an app, the USGS also offers a detailed map of the Delta's riverways (<https://www.usgs.gov/media/images/map-sacramento-san-joaquin-delta>).

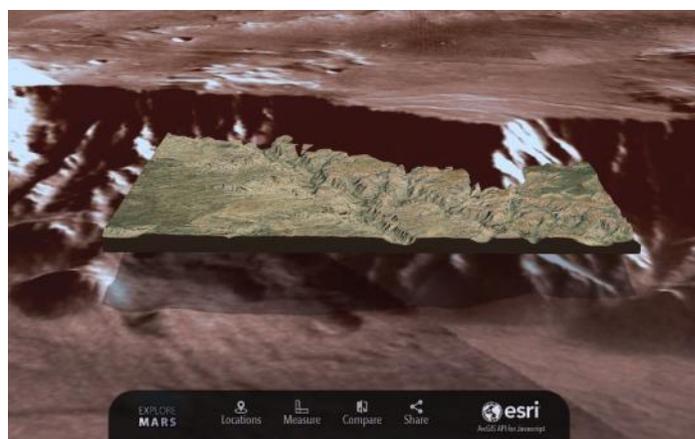
For something more interactive, readers can check out the new visualization application **River Runner**, from Sam Lerner (<https://river-runner.samlearner.com/>). This app (Fig. 7) allows users to trace the route of a single drop of water from anywhere in the country. Simply use the cursor to select where the droplet will land to kick off a birds-eye view animation, as the application maps out the path of your water drop.



**Figure 7.** River Runner screenshot of a portion of the Columbia River, near the Grand Coulee Dam (See red square on Fig. 6).

To close out our journey with Mother Nature, one can leap into our solar system. To explore nature beyond Earth's orbit, check out this incredible, interactive, three-dimensional map of Mars, created with ArcGIS technology from Esri (<https://explore-mars.esri.com/>). **Explore Mars** lets users zoom all over the red planet, with key locations marked on the globe, such as the landing spots of Perseverance (2021), Spirit (2004), Pathfinder (1997) and more. There are measuring tools for line, area, and elevation so users can map the planet's surface, discover the depth of a crater, or tally the distance between the landing spots of the various spacecraft that have made the journey to Mars. The app also enables one to customize the units of measurement as well as to track the specific paths of three rovers: Perseverance, Curiosity, and Opportunity.

One exciting feature offered by the creators of Explore Mars is the ability to compare the sizes of things from Earth with the surface of Mars. The app provides a selection of countries, or even a single state, here on Earth and then overlays it directly onto Mars. There is also the option of choosing a 3-D model of a city like New York or a geographical location such as Everest and to situate the object onto the red planet to contrast distances and depths. For example, our Grand Canyon is dwarfed by the Martian Valles Marineris, (Fig. 8) which puts things into human perspective. It is truly inspiring!



**Figure 8.** The Grand Canyon placed in the really Grand Canyon of Mars!

# MY FAVORITE MAP

## MIGUEL COVARRUBIAS' MURALS

CHERIE NORTON, PH.D.

Cartophiles usually have interesting journeys on their way to becoming map lovers. Mine began under my grandparents' coffee table as I explored lands and oceans on their well-worn Replogle globe. Miguel Covarrubias (1904-1957) also began his artistic, ethnographic, and cartographic career at a young age. At 10, he created one of his earliest cartoons—a caricature of himself as a "toothy" boy with his pants down sitting on a potty chair. A mere four years later, he graduated school or left, depending on the source, and soon became a map draftsman in the Communication Department of the Mexican government. At 19, he moved from Mexico City to New York City, where he immersed himself in the literary and artistic scene, particularly the "Harlem Renaissance," while supporting himself through illustrations, mostly caricatures, which he designed for prominent magazines such as *Vanity Fair* and the *New Yorker*. It was there that he met his future wife and collaborator, Rosa Rolanda.

While they remained based in New York, he and Rosa traveled to Mexico, Europe, and North Africa in the mid to late 1920s. They married in 1930 and embarked on an extended honeymoon to Bali, where he was inspired to write and illustrate his book, *Island of Bali* (1937). Wherever they traveled, Covarrubias and Rosa collected local art, figures, masks, ceramics, toys, and jewelry, which then frequently became subjects in his books. This period also sparked his broad cultural interests, which later became a part of his "Pageant of the Pacific" murals.

His talent became well known, and, in 1938, Covarrubias was invited to paint a series of murals for the 1939 Golden Gate International Exposition on Treasure Island. In a little over a year, he designed and painted the six thematic murals, which became the Exposition's premier exhibit at Pacific House, whose theme was "Pageant of the Pacific." These beautiful murals are "My Favorite Map(s)" for their beauty and for the depth and breadth of their depiction of the culture and arts of the Pacific. The maps themselves are most impressive and clearly illustrate the creativity and talent of Covarrubias' cartographic work.

The six murals, which were designed to illustrate the Pacific's fauna and flora, indigenous peoples, art, dwellings, transportation, and economies in a cartographic context, were massive in size—ranging from 9' by 13' to 15' by 24' (Fig. 1). They were painted in dazzling colors, with a flat Duco lacquer in a nitrocellulose base. In addition to the murals, Covarrubias published the set of six maps in 1940, accompanied by a comprehensive guide, *Pageant of the Pacific*<sup>1</sup>, penned by Covarrubias himself. The Guide contained a list



**Figure 1.** "Miguel and Rosa Covarrubias and a friend" in front of the Economy of the Pacific mural (15' x 24') at the 1939-40 Golden Gate International Exposition. Source: San Francisco Examiner Magazine, November 12, 1996, p. 16.

of the Pacific Houses' board members, with Dr. Robert Gordon Sproul, the first president of the University of California system, as Honorary Board President. Board members included attorneys, judges, physicians, and university regents, as well as renowned University of California professors Dr. Alfred L. Kroeber from the Anthropology Department and Dr. Carl O. Sauer from Geography. Coincidentally, I obtained my undergraduate degrees in both anthropology and geography from UC Berkeley, and both my graduate degrees are in cultural geography, which has been referred to as the "Berkeley School" due to Sauer's influence.

