

# LGM

LIBRARY OF CONGRESS MAGAZINE  
MAY/JUNE 2021

## MAPPING OUR WORLD

How Maps Reveal  
The Way We See  
Ourselves

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Mapping Covid

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■ This 19th-century projection map of the South Pole is surrounded by a ring depicting the mountains of the world, a ring showing constellations and six female figures representing times of the day. *Geography and Map Division*

## Mission of the Library of Congress

The Library's mission is to engage, inspire and inform Congress and the American people with a universal and enduring source of knowledge and creativity.

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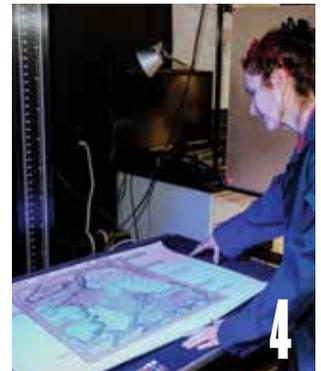
■ **On the cover:** In 1543, German cartographer Caspar Vopell produced this globe in the Ptolemaic tradition, which places the Earth at the center of the universe. That same year, Copernicus published his theory that puts the sun at the center of the solar system. *Geography and Map Division*

## DEPARTMENTS

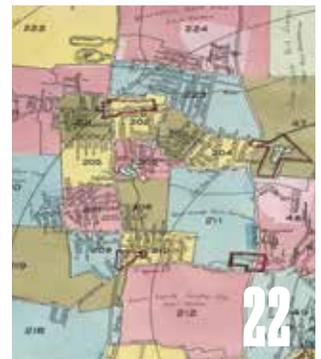
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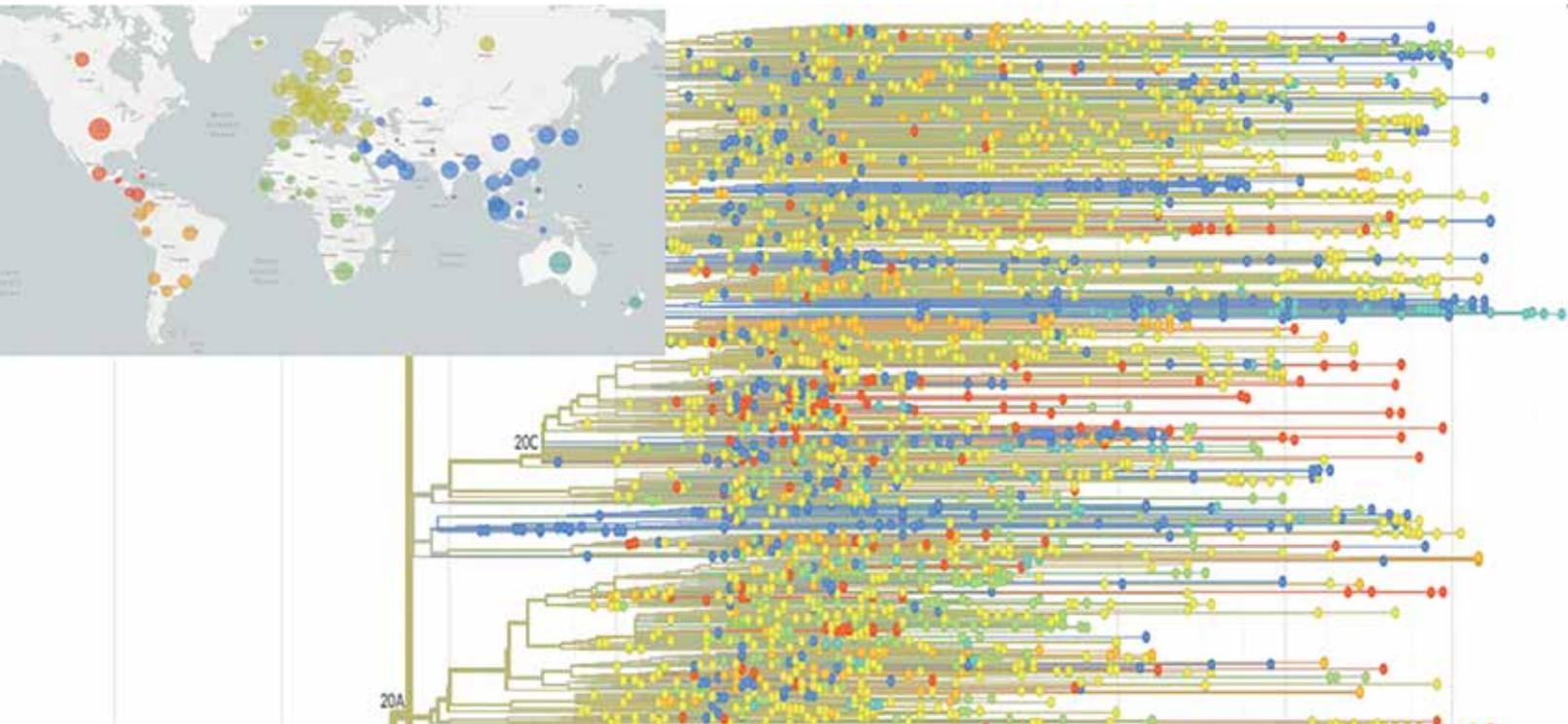


