



CALAFIA

THE JOURNAL OF THE CALIFORNIA MAP SOCIETY

MAY 2022



Nahua generals consulting and following a military map (p. 33)



Old World Auctions

Specialist in
Maps & Atlases
Since 1977

"Surprising & fantastic results on the maps. I can see
you're the place to go if I have some good material!"

- Dave R.

We're not your typical auction house. We work hard to build trust in all that we do. Our consignors keep coming back to us because of our excellent customer service, fast consignor payments, & great results.



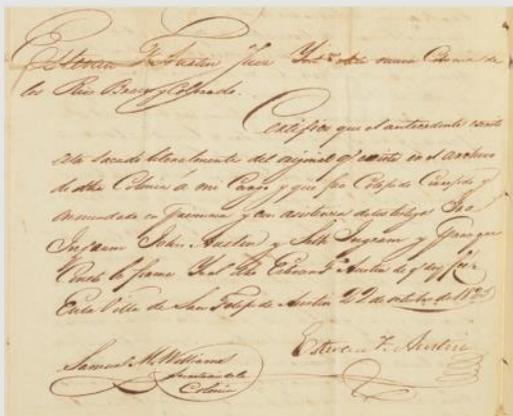
Visscher, *Atlas Contractus* (1675)

Sold for \$53,000



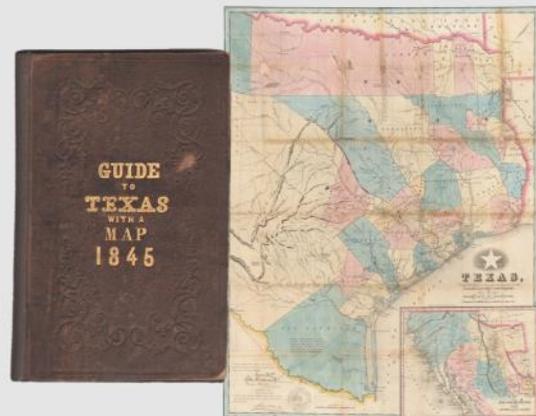
Fer, *La Riviere de Missisipi* (1715)

Sold for \$30,500



Stephen F. Austin Land Sales (1825)

Sold for \$18,000



Hunt/Randel, *Map of Texas* (1845)

Sold for \$34,500

PBA GALLERIES

**Auctioneers of
Rare Books, Maps & Manuscripts**



**Seeking Quality Consignments
Maps at auction every two months**

Bruce MacMakin 415.989.2665
bruce@pbagalleries.com

605 Addison Street, Berkeley, California 94710

2-3

Spring 2022 Meeting & Program

4-5

President's Letter

Ron Gibbs

Editor's Note

Juliet Rothman

CMS Education Fund

6

Fall 2021 Meeting Recap

Juliet Rothman

7

Carto-Quiz:

Fred DeJarlais

8

Francesco Rosselli, Renaissance
Cartographer Extraordinaire

Christopher Tyler, Ph.D, D.Sc.

11

An Unrecorded Portolan Atlas

José Luis Gonzalo

Richard Pflederer

14

GLAM Holiday Meeting

Therese Melbar

17

BAM Meetings

Tom Paper

18

Hiding in Plain Sight III

Carol Spack

ISSUE THEME

Indigenous Mapping

22

Walrus Tusk
Maps

Angela J. Linn



26

Indigenous
Cartography

John Cloud



30

Kansas
Petroglyph

Linea Sundstrom



33

Nahua
Cartographic
Histories

*Hayley
Woodward*



36

Participatory
Mapping in
Borneo

Daniel Scollon



41

My Favorite Map

"Americae Nova Tabula"

Richard Breiman, M.D.

45

Drink Map of Oxford

Stuart Ackland

47

Slated Globes

Leonard Rothman, M.D.

48

Apps for Maps:

Andria Olson

51

IMCoS, Brussels

Juliet Rothman

53

Meet Our Member:

Bill Brandenburg

54

Rumsey Center News

Fred DeJarlais

55

Obituary

Ronald Gustafson

56

CMS Page

CALAFIA

THE JOURNAL OF THE CALIFORNIA MAP SOCIETY
Volume 2022, Issue 1 — May 2022
www.californiamapsociety.org

Our 92nd
Regional
Meeting!

The California Map Society's 2022 Spring Conference June 4, 2022

In-person at the David Rumsey Map Center
Green Library, Stanford University
and virtually via Zoom

Register [here](#) or scan QR code



Tentative Agenda

- 10:00 - 10:30am Doors open at The David Rumsey Map Center, Stanford University
- 10:30 - 10:45am Opening Remarks, Ron Gibbs, President CMS & Tom Paper, VP CMS
- 10:45 - 11:30am Hampton Sides, In the Kingdom of Ice
- 11:30 - 12:00pm Rachel Bolten, Paradise in Panorama
- 12:00 - 1:30pm Lunch (in-person attendees may order and pickup lunches at Copa Cafe)
- 1:30 - 2:00pm Ron Gibbs, 1777: Decisive Year in the American Revolution
- 2:00 - 2:30pm An Interview with David Rumsey
- 2:30 - 2:45pm Break
- 2:45 - 3:15pm Leo Dillon, Cartography and Foreign Policy
- 3:15 - 3:45pm Grant Parker, Reimagining Slavery at the Cape of Good Hope
- 3:45 - 4:00pm Closing Remarks, Ron Gibbs & Tom Paper
- 4:00 - 4:30pm CMS Business Meeting

A Zoom link will be provided at a later date to registrants. Attendance is free and open to the public for both the in-person and virtual meeting. Please email Tom Paper if you have any questions (tom@websterpacific.com).

See following page for Detailed Bios and Talk Descriptions

DETAILED BIOS AND TALK DESCRIPTIONS

Hampton Sides: In the Kingdom of Ice: The Grand and Terrible Polar Voyage of the USS Jeannette

Historian Hampton Sides will speak about the voyage of the USS Jeannette, one of the most harrowing adventures of all time and the subject of his New York Times bestselling book, *In the Kingdom of Ice*. All but forgotten today, the Jeannette expedition was America's first official attempt on the North Pole (1879-1882), undertaken by the U.S. Navy. This tale of a Gilded Age expedition gone very, very wrong, is many things: An examination of the human will to survive, a portrait of a young nation pushing its way onto the world stage, an evocation of the power and strangeness of the natural world, and a compelling look at the pseudo-scientific theories spread by supposed "experts" like the infamous German cartographer August Petermann that sent many explorers to their early deaths. Above all, this little-known expedition from the Heroic Age of Exploration is a spellbinding and suspenseful journey—not only into the Arctic but into the very nature of man. Hampton Sides is an historian, an editor-at-large at *Outside Magazine* and a contributor to numerous newspapers and magazines. He has published numerous books and is now at work on a book about the third and final voyage of Captain James Cook. <http://www.hamptonsides.com>

Rachel Bolten: Paradise in Panorama

Rachel Bolten's talk will trace the lives and afterlives of the panorama in California, a form at its peak in the mid-1800s, but which survives well into the twentieth century. Ms Bolten began her research by looking closely at the 1878 Muybridge Panorama of San Francisco; after the 1906 earthquake and fire in that city photograph and lithograph panoramas were again made in large numbers, both as geologic record and morbid souvenirs of the ruin. She finds echoes of the panorama during the Depression, another moment of socioeconomic and environmental collapse: in the novels *The Day of the Locust*, *Ask the Dust*, and *Mildred Pierce*, in the disaster musical, *San Francisco*, and in the culture of the 1939 Golden Gate International Exposition on Treasure Island.

Rachel Heise Bolten is a lecturer in the Program in American Studies at Stanford University. <https://profiles.stanford.edu/rachel-bolten>

Ronald S. Gibbs: 1777: Decisive Year in the American Revolution

At our Spring 2018 Meeting, Ron Gibbs presented "On the Brink of Disaster: George Washington and The American Revolution, 1775-1776." In this new lecture, CMS President Gibbs will jump back with us to the momentous story of the Campaign of 1777 and show why, with historic maps and images, it proved to be the Decisive Year of the American Revolution."

Ronald S. Gibbs, MD, President of the California Map Society, has lectured and written frequently on American history and cartography. He is Clinical Professor of Obstetrics and Gynecology and Knowles Distinguished Scholar at Stanford University. <https://ronaldsgibbs.com>

An Interview with David Rumsey

David Rumsey will be interviewed by Tom Paper, Vice President of the California Map Society. Tom will talk with David about his early years and college, his first work experiences involving art and technology, his transition to real estate development and his current activities with the David Rumsey Center, Luna Imaging and Cartography Associates.

David Rumsey is President of Cartography Associates, a digital publishing company based in San Francisco, and is Chairman of Luna Imaging, a provider of enterprise software for online image collections. <https://www.davidrumsey.com/about/david-rumsey>

Leo Dillon, Cartography and Foreign Policy

Maps are an important tool for crafting foreign policy, and in return foreign policy is an important influence on elements of maps. The presenter will draw from his 34 years of experience as a cartographer and geographer at the U.S. State Department to describe the intersection of map making and foreign policy, and to give examples on how boundaries, depictions of territorial sovereignty, and geographic names shape the maps we use in ways we often take for granted.

Leo Dillon is recently retired, formerly with the Office of the Geographer and Global Issues, U.S. Department of State. [State Magazine](#). [Wired Magazine](#).

Grant Parker, Reimagining Slavery at the Cape of Good Hope

This lecture will canvas historical maps as sources of insight into lives, both enslaved and slave-holding, at the Cape in the early colonial period. Grant will consider how selected maps tacitly embed narratives on both a large and a small scale and how they reflect both continuity and change. The lecture will draw on Stanford University's map collections.

Grant Parker is an Associate Professor of the Department of Classics at Stanford University and a Faculty Affiliate of the Center for African Studies. <https://profiles.stanford.edu/grant-parker>

PRESIDENT'S LETTER

RONALD S. GIBBS, MD
CMS PRESIDENT

Confessions of a Cartophile

Cartophile: n. One who greatly admires and enjoys maps.¹

Dear Society Members and Friends,

My love affair with maps grew from my boyhood interest in early American history. Growing up in Philadelphia, I often visited shrines of the great American story—Independence Hall, The Liberty Bell, Brandywine Battlefield, and Washington's Crossing. My wife Jane started our family collection of 18th Century maps by giving me two Revolutionary War battle maps for my birthday, nearly 40 years ago. Like many members of the California Map Society, my interest goes beyond collecting; it sometimes seems more like an affliction or an obsession. It is even difficult to describe the thrill of finding a map, examining it in detail, and then giving it a new home. I have often taken a personal interest in our maps, wondering about previous places they have been in their 200-300 years since publication. In every step, Jane has been an enthusiastic partner. When I have not been certain as to whether we should acquire a special map, I always asked her, and her answer was usually, "Yes, get it."



I also confess to the joy of seeing other maps, in colleagues' collections or in great libraries and museums throughout the United States and in Europe. Altogether exploring maps brings enhanced understanding to history, current events, discovery, and the science of exploration. In 2021, with CMS Vice Presidents Tom Paper and Courtney Spikes, we were able to demonstrate these insights in two journal articles.^{2,3} And during the two years of the COVID-19 pandemic, we have seen how modern maps are used to show the virus's status to the American public. Maps are used, for example, to show case rates, fatality rates, and vaccination rates.

Yet another confession is the great friendships one makes in the world of maps. Here in the California Map Society, we have a dedicated membership who come from diverse personal and professional backgrounds. During the COVID-19 pandemic, CMS officers and committee members have responded by providing a robust series of meetings, mostly virtual but one even as a hybrid last summer. Our journal, *Calafia*, edited by Juliet Rothman and published by Fred

DeJarlais, has achieved wide recognition internationally. One recent innovation has been providing a theme for an issue, with Native American maps being highlighted in this spring issue. Then, with the advent of virtual meetings of other map societies in North America, there is an excellent opportunity to meet other cartophiles virtually across the nation. When we lived in Denver, Jane and I also made great friends in the Rocky Mountain Map Society.

Finally, as a physician, I'd like to add a note about the prognosis for those afflicted with cartophilia. There is no known cure, but it is compatible with a long and happy life!

So, my confession about being a cartophile is broad and long-running. I look forward to greeting others so afflicted virtually at the spring virtual meeting on Saturday, June 4, 2022 and to face to face greetings at future meetings. I wish all good health and safety.

Best wishes,

Ronald S. Gibbs, MD

Endnotes

¹ <https://www.urbandictionary.com>

² Gibbs R, Spikes C, Paper T. "Terrain and Tactics, British War Plan of 1776," published on-line in *Journal of the American Revolution* on October 12, 2021. To read the article, click this link:

<https://allthingsliberty.com/.../terrain-and-tactics.../>

³ Gibbs R, Spikes C, Paper T. "The Fortunes of War: British Battle Maps of 1776," *Calafia, the Journal of the California Map Society*, 2021, issue 2(September),pp 28-31. To read the article, click the Google Drive link below.

<https://drive.google.com/.../1mWq0OIpyGaDkJqrQQcK.../view...>



EDITOR'S NOTE

JULIET ROTHMAN
CALAFIA EDITOR

Our Spring edition includes a very wide variety of special and interesting articles which are, literally, "all over the map"! The issue's theme, Indigenous Mapping, takes us from Alaska to Mexico, as we learn about maps on walrus tusks with Angela Linn, explore a Kansas petroglyph map with Linea Sundstrom, learn about storytelling, place names and memories on indigenous Nahua maps in Mexico with Hayley Woodward, and travel from Alaska to Mexico with John Cloud, exploring various different map traditions and methods. Although our focus has been on the North American continent, we leave it for Borneo to learn about participatory community mapping by indigenous groups from Dan

CMS EDUCATION FUND

Scollon, who shares his hands-on experiences as he organized and led many of these groups. Mark Warhus, author of *Another America: Native American Maps and the History of our Land*, will be continuing our theme in the fall edition with an article on Native American mapping.

Special articles in this issue move us through history. We are introduced to the early 16th century with Christopher Tyler's Rosselli map, the first world map with meridian lines, and move on to Richard's Pflederer and Jose Luis Gonzalo's tracking of a very rare Battista Agnese atlas' complex history. Carol Spack shares maps of Boston in the third of her article series, as we search for what's "Hiding in Plain Sight," and Leonard Rothman explores three very different kinds of globes used in teaching geography from colonial times to the present day. Stuart Ackland takes us on a drinking tour of Oxford's 319 pubs, breweries, and beer houses with an 1883 map, whose purpose, when it is revealed toward the end of the article, is sure to draw a smile—or even a laugh!

We meet our member, Bill Brandenburg, and learn about Richard Breiman's favorite map, Blaeu's *Americae Nova Tabula*. Andria Olson of the Geography Division of Green Library at Stanford shares a very special app for maps, and we see what BAM and GLAM have been up to with Tom Paper and Therese Melbar. With fellow map members Bill and Macy Brandenburg, Tom Paper and Eleanor Bigelow, and Leonard and I attended the IMCOS meeting in Brussels. I asked one of the leaders of the Brussels Map Circle to share her insights into the history and development of their circle, to give us some idea of another circle's organization, interests, and activities. We also had the opportunity to visit various museums, collections, and archives in Brussels, and I share some of the highlights of these. Enjoy this issue, and, as always, we especially welcome articles by members and readers, and hope you will consider contributing to a future edition.



A Full Calendar of Meetings and Events Worldwide is available on **John Docktor's** website at: www.docktor.com

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 list above includes cash contributions made under both contracts with the Rumsey Map Center Please consider adding your name to this very special list.

CMS FALL MEETING

SEPTEMBER 25, 2021

IMAGES FROM ZOOM VIDEO

The first presenter at the Fall Southern California Regional meeting was **Stephanie Curci**, Phillips Academy Andover. Stephanie Curci is the Recent Chair of the English Department at Phillips Academy Andover and 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. <https://www.mappinghaitianrevolution.com/> Ms Curci presentation focused on her Interactive Map and Timeline of the Haitian Revolution. The base map used was an 1803 map present-day Haiti and Dominican Republic. (Fig. 1) The data-rich presentation was illustrated by a series of plates showing the progress of the revolution chronologically. (Fig. 2)



Figure 1. *Map of St. Domingue*, J.B. Poirson, engraved by Tardieu the Elder, 1803, Bibliothèque Nationale de France at gallica.com



Figure 2. Screenshot from presentation.

The second presenter was **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). The intent of his talk was to decolonize the history of Florida

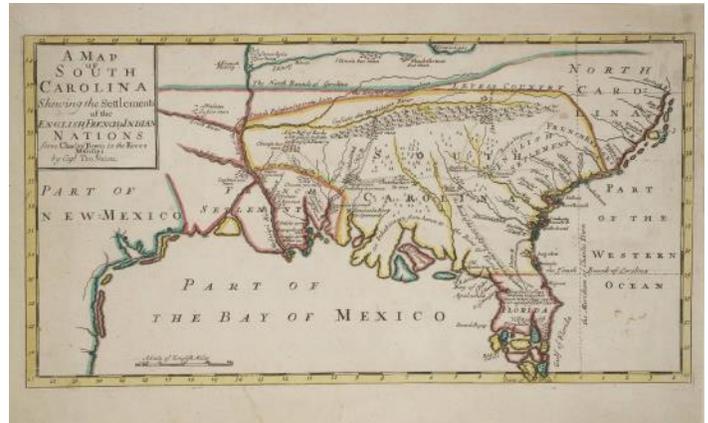


Figure 3. *A Map of South Carolina: Shewing the Settlements of the English, French, & Indian Nations from Charles Town to the River Mississippi*, Thomas Nairne, 1711. Image courtesy of the Huntington Library.



Figure 4. *"A new map of the north parts of America claimed by France under ye names of Louisiana, Mississippi [i.e. Mississippi], Canada, and New France ..."*, Herman Moll, 1732. Image courtesy of the Library of Congress.

to connect the modern Seminole and Miccosukee Indians with their diverse ancestors who lived in the territory in the fifteenth century. He contends that outsiders have long justified the dispossession of Indian lands by denying Seminole kinship with their Calusa, Tequesta, and Ais ancestors and their lands. He supports the Seminole's oral testimony with a closer look at maps (Fig's 3, 4; Fig. 5, next page), archaeological and historical evidence. The title of his talk was *Indigenous Floridians in the Time Before Memory*.



Figure 5. Screenshot from Professor Frank's talk.

The final presenter was **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 (Fig. 6). In addition to the images shown here you can also view more of his work at Muir Way (www.muir-way.com/collections/vintage-relief).



Figure 6. Screenshot from Mr. Conway's presentation, illustrating Eduard Imhof's historic techniques within modern mapping technology.



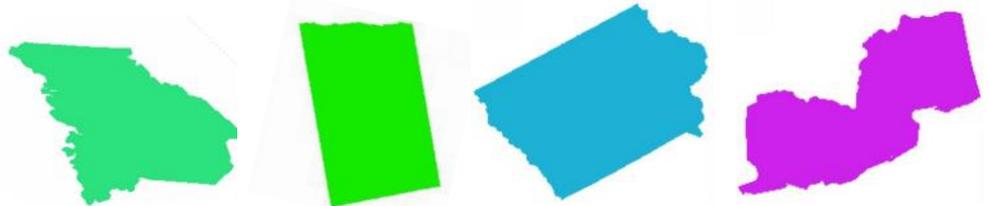
Figure 7. Screenshot from Mr. Conway's presentation. Island of Guam (work in progress)



Figure 8. Detail from Fig. 7

CARTO-QUIZ

Name the disoriented US states!



FRANCESCO ROSSELLI, RENAISSANCE CARTOGRAPHER EXTRAORDINAIRE

CHRISTOPHER W. TYLER, PH.D, D.SC.

Although Francesco di Lorenzo Rosselli was a well-known cartographer in (very) early 16th century Florence, he does not seem to be recognized as the truly gifted innovator he actually was. He is principally recognized for drawing the first *printed* map to show the New World, in about 1506, but this was really only a small cartographic advance, as hand-drawn world maps had been showing the New World for several years, beginning with Juan de la Cosa in 1500, and by the printed versions of Martin Waldseemüller's first world map of 1505. Rosselli was, however, the author of at least four world maps, each in a different cartographic pro-

jection, of the classic Ptolemaic projection and showed the known world in a Mid-East-centered quadrant of the northern hemisphere. He utilized the 'apron' format, widely promulgated in the mid-1400s, as translations of the second-century Roman text of Ptolemy's classic *Geographia* became available.

Ptolemy was remarkable in Roman times, not only appreciating that the Earth was a globe but for proposing no less than six different projections of the curvature of the Earthly globe to the flat surface of the page (*Fig. 2*). These were the cylindrical ('Mercator') projection, the 'Ptolemaic' conical projection, the 'stereographic' projection to a tangent plane,

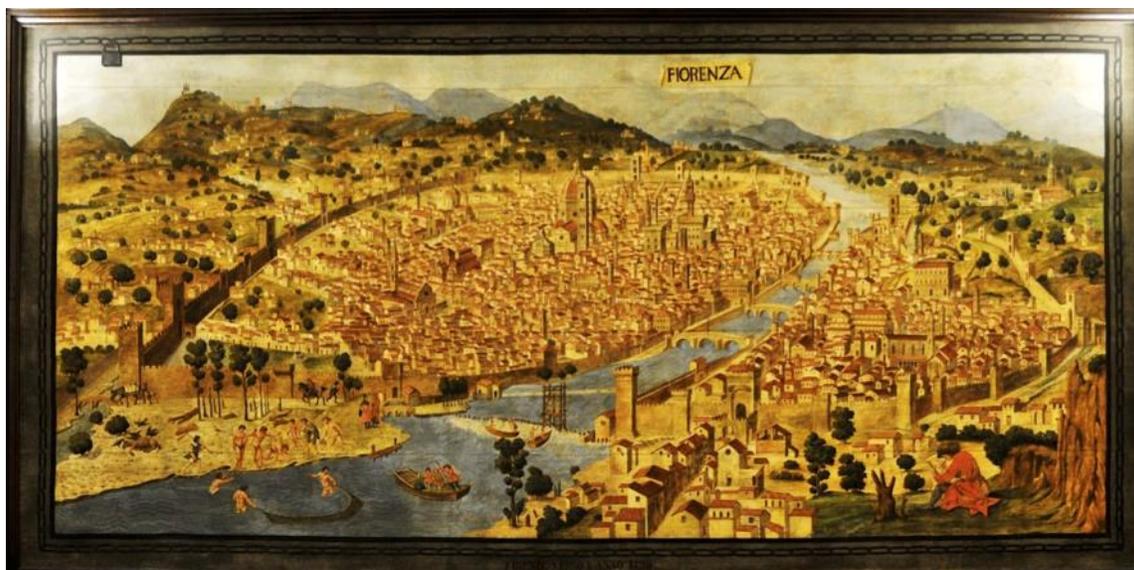


Figure 1. 19th-century reproduction of 'A View of Florence' (known as the 'Della Catena (Chain Map)') by Francesco Rosselli (1470s).

jection, of numerous local maps of Central Europe, the Balkans, Italy, Hungary, and Palestine, and of town plans of Rome, Florence, Pisa, and Constantinople. He has also been recognized (Brockhaus, 1911) as the painter of a compelling bird's-eye view of his hometown of Florence (*Fig. 1*), viewed from a hillside at lower right by an evocative sketching artist.

Rosselli was born in Florence in about 1447 and first worked in Siena as a miniaturist. By 1470, he had returned to Florence and established a workshop for the woodcutting and engraving of maps and various pictorial modalities in his house at the Costa San Giorgio, just inside the city walls in the foreground of the further bank of the river in *Figure 1*. He later expanded these premises by adding a bookstore and becoming the first bookseller in history to sell his own local and world maps, as well as those of others. His first maps were

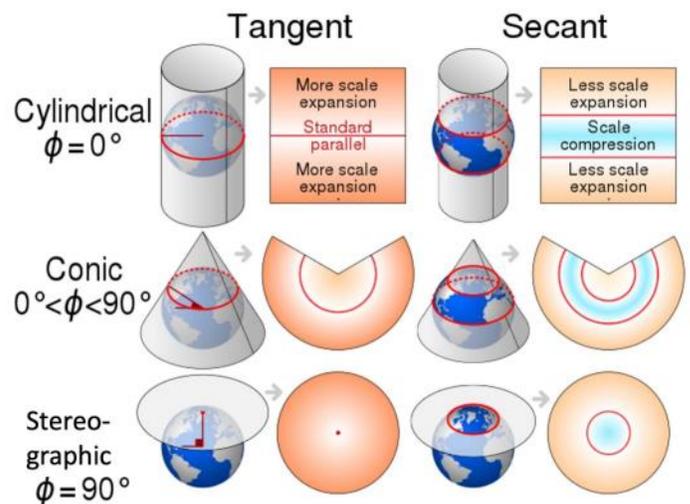


Figure 2. The three spatial mappings from Ptolemy's *Geographia* (from NASA / CMG Lee).



Figure 3. The first full conical projection of the globe, by Giovanni Contarini and Francesco Rosselli (1506, British Library, London).

and the 'Secant' versions of each. However, the Renaissance cartographer had to reconstruct the actual geographic configurations from Ptolemy's textual descriptions, a complex and challenging task.

As one of the most remarkable proponents of this effort, Rosselli collaborated with Giovanni Contarini to generate the first complete projection of the northern hemisphere in the Ptolemaic conical format, dated 1506 (*Fig. 3*; *see Fig. 2*), though still geographically incomplete.

Rosselli's best-known map is the oval planisphere, usually dated to ~1508 (Almagià, 1951). However, before analyzing this map, it is important to note the recent realization of a second world map on the reverse of the same sheet, in a completely different format, known as his Universal Marine Map. This was actually the first complete cylindrical projection in history (*see Fig. 2, top row*) and is depicted with partial self-repeats on either side to illustrate how the map wraps into a cylinder. (*Fig. 4*) This projection's unique strength is that distances along a constant heading project as straight lines on the map. These are drawn through the ring of 16 compass roses around the lines center, as in portolan navi-

gational charts. These lines are of particular value for marine navigation, such they are arranged so that many of them are located on land rather than in the oceans.

It is important to note that this projection is an accurate precursor of the well-known Mercator projection, formalized by Gerhard Mercator in 1569, about six decades later. One might propose that Mercator's projection be renamed the "Rosselli-Mercator" projection, in view of Rosselli's precedence!