An interesting initial concern of Covarrubias was the map projection to be used for the murals. Ultimately, this was prepared by the UC Berkeley Geography Department under Sauer's direction<sup>2</sup>. Based on a Van Der Grinten world projection that was centered on the Pacific, Covarrubias felt that this was a good compromise, both in regard to land distortion and in its illustration of the Pacific area. In the Guide, Covarrubias stated, "A map centered on the Pacific Ocean is apt to be unfamiliar to us, accustomed since childhood to see world-maps with a strong emphasis upon the Atlantic, with Europe on one side, America on the other. For this reason, and because of a certain prejudice, prevalent until recently, for peoples and cultures other than those of European, 'White', origin, the Pacific Ocean has come to be regarded in the popular mind as a vast expanse of water bordered by and dotted with remote, exotic peoples, and as a barrier rather than the link that it is, between the peoples, cultures and the economies of the countries of the Pacific Area."<sup>3</sup> He then opined that with progress in transportation now bringing Asia closer, there was a need for a better understanding of the area and its peoples and cultures. This thought especially seemed to foretell the future, with the clouds of World War II already on the horizon.

**Plate 1: Peoples of the Pacific.** Covarrubias prefaced his map description with a discussion of the difficulty anthropologists encountered in dividing humans by color, e.g., Black, White, Yellow and Red (divisions all recently abandoned), yet ultimately realizing that some sort of classification system was needed in order to make sense of the "settled" world. He opted for using the method anthropologists were utilizing at that time—dividing the peoples of the world into three major groups: Mongoloids, Caucasoids, and Negroids, with all the resulting variations and admixtures. Following this system, he then provided his interpretation of peoples who remained remote and therefore "primitive," including also the far-flung locations of peoples that were displaced primarily due to colonialism.

On this map (Fig. 2), Covarrubias divided the land areas into nine colors, which represented nine categories of peoples. There were four groups within the Mongoloid category (Siberians, Mongolians, and Eskimos; Chinese, Indo-Chinese, and Tibetans; Malaysians; and American Indians), and three groups in the Negroid category (Dravidians and Negritos; Melanesians; and Afro-Americans). The Caucasoids consisted of a single group, as did the Polynesians and Micronesians. Using this system to view his map, it is interesting to see that the Caucasoid group spans the current continental

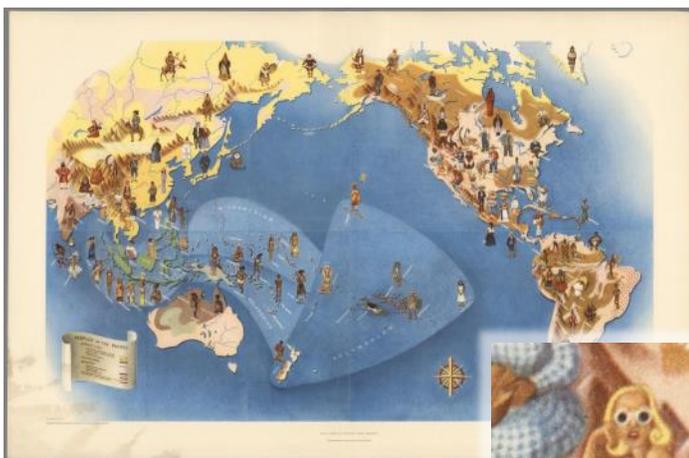


Figure 2. Plate I: Peoples of the Pacific

U.S., parts of Mexico, much of coastal South America, the southern area of Australia and eastern New Zealand, part of the Indian continent, and bands of areas throughout eastern Russia, while the other groups appear to be fairly geographically localized. This tends to reinforce awareness of both the effects and the reach of colonial expansion. In a bow to his bent for caricatures, there are a few notable examples of these on the map. One is Emiliano Zapata, representing a Mexican, a Hollywood starlet as a Californian in the Los Angeles area, and a delightful woman dancing it up in Cuba. She is very similar to



A California Girl

one of his lithographs, titled "Afro-Cuban Dance and Percussionist"<sup>4</sup> completed between 1920 and 1940, and showing the characteristic style of depicting Blacks that he honed during his time in New York's Harlem neighborhoods during the Jazz Age. Many similar illustrations can be found in his 1927 book *Negro Drawings*<sup>5</sup>.

**Plate II: The Fauna and Flora of the Pacific Area.** In this map (Fig. 3), Covarrubias employed color for regions of climate and vegetation, over which he placed a variety of animals and plants. He purposely omitted any domesticated animals or cultivated crops, as these, he said, should be included in the Economies map. There are eleven color categories: tundra,

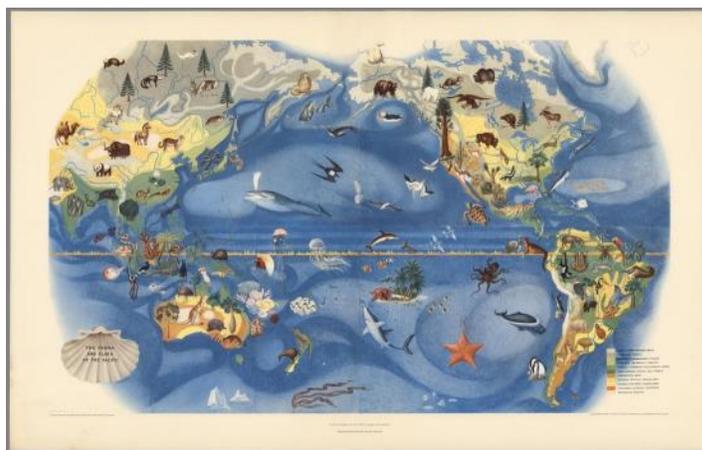


Figure 3. Plate II: Flora and Fauna of the Pacific Area

treeless alpine areas; coniferous forests; deciduous summer-green forests; tropical thornbrush and raingreen forests; semi-deserts and brush; savanna, tropical grasslands; prairies, temperate grasslands; chaparral, hardleaf vegetation; and waterless deserts.