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## CONNECT ON

[loc.gov/connect](http://loc.gov/connect)





■ This map shows the presence of different genetic strains of the virus that causes COVID-19 around the world from December 2019 to July 2020. The colors represent mutations. *John Hessler using Nextstrain data*

## MAPPING COVID

GIS cartography helps researchers better understand the pandemic.

A picture is worth a thousand words – or so the saying goes. In the case of the COVID-19 pandemic, images undeniably help us grasp things about the virus that words can't capture.

The Library collects photos and original artwork that convey the anxiety many feel as they go about their daily lives. Maps, too, document the moment visually and also serve as an important tool to track and comprehend how the virus spread worldwide.

“What a map does is take a complex situation, abstracts it from the reality on the ground and presents a simple image to help people try and understand what's happening,” John Hessler of the Geography and Map Division (G&M) says.

Since March 2020, Hessler has been identifying cartographic content related to the pandemic to add to the Library's vast

map collections. The content he seeks, however, isn't the flat paper many envision when they hear the word “map” but rather data.

The Library is known by cartographers for its geographic information system (GIS) capabilities: Cutting-edge software enables users to manipulate and analyze digital geospatial data to create visualizations, or maps, offering insights into patterns and relationships.

G&M acquires such data mostly through purchase and downloads from government agencies. For the pandemic, Hessler reached out to organizations collecting virus-related data linked to particular times and places. One such organization, for example, tracks and visualizes how the virus mutated and spread.

The Library collects not only with today's researchers in mind but also with an eye to the future. “The data,” Hessler says, “will be mined for years and years because it's so complex and so difficult to get a handle on. ... Definite new discoveries about the viral dynamics will be found, without a question.”

—Wendi A. Maloney is a writer-editor in the Office of Communications.

## THE FIRST ATLAS

Ortelius' great work revolutionized the way maps were created and made available.

The vast cartographic collections of the Library hold some 105,000 atlases that collectively chronicle the geography and history of the world – among them, the first such volume ever created.

In 1570, Flemish scholar and geographer Abraham Ortelius published his revolutionary *Theatrum Orbis Terrarum* (Theater of the World), considered the first true atlas in the modern sense.

Before Ortelius' transformative work, patrons could purchase custom map books, but the maps in them would be assembled to suit the needs of the individual customer and later bound.

The atlas produced by Ortelius introduced something new and different. His atlas featured maps of uniform size, arranged by continents and regions, with explanatory text on the reverse, all bound in a book for which copper printing plates were specifically engraved – an encyclopedic description of the world like none before it.

Over the decades, *Theatrum Orbis Terrarum* was revised and expanded into 31 editions and translated into seven languages. From 1570 to 1612, when the last edition was published, more than 7,500 copies were printed – a remarkable number for the time.