As noted above, Rosselli's best-known world map is his oval planisphere (*Fig. 5*), complete with a dozen wind-heads in the clouds around the perimeter, notable in several important respects. One is the shading

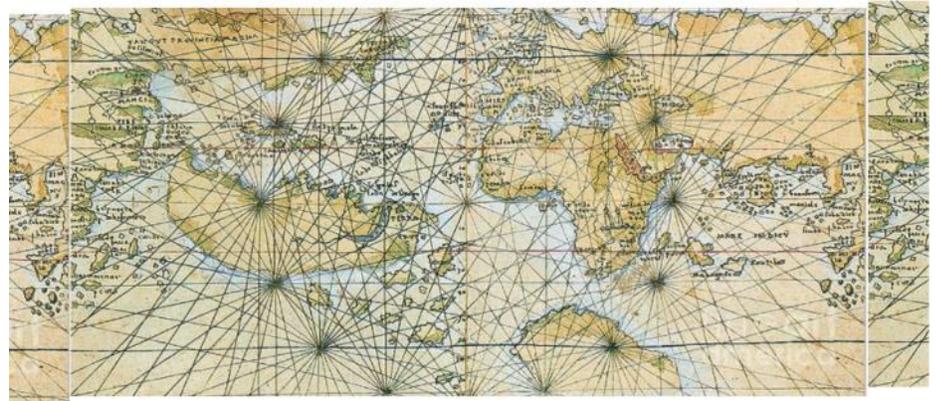


Figure 4. 'Universal Marine (World Sea) Map' by Francesco Rosselli (~1504, Greenwich Museum, London).

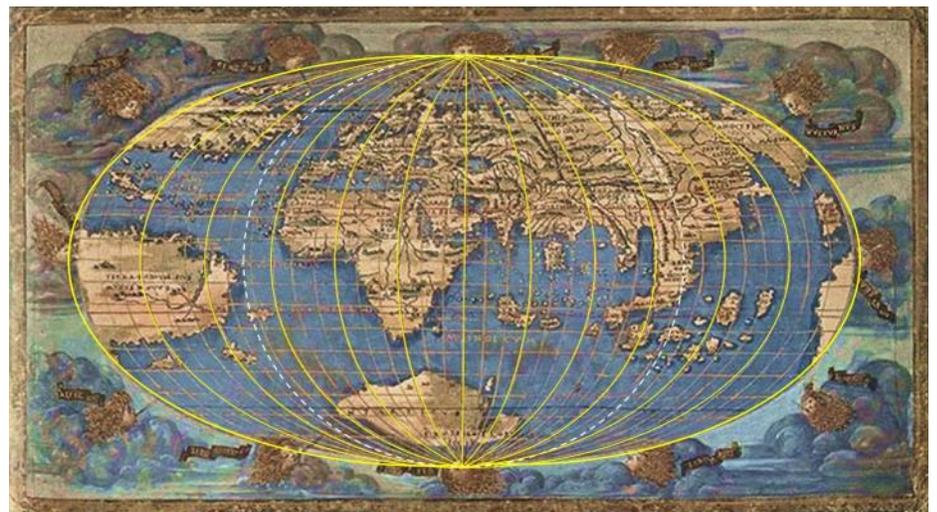


Figure 5. 'Oval Planisphere' by Francesco Rosselli (~1503, Greenwich Museum, London) with overlaid best-fitting elliptical segments, which had to be done separately for the left and right halves of the projection in order to obtain approximate fits.

around the continents, which gives them a unique, three-dimensional appearance. Another is that it is the first world map projected in oval format, representing a novel solution to the problem of projecting a spherical globe onto a flat plan¹. While the central region approximates a conventional projection of one side of the spherical globe (white dashed circle), the expansion of the invisible far side into elliptical wings was Rosselli's own novel concept. It was not formally developed into the accurate elliptical projection until Mollweide (1805), but Rosselli clearly anticipates this concept centuries earlier (Heawood, 1923), as can be seen from the yellow elliptical curves overlaid here on his projection (Fig. 5).

It should be appreciated, moreover, that it is very challenging to construct a set of nested geometrical ellipses in this form since the only feasible method is to use two pins and a loose loop of string (held taut by the stylus point). There is no known procedure that provides for equal spacing of the intersections of the different-sized ellipses with the equator, which is evidently the backbone of this projection. The easier approach, utilizing a 'racetrack' oval, was not introduced until 1520 by Pietro Coppo. It would seem that Rosselli must have derived his quasi-elliptical meridian curves visually. In view of its originality at this early date, therefore, this projection deserves recognition as the 'Rosselli-Mollweide elliptical projection'.

In terms of their geography, it is evident that both of Rosselli's conjoint projections (Figs 4 and 5) are based on similar information, with the 15th-century Ptolemaic truncation of India and enlarged Sri Lanka and an incomplete South America separated from the vestigial Maritime provinces in the north, which are attached to an extended Asian landmass. The traditional dating of 1508 may be suspect, as these maps both lack the notable extension of South America north into a part of Central America, as featured in Waldseemüller's grand planisphere of 1507. As a purveyor of maps from his bookstore in Florence, Rosselli should certainly have been familiar with this distinctive feature. Thus, the inclusion of the Caribbean islands from Columbus' voyages of the 1490s, but not the Central American spur, supports an earlier dating of this conjoint pair of maps from Waldseemüller 1503-4².

In summary, it seems clear that Francesco Rosselli should receive greater recognition as the first cartographer to employ the three known major projections of the globe—the conical, the cylindrical, and the elliptical, and moreover to do so in complete form. This is noted by his inclusion in the table of about 80 different projections listed on the Wikipedia page:

https://en.wikipedia.org/wiki/List_of_map_projections.

Although only his cartographic contributions have been included here, Rosselli should also be recognized for his extensive skills as a manuscript illuminator, a groundbreaking

bookseller at the dawn of printed books, an innovative painter of urban scenes, and a popular engraver of powerful images of prophets and sybils that may well have inspired those in Michelangelo's design of the Sistine Chapel. This broad variety of accomplishments makes Francesco Rosselli a true Renaissance man.

References

- Almagià R. (1951) On the cartographic work of Francesco Rosselli. *Imago Mundi* 8, 27-34.
- Brockhaus H. (1911) *Di grosse alte Ansicht von Florenz*. Mitteilungen di Kunsthistorie. Institut im Florenz: Berlin 2, 61-5.
- Heawood E. (1923) A hitherto unknown world map of A. D. 1506. *The Geographical Journal*, Vol. 62 (4), 279-293.
- Tyler C. W. (2021) Early cartography of the Caribbean and the North American continent. *The Portolan* (in press).

Endnotes

¹ Leonardo da Vinci drew a diagram of an oval projection of the globe around this period, as discussed in relation to the Rosselli planispheres by Tyler (2021, in press). Given Rosselli's availability in his bookstore in Florence and da Vinci's longstanding interest in cartography, it seems inevitable that they would have met, and likely that Rosselli would have been a key source of da Vinci's extensive knowledge of cartographic projections. The dating of Rosselli's conjoint pair of world maps in Figs. 4 & 5 needs to be coordinated with other significant cartographic events of the period. Vespucci's inaugural description of the South American coastline was published in Florence in 1503, and news of the true triangular shape of India based on Vasco da Gama's second voyage would have reached Rosselli in Florence by ~1504, as represented in the forms of India in the Cantino, Cavario and Kunstmann II world maps. Since Rosselli's pair of maps show the coast of South America, but still have the old Ptolemaic form of a truncated India, these timings imply a dating to ~1503-4, rather than the usually accepted date of 1508.

² The dating of Rosselli's conjoint pair of world maps in Figs. 4 & 5 needs to be coordinated with other significant cartographic events of the period. Vespucci's inaugural description of the South American coastline was published in Florence in 1503, and news of the true triangular shape of India based on Vasco da Gama's second voyage would have reached Rosselli in Florence by ~1504, as represented in the forms of India in the Cantino, Cavario and Kunstmann II world maps. Since Rosselli's pair of maps show the coast of South America, but still have the old Ptolemaic form of a truncated India, these timings imply a dating to ~1503-4, rather than the usually accepted date of 1508.

A frequent contributor, **Dr. Tyler's** articles have also appeared in the Fall 2019, Spring 2021, and the Fall 2021 issues of *Calafia*.

AN UNRECORDED PORTOLAN ATLAS OF BATTISTA AGNESE IDENTIFIED IN SPAIN

JOSÉ LUIS GONZALO
RICHARD PFLEDERER

In some cases, the history of a precious manuscript during the centuries after its production—its changes in ownership, its movement around the world, *et cetera*—might be more interesting than the actual content of the piece. This may well be true for a rare and valuable atlas, drawn by Battista Agnese, which was recently donated to the National Library of Spain. The manuscript in question is a previously unrecorded atlas authored by Battista Agnese, and its story is an interesting one. Let's start with its latest, and we hope final chapter.

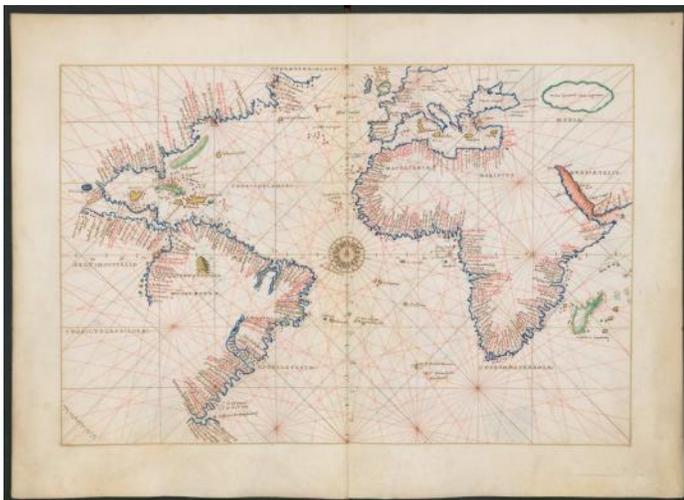


Figure 1. The second chart of the newly identified Agnese atlas showing the Atlantic Ocean.

In the final months of 2020, a unit of the Spanish police, the Brigada de Patrimonio Histórico, received a tip that a manuscript portolan atlas, drawn by Battista Agnese, which had been sold at auction shortly before, might possibly be departing the country. Suspecting that the owner of the atlas may have taken it out of Spain without requesting the required authorization from the Ministry of Culture or that he intended to do so, the Spanish police contacted the owner. After arduous police inquiries and on-site analysis of the manuscript by staff from the National Library of Spain (BNE) and Professor José Luis Gonzalo (one of the authors of this article) in December 2020, it was determined that the atlas was authentic and that it had indeed been sent out of the country, specifically for cleaning and minor restoration. Complex negotiations began with the owner, and concluded in a fruitful and satisfactory manner for both parties. In July 2021, a press release of BNE announced the definitive trans-

fer of this unrecorded Agnese atlas to the Spanish state and is now part of the library's collection of cartographic manuscripts. Before getting into the history of this atlas preceding its donation to the BNE, it might be worthwhile to understand something about its author and its production.

Battista Agnese was born in Genoa sometime in the late 15th century, but early on, he moved to Venice, where he apparently did his work. While he was best known for producing atlases, his earliest surviving work is an individual chart, drawn on a full sheepskin, which was signed and dated in 1514, and is typical of the sea chart tradition known as "portolan charts," which began in the late 13th and continued well into the 18th century. For a period of twenty years after the production of this chart, there are no known works by Agnese, but, beginning in 1536 and continuing for thirty years, we see a steady production of manuscript atlases of sea charts, each one containing between six and thirty charts. The cartography and stylistic characteristics of these atlases were consistent with the larger individual charts, but these atlases were not intended for navigation aboard ship. Rather, they were extremely fine, luxurious works of art intended for the libraries of important personages, such as Bishops, Cardinals, Abbots, Dukes, and even Kings. Among the recipients of these atlases were two kings, Henry VIII of England and Carlos I of Spain, who also held the title Carlos V, Holy Roman Emperor.

The atlas, which is the subject of this article, contains an elaborate coat of arms (*Fig. 2, next page*) drawn on a full page. It has been identified as that of Prince Philip of Spain, son of Carlos V, who would succeed his father as Philip II, King of Spain, in 1555 and would assume the crown of Portugal in 1580.

Once the original owner had been identified, it was possible to trace the provenance of the gift, as recorded in the accounts of the imperial heir's *Libro de Cámara*. Two documents elaborate on both how and when the atlas came to be in Spain. The first confirms that the atlas was a gift from Diego Hurtado de Mendoza, Carlos V's ambassador to Venice, to Prince Philip around the year 1546, when Philip was nineteen years old. This document is a payment order made in 1547, to one Rodrigo Espinosa, a carpenter, "for a box for an atlas sent from Venice to his highness by Don Diego de Mendoza." The second is another payment order from the prince's office, this one to the noted painter and illuminator Diego de Arroyo, also in 1547, for painting "two royal coats-of-arms of



Figure 2. The coat-of-arms of Phillip, which was painted after the atlas arrived in Spain.

his highness illuminated in gold, one in the atlas that Don Diego de Mendoça sent from Venice, the other on a separate parchment"¹.

As mentioned above, Philip's father, Carlos V,

had ordered an atlas from Battista Agnese. A catalogue published by the John Carter Brown Library notes that, "... this atlas was made at the order of Charles V, the Holy Roman emperor, to give to his son Philip, sixteen years old in 1543..."

It has been suggested that the extensive illuminations decorating the folios of the atlas were the work of the Croatian-born miniaturist Giulio Clovio (1498-1578), who worked mostly in Italy, and who was also the creator of twelve miniatures celebrating the military victories of Carlos.



Figure 3. Carlos and Phillip from contemporary portraits.

On the first leaf of this atlas, under the inscription "*Philippo Caroli Aug. F. Optimo prin. Providentia*", were painted a medallion with the portrait of the emperor, an imperial coat of arms, and a scene with the young prince Philip receiving the globe, as a symbol of his future role in world government. Given the elaborate classical decorations, the 1543 atlas is considered by many to be the most beautiful example of Agnese's entire body of work.

So, it would seem a bit curious that just four years later, Carlos V's ambassador to Venice, Don Diego Hurtado,



Figure 4. Western Europe as depicted in the Agnese atlas commissioned by Carlos about 1543.

would have gifted Philip another atlas by the same author, especially since the 1546 atlas—although beautifully drawn and perfectly functional—was unremarkable in comparison to the 1543 atlas. Don Diego had been in Venice as Carlos V's ambassador since 1539, and it would be unlikely that he would have been unaware of the earlier transaction with Agnese.

Although Battista Agnese was the most prolific sixteenth-century author of portolan charts, very little documentary information about him survives. Thus, scholars have had to piece his story together from information gleaned from his surviving works. The most comprehensive study of Agnese's work was conducted by Henry R. Wagner, who published a major study² in 1931 that listed 68 atlases he had located in 46 different libraries. He followed this up in 1947 with a short article in *Imago Mundi*, which listed three more atlases. Wagner's listings described every folio of each atlas, over 900 folios in all. Agnese had signed and dated only about 25% of his atlases. However, from his study of cartographic changes and additions in the individual folios of each atlas, Wagner had created a system of categorizing the atlases, which allowed him to deduce an approximate chronology of the unsigned items in Agnese's body of work.

In the years since 1947, more atlases have come to the attention of scholars. Richard Pfloderer, one of the authors of this article, maintains a census of all known portolan charts and atlases³. In addition to the 71 atlases Wagner had identified, he has added another 20 atlases, bringing the total to 91. With the nine individual charts signed or attributed to Agnese, his body of work includes exactly 100 items, containing a total of 904 charts.

Let us conclude by discussing what we know of the whereabouts of this atlas in the years between its arrival in

Spain as a gift for young Philip until the recent events with which we began this article. After it was received in Castile by Prince Philip, the Agnese atlas was placed in the royal library, where it remained for many years. It is listed in a 1574 inventory of the books kept in the Royal Alcazar in Madrid as follows:

"Illuminated sea chart (sic) written on parchment in quarto" ⁴

While there is no mention of the box which was made for it in 1547, it is worth noting that the content, substrate, and decorative technique coincide with the present atlas.

The atlas remained in the royal collections until the death of Philip II in 1598. The inventory of the monarch cites it as :

"a book in quarto that has 15 folio and inside it a sheet of painted paper, and in the pages, of the said book, a sea chart, bound with tables and gilded leather, with four hands (S.L.)" ⁵

The reference to 'four hands' is particularly telling. Several of the Agnese atlases which have survived in their original bindings have tiny brass clasps in the form of human hands, measuring about 6 mm across the palms, installed in the covers of the binding to keep the book closed when not in use. This is one more confirmation that the Prince Philip atlas originated in the Venetian workshop of Battista Agnese.

The initials ("S.L.") indicate that this book had been reserved for the library of San Lorenzo de El Escorial, but we have no evidence that it was actually sent to this library. Its present binding, which was applied much later, lacks the typical monastic cover of the El Escorial books, and its flyleaves contain no topographical signature that would reveal its stay in this library.

The present binding, however, provides us with some clues as to its journey after the death of Phillip II. A consultation with Professor Antonio Carpallo Bautista of the Universidad Complutense de Madrid confirmed that the binder of this atlas was Gabriel Gómez Martín (1751-1818). Other books bound by Martin have covers and endpapers practically identical to those of this Agnese volume. Notably, one book bound by Gómez for King Charles IV has covers identical to Prince Philip's Agnese atlas. These similarities allow us to place this book in Madrid, in the Royal Palace itself or very close to the Court, around the end of the 18th century, that is, before the War of Independence against the French (1808-1814).

The whereabouts of the atlas for the two hundred years between its re-binding in Madrid and its recent confiscation by the Spanish authorities remains unknown. However, from our point of view, the story has a happy ending, with the atlas safely installed in its newfound home in the National Library of Spain.

Images of the atlas can be viewed online at:

(<http://bdh.bne.es/bnearch/detalle/bdh0000258583>).

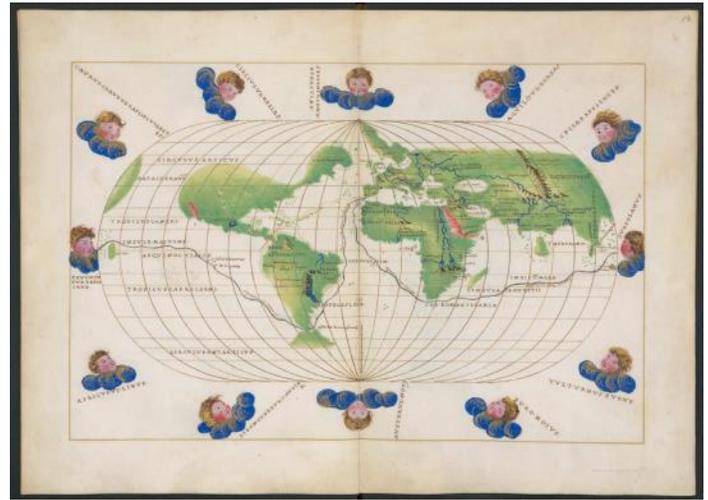


Figure 5. Although not in the style of a portolan chart, this world map was included in the newly identified Agnese atlas. It depicts the track of the Magellan/Elcano circumnavigation of 1519-1522.

Endnotes

¹ José Luis Gonzalo Sánchez-Molero, *Felipe II. La educación de un "felicísimo príncipe" (1527-1545)*; Madrid: Ediciones Polifemo y CSIC, 2013, pp. 743-745.

² Henry R. Wagner, *The Manuscript Atlases of Battista Agnese*, in *Bibliographical Society of America*, Vol XXV, 1931, pp. 1-110

³ Richard Pflederer, *Census of Portolan Charts and Atlases, March 2021 edition*, EXCEL database available from the author via email: richard@pflederer.net

⁴ *Catálogo de los libros de Sv Mag.*, Real Biblioteca del Monasterio de El Escorial, 8-II-15, fol. 309v.

⁵ Guillermo Antolín y Pajares, "La librería de Felipe II (Datos para su reconstitución)", *La Ciudad de Dios*, CXVIII (1919), p. 131.

The Authors

José Luis Gonzalo Sánchez-Molero (Madrid, 1969). Professor at the Complutense University of Madrid (Spain) and Dean of the Faculty of Documentation Sciences at the same university. He is the author of several monographs and articles on the history of books and libraries in medieval and Renaissance Spain, as well as on the education of Philip II.



Richard Pflederer, independent scholar, author of *Finding their Way at Sea*, and nine reference books on portolan charts and atlases, and numerous articles on the same subject. He is a member of the Washington Map Society, The Society of the History of Discoveries and the founder of the Williamsburg (Virginia) Map Circle. He also serves as Advisor to the MEDEA-chart project based in Lisbon.

"HOLIDAY COFFEE AND COCOA" GLAM MEETING 2021

THERESE MELBAR

The Greater Los Angeles Mappers held the Annual Holiday Coffee and Cocoa Gathering virtually on Saturday, December third. Maps, ephemera, books, and websites of interest were shared by CMS members. President Ron Gibbs gave opening remarks and thanked those who had worked on bringing this event to our members. He also extended greetings to all for various holidays and celebrations our members will be enjoying, as we look forward to a happier, healthier, and productive 2022! Tom Paper, Northern Vice President, proposed the possibility for map photo-shoot events using a high-resolution camera. These maps can then be included in the digital gallery. This will be an opportunity for members to have a digital copy of their maps available for sharing. Members who had donated to the CMS Educational Fund this past year were also thanked for their generous contributions. Donations support the student paper competition and lecturers, which is also co-sponsored by the David Rumsey Map Center.

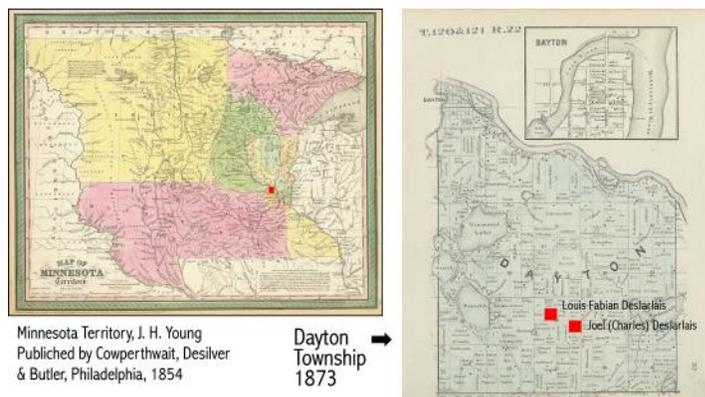


Figure 2. Minnesota Territory, 1852 and Dayton Township, Hennepin county, MN

their Aerial imagery Viewer <https://gis.hennepin.us/property/map/default.aspx> for views of township maps from the 1940s through 2020. The maps depicted increasing suburban development with an overlay depicting two family farm parcels. The Aerial Imagery Viewer permits easy use of map scaling for custom views. By using an aerial orthophoto, the view has been corrected to remove distortions of the image and adjusted for uniform scale, so it can be used to measure accurate distances. Fred had visited the area in the 1950s and used his memories as a reference to what he had seen then versus what was displayed on the aerial maps. He will continue his research and will be sharing his findings with members of his family and CMS.

Peter Hiller is one of our longtime members of CMA and has a primary interest in cartographer Jo Mora. He showed us a miniature biography book he owns about Jo Mora. Peter also reviewed his favorite AAA map (*Fig. 3*). He recently returned from a trip from Carmel, California, to Santa Fe and Albuquerque, always traveling with a collection of AAA Maps from the Automobile Club of Southern California. His favorite is the Indian Country Map of Arizona, Colorado, New Mexico, and Utah. Following his trips, he highlights the routes he covered. The map list points of interest and places to stop, including historical information. He has cov-



Figure 1. Photo of glass coffee mug shared by Louise Ratliff

On theme with our coffee and cocoa event, member Louise Ratliff raised a glass Nestle mug depicting a frosted globe. (*Fig. 1*) This was something she discovered on a collectibles trip with her husband several years back. Nice find!

Fred DeJarlais, *Calafia* publisher, CMS VP for Membership, and historian for his family gave a presentation on his early family ancestry in Hennepin County, Minnesota. (*Fig. 2*) The talk was based upon genealogy research on the family's migration from Quebec to the Minnesota Territory in search of prime farmland in the 1850s. Early historical maps and aerial views of these areas were presented within several time periods. This research was a continuation of a previous CMS presentation. His resources were derived from the John R. Borchert Map Library at the University of Minnesota http://geo.lib.umn.edu/aerial_photos/hennepin.pdf and historical atlases from the Hennepin County GIS Department and



Figure 3. AAA Map of Indian Country

ered most routes in the southwest over the years and currently searches for the remaining routes he has not already taken in his travels.

Emily Yang, a previous CMS presenter, showcased a delightful miniature diorama (Fig. 4) of a well-accoatered map library. So adorable! The library was a Sam's Study DG102 kit she purchased online <https://robotime-usa.com/3D-Wooden-Puzzle-Rolife>, which she has customized to express her love of maps and books. One example was a wing chair that was upholstered with fabric spotlighting New Zealand for the chair back as this area of the world is often not represented in modern artistic maps. Emily has miniaturized several of her favorite maps, including a German map of the



Figure 4. Emily Yang's Miniature Library

arctic region with an area marked "unknown." Her library has several miniature globes and map wallpaper. She also presented a miniature bookshelf full of books she has miniaturized of some of her favorite full-sized versions.

Members at our Holiday Cocoa meeting were given a very interesting presentation by CMS member **Ginger Eichhorn**. Ginger is a regular attendee at the monthly Greater Los Angeles Area Mappers GLAM Gals virtual map sharing meetings. She has a special interest in shipwreck maps. Today, however, she reviewed the Tribal Connections map of the



Figure 5. Tribal Connections map of the U.S. Forrest Service

United States, by the U.S. Forrest Service, Federal and Indian Lands, and Land Cessions Viewer, <https://www.arcgis.com/apps/webappviewer/index.html?id=fe311f69cb1d43558227d73bc34f3a32>. New Mexico was highlighted as one example of dozens of digitized areas of tribal treaties that are represented on this map of the United States. Embedded in this map are links to important documents about land treaties. This includes historical items such as Executive Orders, Library of Congress papers, and Charles C Royce maps. Documents from the National Archives and other pertinent documents about land that is impacted by treaties are brought together in a simple to use format for conducting research. Map links connect various events that lead back to the 1800s.

During a break, member **Fred Auda** showed us a very colorful 1960 cartographic land map of the Navajo Nation. (Fig. 6) He then showed us a World War II map which was part of his father's effects titled Roll on 110th. The map por-



Figure 6. Map of 110th Regiment

trayed the siege of Bastogne in Belgium. The map held an association for another meeting attendee whose father-in-law was also a member of the 110th. We may learn more about this in a future gathering after Fred has some time to pursue this aspect of his father's military career.