This map has wonderful portrayals of a variety of animals and some interesting yet subtle flora depictions. One example is the iconic silversword plant representing Hawaii, and another is the sargassum seaweed floating in the area of the Sargasso Sea. Another rather nice touch is the bright orange starfish that Covarrubias incorporated into his compass design.

**Plate III: Art Forms of the Pacific.** Art was one of Covarrubias' primary interests, and he devoted significant detail to this topic in the Guide (Fig. 4, next page). He initially explained that his objective was to show a bird's-eye view of the artistic expressions, both ancient and modern, of the Pacific peoples. The major hurdles he encountered, besides a very short timeline, were the enormity of examples from which to choose and the near-impossible task of dividing the Pacific into meaningful and distinct cultural areas. Ultimately, he



Figure 4. Plate III: Art Forms of the Pacific

wrote that his cultural outlines must be used only as a general guide and not as an exacting study of cultural groups and their relationships. He delineated some broad swaths of cultural areas; however, on the map, the land areas are all brown, with no individual colors to distinguish them. There were over sixty diverse examples of art forms on the map, each carefully labeled with the associated cultural group or geographical area.

An especially interesting point in the Guide is his explanation of agricultural peoples' higher levels of art and cultural achievements relative to those of unsettled nomadic herders, hunters or gatherers, and the industrial workers of the modern world. He attributed this difference to the fact that "ancient, long-established sedentary agricultural peoples, with permanent cities and plenty of leisure between crops, turn to art," while the industrial workers "have to be engaged in all their available productive time in the struggle for the bare necessities of life"<sup>6</sup>. Clearly, one must see this statement in its pre-World War II context, as opposed to much of today's industrialized world.

**Plate IV: Economy of the Pacific Area.** Covarrubias' definition of economics, in its simplest form, was that it was the "fundamental exchange of commodities that sustain peoples" regardless of whether the commodities were from industrialized workers in Detroit or "naked hunters from the Amazonian jungles"<sup>7</sup>. He further postulated that the factors that influence economic systems are geographical and social and result in different approaches to land utilization as well as whether the products are for local use or export.

His map (Fig. 5) has fourteen color zones: non-agricultural



Figure 5. Plate IV: Economy of the Pacific

peoples on a primitive economic level; primitive shifting agriculture; rudimentary sedentary agriculture; intensive subsistence agriculture; nomadic herding; commercial livestock ranching; commercial dairy farming; commercial grain crops; commercial livestock and crop farming; commercial plantation crops usually for export; Mediterranean fruit and vegetable crops; specialized horticultural crops, such as dates; highly industrialized areas; and fishing areas. In addition, the legend shows eighteen plant crops, six animals, including fish, shipping, lumber, and eighteen extractive commodities. The map also includes many additional items, such as toys (Japan) and movies (Hollywood), all of which are labeled. Of all of Covarrubias' maps, this one has the greatest amount of detail.

**Plate V: Native Dwellings of the Pacific Area.** Covarrubias began his description by stating that the structure of native dwellings is primarily determined by climate and available materials which, in turn, are influenced by cultural connections as well as traditional forms and purposes. He then presented various groups and the materials at their disposal, such as animal skins, driftwood, mud, wood, thatch, brick, and stone. He categorized the dwellings, ranging from rudimentary shelters, such as lean-tos draped with skins or driftwood, to more elaborate wood, brick, and stone structures. Associated decorative aspects described included carvings, painting, weavings, and displays of totem figures.

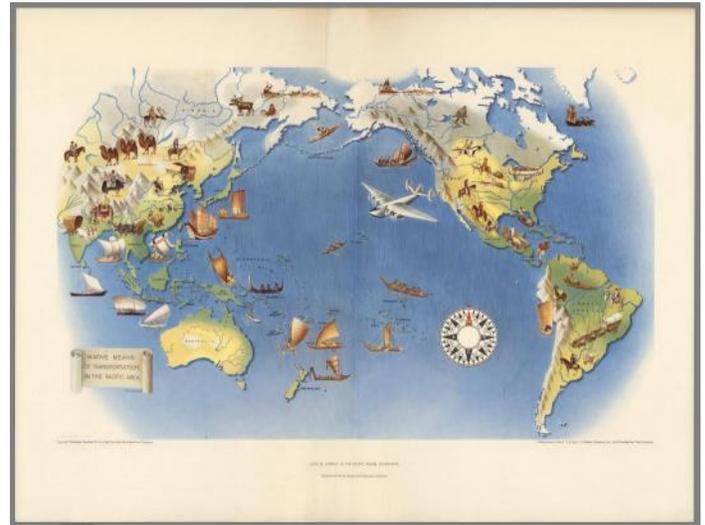


**Figure 6.** *Plate V: Native Dwellings of the Pacific Area*

Although there are no colored regions on this map (Fig. 6), he painted the ocean into zones of blue shades based on lines of equal water temperature, known as isotherms. The zones closest to the poles are almost white, and areas get increasingly darker blue as they approach the equator. He even denotes water temperatures in 10° increments. The most northerly and southerly regions range from 30° to 40°, while the equator's water is 80°. Interestingly, Covarrubias did not de-

scribe this in the rather brief discussion that accompanies the map.