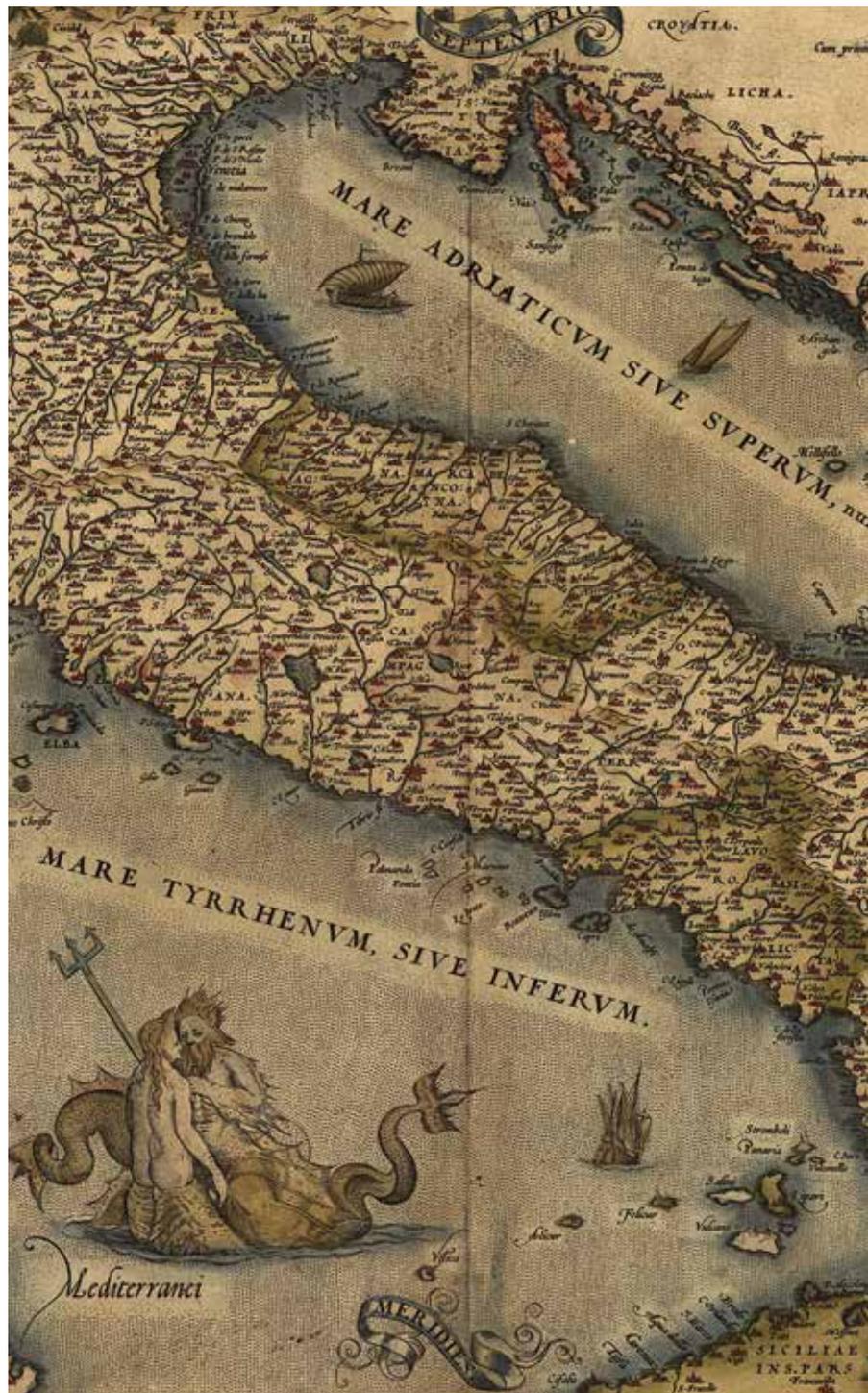
Ortelius' maps – often removed from the bound atlas itself – are highly sought after by collectors today, thanks to their historical value and great visual appeal.

The Library holds numerous editions of the complete *Theatrum Orbis Terrarum* – a revolution in mapmaking, bound inside the covers of a book.