Tim Weiskel shared with us emerging digital technology being used as a teaching aid with the Africa Map Circle,

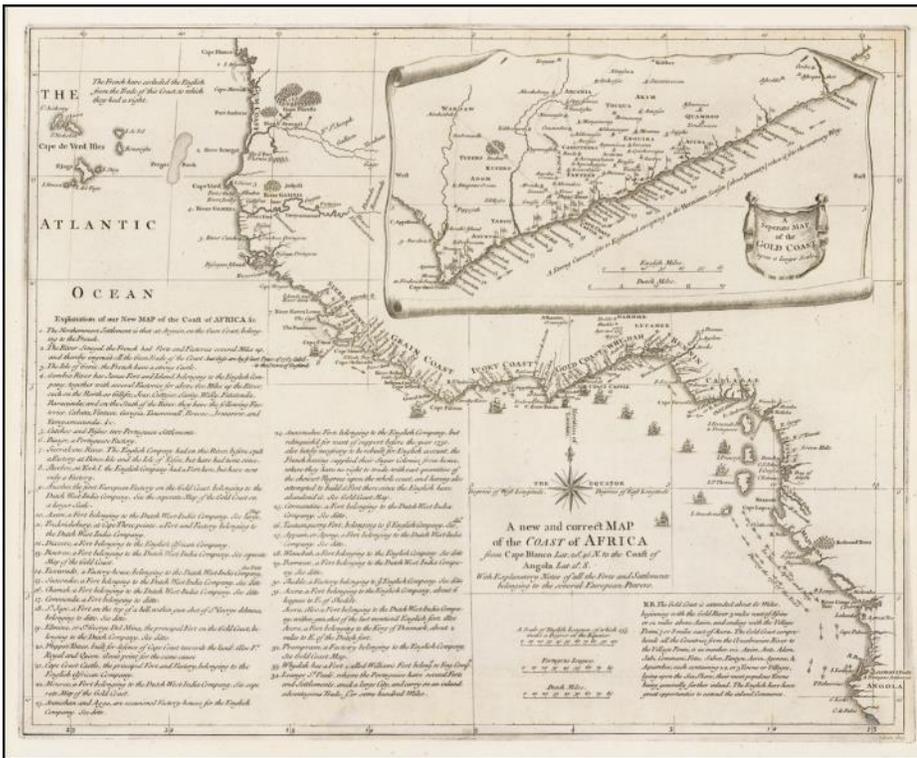


Figure 7. A New and Correct Map of the Coast of Africa

<https://environmentaljusticetv.wordpress.com/african-map-circle-resources/>. The first print reviewed was a high-resolution graphic image of Cape Coast Castle, which was involved in the slave trade on the coast West Africa. (Fig. 7) By digitizing these images, one can examine documents in finer detail. One aspect of the slave trade was the large volume of food needed to feed the millions of people who were transported over thousands of miles for hundreds of years. These diagrams of areas surrounding forts and castles give us some clues to the extent of plantations and agriculture production in the area. Food supplies were a necessary element to support the slave trade and transatlantic travel. Through The Africa Map Circle, an online map group, rare maps can be seen through links on the website to library collections that are generally not available for public viewing. Afriterrra, <https://www.afriterrra.org>, a cartographic free library, is a collection of maps on early Africa from a private library. They have been digitized and made available for online public use. Tim also showed us the very detailed map printed in 1753 by Postelthwayt showing numerous castles along the coast of Africa involved in the slave trade : <https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~317063~90085879:Vol-1-A-new-and-correct-map-of-th>. Digitization of this map permits the annotations to be clearly read and fine details seen on the inset map of the Gold Coast listing many forts and castles. Finally, we saw a French map of the many castles in the area and drawings with short vignettes about each.

Leonard Rothman, CMS Past President, gave us a quick survey of some antique globes in his collection. This included a rare fourth-dimensional war globe that was included in a recent Calafia article. Leonard's current interest, however, is collecting three-dimensional maps. One stunning example was a ceramic map of Japan in blue (Fig. 8) with ocean waves and districts delineated for the country. This was one of two he currently owns. Once more common, three-dimensional maps are still very useful today and provide a better spatial understanding of the world. Leonard intends to gain a photographic memory of the geographical presentation of the entire world! Today, Leonard showed us a map of Europe with mountainous areas in yellows and the flatlands, such as Ukraine and Russia, in greens. Here, the Ural Mountains are quite prominent as their coloration, and raised surface can be spotted as a vertical

line in the upper right portion of this map. Leonard has collected maps throughout his travels and has accumulated a terrific collection of maps, globes, and other ephemera. He has enjoyed seeing places in person of the maps in his collection.



Figure 8. Ceramic three-dimensional map of Japan.

Our members suggested three interesting books that they are currently reading. Ginger Eichhorn is reading Mr. Seldon's *Map of China: Decoding the Secrets of a Vanished Cartographer* by Timothe Brook. ISBN-13: 978-1620401439. Tom Paper is reading *In the Kingdom of Ice*, by Hampton Sides, ISBN 13: 978-0385535373. *The Map Tour: A history of tourism through rare maps*, by Hough Thompson ISBN 13: 978-0233005560 was also mentioned at the meeting.

BAM MEETINGS 2021-22

TOM PAPER

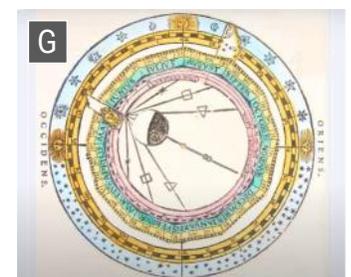
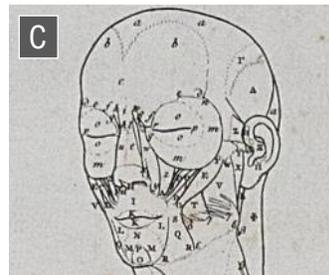
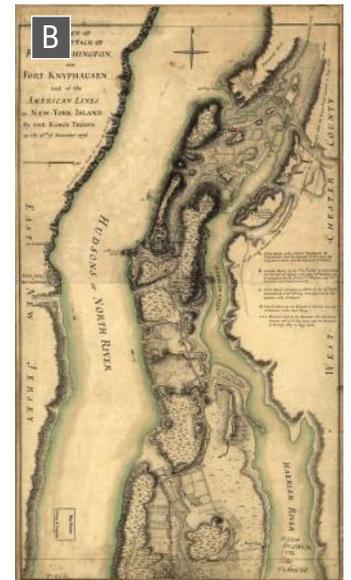
On **August 18, 2021**, we had a BAM meeting organized and hosted by Mike Schembri and Tom Paper. The meeting was a hybrid meeting, with about 15 people attending in person at Tom Paper's home and about 40 people online.

- Tom Paper shared his new map book library in his basement; his presentation was titled "The Metamorphosis of My Man Cave." [A]
- Ron Gibbs shared The Greatest American Disaster Map: The Faden Fort Washington map of 1777. [B]
- Rich Breiman shared Maps of Inner Space, which were drawings of the human body by Bernhard Siegfried Albinus. [C]
- Fred DeJarlais shared an application called River Runner, which took viewers on a virtual eagle-eye view of running the length of a river.
- Heiko Muhr shared a new collection of maps the University of California has curated about the work of local German military mapping units in Norway during WWII. (D)
- Dan Scollon shared a new tool for sharing map information called ArcGIS Story Maps. [E]

We had another BAM meeting on **January 25, 2022**, organized and hosted virtually by Tom Paper. There were about 40 people in attendance.

- Ron Gibbs presented an exhibit about his collection of nautical instruments, including an Octant, Sextant, and an Astrolabe.
- Tom Paper presented about the exhibit of Ron Gibbs's instruments and how it was created with photos shot recently with a "lightbox" and then uploaded to The Digital Gallery.
- Chet van Duzer presented his upcoming article about cartouches. [E]
- Ken Habeeb presented a map of North America of unknown origin, which, it turns out, was an Arrowsmith map from 1812. [F]
- Nick Kanas presented Volvelle's, which are wheel charts made out of paper used in the 12th century for astronomical purposes. [G]
- Evan Applegate described his job making aesthetic maps, his career making maps for Business Week, National Geographic, and others, and his encouragement of others to make their own maps. He is most excited about the prospect of reviving engraved maps. [H]

- Dan Scollon presented about GIS (geographic information system) course offerings at Shasta College, where he teaches, and various tools available for people who want to make maps or view maps. [I]



HIDING IN PLAIN SIGHT III

MAP OF THE CITY OF BOSTON MASSACHUSETTS (1926)¹

CAROL SPACK

There is no shortage of maps of Boston, from Captain John Bonner's 1722 colonial era *The Town of Boston in New England*², to John G. Hales 1819 *Map of Boston and Its Vicinity From Actual Survey*³ and forty years later, to Henry F. Walling's 1859 *Map of Boston and Its Vicinity From Actual Surveys Under the Direction of H.F. Walling, Superintendent of the State Map, 1859*⁴, a large scale wall map that is a comprehensive geographic and urban map of Boston based on land surveys and coastal charts that presents an image of the city, Boston Harbor waters, Boston Light and Boston's numerous harbor islands that from first settlement by Native Americans have together comprised the identity and virtues of this locale. The map genres that represent Boston are also numerous: *Boston Directory* street maps of 1789 through 1943⁵; Geo. Walker Lithography Co.'s colorful bird's eye views of Boston Harbor (c.1923)⁶ and Central Boston with the Boston Elevated (1930)⁷; U.S. Coast and Geodetic Survey charts of the harbor and approaches (19th-20th-century.); aerial photography 19th - 20th-century; and 20th-century pictorial tourist maps to name a few. Iconic 18th-century Colonial elevated print views of Boston harbor drawn by English



Figure 1. *Map of the City of Boston Massachusetts (1926)*, published by The City Planning Board November, 1926. Inset in red is depicted on page 20.



Figure 2. *Map of Boston and Its Vicinity From Actual Surveys Under the Direction of H.F. Walling, Superintendent of the State Map, 1859.*



Figure 3. J.W. Hill engraving titled "Boston". New York: F. & G.W. Smith, 1857.

artists and Colonists such as Paul Revere, with text identifying the array of Colonial Boston's wharves and piers, the harbor islands, and some building spires identify Boston as its harbor profile seen from an Atlantic Ocean approach.⁸ Boston's 19th-century identity as Boston Harbor seen from across the water is painted at large scale in J.W. Hill's 1853 watercolor view "Boston" that by 1857 was an internationally published engraved view.⁹ We must remember that three centuries of displacement removed the original Native American settlers of this peninsula, harbor, harbor islands, and rich inland territory in order to establish the town of "Boston" in these views.

What more can we learn about Boston, and maps of Boston, from an examination of the Boston City Planning Board's surprisingly rare 1926 wall map¹⁰ *Map of the City of Boston Massachusetts* (the "**1926 CPB Map**")? In many respects, this very large but plain map raises more questions than answers. We shall consider why this map is a new genre of map, the ideas about city identity and city growth it expresses, and the ongoing influence these 1926 ideas have had on the way in which local, state, and federal governments define and control land use in American cities and towns. The **1926 CPB Map** is a Boston map of first impression, as Boston's zoning law and plan were only three years old when it was published, and yet the map embodies deeply entrenched American governmental and civil engineering ideas about a city's purpose, about whether to keep or discard the legacy of prior generations in that place and how public sector authority can and should structure the present.

The *Boston City Planning Board's* Annual Report for 1926 (the "**1926 CPB Annual Report**") explains that this map is the first municipal map published in the history of the city:

"During the past year, the Board has completed a new wall map of the City of Boston and has arranged for its publication on the scale of 800 feet to the inch, and also reduced to the scale of 1,600 feet to the inch. This is the first municipal map to be published in the history of the city and has been copyrighted in the name of the City Planning Board of the City of Boston... The preparation of this map was considered a necessary undertaking for the reason that the latest available 800-foot scale map of the City of Boston was published in 1915 and is accordingly of doubtful value so far as present-day conditions are concerned. ...Plans are being made to place one of these wall maps in each department of the city free of charge, together with a limited number of the smaller maps and...by sale through private agencies...the work which was undertaken primarily for the benefit of the City of Boston may be readily available for all of its citizens..."¹¹ (emphasis added)

The Boston City Planning Board's 1926 decision to publish its wall map was made in the historic context of that year's landmark U.S. Supreme Court zoning decision *Village of Euclid vs. Ambler Realty*¹² which held that a municipality

has authority to regulate land uses by district for the public's "health, welfare, and safety." Municipal zoning had been taking root across the country sporadically since 1909. In 1926, prior to *Euclid*, the federal government, through the U.S. Department of Commerce, convened a board of commissioners who drafted and issued a model state zoning enabling act. In 1924, Massachusetts had already amended the Massachusetts state constitution with Article LX, enabling zoning legislation to regulate buildings "according to their use or construction to specified districts of cities or towns." Also in 1924, the legislature authorized the City of Boston to enact a "*Comprehensive Zoning Ordinance*." The choice of 1926 as the year for the City Planning Board to commit substantial resources to compile, print and publish its own "view" of Boston is no coincidence and is strengthened by the legal foundation established in *Euclid*.

What appears at first glance to be just a Boston street map is, by its content and absence of certain content, anything but. This map is the result of a paradigm shift both in the law and in city government, enabling the leap from 1914 when the City of Boston Planning Board was established—its scope originally limited to regulating building dimensions and height—to 1924 when Boston adopted its first zoning plan for land use, and, finally, to 1926 when the City Planning Board, with the wind of *Euclid* at its back, establishes the contours and premises of Boston's first comprehensive land use plan as driven by traffic studies and a proposed thoroughfare plan. The **1926 CPB Map** is drawn from a deliberately municipal point of view by the City Planning Board and represents its definition and image of Boston. The **1926 CPB Map** identifies only publicly owned land, primarily Boston's roads, and recognizes the public hierarchy of federal, state, and municipal land ownership.

The **1926 CPB Map** has graphic features made all the more apparent because of the large scale (1 inch equals 6.6 miles) and three-color scheme, blue, black and white. Municipalities abutting Boston are outlined in black and labeled, but those outlined areas are otherwise blank. Major rivers and water bodies are denoted in blue. The primary features labeled on the **1926 CPB Map** are Boston's public streets, parks, squares, certain bridges, the U.S. Army-owned "Boston Airport" and bases, piers within the demarcated "U.S. Pierhead Line"¹³, close in harbor islands, and the Chestnut Hill Reservoir, Boston's drinking water supply¹⁴. The map's local coordinates center the map on the Massachusetts State House at zero on the x and y-axis. A draftsman's small, unlabeled triangle marks the location of the State House on the map. (Fig. 4, next page) These are the "present day conditions" of the *CPB 1926 Annual Report*.

The title block of this map signals a new genre of map. Under the map title "*Map of the City of Boston*" and "*Published by The City Planning Board*" are the five printed facsimile sig-



Figure 4. Draftsman's triangle denoting the location of the State House. See Fig. 1, *Map of the City of Boston Massachusetts* (1926).

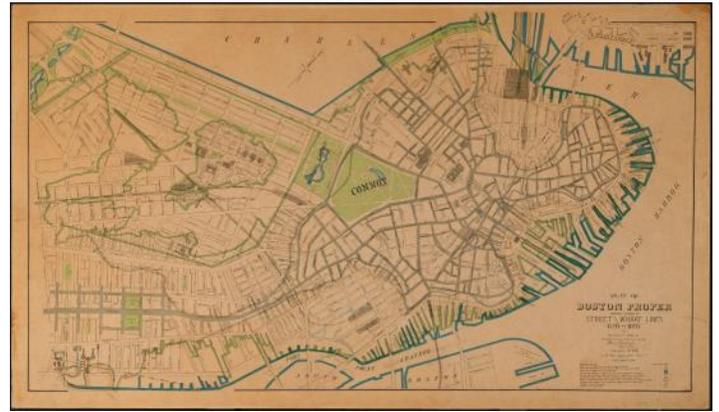


Figure 5. *Plan of Boston Proper Showing Changes in Street And Wharf Lines 1795 To 1895 by Charles C. Perkins Surveyor*

natures of the planning board members that are the lawful act approving and ratifying the map. No map surveyor or draftsman's name, the typical professional credentials attesting to a map's legitimacy, are to be found. Finally, below the City Planning Board member signatures is a large circle framing "CPB," the novel copyright notice—on the face of the map, above the neat line as a logo! Although this map bears the legend "November 1926," in other respects, the *1926 CPB Map* is graphically ahistorical.

What map features are absent from the *1926 CPB Map*? No private land ownership is denoted either as lots, or building footprints or by name—individual or institutional, historic or current. No structures are represented or identified. Not even the Massachusetts Statehouse is identified graphically or by name. No monuments, memorials, religious buildings, schools, hospitals, police or fire stations, farms, in fact, no landmarks of any kind evincing human habitation or history are identified. Map color, historically green, is absent as an identifier of parks or landscape. The Boston Common, Boston Public Garden, and the Boston Arboretum are outlined and labeled but lack any interior details. Forest Hills Cemetery and historic burial grounds are not labeled. No topographic features are indicated graphically or with text. No Boston Harbor fill lines, a major source of Boston's *terra firma*, are shown on the map.¹⁵ (Fig. 5) There is no map key because there are no graphic symbols.

Also missing from this map are the 19th and early 20th-century streetcar and subway lines that created Boston's streetcar suburbs.¹⁶ The dense networks of streets in Dorchester, Roxbury, Brighton, and East Boston cartographically lack any explanation. The street networks are not explainable by the interstate trains running from North and South Stations. No sewer structures, bus lines, ferry terminals, or tunnels are shown. Despite all of these missing city and civic features, the *1926 CPB Map* is titled "The City of Boston" and begs the

question: how does the City Planning Board define or explain the city dynamically, functionally, historically, and for the future? The City Planning Board intended that its staff and Boston city departments hang this working map in their respective offices to use as the official map for making policy decisions and appropriating city funds. Why?

Hiding in plain sight is that the *1926 CPB Map* expresses the 1926 structure of the City of Boston government, rather than the structure of Boston as a 300-year-old city. As of 1926, the new zoning and comprehensive land use planning authority legally vested in the City Planning Board placed the Board near the top of City Hall's bureaucratic hierarchy.

Despite the jurisdiction of Boston's other city commissions, such as transportation, Boston harbor, or the sewer system, the *1926 CPB Map* represents a political coup of sorts, the Board positioning itself as an umbrella authority organizing all other city commissions.

The *1926 CPB Map*, notwithstanding its title as a city map, is a graphic projection of Boston's municipal agenda. The 1926 CPB Map reaffirms that the city is the road builder who can take private property by eminent domain, heir to those original powers in the 1692-93 Province Laws. The 1926 CPB Report features traffic studies addressing the new phenomenon of car traffic in and through the downtown that read like 21st-century planning board minutes. New road design is driven by the concept of wide "thoroughfares" to guide heavy traffic around the city. Road widening by taking land and buildings for demolition are priorities. The specific example to illustrate a taking for demolition and road widening is Pike's Alley, a well-used pedestrian alley owned by a synagogue in the West End described as a hindrance to the city's agenda of interconnecting all city streets for the benefit of automobile flow. The 1926 CPB Report praises the Board for applying the new law "with 'very little friction' to a city where habits have become crystallized over a period of nearly three centuries (that) speaks well not only for the efficiency of the plan itself

but for the public spirit of the citizens when called upon to accept comprehensive regulations in the interests of the health, safety, morals, and welfare of the people." Did the public voice have a forum?

The City Planning Board's reliance on the **1926 CPB Map** to prepare the city's first comprehensive land use plan guaranteed that the parameters of that plan would omit the features which did not appear in the **1926 CPB Map**. The demolitions by authority of the City Planning Board of Boston's 17th, 18th, and 19th-century places and buildings, as illustrated in **Lost Boston**,¹⁸ have persisted throughout the 20th century fed by the same ideas as those expressed by the **1926 CPB Map**. In 1960, when the Boston City Planning Board was abolished and replaced by the Boston Redevelopment Authority, the unleashing of these political powers reached full flower, and demolition of the city began in earnest. Just as in 1926, neighborhoods with the least political influence were removed, and public investments served a preferred set of constituents.

The **1926 CPB Map** coordinates center the map on the Massachusetts State House. One practical advantage of this system is that a geographically decentralized Boston can be drawn at the desired large scale with a minimum of the map sheet used for Boston Harbor. Just as likely, this centering of the map on the Massachusetts seat of government expresses a political feedback loop to the City Planning Board itself. The image and identity of Boston on the **1926 CPB Map** are political.

Today's Boston is a product of the philosophy underlying the **1926 CPB Map**. The **1926 CPB Map** represents the genre of planning maps that express city planning as a science. The myth of science as being value-neutral guides the graphics in the **1926 CPB Map**, the 1926 City Planning Board annual report, and the Board's rationale for land takings as its primary urban planning activity. In 1926, and certainly prior, American and other urban planning philosophies¹⁹ encouraged and embraced 18th, 19th, 20th-century images of a city, because cumulatively they reveal the complexity and many facets of city life, the organic growth of the city, and the many hands that formed the identity of a city.

Notes and Maps (see www.spackantiquemaps.com for map photographs and descriptions):

¹ *Map of the City of Boston*, City of Boston Planning Board, publisher, Boston 1926. two-color print on four joined sheets, linen-backed, on wood rods, dimensions: 7' x 6.3'.

² *Colonial Society Volume.46*, John W. Reps, [Boston by Bostonians: The Printed Plans and Views of the Colonial City by its Artists, Cartographers, Engravers, and Publishers - Colonial Society of Massachusetts](#)

³ *Map of Boston and Its Vicinity from Actual Survey.*, John G. Hales, Proprietor and Publisher, 1819

⁴ *Map of Boston and Its Vicinity From Actual Surveys Under the Direction of H.F. Walling, Superintendent of the State Map.* 1859.

⁵ The Boston Directory [The Boston Directory, 1789 to 1900.](#) -

⁶ Boston Harbor, c.1923, Geo. H. Walker & Co., [Boston Harbor - Norman B. Leventhal Map & Education Center](#)

⁷ *The Central Part of Boston, Massachusetts, showing transportation lines of the Boston Elevated Railway*, Walker Lith. & Pub. Co., Boston, copyright Boston Elevated, 1930, artist Richard F. Lufkin

⁸ Id. at *Colonial Society Volume.46*.

⁹ "**Boston**" after J.W. Hill, engraved by C. Mottram, printed by McQueen, London c.1857

¹⁰ I have located no published record of the **1926 CPB Map** in the City of Boston Archives or elsewhere.

¹¹ Thirteenth Annual Report of the City Planning Board for the Year Ending Dec. 31, 1926.

<https://archive.org/details/document1927bost>

¹² *Village of Euclid vs. Ambler Realty Co.*, 1926, 272 U.S.365(1926) [VILLAGE OF EUCLID, OHIO, et al. v. AMBLER REALTY CO. | Supreme Court | U.S. Law | LII / Legal Information Institute](#)

The Court's dictum is that the immutability of Constitutional principles is consistent with the court's consideration of new sets of facts and circumstances that the future presents to make new law.

¹³ the U.S. Pierhead Line marks the federal boundary and jurisdiction over "...waters subject to the ebb and flow of the tide...." as established by the federal *Rivers and Harbors Act of 1899*.

¹⁴ Boston's 1926 drinking water supply source was Natick and Framingham, Massachusetts' Lake Cochituate. Chestnut Hill Reservoir stored water exclusively for Boston's use. The reservoir grounds were a public park designed by Frederick Law Olmstead and conceived as part of Boston's emerald necklace to which it connects via Beacon Street through Brookline (omitted on the **1926 CPB Map**.)

¹⁵ *Plan of Boston Proper Showing Changes in Street And Wharf Lines 1795 To 1895 by Charles C. Perkins Surveyor in Charge of City Property Surveys, Pierre Humbert, Jr. City Surveyor, Jan. 31 1895*, Geo. H. Walker & Co., Lith. Boston.

¹⁶ [The Growth of Boston Rapid Transit - Boston Streetcars](#)

These dense neighborhood street grids are a proxy for enormous population growth in those neighborhoods from 1870 to 1926. The 1870 census counted 12,000 Dorchester inhabitants. In 1920 the count was 200,000 in Dorchester alone, a rate of growth mirrored in the other streetcar suburbs.

¹⁷ See George Walker Lith.& Co.'s 1930 pictorial map of the Boston Elevated lines. See Endnote 7.

¹⁸ Jane Holtz Kay, *Lost Boston*, Houghton Mifflin Company, Boston, 1980.

¹⁹ Jane Jacobs, a Canadian urban planning writer in 1961, condemns the wrecking ball and highrise version of urban planning sweeping America in her classic text *Death and Life of Great American Cities*, in which she champions the originality and chaos, history and culture, and the organic growth of cities. Kevin Lynch, author of *The Image of the City*, MIT Press, Cambridge, 1960, defines a planning process requiring an understanding of the image of the city.

This is a shortened version of Essay #3 in a series of Four to appear in the Calafia Journal. Access www.spackantiquemaps.com for the full version or scan the QR code.



WALRUS TUSK MAPS OF NORTHWEST ALASKA: AN INVITATION FOR RESEARCH

ANGELA J. LINN

Amongst the 17,000+ cultural items held in the Ethnology and History collections of the University of Alaska Museum of the North (UAMN) in Fairbanks, Alaska, are ten special walrus tusks. Eight of those tusks were created as cribbage boards; a card game likely introduced to Alaska's communities by the Yankee whalers of the mid-1800s. Two have elaborate engravings of Bering Strait animals of the sea and land mammals of the nearby tundra.

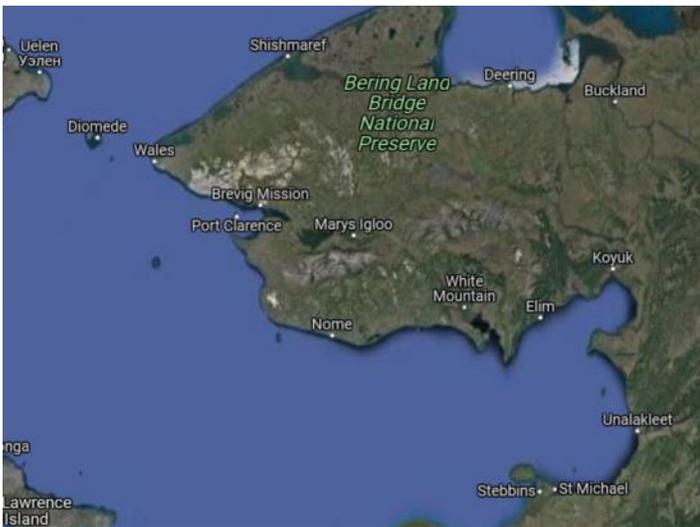


Figure 1. Map of Northwestern Alaska. Google Earth. Area depicted on tusks is enlarged.