**Plate VI: Native Means of Transportation in the Pacific Area.** The final map (Fig. 7) offers an interesting juxtaposition of animals and the various ways in which these were used in land transport, as well as the watercraft of the Pacific's great navigators. Covarrubias wrote that every type of domestic animal had been used for land transportation: dogs, reindeer, camels, yaks, llamas, zebus, water ox, as well as mules, horses,



**Figure 7.** *Plate VI: Native Means of Transportation, Pacific Area*

and oxen. He also highlighted the Old World invention of the wheel, which did not make its way to the New World until the Age of Exploration, and closed his discussion of these issues with this pronouncement, "[t]he greatest contribution to transportation of our times, the giant China Clipper stands as a climax and a symbol of the aims of the Pacific Area—bringing Asia to America and America to Asia in five days"<sup>8</sup>, and the flying boat was placed almost at center stage on this map.

After the Exposition closed, the murals were loaned to New York's American Museum of Natural History, and, subsequently, five of them were returned to San Francisco, where they were installed inside the Ferry Building. Unfortunately, the "Art Forms of the Pacific Area" mural was lost during the transfer and never recovered. In 2001, when the Ferry Building was undergoing renovation, the five remaining murals were transferred to the Treasure Island Development Authority (TIDA). Between 2004 and 2008, they were displayed in Mexico, and since their return, they have been in temporary exhibitions in Washington, D.C, San Jose, CA, and Los Angeles. They were exhibited at the de Young Museum in San Francisco between 2008 and 2018 and are currently awaiting a proper long-term exhibition location on Treasure Island as part of the TIDA's Development Project<sup>9</sup>.

I hope that readers will enjoy and appreciate the comprehensive work and knowledge involved in these maps and glean the wide-ranging information about the Pacific Area as was intended by Covarrubias and the organizers of this exhibit.

### Endnotes

<sup>1</sup> Covarrubias, Miguel. *Pageant of the Pacific*. San Francisco: Pacific House. 1940.

<sup>2</sup> If this had been 50 years later, it's no doubt that I, as a lecturer and cartographer in the UC Berkeley Geography Department, might have been part of this effort.

<sup>3</sup> Covarrubias. *Pageant of the Pacific*. Note: the 20-page Guide does not include page numbers, but the information can easily be found under the corresponding section.

<sup>4</sup> <https://exchange.umma.umich.edu/resources/38813/view#>

<sup>5</sup> <https://africanah.org/miguel-covarrubias-negro-drawings-1927/>

<sup>6</sup> Covarrubias. *Pageant of the Pacific*.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

<sup>9</sup> <https://sftreasureisland.org/miguel-covarrubias-pageant-pacific-murals>

### DAVID RUMSEY MAP COLLECTION

The map images in this article can be viewed and downloaded on the David Rumsey Map site:

<https://www.davidrumsey.com>. In the search box enter **Miguel Covarrubias**, then scroll down to the murals. Downloads are located in the “Media Information” panel on the left—scroll to the bottom. Viewing downloaded images may require the *Geo-viewer* program.

In 1990, **Cherie Northon** became the first woman President of the California Map Society. All of her undergraduate and graduate degrees are from the Geography and Anthropology Departments at UC Berkeley, where she was also a lecturer and department cartographer. She started her cartographic consulting company, Mapping Solutions, in 1985. Cherie moved to Anchorage, Alaska, in 1999, taught GIS for 5 years, and is currently the director of the Anchorage Waterways Council. Her collections include historical maps of China, California, and Alaska, and a variety of Pacific maps including a set of *Pageant of the Pacific* maps.

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\* Amazon reader reviews



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# MAPPING IN THREE DIMENSIONS: THE ART OF VICTORIA KOVALENCHIKOVA

AN INTERVIEW WITH THE ARTIST BY JULIET ROTHMAN

Maps and the arts, a combination well known from the beginning of cartography, expands and develops in new ways in our age of technology. The artist Victoria has created a very innovative way to portray the world artfully while using modern technology for accuracy.

Victoria determined at a young age that she wanted to be an artist. She attended Belarus State Academy of Arts in Minsk, Belarus, a classical, very traditional academy with an excellent reputation and faculty, and later Belarus National Art College. Following in the traditional footsteps of her instructors, her early works were in the classical tradition and were often landscapes. Upon graduation from the Academy, she began teaching at the Belarus State Pedagogical University. However, she always knew she wanted to be an artist, not a teacher.

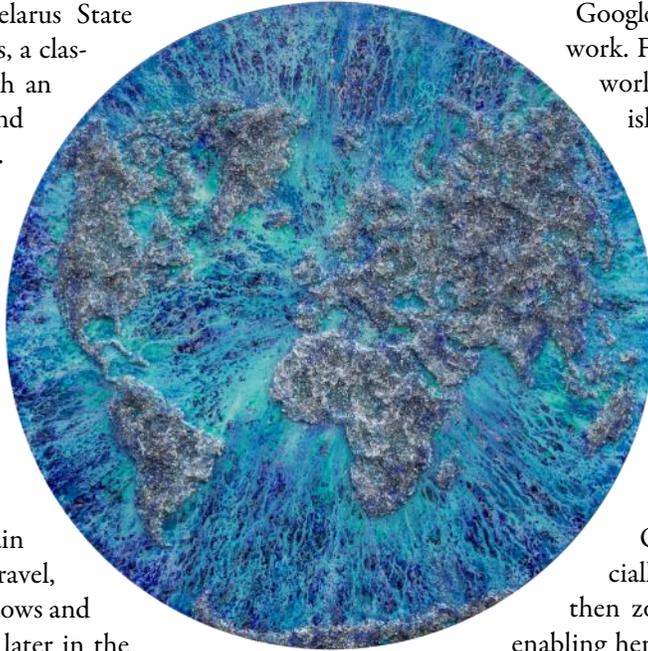
As her artwork began to gain recognition, Victoria began to travel, often abroad, taking her work to shows and exhibitions, first in Germany, and later in the major cities of Europe. She fell in love with Amsterdam and especially loved that so many of the streets in the city were named for famous Dutch artists. Resigning her position with the University in Minsk, Victoria moved to Amsterdam in 2008, where she currently lives and dedicated her life to art. At VK Studio and Gallery ([www.vkGallery.nl](http://www.vkGallery.nl)), her own art gallery, she both produces and sells her works.