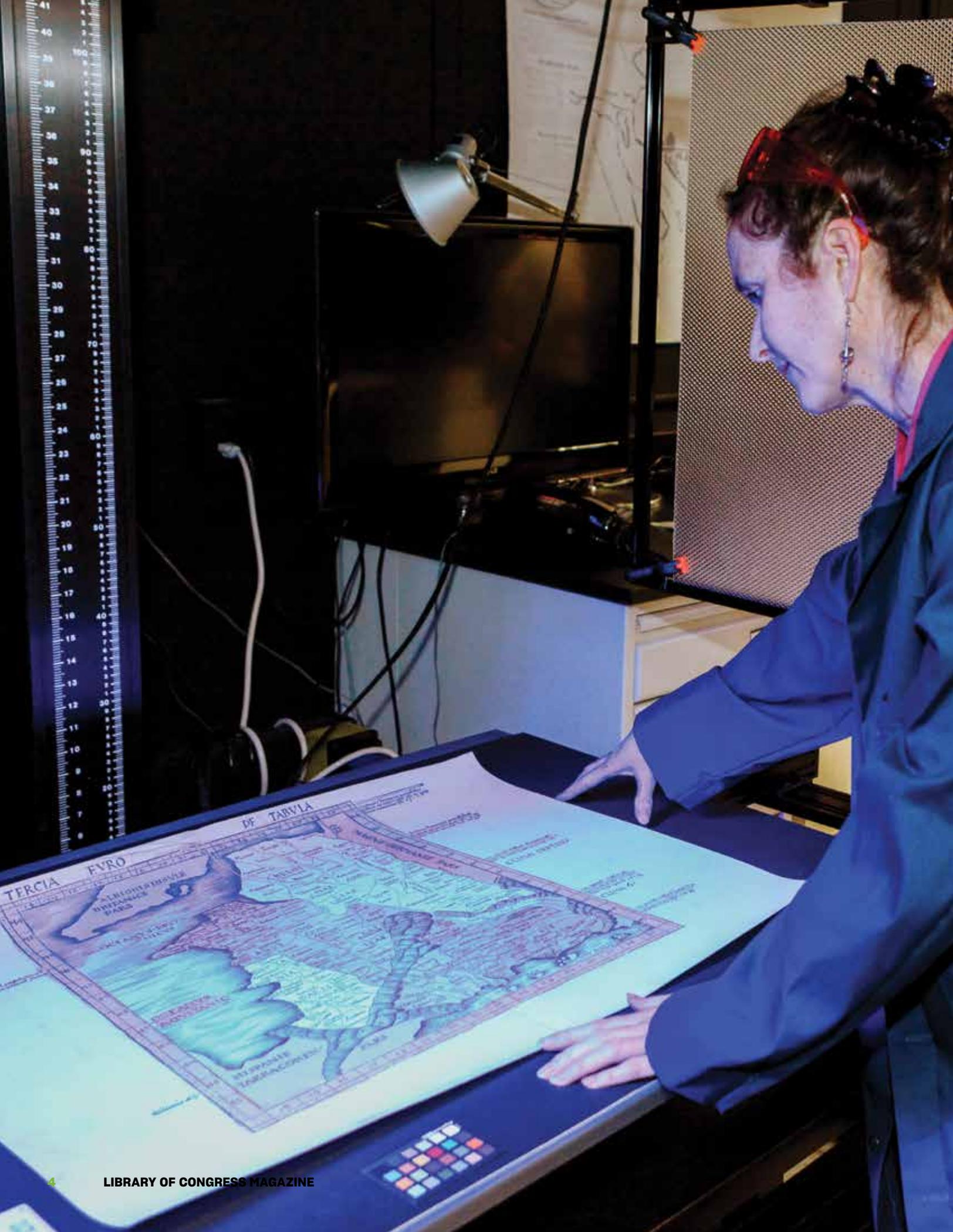
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### MORE INFORMATION

[Theatrum orbis terrarum  
go.usa.gov/xsBws](https://www.loc.gov/go.usa.gov/xsBws)



■ An image of Neptune graces this map of Italy from *Theatrum Orbis Terrarum*, a world atlas published by Abraham Ortelius in 1570. *Geography and Map Division*



## SEEING WHAT IS THERE

### Hyperspectral imaging reveals hidden stories of historical maps.

Historians of cartography have always been interested in the materials that make up the manuscripts and maps they study.

Older maps, such as those from the medieval period and the Renaissance, are made from a variety of papers and inks whose identity tells historians a great deal about how, when and where these maps were made.

Historians currently use many new tools, as advances in imaging and non-destructive testing have been developed in the last two decades. In earlier times, determining what kind of ink or what pigment a map was made from required samples of ink or paint to be taken and chemically analyzed, thereby damaging the map or manuscript.

Today, new multispectral and hyperspectral imaging techniques, originally developed for remote sensing and astronomical imaging, have been adapted for applications to cultural heritage.

These methods, which employ LED technology, allow manuscripts and maps to illuminate in a wide variety of wavelengths, from the ultraviolet to the infrared, and can be used to determine the chemical composition of many common pigments and dyes and to reveal invisible features.

The Library's Preservation Research and Testing Division has performed this kind of imaging on many of the earliest and important maps in the Geography and Map Division, including its collection of medieval portolan, or sailing, charts; the Waldseemüller 1507 world map; and the L'Enfant plan of Washington, D.C.

In the case of the Waldseemüller map, which is the earliest map to show the Americas separated from Asia and the first map to use



the name America, hyperspectral imaging was used to reveal particular features added to the map by its original owner, Nuremburg astronomer Johannes Schöner.