All ten of these full-sized walrus (*Odobenus rosmarus divergens*) tusks have highly detailed engravings depicting the Bering Sea Coast of northwestern Alaska, from Cape Prince of Wales in the north to Unalakleet in the south (Fig. 1). Created by Iñupiaq artists in the early part of the 20th century, these works of art convey a sense of place for people who have spent their lives walking and boating along the miles of shore (Fig. 2).

In 1898, prospectors along the beaches at Nome discovered gold and set off a rush that introduced thousands of newcomers to the area in a matter of years (Cole 1983). As the community grew, a souvenir market was established, and local Iñupiaq carvers with thousands of years of ivory engraving traditions shifted their focus to serve that new economy (Ray 1961, 7). The 1892 arrival of a whaling ship captained by Harton Bodfish appeared to have sparked a transition in style from the ancient pictographic depictions found in archaeological assemblages. His meeting with a young carver named Angokwazhuk, later nicknamed "Happy Jack," resulted in a new and elaborate style of scrimshaw and carving focused on



Figure 2. "Natives of St. Michael." A group of Alaska Native men, women, and children are seen in an umi-ak (open skin boat). A man is crouching by a kayak in the foreground, ca. 1905-1917. Credit: Albert Johnson Photograph Collection, 1905-1917. UAF-1989-166-91-Print(3)(149), Archives, University of Alaska Fairbanks.



hyper-realism. Happy Jack traveled to San Francisco and back to Nome, and the production of cribbage boards and tusks decorated in this new way exploded in popularity (Ray 1961, 3-10).

"Pictorial engravings" (Ray 1977, 43) focused on the details of animal fur, bird feathers, and the accurate depiction of material culture such as boats, sleds, clothing, and hunting equipment (Fig. 3, next page). Artists from the Nome area adorned full-sized walrus tusks with these depictions and readily sold them to prospectors and early tourists alike, some of which included maps like those included in our collection. During the devastating influenza epidemic of 1918, many of the early Iñupiaq carvers died, and there appeared to be an emergence of a new, modified pictorial style pioneered by King Island carvers. King Island is a small island off the coast of the Seward Peninsula, about 90 miles northwest of Nome, and is the ancestral home of the Iñupiaq-speaking peoples who call themselves Ugiuvaymiut. Seasonally, the King Islanders spent time in Nome to contribute to the ivory carving tourist economy and worked together on the beach where they set up their King Island Village. Here they possibly inspired one another to create this new form of decorated tusks, some of which had maps on the back (Ray



Figure 3. The elaborately decorated playing surface of a cribbage board by Iñupiaq artist Billy Komonaseak of Wales, Alaska, ca. 1940. Dorothy Jean Ray collection. [UA94-009-0051](#).



Figure 4. Cribbage board with map by Billy Komonaseak of Wales, ca. 1940. This is the underside of the tusk illustrated in Figure 3 above. Dorothy Jean Ray collection. [UA94-009-0051](#).



Figure 5. Engraved tusk by unknown artist from the Nome or King Island area. Notice how the writing on the map orients the viewer to see the coastline from south to north (Cape Prince of Wales is north of Nome). Dorothy Jean Ray collection. [UA94-009-0043](#) (detail)



Figure 6. Some highly skilled carvers used dramatic shading to increase the artistry of their maps. [UA94-009-0051](#) (detail)

Figure 7. Cribbage board with map by unknown artist, Nome, unknown date. Notice the depiction of Eastern Siberia at the far left. Dorothy Jean Ray collection. [UA94-009-0042](#).



1961, 12). A limited number of carvers at this time continued to focus on the full-tusk engravings, as "a carver can make much more money by carving a number of small objects from a tusk rather than using it whole or as a cribbage board" (Ray 1977, 45).

The Ethnology & History collection at UAMN holds approximately 150 engraved full walrus tusks, including cribbage boards (63) and decorated tusks (88). While many of these items have engravings on both sides, some also use small carved figurines affixed to them to depict hunting or other narrative scenes. Of those ~150 tusks, fewer than 25% of them are credited to specific artists or communities through direct signatures or qualified attributions. The ten full tusks described here maintain that same ratio of known carvers to unknown, and even those artists whose names are noted, we know little of their personal histories. More research is needed to better understand the artistic motivations of these named and unnamed carvers.

The ten tusks highlighted in this article all have artistic depictions on their "top side," with maps engraved on the underside. These maps are intriguing to the museum staff for several reasons. In general, Alaska Native peoples did not traditionally navigate by using maps in the same way as Euroamericans. Instead, wayfinding occurred through the acknowledgment of elements noted on the landscape with precise and culturally relevant place names. Distances were measured in the time between landmarks, not miles (Lucchesi 2018, 9). Traditional knowledge places importance on the ability to verbally describe one's precise position in relation to other known locations (Sonnenfeld 2002). Drawn maps would not have been unknown to the Iñupiat of the early

20th century. Certainly, the Yankee whalers moving through the northern waters since the 1840s shared their maps with local people. Schools and churches were found in most of the communities across Alaska by this time and maps would have been integral to the educational acculturation promoted by both institutions. One might wonder if the motivation for artists to place the map on the backside of these tusks was to help the buyers better understand the spatial context of the artwork, given the still-enigmatic nature of Alaska and the Bering Strait coast in the early 20th century.

There appear to be no systematic studies of these maps or of the motivations of the particular artists in the popular or scholarly literature associated with early tourist art in Alaska. As researchers like John Cloud (2012) and others (Cole and Hart 2021) bring more focus to Indigenous cartographers, maps like these have potential research value. We at UAMN would love to contribute to research focused on the Indigenous cartography carved onto these tusks.

This article serves as an introduction to our cartographic collection and also as an invitation to researchers interested in early twentieth-century maps of Alaska. The collection is available for viewing in person by appointment, and the individual catalog records are accessible through our online database, Arctos:

(https://arctos.database.museum/uam_ch/search.cfm). This saved search will bring up all of the ten tusks mentioned in this article:

(<https://arctos.database.museum/saved/TuskMaps>).

Please reach out to the collection manager, Angela Linn, for an opportunity to examine them up close.

References

- Cloud, John. "The Tlingit Map of 1869." *Expedition* 2012, 54:2,10–18.
- Cole, Daniel G., and E. Richard Hart. 2021. "The Importance of Indigenous Cartography and Toponymy to Historical Land Tenure and Contributions to Euro/American/Canadian Cartography." *ISPRS International Journal of Geo-Information* 2021, 10:6, 397.
- Cole, Terrence. "A History of the Nome Gold Rush: The Poor Man's Paradise (Alaska)." PhD diss. University of Washington, 1983.
- Ray, Dorothy Jean. *Artists of the Tundra and the Sea*. Seattle: University of Washington Press, 1961.
- Ray, Dorothy Jean. *Graphic Arts of the Alaskan Eskimo*. U.S. Indian Arts and Crafts Board, 1969.
- Ray, Dorothy Jean. *Eskimo Art*. Seattle: University of Washington Press, 1977.
- University of Alaska Museum of the North Department of Ethnology & History, "Search Collections"

Angela Linn is the Senior Collections Manager of Ethnology & History at the University of Alaska Museum of the North, where she has provided access to the diverse holdings since 1996. She holds a BA in Anthropology from the University of Iowa, an MA in Anthropology from the University of Alaska Fairbanks, and is currently an Interdisciplinary PhD Candidate at UAF, housed in the department of Arctic and Northern Studies.

VISIT OUR WEBSITE!

CALIFORNIA MAP SOCIETY

WELCOME

EXPLORE HISTORIC CARTOGRAPHY

MODERN MAPPING

[CALIFORNIAMAPSOCIETY.ORG](https://www.californiamapsociety.org)

ORIGINAL ANTIQUE MAPS

by Carol J. Spack

Antique maps, Americana – 18th, 19th & 20th c., Nautical Charts, books and other remarkable finds

Carol@spackantiquemaps.com
www.spackantiquemaps.com



P.O. Box 3003
Framingham, MA 01705
(508) 820-9100

WASHINGTON MAP SOCIETY EXPLORING THE WORLD OF MAPS

THE PORTOLAN

Journal published 3 times per year with original articles, meeting summaries, book reviews, and lots more. Sent worldwide. Published in digital & print versions. All past issues available on the WMS website.

IN-PERSON & ZOOM MEETINGS AND FIELD TRIPS

Periodically during the year. Videos of the meetings are posted on the WMS website.

THE RISTOW PRIZE

Annual scholarly writing award for Cartographic History.

For Membership, Inquiries & More Information

**Visit the Washington Map Society website
and Join us on Facebook too ...**

<https://WashMapSociety.org>

THE LONG AND WINDING TRAILS OF INDIGENOUS CARTOGRAPHY

JOHN CLOUD

Introduction

This essay addresses a set of interconnected episodes of "indigenous cartography" related to the Pacific Northwest, from the Alaskan Arctic to southern California, in a critical period "between the wars," in this case, between the end of the Civil War in 1867, and the beginning of the Spanish American War, in 1898. It was the era in which modern American ethnology and geography developed, while at the same time, most indigenous people in North America were facing erasure, relocation, and genocide, and these developments were complexly related.

Mapping, in many forms, is an ancient human practice. "Indigenous cartography" in the late 19th century transitioned from verbal and informal maps and maps on animal skins and bark to maps on paper. "Carta" is the Italian word for "paper," so "cartography", literally, is writing and drawing on paper. These changes raised two important matters for indigenous cartography: (1) paper was not necessarily a familiar medium to the indigenous people involved, which introduced many complexities; (2) the cartography prioritized language critically. No map ever explains itself, so conversation and commentary about a map is an obligatory part of the map, in its creation and its meanings, which brings up many issues of linguistics and translation.

The Rise of Linguistics

The 19th century was the apex of western imperialism, but other developments in the era contributed to the eventual undoing of the empires. "In the 19th century, linguistics (at first called philology) emerged as a distinct field of inquiry aimed at discovering the general principles of all human languages and their manifestations in the actual variety of all human speech."¹ Foundational to the very evolution of ethnology/ethnography/anthropology was the recognition that different languages encoded, deep in their very grammatical structures, and their ranked categories of phenomena, implicit meanings that were fundamental to the very identity of the language speakers.

A very complex history must be condensed to fit the constraints of this short essay. At the risk of devolving to a "great men" story, North American ethnology cannot be comprehended outside of a context that includes John Wesley Powell and Franz Boas. Powell (1834-1902) was a one-armed Civil War veteran who founded a series of government agencies, finally named the Bureau of American Ethnology, which progressed in stages from the US Army to the Dept. of the Interior, to the Smithsonian Institution. Boas (1858-1942)

was a German immigrant whose major research was in regions of what was becoming Canada. He became a curator at the Smithsonian Institution, then a professor of anthropology at Columbia University and a curator at the Field Museum in Chicago, and later at the American Museum of Natural History in New York City. Boas trained an entire generation of anthropologists and museum curators. Both Powell and Boas spent much of their careers mapping the spatial domains of indigenous North Americans and their languages.

I assert that all "indigenous cartography" involves sophisticated linguistic collaborations, as every aspect of the meanings of the maps require conversations between cultures, related to the graphics and geographies. And as Boas noted: "The great advantage that linguistics offers in this respect is the fact that, on the whole, the categories which are formed always remain unconscious, and that for this reason the processes which lead to their formation can be followed without the misleading and disturbing factors of secondary explanations, which are so common in ethnology, so much so that they generally obscure the real history of the development of ideas entirely."²

In my view, "indigenous cartography" includes maps made by indigenous peoples but also maps related to indigenous peoples made by others. All these disparate maps converge through language and about language. Powell and Boas are foundational to all this, but I will begin with a significant collaboration between high-status Tlingit leaders in what was becoming Alaska, and scientists of the US Coast Survey.

The Invention of Alaska

The boundaries of what we now call "Alaska" and western "Canada" were defined in 1741 by Vitus Bering on behalf of Imperial Russia. Bering declared that the major boundary between the lands claimed by the Russian Czar, and those claimed by the King of Great Britain, was to be the line of longitude closest to the great Mount St. Elias volcano, which Bering "discovered." In addition, all the mountains facing the Pacific Ocean as far south as Bering sailed, before turning back towards Russia, were also claimed for the Czar, with the back-sides of the mountains belonging to Great Britain. This set of boundaries, which, incredibly, still exist, crossed the webs of complex trading routes of maritime peoples along the coast, and inland continental peoples, which had existed for thousands of years.

In 1867, George Davidson of the US Coast Survey was sent north from San Francisco to explore the proposed sale of

the assets of the Russian American Company (aka Alaska) to the United States. But Davidson also wanted to go up the Lynn Canal to the Chilkat River because it was determined that a total solar eclipse would cross that land in 1869. To prepare for this, he met the powerful Tlingit Wolf moiety clan leader Shotridge, who was also known by other names. Davidson knew him as Kohklux. Davidson arranged to return in the summer of 1869 for the eclipse. In addition to observing the eclipse, Davidson wanted to learn about the trading routes from the coast to the vast lands of the upper Yukon River, which were all but unknown to Americans.

In 1869, Davidson returned to what was now "Alaska" to the capital town of Sitka. Kohklux was brought to Sitka, and while there, he drew an initial map for Davidson of the main routes over the mountains and down to the convergence of the main tributaries of the upper Yukon River. Then Kohklux, Davidson, and their parties traveled to the Chilkat River in ocean-going Tlingit canoes and up the river to the great stronghold village of Klukwan. After the eclipse, which was spectacular, Kohklux and his two wives, Tu-eek and Kaatchxixich, who were Raven moiety clan women from the Stikine River Tlingit, drew a much larger map at Davidson's request. The "Kohklux map(s)" are now considered masterpieces of 19th-century cartography, well described in many sources.³ What I will stress here are the maps, *as cartography*.

The first map was drawn by Kohklux alone on a sheet of Davidson's drawing paper showing the linear route up and over the coastal mountains and down to the main stem of the upper Yukon River and the return route. In a problem familiar to all cartographers, Kohklux ran out of paper, so the linear routes wrapped around the page. Wiser by the second mapping, Davidson taped together a dozen sheets of drawing paper, glued down to backing linen. This afforded the space the three Tlingit cartographers needed to present the route linearly, at approximately the same spatial scale throughout, with distances estimated by travel days, tallied with marks on the map. (Fig. 1) In the case of both maps, annotations of place names and route features were added by Davidson in his English language orthography of Tlingit, Tutchone, and Han language names. How could they do this? All four, as high-status people in Pacific Northwest society, were fluent in the Jargon, often called Chinook Jargon, or Chinook Wawa, the metalanguage of the Pacific coast. All the initial mapping and annotations were done in pencil, in large part as the mappings could be erased and changed, with thought and conversation over days. Later, back in San Francisco, Coast Survey staff placed a sheet of tracing vellum over the map and 'picked up' all map details in pen and India-ink wash, making the map much clearer. (Fig. 2, next page)

In 1867, the Coast Survey published its first map of Russian America. When Davidson returned with the Kohklux maps, the Survey published a revised Alaska map on a differ-

ent map projection. Examining the sections of both editions covering the area of the Chilkat River and over the mountains to the Yukon, the Survey incorporated the new Tlingit geography of the Kohklux maps. (Fig. 3 & 4, next page)

William Dall (1845-1927) had first traveled to Russian America as part of a Smithsonian party attached to the Western Union Telegraph Expedition, 1865-67. After extensive travels in many parts of the lands on both sides of the Bering Sea, Dall returned to Washington, where he joined the Coast Survey. In 1875, Dall and Davidson created the "Map of the Distribution of Native Tribes of Alaska and Adjoining Territory"—published by John Wesley Powell. (Fig. 5, next page) The base map is the 1869 revised Coast Survey map, converted to a chromolithograph, color-coding language families for the areas known from the direct experience of both Dall and Davidson, along with the direct experiences and cultural knowledge of Kohklux, Tu-eek, and Kaatchxixic. (Fig. 6, page 29)

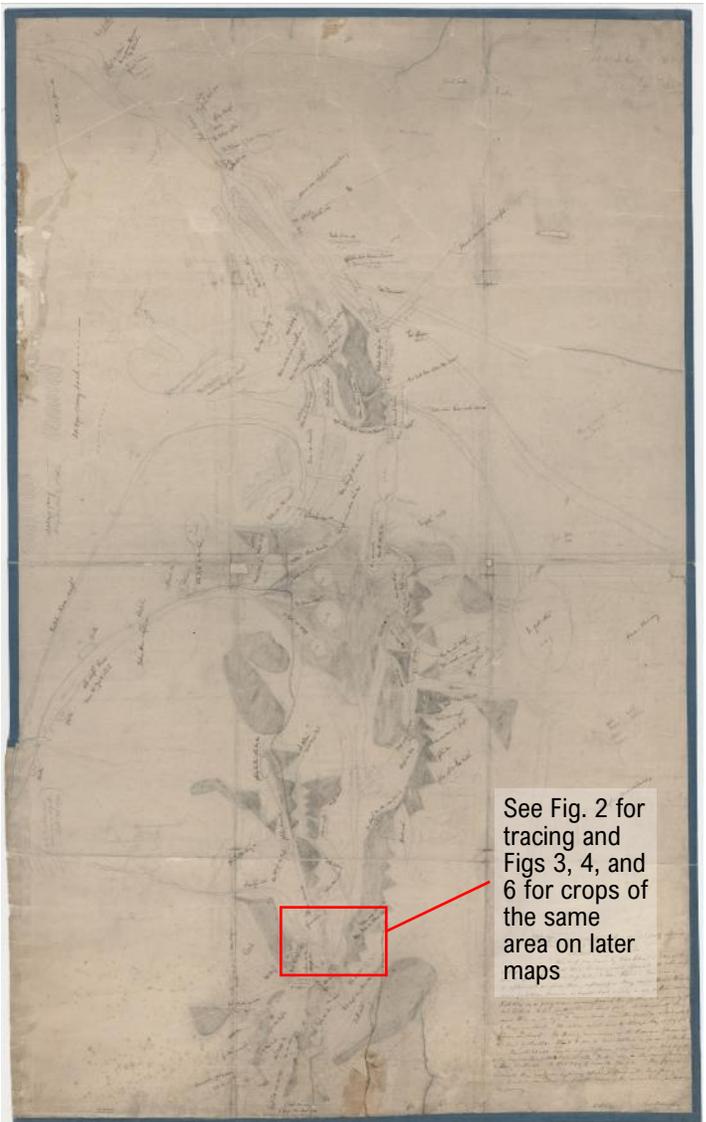


Figure 1. 1869 The Kohklux Map, Image licensed from the Bancroft Library, UC Berkeley. [BANC]

California and the Great "Shatter Zone"

In the decades after the Kohklux maps, the distribution of indigenous languages all along the Pacific coast was mapped, an immense collaborative project involving many hundreds of indigenous people, scores of ethnologists, and dozens of cartographers. This short essay can reference only two of these maps, which are particularly important because they were published in Germany and are little known in California.

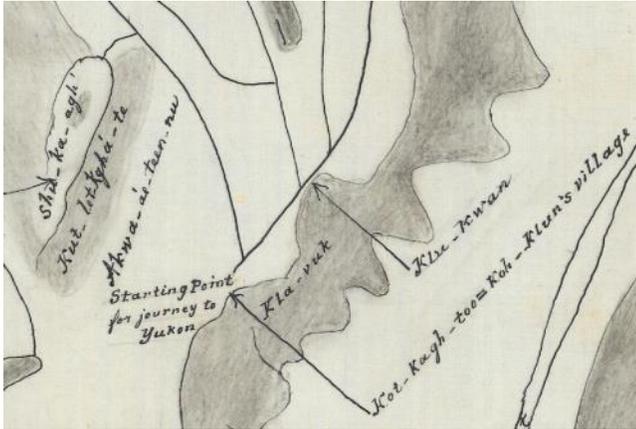


Figure 2. 1869 Starting Point for the Yukon (tracing), Kohklux Map

The California linguist Stephen Powers synthesized the work of many scholars and informants in his treatises on *The Tribes of California*.⁴

His original map was redone as a chromolithograph in a summary of Powers' work by G. Gerland, published in 1879 in *Petermanns Geographische Mitteilungen*, then the premier geographic journal in the world. (Fig. 7, next page) The map clearly represents what the later pioneering California anthropologist Alfred Kroeber (1876-1960), who was a student of Franz Boas, referred to as the California "shatter zone" of cultures and languages.⁵ Indeed, California once had the greatest diversity of native languages in all of North America north of central Mexico. The loss of so many of them, and the people who spoke them, is one of the greatest yet least visible tragedies of the history of California. The Powers map presents the areas of California where people speaking specific languages lived in the late 19th century—all over the state. Contrast that to the small postage stamps of reservations and rancherias and urban enclaves remaining in the 21st century. Once again, California is "the shatter zone."

In 1896, Franz Boas published his *Language Map of British Columbia*, another beautiful chromolithograph in *Petermanns*, based on the work of many people. (Fig. 8, page 30) Incidentally, Kohklux/Shotrledge had a son, George Shotrledge, and a grandson, Louis Shotrledge. Louis Shotrledge studied under Boas at Columbia and became the first credentialed Native American anthropologist. In the very northernmost part of the Boas map, along the boundary imposed by

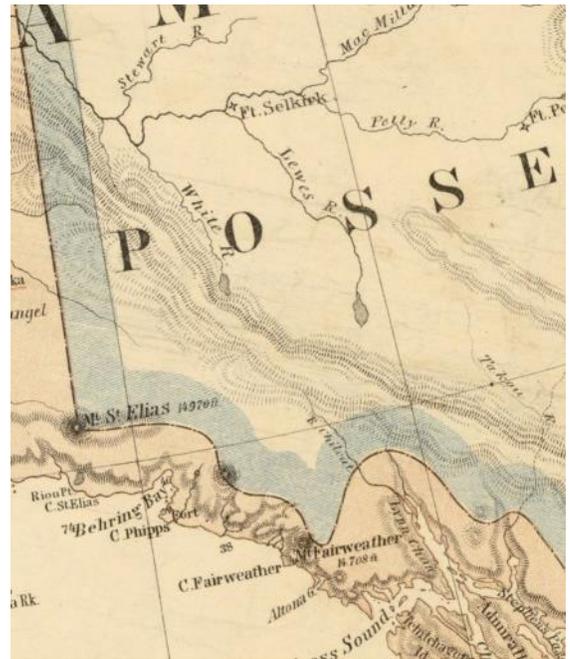


Figure 3. 1867 Northwestern America, Elias, Kohklux Area (crop)

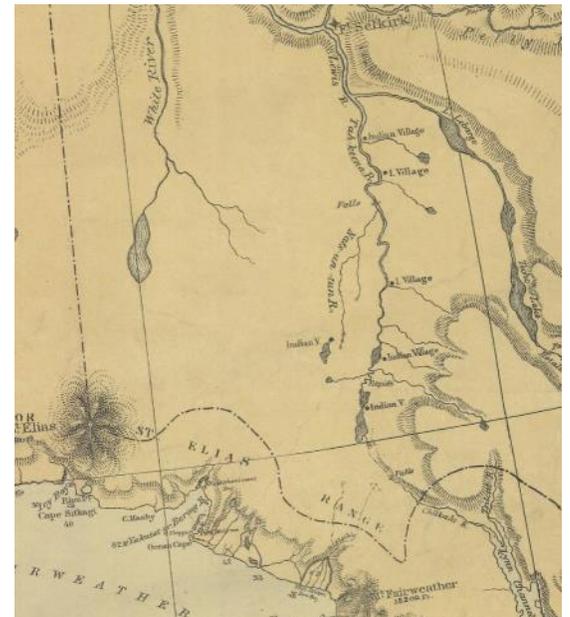


Figure 4. 1869 Alaska, Elias, Kohklux Area (crop)

Vitus Bering, Boas included the linguistic mapping that began with Kohklux, Tu-ek, Kaatchixich, and Davidson, extended by Dall and Powell, and Boas—and hundreds of other participants.

As is often the case with excellent cartography, even maps of seemingly linear travel end up "circling back on themselves"; their encoded knowledge and wisdom carry forward through generations, illuminating the paths of those who follow.

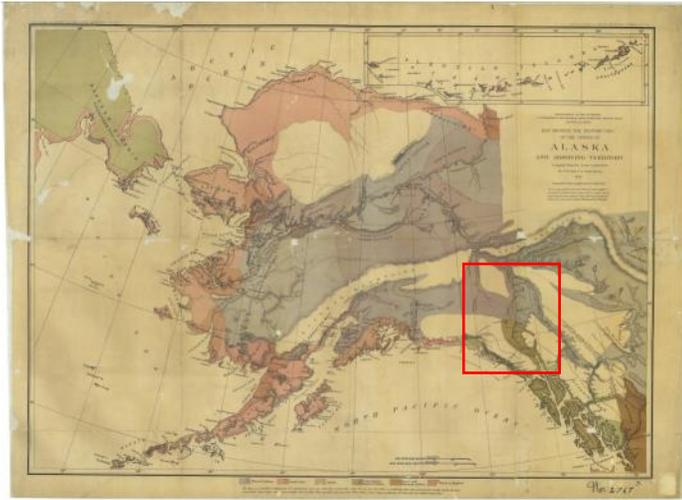


Figure 5. 1875 Native Tribes of Alaskanad Adjoining, Bureau of American Ethnology, National Anthropological Archives, Smithsonian. [BAE, NAA]

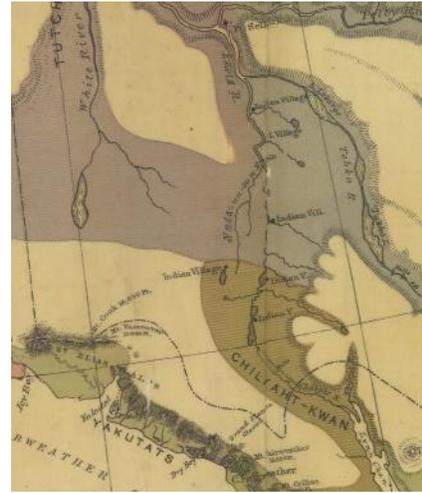


Figure 6. 1875 Native Tribes Tlingit (crop), BAE, NAA



Figure 7. 1879 Survey of CA Indian Tribes, Petermanns

Endnotes

¹ Ives Goddard, "The Description of the Native Languages of North American before Boas," in *Handbook of North American Indians* Vol. 17, Languages, ed. Ives Goddard (Washington, DC: Smithsonian Institution, 1996), 26.