Victoria speaks passionately about having wanted to find her own voice, wanting to find something original, something that spoke to her, that could speak to others, and that would be her special artistic focus. She wanted to “come up with something new” to “find (her) own way.” And—she “wanted an interesting subject.”

During her many travels to shows and exhibits, her horizon widened—literally—as she spent many hours “looking down” from the windows of the airplanes in which she flew. She was aware of how “it felt lonely up there, looking down”—but also of how special it was to be able to see “the planet from above.”

Then, both personally and technically, it all came together for her! She loved the structures of the landscape, as seen from

above. She loved the concept of the earth as a planet. She loved thinking of the earth as “ground itself”—the stuff of mountains and plains and shorelines and hills. And so her focus became to paint the world, with all its structures and all its different forms, using the materials of the earth itself. She calls her collections of these special paintings EARTH.



Google Maps is essential to Victoria's work. First, she determines the area of the world she will be working with, often islands, the Americas, the North Pole, (*Fig. 2, next page*) or the whole world itself (*Fig. 1, centered image*). Next, she projects the Google map of the area she has selected onto her canvas. Using a pencil, she draws the lines and contours. At this point, she says, her work looks like an abstraction, and it is very difficult, just by looking, to have any idea of what it will become.

Often, she finds features that especially interest her as she works. She then zooms in there with Google Maps, enabling her to add details and special features to her work. At that point, her map resembles a topographic contour map, painted in oils, her preferred medium.

The next step begins the complex structural part of her work, with a technique that she herself invented and developed. Using all-natural “earth” materials—stones, cement, sand, and resin, she builds out the contours of her map along the lines she has drawn on her canvas with Google Maps. (*Fig. 3, next page*). She creates her structures in layers, carefully following her outline and using Google to further study and refine features. For supplies, she says with a laugh, “I think I spend more time in Home Depot than in artists' shops!” (Yes, there is a Home Depot in Amsterdam)

While her oceans appear mostly blue, she says she “can do any color I want” on her structures. She mixes her oil paints with a medium such as a varnish or turpentine, which creates a marbled look. She enjoys mixing mediums and seeing them create colors and patterns on her canvas and structures. “The drops meet each other,” she says, “and they start to react.” Victoria uses 2-3 layers of paint on her maps and creates her maps and works on the floor, “like Jackson Pollock, except that he did 'dry' work, and mine is 'wet'.”

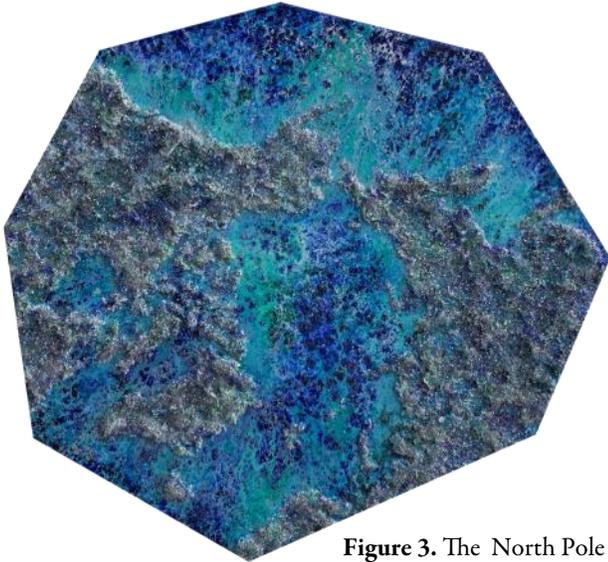


Figure 3. The North Pole

Victoria can choose any area of the world to create her maps, often deciding in the moment, in her studio. However, she finds that she is often drawn to areas of the world she does not know, and to patterns and lines that she especially likes. Her work is all about the earth and its colors and shapes and structures, and her guide is always Google Maps. She says that everyone always recognizes her work because the ideas

are always taken from earth itself, combined with “what is inside of me.”

Since 1997, Victoria has had more than 100 solo shows and group exhibitions in the United States, Europe, and Asia. Her art is displayed in many museums, including the Museum of Russian Art in Jersey City and the Kolodzei Foundation in New York City. In San Francisco, Victoria's art may be viewed at ZK Gallery.

\*I would like to thank Eric Belmondo from ZK Gallery for assisting me in contacting this wonderful and engaging map artist.

*Juliet Rothman*



Figure 3. The artist at work

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# MEET OUR MEMBER EMILY YANG

INTERVIEWED BY JULIET ROTHMAN

Emily is one of the newer members of the Society, having joined during COVID, but her enthusiasm for maps dates back to her high school years at Richard Montgomery High School in Maryland. There, she took a course titled “The Theory of Knowledge.”

The instructor showed the class a video clip from the show *West Wing*, which included a scene about the distortions in the Mercator projection.

Although Greenland and Africa appear to be the same size on the Mercator projection, Africa is actually *fourteen* times the size of Greenland. Emily became intrigued with the idea that we may *think* we are being objective when we look at, or create, a map, but that maps are fundamentally distorted in their attempts to transform a 3D world into a 2D object. Another example of the subjectivity of maps, Emily shared, is—that we think of North as always being synonymous with *up*, when in fact, this is a somewhat arbitrary convention.