Schöner, who was also an astrologer, drew gridlines on the map so he could extract the coordinates for places important to his casting of horoscopes. Over time, the inscribed red grid lines on many of the sheets faded. Because of the importance of both Schöner and the map to the history of the period, hyperspectral imaging was used, along with a computational method called principal component analysis, to reveal the lines as they were originally drawn and that formerly could not be seen by the naked eye.

—John Hessler is a geographic information science specialist in the Geography and Map Division.

■ **Opposite:** Fenella France of the Preservation Directorate makes hyperspectral images of a page from Ptolemy's *Geographia* from 1513. *Amanda Reynolds*

**Above:** A principal component analysis of the lines drawn on Martin Waldseemüller's 1507 world map by Johannes Schöner sometime around 1517. *Geography and Map Division*



■ This massive map of Vienna, published in 1778 by Joseph Daniel von Huber, covers more than 128 square feet. *Shawn Miller*

## VIENNA, KING-SIZED

Massive map documents Austria's capital city as it appeared in the 18th century.

The Geography and Map Division holds maps of all shapes and sizes, from a teensy globe that measures only 1.6 inches across to giant, rolled maps so big that they require six staff members to move.

This bird's-eye view of Vienna, while not the biggest item in the division's holdings, is by far its largest map printed before 1900.

The map is comprised of 24 separate sheets that, when joined, form one large view of Austria's capital city – the completed piece measures 9.5 feet high by 13.5 feet wide.

The map, published in 1778 and attributed to Joseph Daniel von Huber, was one of a succession of large-scale maps of the city printed in the 18th century.

Huber trained as a military engineer and prepared large maps of other cities in Bohemia and Moravia, including a bird's-eye view of Prague, the historical capital of Bohemia. Queen Maria Theresa, the ruler of Bohemia and Austria, commissioned



Huber to produce a similar representation of Vienna.

Huber got to work, making observations over four years and finishing a manuscript map in 1773. He began the process of making copper plates to have the map printed, but the project stalled when he was deployed with the military to Galicia. The map finally was printed in 1778.

The Library acquired the view in 1984 as a giant rolled map. But the map's size made it a challenge for researchers to use and for the Library to exhibit and appropriately store. So it eventually was sectioned into its original 24 sheets – pieces of Vienna, the way it once was.

—Ed Redmond



SHAWN MILLER

## COMPASS ROSE OF THE GREAT HALL

The Great Hall of the historic Jefferson Building is one of America's most magnificent public spaces – a symphony of marble, murals, gilt and glass, of graceful arches and gleaming staircases.

At the center of this brilliantly conceived and executed hall lies a compass rose, made of brass and fashioned in the form of a fiery sun.

The compass rose is situated within a border of red and yellow Italian marble set into the floor – “a great circular glory,” as the “Handbook of the New Library of Congress” put it in 1897, the year the Jefferson Building opened.

The four cardinal directions of the compass correspond to the main axes on which the Jefferson was built: The Main Reading Room lies directly to the east, the front entrance directly to the west, the corridors to the north and south.

When the building opened, its great spaces showed the world what the then-young United States could accomplish and demonstrated the nation's confidence and optimism at the turn of the century.

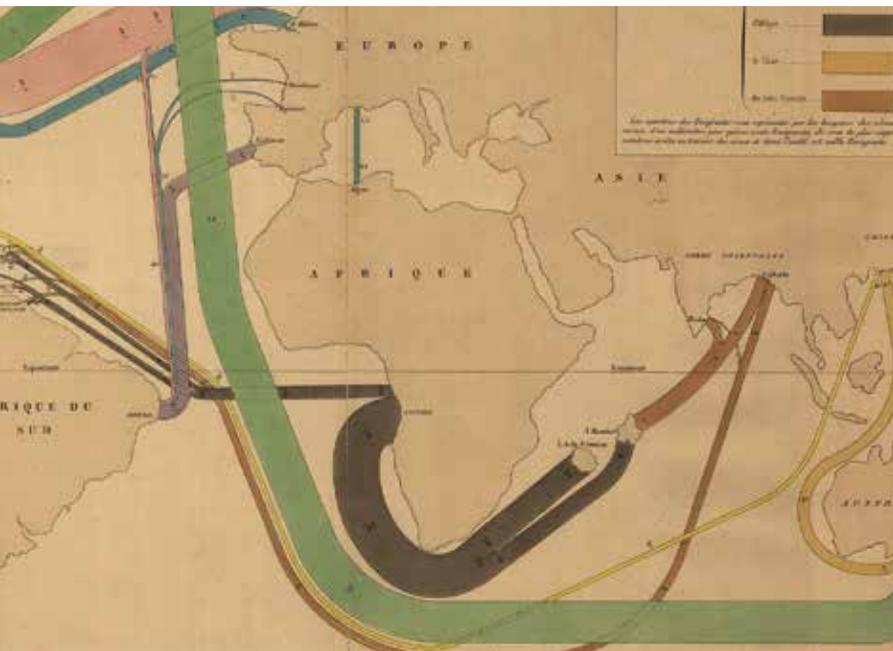
Standing on that compass more than 120 years later, the view still dazzles no matter which direction you turn.