² Franz Boas, "Handbook of American Indian Languages", Pt. 1, in *Bureau of American Ethnology Bulletin 40* (Washington, DC: Smithsonian Institution), 70-71.

³ G. Malcolm Lewis, "Maps, Mapmaking, and Map Use by Native North Americans", in *History of Cartography, Volume 2, Book 3, Chap. 4* (Chicago, University of Chicago Press, ed. David Woodward, 1998), 116-117. Linda Johnson, "The Kohklux Map" (Whitehorse, Yukon Territory: Yukon Historical and Museums Association, 1995). John Cloud, "The Kohklux Map of 1869: A Masterwork of Indigenous Cartography" *Expedition*, Vol 54, No. 2, 2012, (Philadelphia, PA: UPenn Museum), 10-18. <https://www.penn.museum/documents/publications/expedition/PDFs/54-2/CloudArticle.pdf>

⁴ Stephen Powers, "The California Indians" published in 13 installments of *The Overland Monthly* (San Francisco, CA), 1871-74, Reprinted (New York City, AMS Press) 1965.

⁵ Alfred Kroeber, ed. "Handbook of the Indians of California", (Washington, DC: Smithsonian Institution, Bureau of American Ethnology, Bulletin 78, 1925), 65.

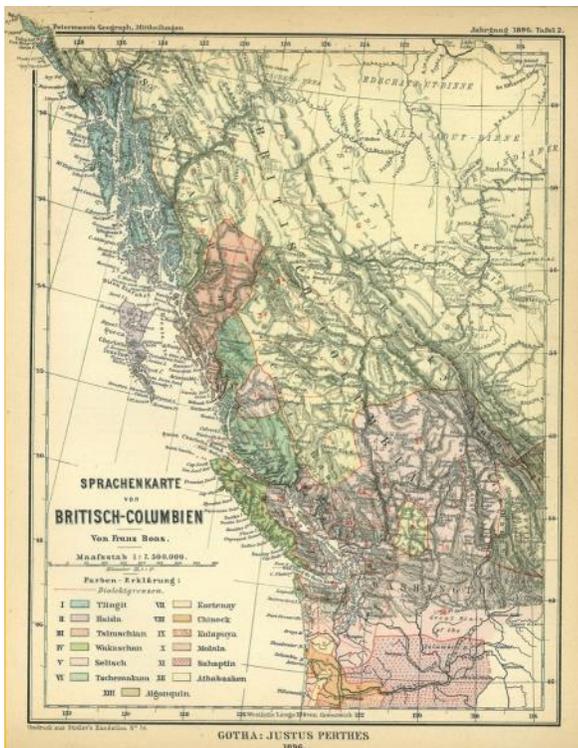


Figure 8. 1896 BC Languages Map, Boas, Petermanns

Dr. John Cloud was educated at UC Berkeley, then UC Santa Barbara. He worked as a historian of the Coast Survey at the National Oceanic and Atmospheric Administration (NOAA). He is now a Researcher with the Arctic Studies Center, Anthropology Dept., at the Smithsonian National Museum of Natural History.

A POSSIBLE MAP PETRO-GLYPH FROM KANSAS

LINEA SUNDSTROM

A prehistoric or early contact-era petroglyph from south-central Kansas is tentatively identified as map. The petroglyph uses conventions common to Plains Indian culture to represent trails and settlements. Other Native American maps from the Great Plains represent three cartographic traditions: one functioning in a ceremonial context; one used for informing others about the location of places and routes of travel; and the other serving a narrative function by recording events. The latter includes biographic maps and message maps. The function of the petroglyph map cannot be determined with certainty, but a message or route-of-travel function appears most likely.

Cartographic historians have recognized the presence of a strong tradition of map-making among Plains Indians.¹ Most "maps" were complex mental constructs maintained through oral tradition.² Maps translated into more tangible media often were merely sketches in the dirt or sand and thus were not preserved.³ Other maps were drawn on animal skins. A few of these have survived, as have a number of maps drawn on paper at the request of fur traders, explorers, and military personnel.

Plains Indian maps fall into three basic functional categories: ceremonial, locational, and narrative. The narrative category can be further divided into biographic maps and message maps (*Fig. 1, next page*). These categories are not absolute. Some maps overlap categories. This functional approach places the maps within the specific cultural contexts in which they were created, used, and curated. Maps are treated not as artifacts isolated from action, but are viewed as a by-product of specific cultural activities. From such a perspective, the success or failure of any given map is relative to the specific purposes for which it was made, not some eurocentric notion of "quality" or "accuracy".

The Kansas Petroglyph Map

Archaeological site 14EW305 comprises three sandstone boulders with incised designs. Located on private land in south-central Kansas, the boulders overlook Thompson Creek, a tributary of the Smoky Hill River. Some time in the distant past, the boulders broke off from a sandstone cliff along a bluff top. Based on comparison with maps on paper and buffalo hide from the Great Plains, the most complex of the designs probably is a map (*Fig. 2, next page*). Like other Plains Indian maps, the petroglyph

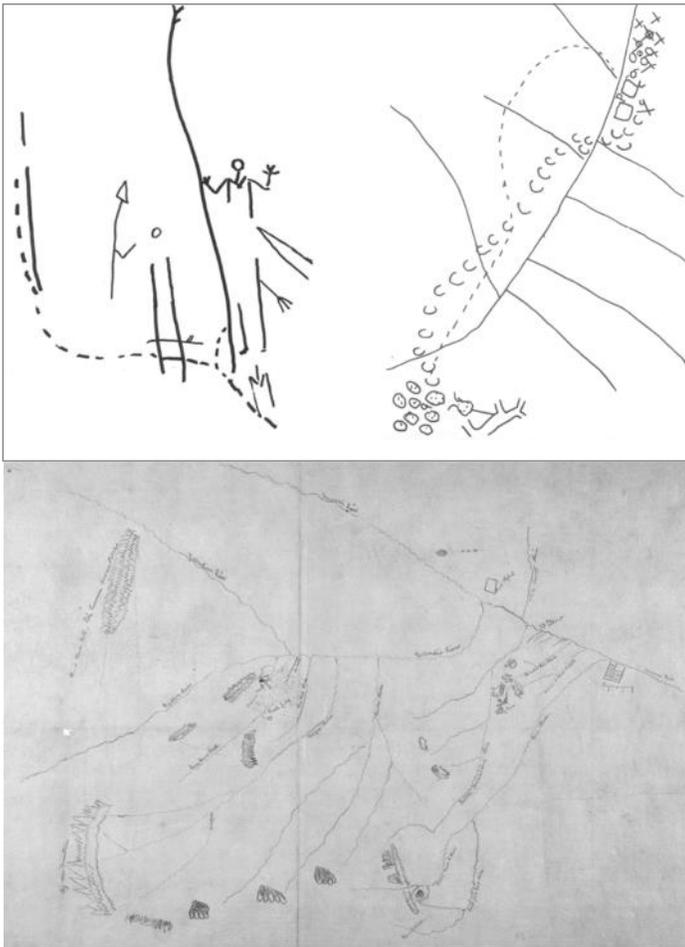


Figure 1. Examples of Plains Indian maps. Upper left: narrative petroglyph from the North Cave Hills, South Dakota, site 39HN30, depicting a warrior's travels, with a stream shown as a solid line and the route of travel shown as a dotted line; upper right: Lean's Wolf's map narration of his horse raid, 1881, National Anthropological Archives, Smithsonian Institution, showing streams as solid lines, Indian village as a collection of circles, white fort as a rectangle, route of travel on foot as dotted lines, and return route with horses as a line of C-shaped horse tracks; bottom: map of the location of the Little Big Horn Battlefield in relation to the Rocky Mountains, Missouri River, and other geographic features, drawn by the Lakota warrior Red Horse in 1881, National Anthropological Archives, Smithsonian Institution.

Streams: These are shown as continuous sinuous lines, simplified from, but conforming to, stream courses.

Trails: Trails are shown on Plains Indian maps as continuous lines of dots or dashes, representing human tracks. In later maps, a repeated C-shaped form shows the trail or route of travel of horses or travelers on horseback.

Settlements: Plains Indian maps typically use circles to represent earth lodges or other circular shelters. A tipi, by contrast, is represented by an elongated X. Many maps show villages as clusters of circles or X's; while those operating at a larger scale may show a single circle to represent an entire village (Fig. 3, next page).

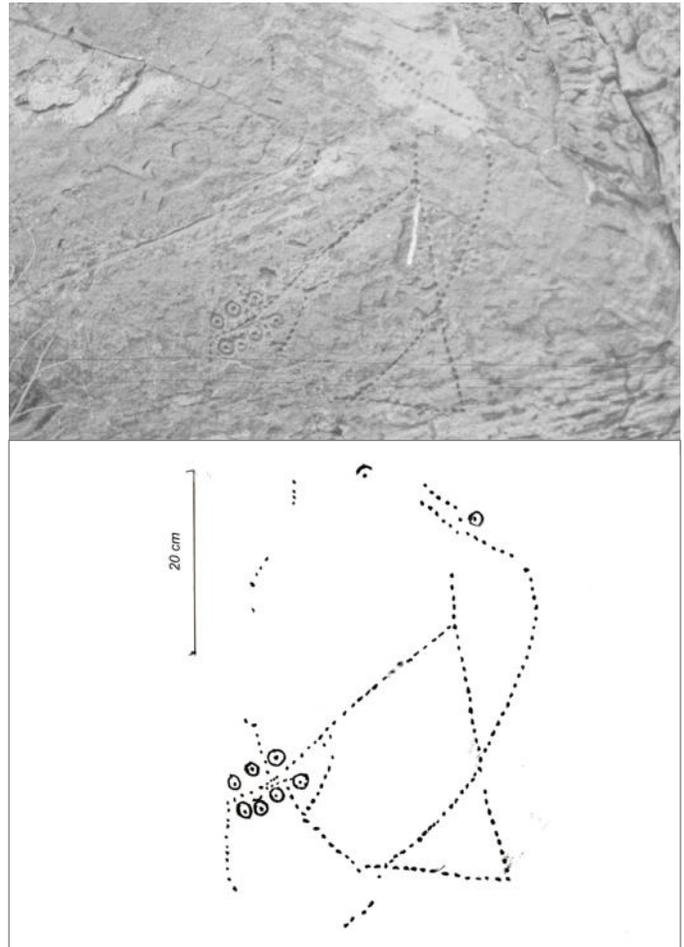


Figure 2. Possible map petroglyph from Kansas, apparently showing routes of travel between villages.

Conclusions

Native American maps from the Great Plains can be placed into three functional categories. Locational maps contain only locational information. Most of these were made either to guide non-Indians through regions unknown to them or illustrate the discoveries of exploration parties. Narrative maps contain textual information in the form of conventionalized picture-writing. These maps were made to record events or movements. Narrative maps include messages about the travel plans and recent or intended activities of groups or individuals. Narrative maps also include representations of the exploits of warriors. Such biographic maps were part of an elaborate and pervasive system of declaring and publicizing individuals' war honors. Ceremonial maps often illustrated religious definitions of the effective worlds of their users. Such maps were themselves imbued with supernatural power. Like other important religious paraphernalia, ceremonial maps were included in medicine bundles.

By studying Plains Indian maps within the functional contexts in which they were produced and used, researchers can begin to understand the complex and subtle ways in which maps were part of the Plains Indians' universe.

Endnotes

¹ Louis DeVorsey, 'Amerindian Contributions to the Mapping of North America', *Imago Mundi* 30 (1978): 71-8; G. Malcolm Lewis, 'The Indigenous Maps and Mapping of North American Indians', *The Map Collector* 9 (1979): 25-32; G. Malcolm Lewis, 'Indian Maps', in *Old Trails and New Directions: Papers of the Third North American Fur Trade Conference*, ed. C.M Judd and A.J. Ray (Toronto, University of Toronto Press, 1980), 9-23; G. Malcolm Lewis, 'Indian Maps: Their Place in the History of Plains Cartography', *Great Plains Quarterly* 4 (1984): 91-108; Barbara Belyea, 'Amerindian Maps: The Explorer as Translator', *Journal of Historical Geography* 18 (1992): 267-77; Rainer Vollmar, *Indianische Karten Nordamerikas: Bietrage zur Historischen Kartographie* (Berlin, Dietrich Reimer, 1981).

² Mark Warhus, 'Cartographic Encounters: An Exhibition of Native American Maps from Central Mexico to the Arctic', *Mapline*, Special Number 7 (Chicago, Hermon Dunlap Smith Center for the History of Cartography, Newberry Library, 1993), 2; Robert A. Rundstrom, 'Mapping, Postmodernism, Indigenous People and the Changing Direction of North American Cartography', *Cartographica* 28[2] (1991): 1-12, esp. 3.

³ Clark Wissler, 'The Social Life of the Blackfoot Indians', *Anthropological Papers of the American Museum of Natural History* 7 (1911):1-64, esp. 43; Cottie A. Burland, 'American Indian Map Makers', *Geographical Magazine* 20 (1947-8): 285-92, esp. 288-90; J. B. Harley, *Maps and the Columbian Encounter* (Milwaukee, Golda Meir Library, University of Wisconsin-Milwaukee, 1990), 5; Warhus, 'Cartographic Encounters' (see note 2), 2; G. Malcolm Lewis, 'Indian Delimitations of Primary Biogeographic Regions', in *A Cultural Geography of North American Indians*, ed. J.E. Ross and J.G. Moore (Boulder and London, Westview Press), 93-104, esp 95.

⁴ E.g., Rundstrom, 'Mapping, Postmodernism, Indigenous People and the Changing Direction of North American Cartography' (see note 2).

⁵ Lewis, 'Indian Delimitation of Primary Biogeographic Regions' (see note 5), 94; Belyea, 'Amerindian Maps' (see note 1)

Dr. Linea Sundstrom specializes in North American archaeology, ethnogeography, and rock art. She is the author of *Storied Stone: Rock Art of the Black Hills Country* (University of Oklahoma Press, 2004), *Rock Art of the Southern Black Hills: A Contextual Approach* (Garland Publishing, 1990), and numerous articles on northern Great Plains archaeology and history. She received the Heizer award for ethnohistory in 2003 and the Luebke award for Great Plains studies in 1998 and 2009.

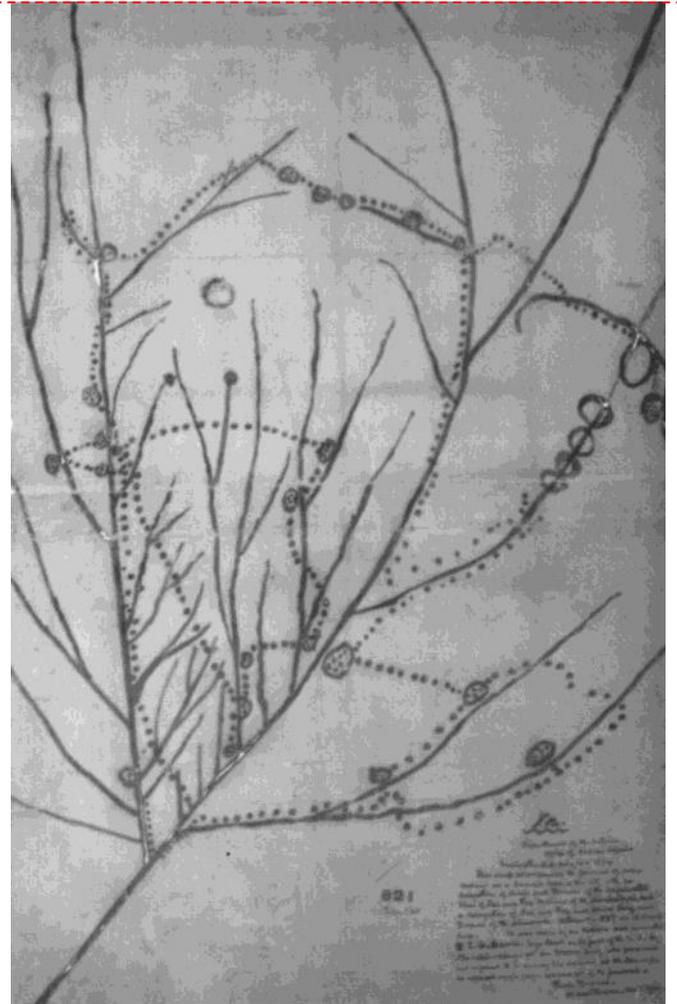


Figure 3. Map of Iowa tribal migrations in the upper Mississippi and Missouri drainage basins drawn by Non-Chi-Ning-Ga, 1837, Cartographic and Architectural Branch, National Archives, Washington, DC.

“THE MAP MENTORS”

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) and he will get you started.

LOCATING THE PAST IN NAHUA CARTOGRAPHIC HISTORIES

HAYLEY WOODWARD

When the Spanish arrived on the coast of what is now modern Mexico, they were astounded to find that the indigenous people they encountered had maps. Hernando Cortés, the lead *conquistador* who orchestrated the coordinated political usurpation of the Aztec Empire's capital Tenochtitlan, writes that he received a map of "the whole country" from the indigenous peoples he met upon first landing in Veracruz in 1519 (Fig. 1).¹ Across the first years of encounter between the Nahua (those that spoke Nahuatl, the *lingua franca* of Central Mexico) and the Spanish, there were a number of recorded sightings of spatial documents that were commensurable with the European mapping tradition.²



Figure 1. Nahua generals consulting and following a military map in the lower left corner, detail from the Florentine Codex, book 8, chapter 17, Biblioteca Medicea Laurenziana, Florence. Image from World Digital Library.

Nahua maps were one subset of a rich tradition of recording information through visual and glyphic language within screenfold books, looseleaf manuscripts, and large cotton canvases. Highly-trained makers (called *tlacuiloque*, or painter-scribes, in Nahuatl) inscribed divinatory, census, tribute, historical, and territorial data upon these media surfaces through a coded visual language system that intermixed pictorial and glyphic messages. Thus, the Nahua (and many other pre-Hispanic ethnic groups) had their own manuscript culture, one that predated the arrival of the Spanish and expressed their worldviews.

Maps were one of the most diverse and enduring subsets of documents in this Nahua manuscript culture. Alt-

hough none of the map products created before the arrival of the Spanish survive (as the Franciscan friars systematically burned all evidences of pre-Hispanic "idolatry" upon their arrival in 1524), in the years after the encounter, thousands of map products were produced, each which satisfied unique needs for their makers and their communities. Presently, within the Archivo General de la Nación in Mexico City, court documents on sixteenth- and seventeenth-century legal disputes over land rights often have an associated drawn map attached to the records. Such maps, which represent a continuation of indigenous conceptions about land and stylistic traditions from the pre-Hispanic era into the colonial, were considered as acceptable and persuasive evidence in the Spanish *audiencia* (or court of law), where such disputes were settled.

In addition to the many property and city plans produced by painter-scribes in an effort to picture (and therefore assert) land rights, *tlacuiloque* incorporated historical memory and storytelling into the painted projection of landscape of other spatial documents. Such maps, called cartographic histories or history-maps, embed historical narratives within spatially-meaningful geographic representations. This means that painter-scribes located events from the past—like migrations, marriages, or wars—within an armature of geography, thereby inextricably linking the past and place. Place was an apt structure to tell histories of migrations and foundations, which center on movement through and settlement in the landscape.

Nahua painter-scribes structured cartographic histories in one of two ways. Some embedded events into a cartographic composition, thereby emphasizing an overall territorial scope to locate the past. This is the case in the Codex Xolotl, which is oriented to the east at the top of the page and displays the then-present lake systems of Central Mexico (painted in blue pigment), as well as a major mountain range that undulates across the upper half of the sheet (here, outlined with black pigment) (Fig. 2, next page). Glyphic place names identify important communities using a logosyllabic writing system; many of the signs take the form of a bell-shaped, dark green hill with different signs atop or within it. For instance, a place named Chapultepec is composed of a grasshopper (*chapulin* in Nahuatl) atop a hill sign (*tepētl*); the two signs merge together to prompt the name of the place (Fig. 3, next page). Thus, no alphabetic writing was required to identify places on these maps.

The arrangement of this topography and toponymy approximately emulates the actual physical and sociopolitical terrain of this area. When compared to what this region looked like in the sixteenth century, the positioning of the mountains and lakes corresponds between reality and representation, and



Figure 2. Codex Xolotl, page 2, 42 x 48 cm, *amatl* paper, Mexicain 2, Bibliothèque nationale de France.



Figure 3. Detail of Chapultepec, Codex Xolotl, page 2, Mexicain 2, Bibliothèque nationale de France. (see white rectangle in Fig. 2)

the place names of communities spatially relate to one another. Thus, the makers positioned place signs as an interlocking web that reflects true geography against one another; this manuscript, and many others like it made by the Nahuatl, is a sophisticated cartographic statement, made more important by the incorporation of complex historical events upon the map face. In the Xolotl; people and their actions fit into the map framework; figures move across the landscape, begin families (whose children marry into other genealogies), and wage war on one another. The painter-scribes strung together narrative sequences that occur in different areas with footprints, which index movement across space.

Other cartographic histories, like the Mapa Sigüenza, combine the web of geography evinced

in the Xolotl with another spatial framework, one that subjugates the landscape to the presented history, emphasizing itineraries or sequencing of events over portraying a "true" reflection of the physical landscape (Fig. 4). The Mapa Sigüenza presents the migration story of the Mexica, who depart from their homeland of Aztlan and eventually find the place they will settle within, Tenochtitlan (today called Mexico City). The right side of the sheet of indigenous paper depicts a circuit of stops in their itinerary, composed as a string of place



Figure 4. Mapa Sigüenza, 54.5 x 77.5 cm, Instituto Nacional de Antropología e Historia, Museo Nacional de Antropología, Mexico City. Image from World Digital Library.

glyphs in a continuous line. This sequence is like a Metro map that collapses its stops into a straight line, demonstrating sequence but not coordinates.

The narrative begins in the top right corner, at the island of Aztlan (represented as a square filled with blue wavy lines representing water), where elongated figures line up in profile to begin the migration. Their itinerary follows along a thin pathway that twists and turns, first circumambulating the island of Aztlan, then snaking down to the lower right corner before turning upward through the middle of the page, curving through the upper left quadrant and ending at a large sign called Chapultepec, the same place seen in the Xolotl. The pathway meanders throughout the page, passing through signs that represent different mythic places visited by these travelers. Dots next to these place signs express how many years the migrants stayed in each place, thereby inlaying temporal data into the map face.

At Chapultepec, the map transitions into a tableau of geography, like the Codex Xolotl. Below this place, the painter-scribe adds descriptive geographic features (like blue straight lines that signify canals and marshy vegetation) that identify this environment as lacustrine. An itinerary still appears, indexing movement into and through this landscape, but the place signs in the lower left side of the page adhere to a cartographic web, their positionalities on paper mimicking the actual environment.

The Codex Xolotl and the Mapa Sigüenza's makers decided to use a map-like format to give viewers a better understanding of the spatial relationships of historical events. Although geographically-motivated histories are diagrammatically-advantageous as a presentational framework, for the Nahua, space was the prime way to preserve and create historical memory. Miguel León-Portilla contends that the Nahua believed that the harmony of the universe was maintained through the "spatialization of time," meaning that the passage of time (through which history unfolds) was equivalent to moving through space.³ Thus, time/event and place were synchronous, overlapping, and mutually-influencing concepts to the indigenous people of Mexico, and a cartographic history stabilized these three elements together. At the same time, like all maps, cartographic histories propose, rather than objectively reflect, landscape. The Xolotl depicts the stories and genealogies of the royal house that commissioned it and minimizes the size and importance of other places that were depicted as politically significant in other manuscripts. Likewise, the Sigüenza's narrative is centered around a single group, the Mexica, and the depicted geography is laser-focused on the sites that were important to the story being told while inevitably excluding other places. Thus, each cartographic history had an agenda with its own narrative needs and is a text to be read, rather than a documentary representation of "true" landscape.

Endnotes

¹ Hernán Cortés, *Letters from Mexico*, translated and edited by A.R. Padgen (London: University of Oxford Press, 1972), 340.

² This essay uses the classifier "Nahua" instead of "Aztec" to describe the people of Central Mexico because "Aztec" is a Western term, popularized by Alexander von Humboldt; the peoples of the "Aztec" Empire would never have called themselves as such. Nahua refers to a group with a shared linguistic tradition and accounts for continuity after the conquest.

³ Miguel León-Portilla, *Aztec Thought and Culture*, translated by Jack Emory Davis (Norman: University of Oklahoma Press, 1963), 56.

Suggested reading:

Leibsohn, Dana. "Primers for Memory: Cartographic Histories and Nahua Identity." In *Writing Without Words: Alternative Literacies in Mesoamerica and the Andes*, edited by Elizabeth Hill Boone and Walter D. Mignolo, 161-187. Durham: Duke University Press, 1994.

Mundy, Barbara. "Mesoamerican Cartography." In *The History of Cartography* vol. 2, book 3, *Cartography in the Traditional African, American, Arctic, Australian, and Pacific Societies*, edited by David Woodward and G. Malcolm Lewis, 183-256. Chicago and London: University of Chicago Press, 1998.

Pulido Rull, Ana. *Mapping Indigenous Land: Native Land Grants in Colonial New Spain*. Norman: University of Oklahoma Press, 2020.

Publisher's Note: See also David Kalifon's article on the early maps of Tenochtitlan in the Spring 2021 issue of *Calafia*?

Hayley B. Woodward is a Ph.D. Candidate in the Art History and Latin American Studies program at Tulane University, where she earned her M.A. in Art History as well. Her research centers on Nahua artistic and historiographic practices as evinced in painted manuscripts. She is currently a Predoctoral Fellow at the Getty Research Institute and has held the Center for Renaissance Studies Consortium Fellowship at the Newberry Library.



FOLLOW US ON SOCIAL MEDIA!

facebook

[facebook.com/](https://www.facebook.com/)



[@CalMaps](https://twitter.com/CalMaps)

FROM THE GROUND UP: INDIGENOUS PARTICIPATORY MAPPING IN BORNEO

DANIEL SCOLLON

"Maps ... exert a social influence through their omissions as much as by the features they depict and emphasize." – J.B. Harley, 1992

Borneo is a hotspot of global biodiversity, home to the orangutan and the oldest rainforest on earth. The human history of the world's 3rd largest island has been written by waves of migrants, dating back tens of thousands of years. Yet analysis of four decades of satellite imagery revealed that only 50% of Borneo remains under forest cover (Ramsey, 2016). Throughout history, maps have enabled explorers, empires, and exploitation, but today they are also being created by marginalized Indigenous peoples.