She explored this further with the term “oriented.” Oriented, Emily says, comes from the word orient, and on medieval European world maps (*Mappae Mundi*), east often appears at the top. Islamic maps, she noted, often have south at the top, as Moslems originally lived North of Mecca. A south-oriented map would have those making pilgrimage looking *up* toward Mecca.

Also fascinating for Emily was the manner in which maps are centered which she considers to be very much affected by the individual(s) or auspices that create them, as well as the reason the maps are created. For example, Japanese maps are centered on the Pacific Ocean rather than on the Atlantic. Mapmakers cut the round earth in different places to meet different needs, and she notes that Atlantic-centered maps cut Pacific islands away from each other, and so distort the relationship between them.

Emily was born in Texas and lived there for five years when she and her parents and her older sister Melissa moved to Maryland. After high school, she attended the University of Pennsylvania, majoring in Economics and minoring in Statistics. She interned at Facebook in Menlo Park during the 2019 college summer and interned with Facebook again in 2020 from home due to COVID restrictions. She was hired imme-

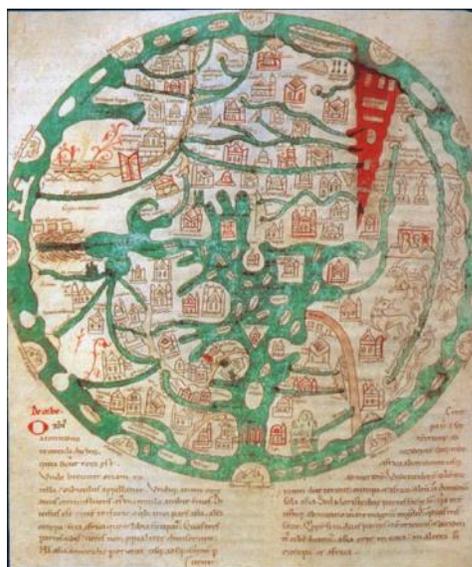
diately upon graduation and is currently working from home at Facebook in Maryland, using data methodology in Product Operations. When COVID restrictions ease, she will be moving to the Bay Area, near Facebook’s Menlo Park offices.

While sheltering at home during COVID, Emily has had a strong resurgence in her interest in maps. She began to collect maps in general and then noticed that many old maps that included, or were focused on, the Middle East, colored the Red Sea literally—red! (Fig. 1) This interested her, and she began research, still continuing, on how and why this cartographical convention developed. She also loves maps with monsters, such as Ortelius’ Iceland map.

Another of Emily’s particular interests in maps focusses on the way in which machine learning can convert a low-resolution map into a high-resolution one. This technology enables old maps to show details more clearly, and she has gathered some examples of this technology to illustrate how this may be used. Emily notes that this method can be used to clarify old videos as well. She hopes to

explore this aspect of cartography in greater depth. She has also reconnected with her earlier interest in map orientations and centering. She recognizes that the way in which a map is centered and oriented reflects the culture in which it is designed and used and hopes to explore this in greater depth.

In addition to maps, Emily enjoys reading and hiking and hopes to be able to travel more in the future. She’s very glad to be a member of the Map Society and looks forward to moving to the Bay Area, and to being able to both meet members in person and learn more about maps.



**Figure 1. Isadore World Map** showing the Red Sea in red.

Harvey, P.D.A. *Medieval Maps*. London: British Library Board, 1991. Print. As depicted on *Mapping Our Worlds*, Wordpress.com

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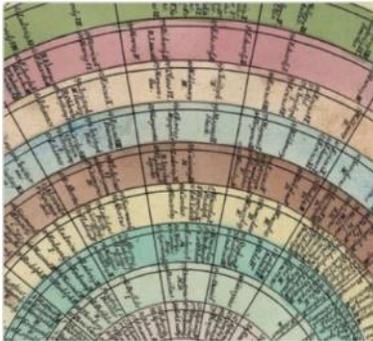
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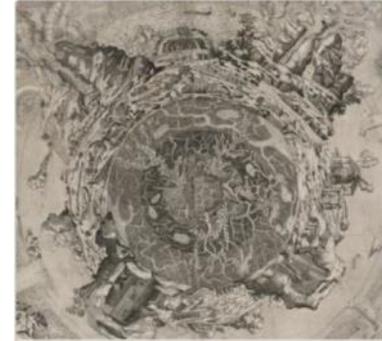
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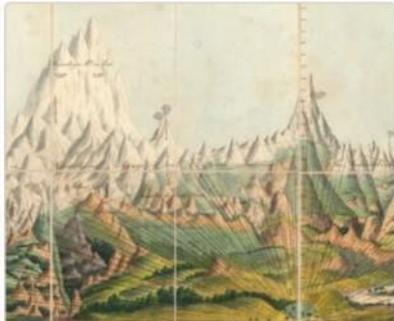
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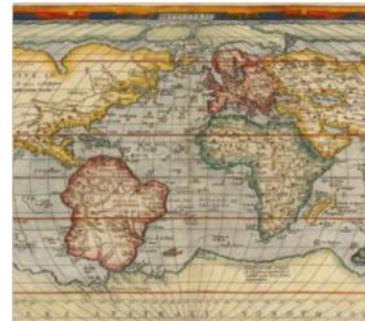
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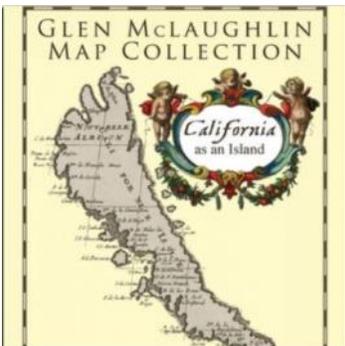
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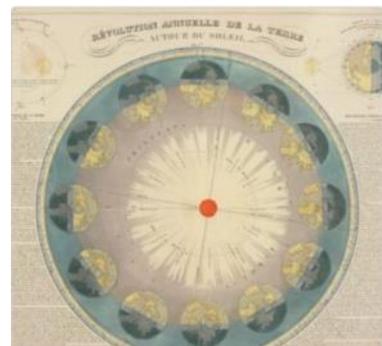
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- We promote a socially inviting place in which to share your interest in history, exploration, and all things cartographic, including online sharing with a Facebook group and Groups.io.
- And, we continue to produce *Calafia*, the Journal of CMS, mailed twice a year to all our members—a publication that brings to the reader a wide range of mapping articles and news, from contributors both here and abroad.