My father, Cal Scollon, was working for the Asia Foundation in the mid-sixties when he brought our family to live in Sabah, in the newly independent Federation of Malaysia. Thirty years later, I returned to initiate a *participatory mapping* program under The Borneo Project, a Berkeley-based non-governmental organization (NGO). After more than 25 years, the mapping program continues to support the mission of defending Indigenous rights to land and livelihood.

A contemporary relief map of Borneo (Fig. 1) reveals a mountainous interior that culminates at Mt. Kinabalu, the highest peak between the Himalayas and New Guinea. A complex network of rivers remains a primary conduit into the interior to this day. The rugged terrain also defines the boundary between the Malaysian states of Sarawak and Sabah, to the north, and Indonesia's Kalimantan provinces. The oil-rich microstate of Brunei faces north to the South China Sea. Borneo is part of the world's largest archipelago, with some 11,000 islands forming a continuous chain extending 5,000 kilometers eastward from mainland Southeast Asia to the western Pacific.

The study of the biogeography of this region extends from the mid-19th century to the present, and provides the scientific basis for the need to protect large tracts of habitat, especially on species-rich large islands, such as Borneo (Wallace, 1869; Wilson & McArthur, 1967; Dunn, 2021). Meanwhile, researchers in Brazil have found that 90% of Indigenous territories had higher forest retention than surrounding areas, demonstrating the value of native land management (Begotti & Peres, 2020).

Participatory mapping emerged in the 1990s to document Indigenous knowledge of place, based on a framework that put communities at the center of the mapping process (Aberley, 1993). This was supported by research on the socio-

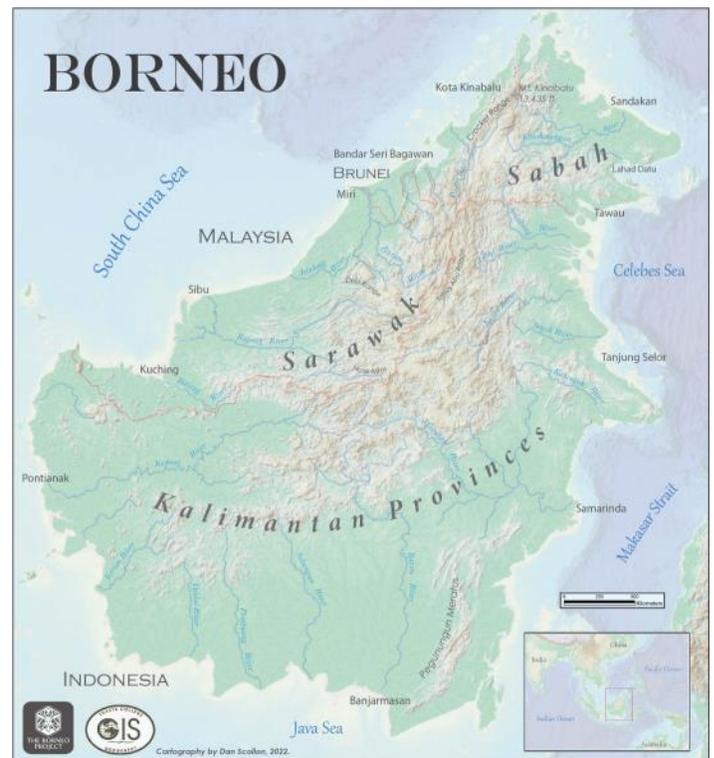


Figure 1. Borneo Shaded Relief (Scollon, 2022)

political implications relating to "reinserting people on resource maps," which introduced the idea of *counter-mapping* to historic state-control of mapping (Peluso, 1995). Over time, *participatory GIS* (PGIS) would come to plan an important role.

Indigenous communities in Kalimantan, Sabah, and Sarawak have embraced community-based participatory mapping and GIS to counter the forces that are undermining their lives and livelihoods. These include land expropriation, commercial logging, and plantations. Local and international NGOs support these efforts by procuring equipment and materials, arranging transportation and other logistics, and conducting training, all in spite of limited resources.

Participatory mapping relies on trust and community support. Outside experts may provide guidance, resources, and appropriate technologies, but only in the service of Indigenous self-determination. Some communities are reticent, fearing that mapping could result in further exploitation by logging and palm oil companies or retribution from the government. Peluso reminds us that "Mapping of forest resources is an intrinsically political act: whether drawn for their protection or production, they are drawings of a nation's strategic space."

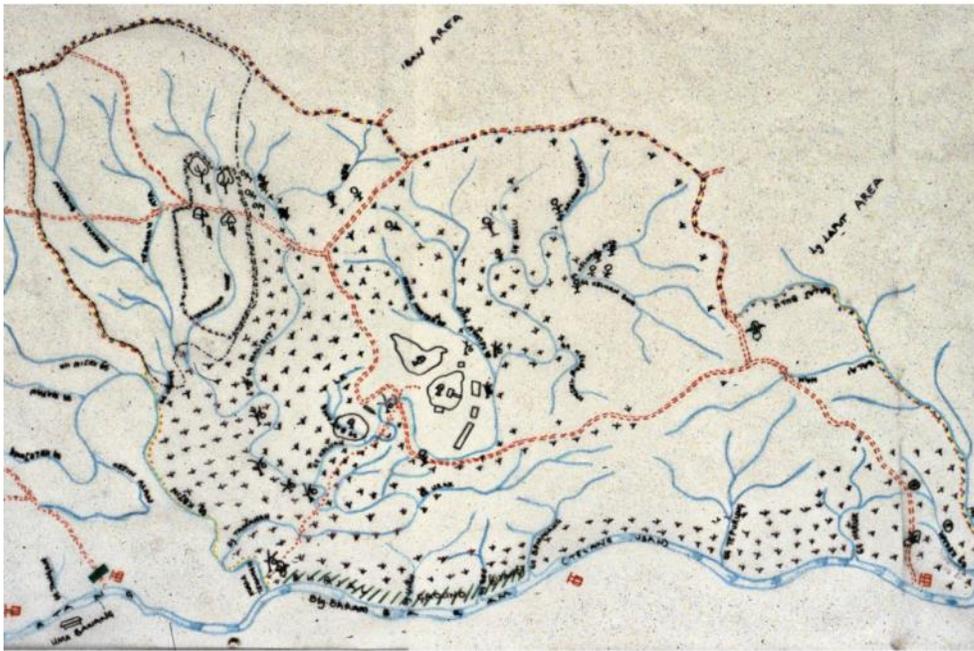


Figure 2. First Indigenous Participatory Map, middle Baram River, Sarawak (UBRA, 1995; with permission)

In 1994, fresh from grad school, I traveled to Kalimantan, Sarawak, Sabah, and Brunei to assist in mapping workshops sponsored by a Canadian NGO. The next year, with eight volunteers of The Borneo Project, I conducted the first workshop in Sarawak. Upon our arrival at the remote kampong of Keluan, we were greeted with ceremony, food, dance, drink, and stories. Descendants of the once fearsome headhunters showed themselves to be gregarious and generous hosts. We presented gifts that included art supplies and blank paper and encouraged young and old to draw in their personal places and features of interest. Inflatable globes and wall maps were used to explain concepts such as relative location, coordinates, and scale.

Interviews with leaders and members of the community helped set the priorities for mapping. Responses helped determine the location of farm plots, hunting and foraging areas, sacred sites, and boundaries with neighboring communities. Field mapping was conducted using a compass-and-tape method, in which crews recorded bearing and distance between stations along transects. GPS was helpful for determining coordinates of strategic locations, but forest canopy and degraded signal from *selective availability* limited its utility. Next, the data were hand-plotted to scale. In spite of the survey department's restricting our access, an illicit 1:50,000 scale topographic map permitted tracing of prominent features. Additional features of interest were added, along with title, legend, and other elements, resulting in a first-of-its-kind participatory map under the Uma Bawang Residents Association (Fig. 2).

In 2000, a landmark court victory recognized native customary land rights for a village in Sarawak, in part based

community-produced maps. Enshrined in the constitution since colonial times, these rights were seldom recognized for lack of maps demarcating boundaries. In response, the state passed a law in 2001 outlawing the creation of maps by anyone but a licensed surveyor. Regardless, the victory prompted a flood of requests to map village lands. Local NGOs ramped up their capabilities and began mapping throughout Sarawak (Bujang, 2005). Key to these ongoing efforts is the relationship between local NGOs, such as BRIMAS, PACOS, and Save Rivers, and international groups such as The Borneo Project.

By this time, geospatial technologies were increasingly deployed to expand the reach and efficacy of mapping (Fig. 3). Because geographic information systems (GIS) require technical profi-

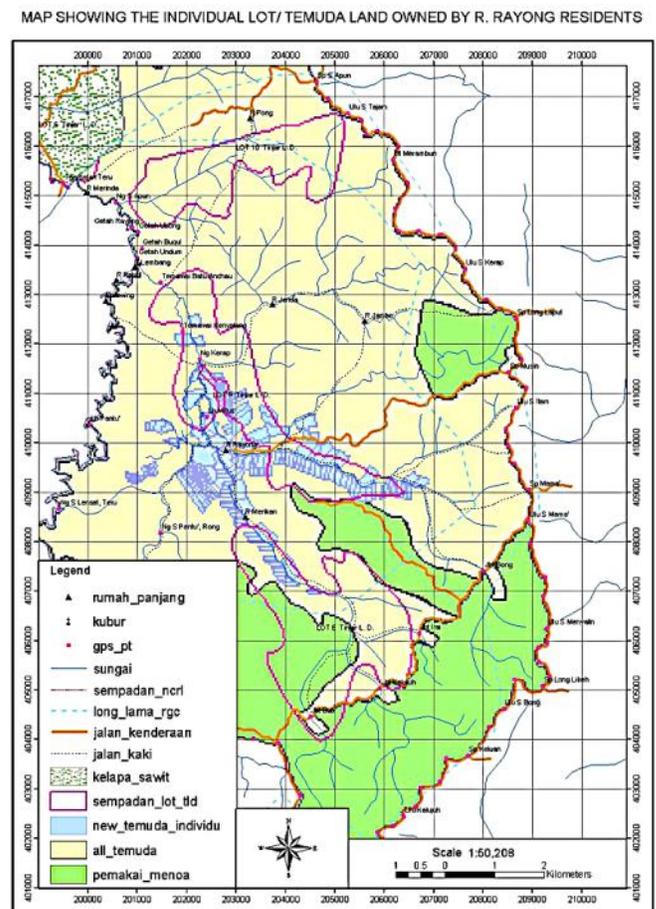


Figure 3. Participatory GIS Map, Rumah Rayong, Sarawak (ca. 2000; with permission)

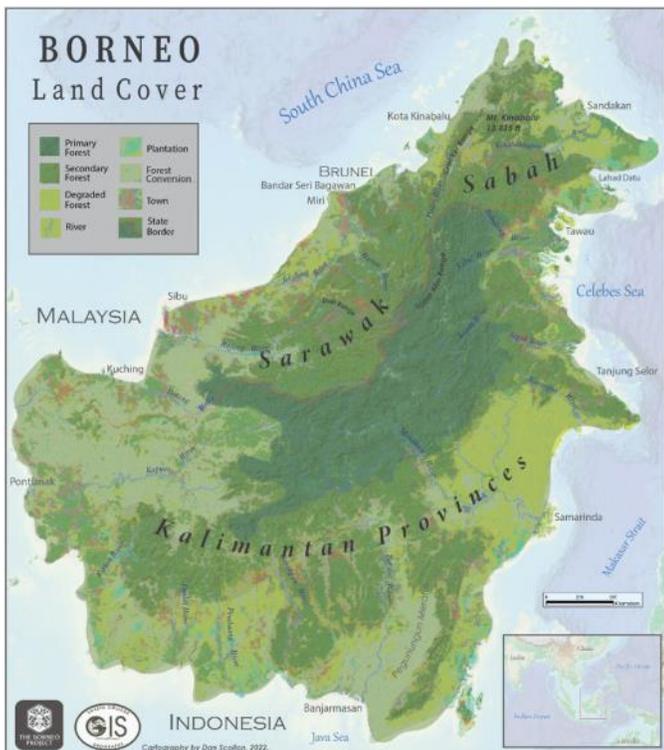


Figure 4. Borneo Generalized Land Cover based on Satellite imagery (Scollon, 2022)

ciency, local NGOs identified candidates to receive training, which prepared them to lead community mapping. GPS also became increasingly important for field mapping as capabilities improved. Field-captured ground features were then integrated into geodatabases. These data were complemented by publicly-available data, which has proliferated in recent years. Mapping also supports other initiatives, such as micro-hydro power, Indigenous language pre-schools, and local economic development. To date, these programs have served scores of native villages and hundreds of individuals.

Despite the successes of community mapping, there remains a number of challenges. The most significant are the internal and external forces that undermine native land sovereignty. In addition, the accuracy of community maps has been challenged in some cases, revealing insufficient training and difficulty in transferring spatial knowledge to maps (Cronkleton et al., 2007).

Divisions also emerged within communities, with some residents either siding with the companies or fearing government reprisal. At the same time, NGOs have struggled to meet the demand for mapping with limited financial and human resources.

Borneo's forests have been ravaged by logging, plantations, and mega-dams (Fig. 4). Plans for 12 dams, financed by Chinese corporations connected to Sarawak political elites, have thus far resulted in the construction of the Bakun Dam in the Rajang watershed. With plans advancing for a dam on the Baram River, a campaign of opposition was undertaken by Indigenous communities and supporting NGOs. The media attention, along with a change in government, caused the proposal to be shelved in 2017. Meanwhile, communities in the upper Baram proposed an alternative in the form of an Indigenous-lead ecological peace park.

With a fund-raising campaign underway, a survey of flora and fauna of the upper Baram watershed was begun in 2018. Technicians from three Penan and Kenyah territories were employed, working under the guidance of American and Malaysian scientists and NGOs. The survey involved three villages, with each laying out four transects of 4 kilometers in length. Each transect was surveyed twice per month, for a total of 10 months spread out over two years. The resulting data represent an invaluable census of this region that acts as vital refugia for species. Work is presently underway to build a GIS database and analyze the results (see preliminary example map in Fig. 5).

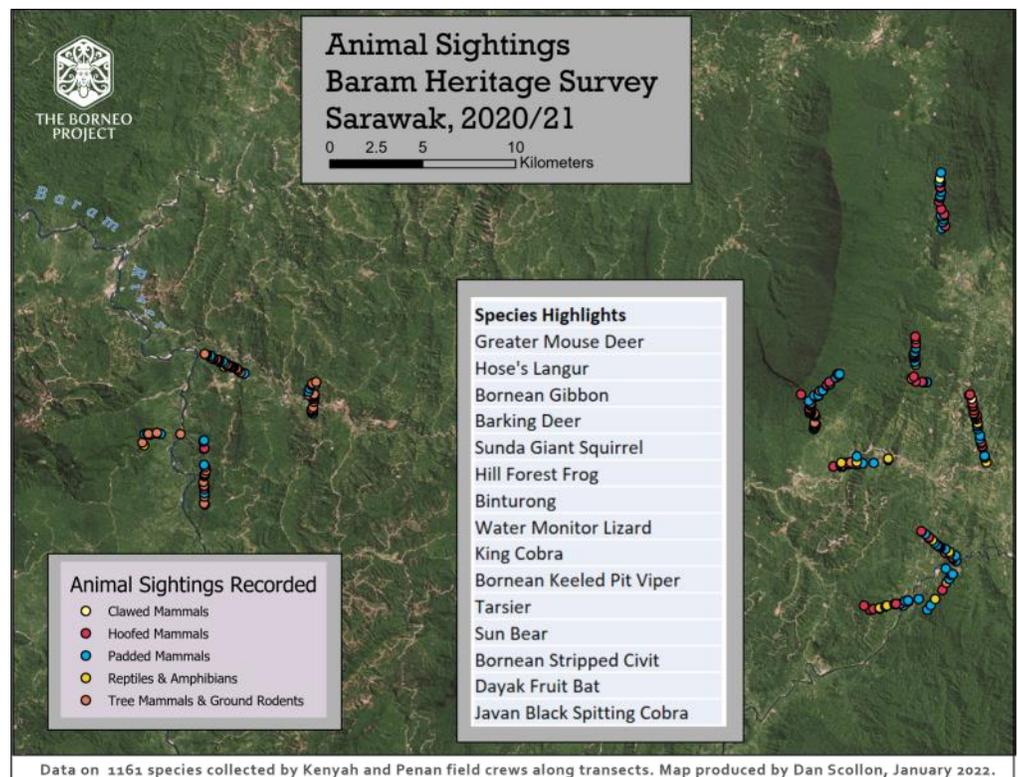


Figure 5. Baram Heritage Survey preliminary data (Scollon, 2022)

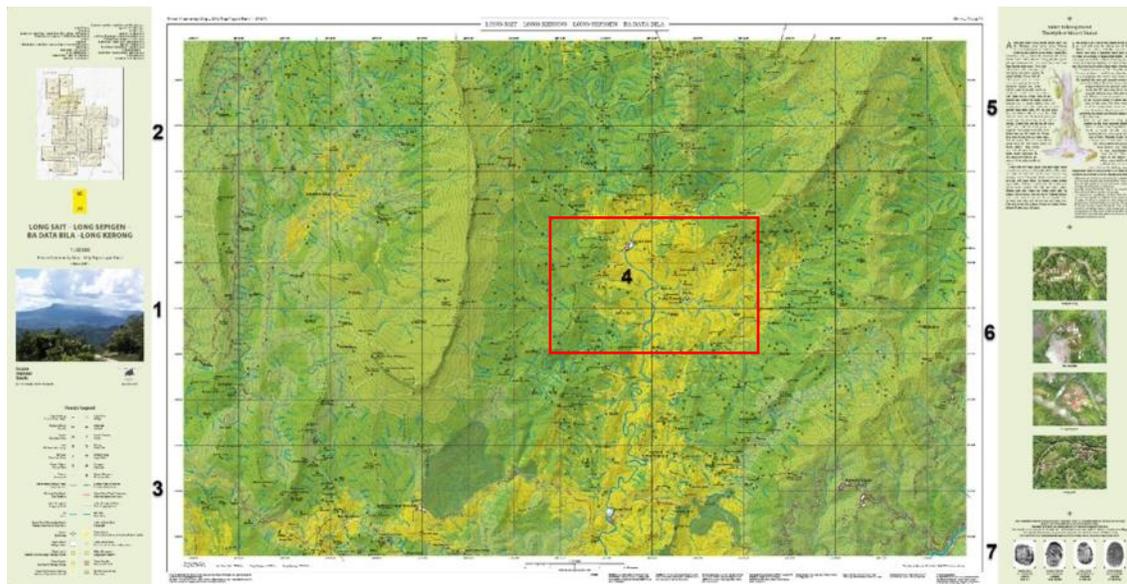


Figure 6a. [above] Penan Community Map Design: Front page (1), Overview (2), Legend (3), Topographic Map (4), Oral History (5), Drone Imagery (6), Certification by Headmen (7)

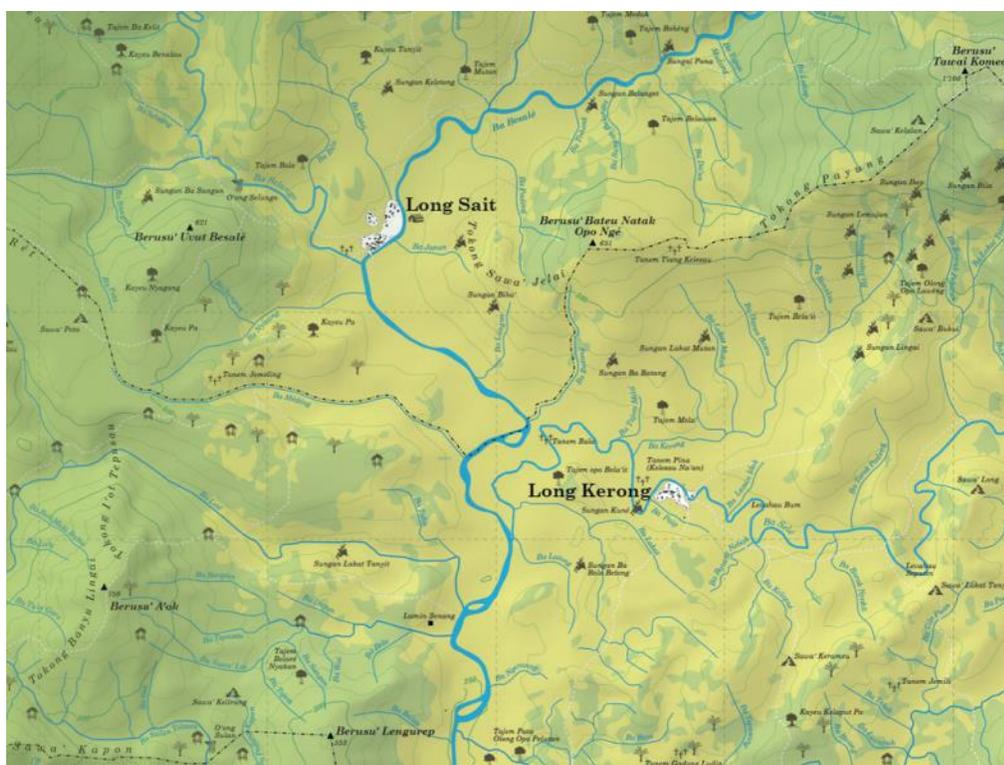


Figure 6b. [left] Penan Community Map large scale sample; inset from Fig. 6a (BMF, 2015; with permission)

The once-nomadic Penan are some of the most vulnerable of Borneo's 40 ethnic groups. In response, the Bruno Manser Fund, named for a Swiss national who brought attention to the plight of these people in the 1980s, sponsored the Penan Community Atlas (Canon, 2018). This ambitious project deployed drones, GPS, and field crews and resulted in beautiful and culturally significant maps (Figs 6a, 6b). Among the Penan leaders of this project was an alumnus of workshops hosted in the 1990s. He was also part of an international delegation that met with Yurok Tribe activists on California's north coast in 2016.

Today, the magnitude of the threats to biodiversity and Indigenous cultures has global implications. As we collectively struggle to mitigate the impacts of habitat loss and climate change, maps must play a role in charting a path forward. Participatory mapping and GIS present a bridge between modern mapping capabilities and the deep wisdom and traditional ecological knowledge of ancient cultures. Our willingness to support and embrace such efforts may have far-reaching effects for the years ahead.

For Accompanying Digital Resources go to dscollon.fivepaths.com

Sources

- Aberley, Doug editor (1993). *Boundaries of Home*. New Society Publishers
- Bujang, Mark (2005). "Community-based Mapping (in Sarawak)". *Mapping Communities: Ethics, Values, Practice*. Ed. Fox, J. et al. East-West Center.
- Canon, J.C. (2018). [Sarawak's Penan now have detailed maps of their ancestral homeland](#). Mongabay.
- Cochrane, L. and J. Corbett (2018). "Participatory Mapping". Springer.
- Cronkleton, P. et al. (2007). Supporting Forest Communities in Times of Tenure Uncertainty: Participatory Mapping Experiences from Bolivia and Indonesia. Actas de
- Dunn, R. (2021). *A Natural History of the Future*. Basic Books.
- Gicomo Rambaldi; Robert Chambers; Mike McCall; Jefferson Fox (2006). ["Practical ethics for PGIS practitioners, facilitators, technology intermediaries and researchers"](#) *PLA 54:106–113, IIED, London, UK*.
- Begotti, R. and C. Peres (2020). ["Land rights essential to protect biodiversity and Indigenous cultures"](#). Science Daily
- Peluso, Nancy L. (1995) "Whose Woods are these? Counter mapping forest territory in Kalimantan, Indonesia". *Antipode* 27:4, 1995, pp. 383-406 ISSN 0066 4812
- Ramsey, D. (2016). ["Delving into drivers of deforestation: New study analyzes four decades of satellite images"](#). Forest News.
- Gaveau, D.L.A., et al. (2016). ["Rapid conversions and avoided deforestation: examining four decades of industrial plantation expansion in Borneo"](#). Scientific Reports.
- Sample, Ian (2018). "World's 'oldest figurative painting' discovered in Borneo cave". *The Guardian*.
- Wallace, Alfred R (1869). *The Malay Archipelago*. Macmillan, London.
- Wilson, E.O. and Robert McArthur (1967). *The Theory of Island Biogeography*. Princeton Press.

Daniel Scollon has taught Geography and GIS at Shasta College since 1996 and is a registered GIS Professional. His current research is in the Klamath Mountains, where he leads field courses. Dan holds a B.S. in Computer Science (Cal Poly, '86) and an M.A., in Geography (SFSU, '94), and is an alumnus of the East-West Center in Honolulu. He is a co-founder of NorthStateGIS.org, and believes in the power and potential of maps.

WEB RESOURCES FOR INDIGENOUS MAPPING

DAN SCOLLON

Native Lands of America: a beautiful map of North and South America, showing all of the indigenous tribes in a variety of bright colors. It is possible to explore areas and tribes by territory, by language, and by treaties.



Native American Heritage Commission Digital Atlas: This colorful map of North America contains tribes and locations. Clicking on any tribe takes one to contact information for each tribe.

Mapping Tribal Lands: This website if a wonderful story map of California's Ohlone tribe.



Mapping Indigenous LA: There are two story maps of tribes in the Los Angeles Area, the Fernando Tataviam band of the Mission Indians, and Perspectives on a selection of Gabrieleno Tongva Places

NEW WORLD MAPS
ORIGINAL ANTIQUE, VINTAGE, AND COLLECTIBLE MAPS, PRINTS, BOOKS, TRAVEL BROCHURES, AND PAPER EPHEMERA

PO Box 541389
LAKE WORTH, FL 3454
(561) 642-9705

VISIT OUR WEBSITE: WWW.NEWWORLDMAPS.COM
EMAIL US: SALES@NEWWORLDMAPS.COM

ebay YouTube Instagram Facebook Twitter

MY FAVORITE MAP: AMERICAE NOVA TABULA BY WILLEM BLAEU

RICHARD S. BREIMAN, MD

It is difficult to select one favorite map, since I have many that are special to me for various reasons. I am drawn to maps that combine scientific, historical and educational content with artistic and decorative features. For this reason, I am most attracted to the 17th century maps of the great Dutch and English cartographers, such as Blaeu, Jansson, and Speed, as well as celestial maps of Cellarius and Doppelmayr. Of these, I am most drawn to maps with vignettes displayed around the map's periphery. I have a series of these, including maps of Europe, Asia, and Africa, but my favorite is Willem Janszoon Blaeu's (also known as Guillaume Blaeu) map of North and South America entitled "Americae Nova Tabula," first created in 1617 and later included in his "Theatrum Orbis Terrarum, Sive Atlas Novus" atlas in 1635 (Fig. 1).

is because it is beautiful, in great condition, and an early depiction of our part of the world at a time that knowledge of the Americas was in its infancy compared to many other parts of the world...and then there are the beautiful vignettes.

I think of vignettes as a technological advance for the pre-internet, photography, video, and television era. People did not have access to National Geographic, Smithsonian Magazine, etc. These vignettes provided 17th century Europeans with a glimpse of what inhabitants of the "New" World looked like and how they dressed. They also included miniature maps of the principal cities in the regions included on the maps. Maps like this one may have inspired future explorers in the 17th and 18th centuries' "Age of Discovery," during which there was an increase in both interest and funding for projects with political, territorial expansion, economic and scientific goals.

Although the Blaeu map of the Americas had many of the usual inaccuracies and areas lacking in detail common to all early maps of the region, it did not depict California as an island, as did most other maps of its era and for the next 100 years. In a way, I wish it had. If so, I would love the map even more since I have a strong interest in maps showing California as an island. Cartographically the map was updated from earlier editions to reflect a better understanding of Tierra del Fuego and the Strait of Magellan. It also includes Hudson's Bay, although the Great Lakes are not shown. The east coast of North America, in the vicinity of the Outer Banks of North Carolina, has an exaggerated outward bulge, a cartographic error derived from earlier maps by Mercator/Hondius. Highlights of this region include the identification of Norumbega or Nurmebega, which was a legendary region of imagined gold and riches, where the houses had pillars of gold, and the inhabitants carried buckets of pearls on their heads. Norumbega was thought to be in the northeastern portion of North America, in the vicinity of present-day Bangor, Maine, in New England (Fig. 2). It was featured on many early maps from the 1500s until European colonization of the re-



Figure 1. Americae Nova Tabula by Willem Janszoon Blaeu from *Theatrum Orbis Terrarum, Sive Atlas Novus*, 1621-1630. All images are provided by the author.

Why is this map among my very favorite? In part, it is because, as one of the most sought-after maps of America from the Golden Age of Dutch cartography, it was the hardest for me to acquire, which brings the satisfaction associated with a successful conclusion to a "hunt." More importantly, it

region of imagined gold and riches, where the houses had pillars of gold, and the inhabitants carried buckets of pearls on their heads. Norumbega was thought to be in the northeastern portion of North America, in the vicinity of present-day Bangor, Maine, in New England (Fig. 2). It was featured on many early maps from the 1500s until European colonization of the re-

gion discounted its existence, which occurred after the publication of this map. The legendary El Dorado is depicted in northern South America, named Manoa al Dorada (Manoa the Golden). The name El Dorado initially meant "The Golden One," which referred to a mythical king that covered himself in powdered gold during ceremonies. It eventually was used to refer to a region or city of abundant gold and other riches. Many Spanish and German conquistadors and English explorers mounted expeditions to the region searching for gold, including Sir Walter Raleigh, from the court of Queen Elizabeth I, and Gonzalo Pizarro, the younger brother of the Spanish conquistador Francisco Pizarro, who had earlier con-

proved by Captain James Cook during his 2nd voyage of discovery 1772-1775.

Along the map's lateral borders are colorfully detailed miniature engraved vignettes of pairs of indigenous Native North and South Americans from various regions included on the map, attired in the typical costumes of the area. On the left from top to bottom, these include: Groenlandi (Greenland), Virginiani, Rex et Floride (King of Florida), Nove Albions Rex (King of Nove Albion or California), and Mexicani (*Fig. 4 & 5*). Nove Albions was the name given to present-day California by Sir Francis Drake when he landed in what is now Point Reyes, north of San Francisco, and claimed the area for England. Along the right margin from top to bottom are Peruviani, Brasiliani, Brasiliani milites (warriors), Insulani de la Moche in Chile (Moche Islanders in Chile), and Freti Magellanici accolie (the Straits of Magellan) (*Fig. 6*).

In addition, miniature maps of the most prominent colonial harbors and cities of the time are depicted across the upper margin. These include from the left: Havana, Santo Domingo, Cartagena, Mexico, Cusco, the silver mines of Potosi in Bolivia, La Mocha Island in Chile, Rio de Janeiro, and Olinda in Pernambuco, Brazil (*Figs. 7, 8 & 9*). Eight detailed images of fully rigged ships flying their countries' flags embellish the oceans, along with four sea monsters, which add to the decorative drama of the map.

The northwest coast of California appears elongated, with Mendocino depicted at the northernmost portion of the visible coastline. At the southern tip of California (present-day Baja California) is C. California (present-day Cabo San Lucas), where pirates would lay in wait



Figure 2. Magnified view of North and Central America, Cuba and Caribbean islands.

quered the Incan empire in Peru. While unsuccessfully searching for gold, Gonzalo discovered the Amazon River, which he named for a tribe of female warriors that had attacked his army during the expedition. Rio de las Amizones is shown on this map, just south of the supposed location of El Dorado, as well as a large imaginary lake, which was given the name Parune Lacus (*Fig. 3*).

The interior portion of the map of South America includes small images depicting the life of the indigenous people of the continent, including images of natives, at least one animal, some trees, and a living or meeting structure. No such images are seen within the map of North America. The map illustrates more detail of Latin America than North America due to the much longer and sustained Spanish and Portuguese presence in the area.

At the lower edge of the map are the words "Terra Australis Incognita", referring to the large landmass thought to occupy the lower portions of the southern hemisphere until dis-



Figure 3. Magnified view of northern South America centered on Manoa al Dorado (the mythical El Dorado), Prune Laces (a large imaginary lake) and Rio de las



Figure 4. Vignettes on the left of indigenous people and their typical costumes from Greenland, Virginia, Florida, California and Mexico.



Figure 5. Magnified view of vignettes on the left of indigenous people and their typical costumes from Virginia, Florida, and California.



Figure 6. Vignettes on the left of indigenous people and their typical costumes from Peru, Brazil, Brazilian warriors, Chile and the Straits of Magellan.

for ships making landfall for repairs and supplies. The east coast of America was dominated by what was then Virginia and Florida, later to become the present-day smaller southeastern states. Landmarks on the map include somewhat recognizable names, such as Chesapioc (present-day Chesapeake in Virginia) Hatoraske (present-day Hatteras in North Carolina), Charlefort, and Port Royal in present-day South Carolina. The east coast of Virginia has an exaggerated convex shape. The northern portions of the midwestern region of the United States and adjacent Southern Canada are simply labeled Francia (referring to its control by France) and show very little detail. Hudson Bay is depicted, and the St. Lawrence River is shown arising from small imaginary lakes. Aquapulco (Acapulco), Guadalajara, and Mexico City are present, and Central America, Cuba, and the Caribbean Islands are shown in detail.

There is an inset map of Greenland, Iceland, and the imaginary island of Frislandia, as well as a cartouche containing Latin text overlying the northern portions of North America, which, at least in part, serves to distract the viewer from the vast unexplored areas that are devoid of geographic detail. To the east, the western coasts of Spain and the African continent are included, and to the west the unexplored Pacific Ocean, along with several mythical islands here, as well as in the Atlantic Ocean.

This map encapsulates all that I love about map (and antiquarian print and book) collecting. The ability to own a piece of significance and beauty that has survived hundreds of years longer than its creators and hopefully hundreds more years if properly cared for by its future owners is thrilling. I enjoy drilling down to the details illustrated on an early map that exhibits the state of knowledge at the time, both accurate and especially inaccurate. As an academic, I am passionate about researching the life and interests of the cartographer/artist, the piece's subject matter, and its history. I am particularly attracted to maps, prints, and books that combine science, history, and art. I also love the hunt for an item that is difficult to attain and the satisfaction that comes with acquiring it. However, this is a double-edged sword, for there is always the possibility for disappointment resulting from the ones that got away, of which there are many. I guess that's why we play the game.



Figure 7. Vignette maps of prominent landmarks.



Figure 8. Magnified view of vignette maps of Havana, Santo Domingo, Cartagena and Mexico City



Figure 9. Magnified view of vignette maps of Cusco, the Potosi Silver Mines in Bolivia, La Mocha Island in Chile, Rio de Janeiro and Olinda in Pernambuco, Brazil.

References:

- Burden, P., *The Mapping of North America: A list of Printed Maps, 1511-1670*, 1996, #189 Tooley, R. V., *The Mapping of America*, #169, pp.296-97
- Goss, J. *Mapping of North America*, #26
- Goss, J. *The Mapmaker's Art*, Pl. 4.24, pp. 110-111
- Goss, J. *Blaeu's The Grand Atlas of the 17th Century World*, pp. 156-157

Richard Breiman is a lifelong collector. As an adult, he collected stamps, vintage watches, African and New Guinea ethnic art and antiques, including scientific instruments. He has been a passionate collector of maps, prints and books for over a decade. Richard's map collection is eclectic, but is frequently focused on pieces that combine scientific and artistic elements. His print collection includes old masters, travel and exploration, topographical and architectural views, botanicals, animals, and English caricatures. His favorite illustrated books include Captain Cook's journals of exploration.

A retired physician, medical school professor, and researcher, Richard was featured in *Meet Our Member* in the spring 2019 issue of *Calafia*, pp 41-42.

DRINK MAP OF OXFORD

STUART ACKLAND

Held in the vaults at the Bodleian Library are an amazing collection of maps of Oxford. One of the most interesting though isn't that beautiful and it certainly has little cartographic value. It is fascinating because of what it reveals about my home town, its underlying social history and the contrasts between the classes that lived in Oxford in the 1880s. Used regularly in reader sessions the initial reaction to the *'Drink Map of Oxford'* (Fig. 1) is laughter at the idea that our straight-laced Victorian antecedents could have produced what appears to be an 1883 pub guide.

The simplest of skeleton plans has four different red symbols which

mark the location of the pubs, breweries, licensed premises and beer houses in the city, 319 in total. Of this total the pubs make up nearly half, and quite a few of these still survive nearly 140 years later, though Covid has taken its toll. There are no longer any breweries in the city and the licensed premises shown have mostly been replaced by

supermarkets. Beer houses are where people in private dwellings were able to get a license to sell alcohol out of a room in their house to supplement income. Beer houses tended to be in the smaller side streets, closely packed together in the poor parts of the city, selling beer and gin at a cheaper price than the pubs that line the busy main streets.

With no obvious publishing information it is only when you look at the text on the reverse (Fig. 2, next page) that you begin to understand the true purpose of the map. It was published by the *Oxfordshire Band of Hope and Temperance Union*, one of a number of temperance societies in the city which were dedicated to eradicating the damaging effect of alcohol on the poor and working class. The text highlights the concerns the Union had and questions how much better the lives of the poor would be if their money was spent on improving living conditions instead of alcohol, which led to *'idleness and ill-health, and very frequent poverty and crime'*.

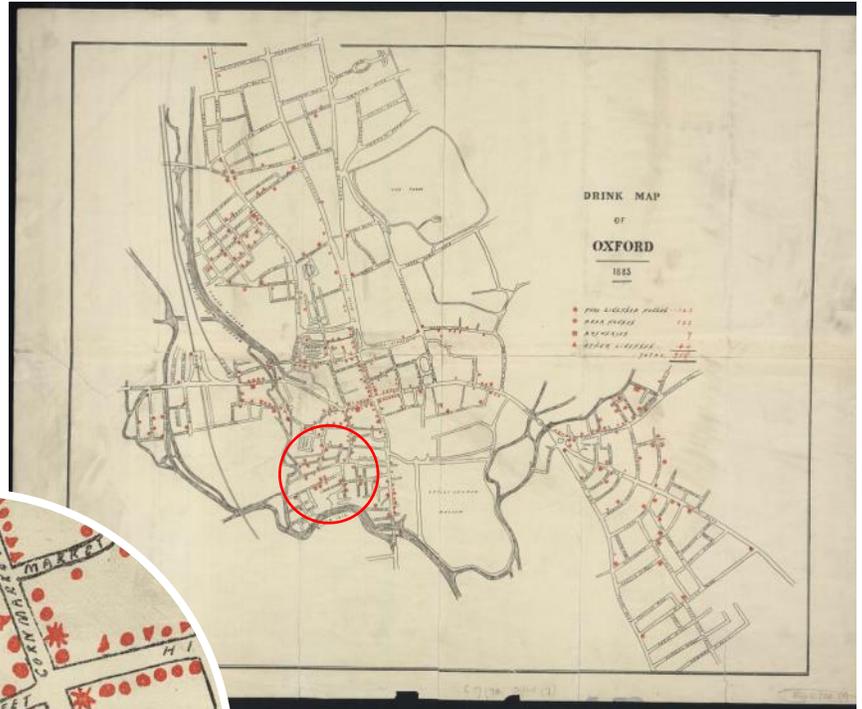


Figure 1. Drink Map of Oxford, 1883. Bodleian Library C17:70 Oxford (7)

According to the text the reasons for the large amount of premises in certain areas compared to others comes down to class. The working class parts of the city are over-represented because the magistrates—who tend to be drawn from the middle classes in the north of the city—are happy to give licenses in these areas but shy away from providing licenses to property near their own homes.

It's worth at this point giving some background to the city at the time the map was made. Long famous as one of the most important university towns in Europe Oxford had started to develop as an industrial city with the arrival of the canal in 1792. As a consequence of the agricultural revolution and the loss of rural jobs Oxford's population grew dramatically as people moved out of the country and into the town, increasing by 30,000 between the mid-1700s and the first census in 1881. It is this rise in population that has created the over-crowded and poorly sanitized parts of the city that are so heavily featured with symbols; to the west is the suburb of Jericho, bordering the canal and home to the iron foundries and Oxford University Press, to the south west St Ebbe's, a parish with a long history of slum housing and disease made worse by the recently built City Gas Works, and St Clement's to the south east. This disparity of distribution which is another bone of contention with the *Temperance Union*.

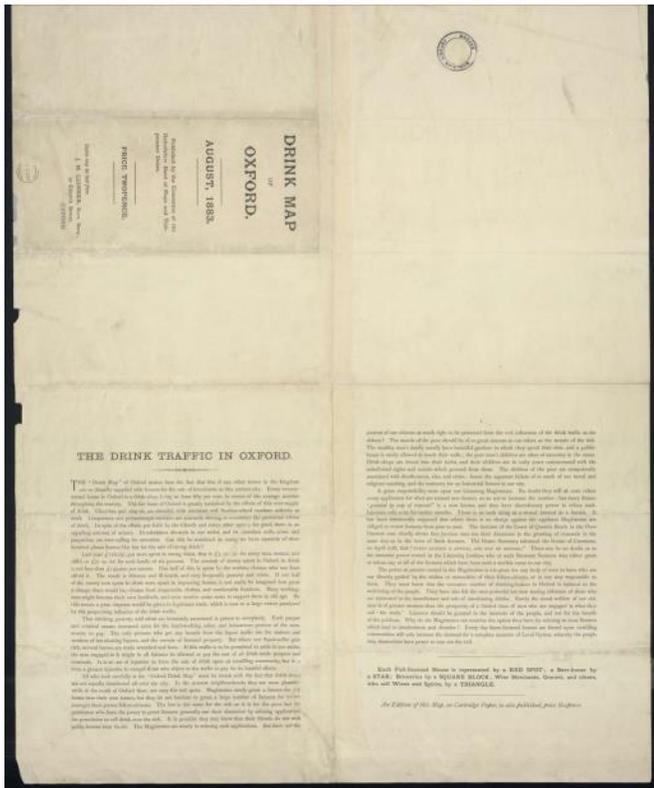


Figure 2. Bodleian Library C17:70 Oxford (7)

With an upper and middle class lifestyle more in favour of entertaining at home or in restaurants than public houses class would inevitable play at part. This is acknowledged in text on the map, ‘*The wealthy man’s family usually have beautiful gardens in which they spend their time and a public house is rarely allowed to touch their walls; the poor man’s children are often of necessity in the street. Drink shops are thrust into their midst...*’. The text in the back isn’t being entirely honest though. Claims that the magistrates are drawn from the more affluent northern suburbs is soon shown to be wrong when looking at contemporary directories. With lists of magistrates and their home addresses these show a geographical distribution throughout the city, with one even living next to a beer house one of the poorer areas.

Even with a cursory look at the map it is obvious that the centre and north of the city have far fewer symbols than other areas. As the text says ‘*The law is the same for the rich as it is the poor, but the gentlemen who have the power to grant licenses generally use their discretion by refusing applications for permission to sell drink to the rich*’. This is another example of the text not being entirely honest. Most of the centre of the map is taken up with university and college buildings and the large open space of the University Park while in the north St John’s College was, and still is, a major land owner and when selling land for housing and development the college usually put a proviso in the contract that there wouldn’t be any licensed premises built.

The Oxford map is just one of a number of temperance maps of English towns. All of a similar design, examples exist for Manchester and Norwich while a map of London showing public houses pulled no punches with the title, *The Modern Plague of London*, and shows a spread of pubs in the city to equal, if not surpass, those in Oxford. These Drink Maps have natural cartographic parents, their use of skeleton plans and symbols resemble disease maps that had begun to appear at the turn of the century. In England the most obvious example would be Dr John Snow’s cholera map of Soho in London in 1854. This map plotted on a simple street plan markers indicating cholera fatalities, and in appearance is close to the drink maps that were to follow. There is a similar map made about cholera outbreaks in Oxford in the 1850s, again symbols are used to show fatalities. Areas of poor sanitation are shaded in, and these shaded areas match the areas on the *Drink Map* with large numbers of symbols.

How do we view and interpret The Drink Map 150 years later? When shown in exhibitions or private viewings the initial reaction is always laughter, to think that our Victorian antecedents, usually looked on as traditional, straight-laced people, could produce something purely pleasurable about alcohol seems strange. Then when you explain the map’s purpose, the publisher and the text on the reverse the effect is always the same, more laughter at the irony of what appears to be two opposing messages. We do have to acknowledge though that this initial impression is as a result of library practice. The map would have been bought folded, with title and publisher and, as a result intention, immediately apparent. At the Bodleian we store our maps flat, so it’s our storage methods that has created this effect.

The moral message behind the map seems more in keeping with people who believed in restraint and improvement, both for the self and for those less fortunate. We impose a social meaning onto the map because we know the circumstances in place dictating what class of people lived where. By ignoring completely any showing of University (the only map of the City in the collection at the Bodleian to do so) this is a map for and about the people of Oxford.

The Drink Map of Oxford, 1883. Originally published by the ‘Committee of the Oxfordshire Band of Hope and Temperance Union, modern facsimile published by the Bodleian Library.

Stuart Ackland works in the Map Department at the Bodleian Library. He, along with other colleagues, writes regular blog posts about the Bodleian map collection, helps readers and the general public with enquiries and looks after the storage of over 2 million maps held in the library. One of his favourite pubs is also one of the oldest in Oxford, the *Kings Arms*, which appears on the *Drink Map*.

SLATED GLOBES

LEONARD ROTHMAN, M.D.

Cartographic globes can be divided into two categories: celestial and terrestrial, including both earth and other planetary bodies. Circa 127-180 ACE, Claudius Ptolemy outlined the design of a celestial globe in his *Almagest*. A mythical figure of Atlas, holding up a celestial globe, a Roman creation, was carved in marble in the 2nd century ACE. The earliest known and still existing map globe was created by Martin Behaim in 1492. In 1576 the explorer Martin Frobisher, on his way to explore the unknown vastness of North America, carried a blank globe on his ship, upon which he planned to carve his geographical findings.

While flat blackboards made of wood have been known and have actually been used for musical composition since the 16th century, the spherical blackboard is thought to have existed for only 190 years. Also known as a slated globe, a chalk globe, a blank globe, and or a slated outline globe, this globe is usually all black, all white, or with black, blank continents, each outlined in yellow, and surrounded by blue seas. Slated globes could be of any size and were usually 6-20 inches in diameter and mounted as table or floor models. Chalk, crayon, or marking pens can be used to write on these globes, which can then be cleaned and erased for repeated use. Slated globes have been primarily used for teaching either geography or mathematics, in particular Euclidean geometry.

Josiah Loring (1775-1840), a well-known American globe maker, recorded his manufacture of blank globes in the 12/1831 issue of *The American Annals of Education and Instruction*. These became very popular teaching tools in American schools and were used in educational settings for students from the 4th to the 12th grade. Mahshid Mayar, in her 2020 article in the *European Journal of American Studies*, "What on Earth! Slated Globes, School Geography and Imperial Pedagogy," notes that slated globes were used in the United States to teach existing geographical knowledge and to stimulate a geographical imagination of America's future throughout the world.

Records of German, Austrian, and British use of blank globes in educational settings appear as late as 1846, and Mayar believes that these were used to teach each nation's students their respective country's local and international presence in the world as both a static and a permanent event.

Although they may generally no longer be used in formal instruction in educational settings, slated globes continue to be available today. They can be purchased on the Internet, in-home product stores, gift shops, antique stores, and other venues. It is even possible to convert an old map globe to a blank spherical "blackboard"! Instructions for the conversion process can also be found on the Internet.



Figure 1. 12in. chalkboard globe, table model, ca.1900, Rothman collection



Figure 2. 20in. www.omniterrum photograph, DenoyerGeppert Project outline globe

APPS FOR MAPS: VEVUE

ANDRIA OLSON



Figure 3. 8in. plastic LEARNING RESOURCES plastic globe with removable continents Rothman collection

Blank globes continue to be popular teaching tools for geography today—in a modern version! These are plastic globes, generally solid light blue in color to denote the oceans. They have detachable continents, with small wedges on the reverse, such that each can only be placed on the globe if its correct location. Students can note the name of each continent on the white wedges, thus learning names, locations, and shapes of each.

Bibliography

A history of the blackboard: <https://slate.com/human-interest/2014/10/a-history-of-the-blackboard-how-the-blackboard-became-an-effective-and-ubiquitous-teaching-tool.html>

Harvard Natural Sciences Lecture Demonstrations: sciencedemonstrations.fas.harvard.edu/presentations/spherical-blackboard

Mayar, Mashid What on Earth! Slated Globes, School Geography and Imperial Pedagogy, *European Journal of American Studies*, Summer 2020, P1-19: journals.openedition.org/ejas/15703

Omniterrum: <https://www.omniterrum.com/globe-inventory/20-inch-denoyer-geppert-project-globe>

Dr. Rothman is a frequent contributor to Calafia, and collects Holy Land maps, map globes, maps on neckties, and maps of war. His Holy Land collection can be viewed at Searchworks at Stanford University.

By now, many of us likely have one of *those* people in our circle who say words like blockchain, cryptocurrency, NFT (non-fungible token), or even metaverse. Blurred vision, ringing in the ears, or brain fog are all symptoms we may experience when entering into a conversation with said people. After these symptoms subside, though, there just may be one that lingers – a desire to understand what those words are all about.

In my circle, *that* person is none other than my brother, Thomas Olson, co-founder of **Vevue** with Kathrine Reyes and Xiangyu Meng, aka Codeer, a mobile application that utilizes blockchain technology, such as micropayments, to financially reward users and media makers for their engagement. In 2014, he became a "vinyl with a scratch on it," and *those* words were the loop. I listened politely because he was my brother, but I, a regimented military veteran pursuing a career in librarianship, was really thinking, "sure, sure." Now, in the year 2022, I, along with millions of others, am listening to him a bit closer.

Vevue Map Running App:

Vevue's story really began in 2012. As Thomas shared with a wink, the word Vevue comes from the non-existent French word for video review, the initial intention being to enable crowdsourced video reviews. I am going to jump to 2018 because we cartophiles undoubtedly need to see the word *map* sooner rather than later. That year, I moved to the Bay Area and began working as a map librarian at Branner Earth Sciences Library & Map Collections at Stanford University. This move corresponded temporally with a new Vevue feature: Map Running.

Map Running (*Fig. 1*) is a challenge to users, who can earn tokens by visiting locations marked on a digital

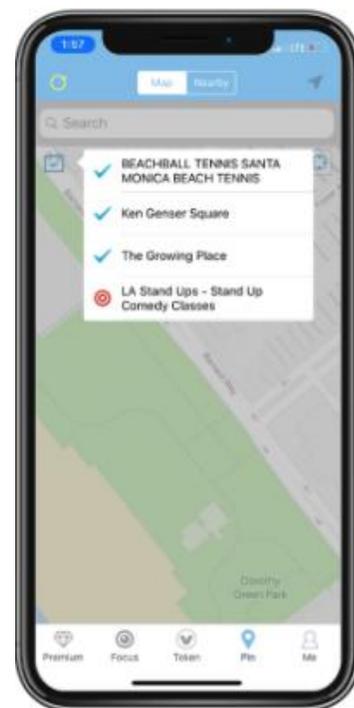


Figure 1. Map running feature in the Vevue application displaying four algorithm-generated locations in the Los Angeles area to visit in exchange for earning tokens.

map in the **Vevue** application. These locations are determined in either of two ways: (1) an automated airdrop algorithm and (2) user requests. The algorithm currently pinpoints public areas of interest, such as parks or gardens, near the user's current location.

User requests are generated by others using the application and generally include a request for a video of the area the person making the request wishes to view. Users who live near a user-requested location can respond to the request and earn tokens in an amount determined by the requesting user. Want to see a live view of the Eiffel Tower at sunset? Blooming cherry blossoms in Japan? Waddling penguins in Antarctica? User requests enable these kinds of opportunities while also giving other request responders the opportunity to earn income just by sharing the world around them.

I used this feature to begin exploring my new surroundings in Fremont, California. One of the algorithm-generated locations was a short walk from my apartment to Central Park. No, not *that* Central Park! The recreational trail curving around Lake Elizabeth, with Mission Peak Regional Preserve (*Fig. 2*) as a backdrop, serves the moniker well, however. To simply say that the location became my favorite running spot is an understatement: the sunrises and sunsets viewed there was my comfort as I adjusted to moving



Figure 2. Sunset at Lake Elizabeth in Central Park, Fremont, California, 2018.

to an area without friends or family, completed my MSLIS, and acclimated to a new work environment.

The second map-running location I explored near Fremont was the historic town of Niles. Although the main street, lined with vintage cars and antique stores, was endearing, the map-running algorithm led me to an obscure, ivy- and flower-covered fence and a door with the word "leaf" painted on it. As anyone who has read *The Secret Garden* by Frances Hodgson Burnett knows, this is the moment for which we've all been waiting. As it turned out in the map algorithm, "leaf" is indeed a garden, a community garden to be



Figure 3. Ivy- and flower-covered door and fence for LEAF community garden in Niles, California, 2018.

exact, with programming to encourage environmental conservation, regenerative agriculture, and the biological sciences (LEAF, 2022).