Any questions you may have on membership or the Society in general can be addressed to me at: [fred.dejarlais@gmail.com](mailto:fred.dejarlais@gmail.com)

*Fred DeJarlais, Publisher  
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**ELIZABETH KALIFON**  
1941—2021

Elizabeth Kalifon, who in 1964 bought her Malibu West home when it was just a concrete slab nestled between a stand of adolescent sycamores and an ancient California oak, died naturally and peacefully there Thursday under hospice care, loving husband David Kalifon at her aide.

Elizabeth Smith was born July 8, 1941, in Westwood, NJ, to Gerard and Thelma Smith, who after WWII relocated to booming Los Angeles. At San Fernando High, Elizabeth interviewed rock-er Ritchie Valens ("La Bamba") for the school paper.

Enrolled at UC-Berkeley, studying journalism as anti-war protests raged, Elizabeth used the word "fuck" on a visit home. Her father retaliated, yanking her out of Cal. Elizabeth and boyfriend Donald Rowe transferred to USC and married. Elizabeth ultimately earned four degrees, two bachelors and two masters.

An *LA Times* ad for a development at the west end of Zuma lured the newlyweds from their rented Hollywood apartment to acquire that concrete slab situated on a cul-de-sac full of promise. The year 1967 brought son Jeremy, today of Malibu Park. In 1972, the Rowe marriage ended. Elizabeth worked as a county social worker. She kept the house.

Elizabeth met James Walker at USC as she pursued a master's, he a doctorate, both in psychology. For her studies, Elizabeth paid Malibu West kids in silver dollars to run Stanford-Binet and Rorschach tests on them. Walker moved in, married Elizabeth and later adopted Jeremy who, like the cluster of Berkeley undergrads Elizabeth had admired there, attended Ojai's Thacher School. The plates on Elizabeth's burnt-orange Mercedes-Benz read "FLUFFEE."

The Walker marriage ended in 1985. Elizabeth changed her tags to "XXANAXX." She kept the house.

By then, Elizabeth was school psychologist at South Central LA's Foshay Jr. High, which she helped transform from warzone to K-12 Foshay Learning Center, spear-heading creation of its on-campus clinic integrating physical, mental and emotional healthcare.

Single as the '80s closed, Elizabeth and neighbor David Kalifon sparked in conversation at Trancas market. Their backyard wedding forged a love spanning over three decades

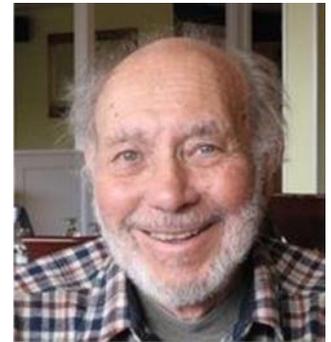
of shared world travel, classical music, wonderful neighbors, wildfires and floods, fogged-in mornings and sycamore-dappled afternoons.

[Publisher: Elizabeth's son, Jeremy, prepared this obituary. Elizabeth was a life member of the California Map Society and a frequent attendee at our regional meeting with her husband David.]



**RICHARD UMANSKY**  
1929—2020

Richard was born in the Bronx, NY, and lived with his parents and sister across the street from Yankee Stadium. He developed an early interest in maps at 13, in 1942, when the United States became involved in World War II. He had a large map on the wall of his room and tracked the battle lines with different colors of thumb-tacks.



He attended Bronx HS of Science, Antioch College, and Harvard Medical School. He served in the military in Yokohama, Japan. He became interested in Pediatrics, which was to become the focus of his medical career.

Richard felt the call of the Sierras, and moved west in 1960. Focusing on pediatrics, he did research at Stanford, and later created the Child Development Center in Oakland, which served children with developmental disabilities. He dedicated his professional life to serving the needs of children with disabilities and their families. Richard married his first wife, Joyce Scott, and had a daughter, Ilana. In 1987 he married his second wife, Kathleen Whitney, whose daughter Mimi had been one of his patients at the Child Development Center. Together, they raised his daughter and Kathleen's two children, while he pursued a fulfilling career in medicine and continued his interest in map collecting.

After retirement, Richard especially enjoyed the outdoors, studying Yiddish and taking piano lessons. He was a long-time, active member of the California Map Society, and enjoyed attending meetings and discussing maps and cartography. He is missed by all.

## A NOTE TO CALAFIA READERS

We receive a number of Calafia Journals returned to us by the US Postal Service due to incorrect addresses. Because we publish just two issues per year, the USPS change of address period often expires, and the journal is returned. It would be very helpful if members could post their new addresses to the contact area on our website, [HERE](#) (if viewing a PDF) or <https://californiamapsociety.org/page-18411>

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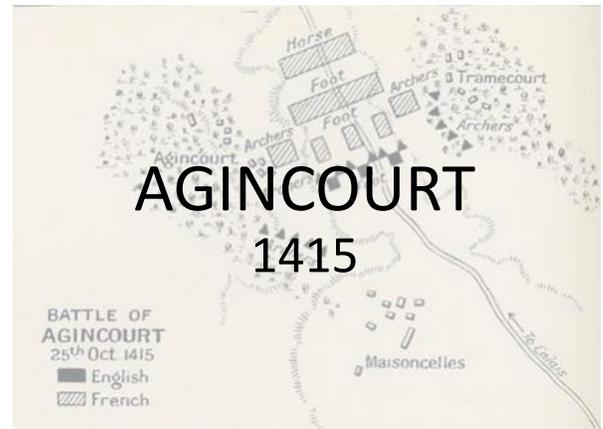
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## CARTO-QUIZ

### Answers



#### Map Sources

**Agincourt:** [https://www.shadowedrealm.com/medieval-maps/military/view/battle\\_of\\_agincourt](https://www.shadowedrealm.com/medieval-maps/military/view/battle_of_agincourt)

**Punic war:** All Empires, Online History Community, [www.allemperes.com/](http://www.allemperes.com/)

**Waterloo:** John Fawkes, [www.britishbattles.com](http://www.britishbattles.com)

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**CALAFIA**, the name of our Society's Journal, was a fictional warrior queen who ruled over a kingdom of Black women living on the mythical Island of California.

## CMS: WHO WE ARE

The California Map Society was founded in 1978 and became a non-profit corporation in 1987. We are a 501(C)(3) organization. Our purpose is to educate, preserve and disseminate information relating to historical and contemporary cartography, primarily that of California, both for our members and for the general public.

We do this by:

(a) holding conferences twice a year, one in the spring in Northern California and one in the fall in Southern California;

(b) co-sponsoring the annual Guest curatorial program at Stanford University's David Rumsey Map Center;

(c) sponsoring the California Map Society Lecture Series at Stanford Libraries and other venues;

(d) creating and maintaining a website that disseminates information worldwide about the Society, cartography and related matters;

(e) educating the public through Calafia, the Journal of the California Map Society and producing other occasional publications and media presentations;

(f) supporting advancement in map production, utilization and preservation; and,

(g) encouraging research and teaching in the field of cartography.

California Map Society

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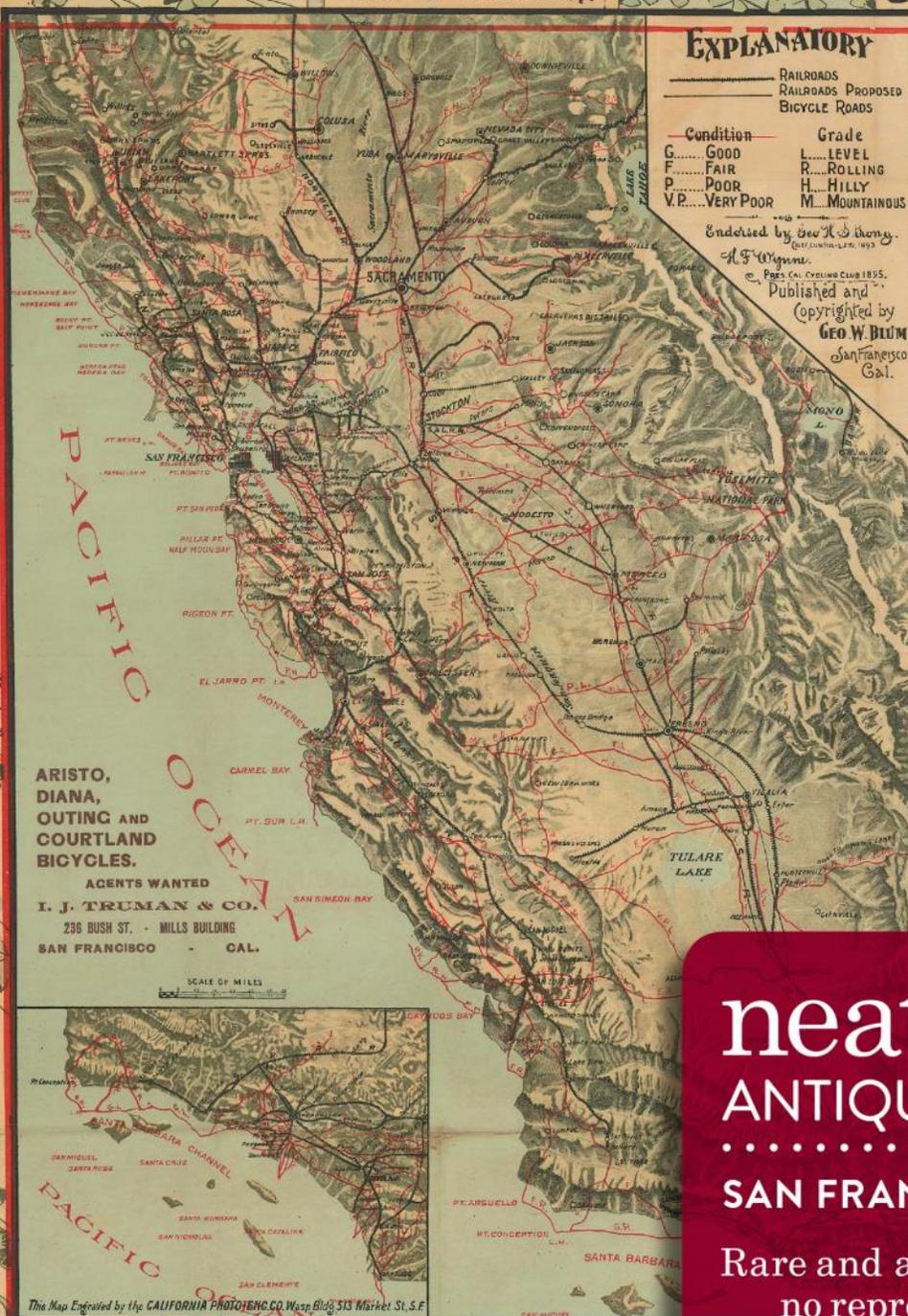
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