And just like that, my brother had me engaging with blockchain technology, along with maps! While the adventure of discovering new places was incentive enough, I also did earn tokens just by visiting the marked map locations. I shared the adventure by uploading a video of each location to my Vevue profile. The videos provided real, tangible views of these beautiful sites for curious other visitors, or alternatively, for people to be able to see a location that they may never be able to visit.

Map to an app: Having the benefit of being able to speak directly to Vevue's mappy app co-founder, I was intrigued by the insights that my brother provided into the process that can move a mobile application forward by utilizing a developing, and, let's be honest, totally mind-boggling, technology to realize a new concept and a new application. As he shared these details, I couldn't help but think of his process as a road map for development of an idea into a creative mobile application (Olson, 2022):

2012 | Software development began after finding a development team through an Appsplit campaign.

(<http://www.appsplit.com/campaigns/video-reviews>)

2012 | First Vevue video request answered in New York City.

(<https://www.youtube.com/watch?v=iSgKAKSGzGs>)

2017 | Qtum blockchain foundation in Shanghai selects Vevue for a 10-month incubation class and the iOS app is launched.

2018 | Map Running 1.0 is launched, enabling anyone, anywhere to use Vevue to earn income by answering Vevue video requests.

(https://twitter.com/decent_U/status/1032713128696537088)

2022 | Vevue launches its NFT ecosystem, beginning with the sale of the Codeeer NFT.

(<https://www.portal.video/codeeer/>)



Figure 4. The five NFT badges, or NVLs, that will be available with the release of Map Running 2.0 in 2022.

Envisioning the Future: New features envisioned will include videos becoming NFTs and Map Running 2.0 (<https://www.portal.video/>), which will earn users NFT badges for answering video requests. These novelty NFT badges, or NVLs (Fig. 4), will be divided into five categories:

- (1) NVL 360 | 360 degree video of a location. Turn slowly, 30 second video.
- (2) NVL Beauty | Film something you find beautiful at the location.
- (3) NVL Tour | Review the location by giving us a tour or vocal description.
- (4) NVL Active | Film yourself or you and others doing an activity at the location.

(5) NVL Clean | Fill a bucket or bag with garbage. Showcase your cleanup with video.

Sharing in our destination: As a map librarian, I often observe the ways in which visitors relate our physical map collection to their own personal experiences or knowledge, augmenting the concept that everything and everyone is *some-where*. Vevue's long-term vision is to make the world more transparent, and to enable people to learn from, and take care of, each other through video, while utilizing the decentralizing technology of blockchain. It is the digital-visual equivalent of pulling a map out of the drawer and sharing your geolocated experiences or knowledge with others.

References

LEAF. <https://www.fremontleaf.org/>

Olson, Thomas. Interview with author, 1/24/2022.

Andria Olson, is the map librarian at Branner Earth Sciences Library & Map Collections at Stanford University. Originally from Minnesota, she spent several years in the US Army as a Persian-Farsi language analyst before separating to pursue librarianship. In 2019, Andria created the ArcGIS StoryMap of the Year, [Pancakes & Silver](#), and has since been providing instruction on StoryMaps for her community along with managing Stanford's contemporary map collections and maps digitization program.

THE DIGITAL GALLERY



Sean Conway Images for CMS 2021 Fall Conference



George Washington and the American Revolution 1775-1776



Ortelius in the Holy Land



Colossi Maps



Railroads and Canals from The David Rumsey Map Center



US Election Maps- 1789 to 1876



17th Century Vignette Maps



San Francisco Giants Maritime Bay Cruise



Jo Mora's Carte of Los Angeles-1942

OVER 170 EXHIBITS OF HI-RES, ZOOMABLE, MAPS & IMAGES

www.thedigitalgallery.org

- ✓ "an excellent substitute for the in-person experience" — Naomi Heiser, Univ. of CO Librarian
- ✓ "An engaging means to explore the fascinating world of maps — both contemporary and vintage" — Peter Hiller, Jo Mora Trust Collection Curator
- ✓ "an enjoyable way to learn" — Ron Gibbs, author
- ✓ "a wonderful addition to the map world" — Len Rothman, collector



If you would like to make an exhibit, hosted on The Digital Gallery, we can help you make it happen.
Contact: tom@websterpacific.com.

HIDDEN TREASURES FROM BRUSSELS' CARTOGRAPHY COLLECTIONS

JULIET ROTHMAN

*A version of this article is also published
in the IMCOS Journal, Spring 2022.*

The IMCOS Symposium included visits to Brussels' major cartographic collections at various sites in the city arranged by IMCoS, the Royal Library of Belgium (KRB), and the local Brussels Map Circle (BIMCC). Some highlights of these interesting, one-of-a-kind collections:

Treasures of the KRB Map Room

Our visit to the Map Room began with an examination of a detailed map of the Austrian Netherlands, created between 1770 and 1778 by Joseph de Ferraris, and commissioned by the Empress Maria Theresa of Austria and Emperor Joseph II. The project took years to complete and was twelve times more costly than expected. Twelve manuscript maps were created, each of which included all the buildings, the types of ground and soil in each area, and the military, economic, and justice sites. These maps were later copied onto 275 sheets. The collection includes maps from the Atlas des Villes des Pays-Bas by Deventer, and the Atlas Bruxellensis by Christian Sgrooten (1573), as well as Ottavio Pisani's very large planisphere, 'Globus terrestri'.

A part of the library's viewing area contains a series of alcoves along the walls of a large room. The room's low lighting complements the much stronger lighting placed in each of the alcoves, calling us to explore the single map in each. These include Bartolomeo Lasso's 'The Seas of Europe', as well as a bathymetric chart of the Sea of Norway by B. Helland Hansen and F. Nansan. On display nearby on display was Sanudo's c. 1321 *Liber Secretorum Fidelium Crucis*, with maps by Pietro Vesconte, as well as a Ptolemaic atlas.



Figure 1. Reproduction of Gerardus Mercator's studio

A unique feature is the current exhibition of rooms representing. Each mapmaker's studios' distinct personality and interests can be understood through an examination of the special items they kept near them. One of the most interesting studios was Mercator's, filled with his scientific and mathematical books. (Fig. 1) His actual studio and books have not survived, and the collection features contemporary copies. Researchers have been able to reconstruct a list of all the scientific books in Mercator's library, and Jan de Graeve, a Brussels Map Circle member, (Fig. 2) has managed to collect and donate to KRB copies of 'almost all' of them.



Figure 2. Jan de Graeve, collector & Brussels Map Circle member

The Museum of Manuscripts of the Dukes of Burgundy

The core of the Royal Library's late medieval holdings is its collection of hundreds of manuscripts, many richly illustrated by the leading artists of their period, commissioned or acquired by the four successive dukes of Burgundy during their reigns: Philip the Bold (1363–1404), John the Fearless (1404–19), Philip the Good (1419–67), and Charles the Bold (1467–77). Of the original 900 manuscripts, only 300 remain. The fate of the 600 missing manuscripts is unknown—they were simply 'lost' over time. These exquisite exemplars of fourteenth- and fifteenth-century masterworks of French and Flemish miniature art include books of the hours, stories of the saints and martyrs, bible stories, and others. (Fig. 3, next page) From St. Augustine's *The City of God* (1420-1435))

The Arts and History Museum

One room only was included in our visit to the Arts and History Museum—but what a room it was! It was dedicated to Renaissance scientific instruments, especially those made in the Louvain workshops. There were weight sets, all standardized, tools for measuring, compass measures as designed by Galileo, and various timekeeping systems, including sundials. These can be accurate to the minute when carefully designed, and are adjusted to the local meridian lines for accuracy. There were beautiful representations of the planets and heavenly bodies, with Earth at the center, for at the time they were made, it was still a geocentric world.

We viewed a variety of navigational instruments such as sextants and octants (which use a 45-degree angle), with both meridian lines and equator lines. These could measure



Figure 3. From St. Augustine's City of God. 150 BCE.

the arc of the Sun and were adaptable to any time of year. The wonderful collection of astrolabes also has the ability to represent spherical elements clearly and accurately on a flat surface. Greatly used during the Renaissance, their invention is attributed to Islamic scholars during the Hellenistic period between 220 and

150 BCE. An armillary sphere of Gualterus Arsenius, a nephew of mathematician and cosmographer Gemma Frisius, is also on display. The sphere was used to demonstrate and study the motions of the celestial sphere in relation to the Earth. It followed the Ptolemaic model of a geocentric system. The central golden globe represents the Earth, while the rings around the central vertical axis indicate the position of the Tropics of Cancer and Capricorn, the apparent journey of the Sun, the movement of the Moon, and other astronomically important features. (Fig. 4)

The display included a stunning celestial globe by Mercator and a pair of celestial and terrestrial globes created by Coronelli in 1683.



Figure 4. Gualterus Arsenius' armillary sphere

Royal Museum of the Armed Forces and Military History

The Map Room of this museum contains over 20,000 Belgian and foreign maps, blueprints of military buildings, atlases from the sixteenth to the twentieth century, and a collection of 300,000 volumes of military history. The collection includes six special items: (1) a book from 1730–40 detailing the concept of fortifications for battle, and including both methods and theory; (2) a battle map of Mons (Bergen), created in 1755, sixty years after the actual battle, illustrating rivers, canals, trenches, and buildings, based on an earlier map created right after the battle; (3) an illustration of a new forti-

fication system created by Marquis de Vauban, one of the foremost engineers of his time; (Fig. 5) (4) a table-sized map of Napoleon's French campaign in Russia; (5) a plan of the positions of both the king and the rebels who wanted independence from the Netherlands, with the king's troops noted in orange, and the rebels in blue. Why blue? The rebels had no formal uniforms, but they tended to wear blue; (6) a French map of the front lines of World War I. The trenches are clearly marked, with Allied in blue and German in red. The collection also includes Belgian, French, British, and German trench maps.

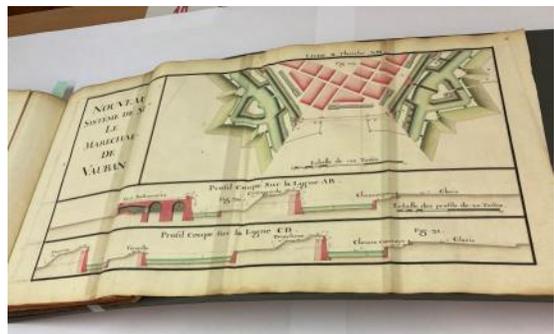


Figure 5. Marquis de Vauban's fortification system

The State Archives of Belgium

The Brussels office of the State Archives has some 20,000 maps, but there are hundreds of thousands in other state archives across Belgium. The government has begun the process of digitizing the collection. There are many series of maps, and the state continues to purchase maps to augment the collection. At some point in the Archive's history, many maps were separated from the documents to which they had been attached, and work is being done to attempt to reintegrate maps and their documentation.

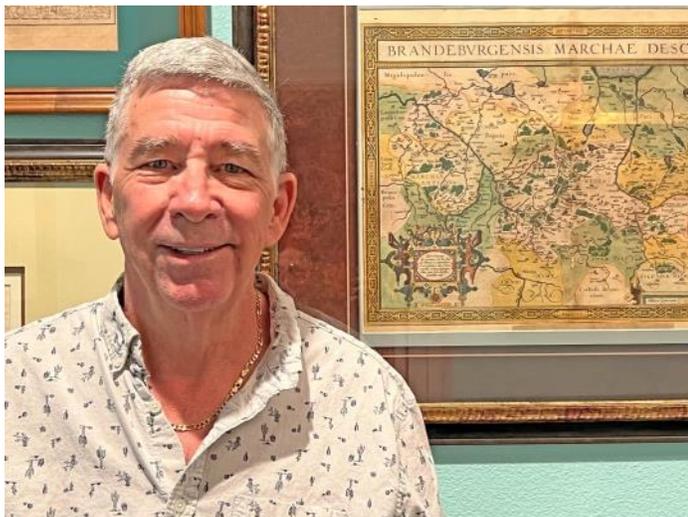
Of special interest to environmentalists, the entrance to the Archives contains an imposing 1661 painted map of the forested area of Brussels, showing those parts which were then being exploited for timber. Today there would be no areas marked, for this resource has been fully exploited!

Ten special maps were displayed, including a 5-meter-long map of the river Scheldt, created in 1468/69. The distances shown are fairly accurate, amazing for that time period! Buildings, churches, fields, and windmills are shown along the riverbank.

A 1416 map of the Watergate complex in Nieuwpoort, a town along the Belgian coast, was originally created for the citizens of Bruges and nearby towns, whose citizens wanted to see if there could be a way to shorten the time that it took ships to reach them – a kind of short detour. This is the oldest map in the Archives' collection.

MEET OUR MEMBER: BILL BRANDENBURG

INTERVIEWED BY JULIET ROTHMAN



When Bill was a kid, his family enjoyed taking road trips. On these occasions, his father always gave him the map, and he became the family navigator, while his mother and his two sisters simply—enjoyed the passing scenery. In 2001, with his own children "all grown up", Bill found himself getting interested in maps. That same year, he purchased his first map. Realizing that this was an interest he wanted to pursue, he researched, found, and immediately joined the California Map Society. There, he met Leonard Rothman, who introduced him to the Washington Map Society, and he joined that as well. He learned about IMCOS and became a member, attending his first IMCOS Symposium in Guatemala in 2007.

City plans and city views are his favorite maps, along with 16th-century northern European maps. His collection is focused on these, and his favorites among them include a 1772 and an 1852 map of London. He also enjoys collecting maps of Washington DC, New York, and Boston. Bill shares that his wife "got into framing", so that all the walls of their home are covered with maps!

Bill was born in Vallejo, CA, and his family moved to Belmont when he was 5 years old, and he grew up there. After his first year as a student at San Mateo College, he became

draft-eligible; he was drafted and served in Hawaii in the Army Military Intelligence Service. He returned to San Mateo College, earning his degree there, and then worked in the Bay Area as a postal clerk and carrier for the United States Post Office for 17 years. He continued for 20 additional years in IT, working for the Post Office for a total of 37 years and retiring in January of 2007.

He then moved to southern California with his second wife, Marcy, to live near her family. Marcy immigrated to the United States from the Philippines in 1975 and began working in IT in the aerospace industry and then with Delta Dental, Gap, Home Savings, and others, and both she and Bill shared an interest in the field of IT. Bill and Marcy met in 2001 and married in 2004. He has two children: a daughter, Sumi, who is a nurse in San Mateo County, and Kenny, who is a San Francisco firefighter at the station near Oracle Giants Field in San Francisco.

Bill and Marcy love to travel, and, indeed, this interview was held in Brussels during the IMCOS symposium! The couple often travels to the Philippines, and Bill says that he loves the Philippines and the Filipino people very much. Marcy and her sister own a condo in Manila together, and they also have a brother nearby. They especially enjoy the holiday of Ati Atihan, a celebration held on the 3rd Sunday in January, and try to be in the Philippines to join in the fun!

Both he and Marcy are very involved in Project Pearls, a non-profit which is dedicated to working with kids in the slums of Manila. The Project offers food, scholarships, and other assistance. The government of the Philippines moved some of the kids out of Manila in order to use the slum area land for other purposes and set up a new place for them in Bulacan province. There, Project Pearls has set up a Learning Center and also works with girls to enhance their self-esteem. The Project has recently begun to expand its Manila commitments and is now beginning to work with street people to provide clothing, food, and medical care. Bill has served on the Board for many years, and both he and Marcy continue to be very involved.

Bill is enjoying being a part of the California Map Society. He enjoys the meetings, the speakers, the local groups, and getting to know members who share his interests in maps and mapping.

CARTO-QUIZ

Answers

MAINE

NORTH
DAKOTA

IOWA

NEW JERSEY

Courtesy of Richard Peter Johnson. Images excerpted from posting on Reddit.

RUMSEY CENTER NEWS

The First California Map Society and David Rumsey Map Center Student Exhibition Curatorial Competition



The California Map Society (CMS) is a founding friend of the David Rumsey Map Center and as partners we sponsor an annual award for outstanding student scholarship. This year we are offering an opportunity for a student to curate an exhibition at the David Rumsey Map Center which draws from our map collections and focuses on the topic of the applicant's choice.

This inaugural student-curated exhibition competition is open to all undergraduate and graduate students currently enrolled in an undergraduate or graduate degree seeking program in California. Students will work closely with Rumsey Map Center staff to realize their ideas and are not required to have prior curatorial experience. Students from traditionally underrepresented groups in academia are strongly encouraged to apply.

[CLICK HERE FOR MORE INFO OR SCAN THE CODE](#)



CMS: FOUNDING FRIEND OF THE RUMSEY MAP CENTER



**Ronald Rieder Gustafson
1943-2021**

Ronald Gustafson passed away peacefully in 2021 at the age of 78. He will be missed by all who knew him as an industry leader, mentor, and supporter of education and music training. Ron held many interests, including collecting rare maps and history books of the western United States, and he was a life member of the California Map Society. He enjoyed drag racing, was a railroad history buff, and a member of the Westerners' Los Angeles Corral.

Ron was President and Chairman of the Board of the Coast Packing Company, a family-owned business that processed edible fats and oils. He had started with the company in 1955, as a boy, packaging bacon for supermarkets at a salary of \$1.00 per day. On his way up the company ladder, he received a B.A. in Industrial Technology from California State University, Los Angeles, a teaching credential from the state of California, and an MBA from Pepperdine University. He was drafted and served in the Army for two years, working with intelligence communications.

Ron held a lifelong commitment toward helping others to advance their educations. He was a Career Advantage Mentor (CAP) for the USC Marshall School of Business for over 18 years. He held a founding and leadership role for over twenty years in the scholarship foundation for the meatpacking/animal science industry, ultimately serving as Emeritus Director. The North American Meat Institute (NAMI) endowed the scholarship fund and named it in his honor. He also served as treasurer of the Neighborhood Music School in Boyle Heights, CA, and received a Business Leader Award from them.

Ron loved sharing his knowledge with others and lived a life of service to the meatpacking industry, his community, his country, and his family. He leaves behind his wife Nadya, two children, six grandchildren, and his extended family.

Photo image from:
<https://www.provisioneronline.com/articles/111218-ron-gustafson-third-generation-patriarch-of-coast-packing-dies-at-78>

JOIN CMS!

Benefits to Membership in the California Map Society

- Twice-yearly regional Zoom meetings (next meeting info in this issue of *Calafia*).
- Multiple smaller meetings of our Bay Area Map Group (BAMG) and Greater Los Angeles Mappers group (GLAM and GLAM-Gals!).
- An agreement with the Washington (DC) Map Society that allows our members to view online presentations by WMS and other map societies across the US.
- Our continuing relationship with the David Rumsey Map Center at Stanford University brings us notable presentations from prominent cartographic experts in the field.
- 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

*Fred DeJarlais, Publisher
Vice President for Membership*

BECOME A MEMBER OF CMS

Student	\$15
Retired	\$30
Active	\$40
Patron	\$100
Life	\$500

Register online at:
www.californiamapsociety.org

CMS OFFICERS 2021-22

President, Ronald Gibbs, MD
president@californiamapsociety.org

VP for Northern California,
Thomas Paper
tom@websterpacific.com

VP for Southern California,
Courtney Spikes
cspikes@me.com

Treasurer, John Fleming
treasurer@californiamapsociety.org

Secretary, Kenneth Habeeb
secretary@californiamapsociety.org

VP for Membership, Fred DeJarlais
fred.dejarlais@gmail.com

VP for Publications, Juliet Rothman
rothman@berkeley.edu

VP for Information Technology,
David Kalifon
david@californiamapsociety.org

Immediate Past President,
Jon Jablonski
pastpres@californiamapsociety.org

PAST PRESIDENTS

Norman J.W. Thrower	1979-1980
Gerald Greenberg	1980-1985
Vincent Mazzucchelli	1986-1989
Cherie Northon	1990-1992
Alfred W. Newman	1993-1996
William Warren	1997-2000
Glen McLaughlin	2001-2003
David Kalifon	2003-2005
Thomas B. Worth	2005-2007
Susan Caughey	2007-2009
Philip R. Simon	2009-2011
Fred DeJarlais	2011-2013
Len Rothman	2013-2015
John Fleming	2015-2017
Susan Caughey	2017-2019
Jon Jablonski	2019-2021

NEW MEMBERS 2021-22

Karl Barnum	Howard McLeod
Lara Barnum	Gordon Means
Randel Brown	David Murrell
Daniel Crouch	Susana Oliveros
Cynthia Eichhorn	Amy Rock
Thomas Euper	William Sawyers
Claudia Funke	Jim Schein
Gregory Gajda	Susan Schulten
Alek Gasiel	Holli Teltoe
Peter Gourevitch	Jane Tillis
Benjamin Grant	Timothy Weiskel
Jineui Hong	John Wolf
Jeffrey Hunt	Emily Yang
Jeffrey Katz	Julie Yeh
Joseph Kolko	Alex Zukas
Cooper Logan	Marguerite Wilbur
Eric Lowe	



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 LIFE MEMBERS

Pat Boyce
Trish Caldwell
Juan Ceva
Fred DeJarlais
Caleb Finch
John Fleming
Gregory Gajda
Ronald Gustafson, deceased
William Harris
Philip Hoehn
Wally Jansen
James Jeffery
Michael Dean Jennings
David Kalifon
Elizabeth Kalifon, deceased
Jean Lhuillier
Catherine MacMillan
Michael Maiuri
Glen McLaughlin
Therese Melbar
Kitty Newman
Cherie Northon
Thomas Paper
Kathryn Purwin
Juliet Rothman
Leonard Rothman
David Rumsey
Nanneke Shaffer
Philip Simon
Norman J. W. Thrower, deceased
Michael Turrini
Judith Tyner
Thomas Worth

OUR ADVERTISERS

- ii. Old World Auctions
- iii. PBA Galleries
- 25. Original Antique Maps
- 25. Washington Map Society
- 40. New World Maps
- 50. The Digital Gallery
- 57. Neatline Maps

ADVERTISING IN CALAFIA

	No. of Issues
Pricing per Issue	2 1
Full page, verso of cover	\$450/\$250
Full page, back cover	\$450/\$250
Full page	\$400/\$225
Half page	\$300/\$175
Quarter page	\$200/\$125
Size	
Full page	10"H x 7.5" W
Half page	4.75"H x 7.5" W
Quarter page	4.75"H x 3.625"W

Format
JPG or PDF, 300-400 DPI

Remissions, payable to California Map Society, should be mailed to John Fleming, CMS Treasurer, PO Box 55B, Newport Beach, CA 92662

Email ad copy to Fred DeJarlais, Publisher,
fred.dejarlais@gmail.com

Calafia The Journal of the California Map Society

Juliet Rothman, Editor
Fred DeJarlais, Publisher
Submissions should be directed to Juliet Rothman: rothman@berkeley.edu

THE LEADERS
THE COLUMBUS BUGGY CO'S
THE SPALDING
THE REDENA
BIG GIGS
COLUMBUS BUGGY CO
GENERAL AGENTS
218-215 MARKET ST SAN FRANCISCO
862-866 TWELFTH ST OAKLAND

THE BEST TOGO
THE BLUE (CROWN)
THE LEADER
THE PARK CYCLERY
LARGE RIDING
SCHOOL
RENTING AND
REPAIRING...
TERMINUS OF THE
MILLISTER, POWELL
AND GEARY ST.
CAR LINES
A. F. WORTHY,
Manager.

HELICAL TUBE PRIMERS
Strongest & Lightest
No other manufacturer
can use the helical tube
theory which makes the
important parts of the
braking mechanism
1 1/2 times stronger
than the ordinary
type.
Depot, Salesroom & Factory
312-314 Baker St.
East Entrance
Panhandle of Park
PREMIER CYCLE CO
INCORPORATED
San Francisco

RIDE
LOVELL DIAMOND
BICYCLES
GOLDEN WEST
SAN FRANCISCO SPECIAL
1896
CAL SPECIAL DIAMOND
BIKE SPECIALTIES
WHEELS
SEND FOR CATALOGUE
L. S. MARTEL & CO
411 1/2 CAL ST.
SAN FRANCISCO
CAL.
AGENTS WANTED

THE BEST
SI-KO-LENE
LUBRICANT
ON EARTH
FOR
CYCLE
CHAINS...
TRY IT!
JOSE E. SHEARER
INVENTOR OF SI-KO-LENE

N.B. WRITE FOR CATALOGUES.
WE MAKE A SPECIALTY OF
WHOLESALE WHEELS.

THOS. KENT
FOR
BICYCLE
CLOTHING
597 MISSION ST.
San Francisco

NATIONAL
AND
"DEERE"
BICYCLES
DEERE IMPLEMENT
CO.

TYLER BEACH PROPRIETOR
Geo. H. BEACH
MANAGER
ST. JAMES HOTEL
SAN JOSE, CAL.
OFFICIAL LEAGUE
HOTEL.
REGULAR RATES, \$2.00 to \$3.00 Per Day
RATES TO CYCLERS, \$2.00 Day

IF YOU RIDE
WHY NOT RIDE
THE BEST
FOR 16 YEARS
THE
MOST RELIABLE
OF ALL
BICYCLES.
VICTOR BICYCLE
OVERMAN WHEEL CO.
MAKERS
309 LARKIN ST.
SAN FRANCISCO



THE SPEEDY
PINK AND
BLUE
THE REINFORCED
FELLOES
THE MARCH-DAVIS
CYCLE CO
CHICAGO
The MARCH-DAVIS CYCLE CO
J. G. FRENCH
PACIFIC DIST. MANAGER
W. B. FAWCETT
RETAIL MANAGER
739 MARKET ST. San Francisco, Cal.

THE WHEELERY
TRIBUNE BICYCLES
C. M. CHRISTOFFER
SOLE AGENT
419 STANNYAN ST. - SAN FRANCISCO.
RENTING, REPAIRING
AND
RIDING SCHOOL

neatline
ANTIQUE MAPS
SAN FRANCISCO, CA
Rare and antique maps,
no reproductions
Contact us
www.neatlinemaps.com
+1 (415) 717-9764
michael@neatlinemaps.com

**MAP OF CALIFORNIA
ROADS FOR CYCLERS**
ROADS FOR CYCLERS
COOPER CYCLE CO.
CITY AGENTS
RENTING,
REPAIRING
AND
RIDING SCHOOL.
BARNES' SPECIAL