—Mark Hartsell

# CURATOR'S PICKS

## MAPMAKING, WITHOUT BOUNDARIES

Robert Morris and Julie Stoner of the Geography and Map Division choose maps that represent innovative cartographic designs or concepts.



### MOVEMENT ON A MAP

Considered a cartographic pioneer, Charles Joseph Minard perfected the flow map, a type of thematic map that uses lines to represent movement. From 1825 until his death in 1870, Minard created 51 thematic maps. The map seen here represents the immigrants of the globe in 1858 and the countries from which they left and arrived.



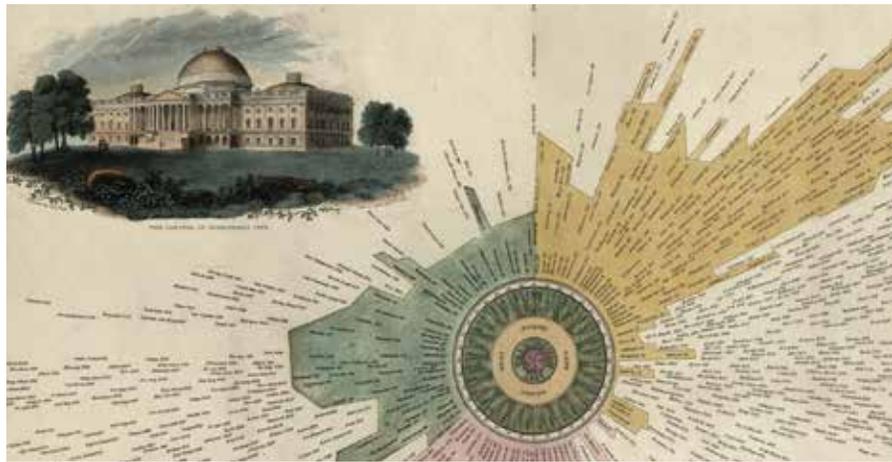
### A MEMORY TOOL

In 1897, Chicago railway mail clerk Frank H. Galbraith designed a set of eight maps – known as “Gal’s Maps” – to help employees of the Railway Mail Service quickly locate counties and post offices of the complex mail system by using images as mnemonic devices. Galbraith’s purpose in using maps as a memory tool was a new concept for the era.

ALL IMAGES GEOGRAPHY AND MAP DIVISION

## MARSHALL ISLANDS STICK CHART

Not all maps are made on paper. This type of stick chart used by Marshall Islanders represents a sectional or local nautical chart and usually portrays part of an island group. This particular chart represents the western, or Ralik, chain of the Marshall Islands. With shells representing islands, the herringbone design near the bottom of the chart represents the influence of the northeast trade winds. Stick charts are not made to scale, but represent the time factor of navigating a native outrigger sailing canoe from island to island.



## AN INFOGRAPHIC MAP

With no country boundaries or the shape of nations, this 1827 chart pushes the boundaries of what is considered a map. However, in one sweeping view, the map conveys the names of approximately 1,300 principal ports and places in the world, including their bearings per a compass and their distances expressed in geographical miles from the city of Washington, D.C.



## A HEART-SHAPED WORLD

Considered something of a cartographic anomaly, the cordiform map projects the world in the shape of a heart. This kind of map was first conceived around 1500 by Austrian mathematics professor Johannes Stabius of Vienna and was used for a time by many prominent cartographers of the Renaissance era, including Mercator, Ortelius and Oronce Fine, the creator of the double cordiform map seen here.



EUROPA

DATIA

LIBIA INTERIOR

AFFRICA

ETHIOPIA INTERIOR

Terra incognita sed in vrbis



# MAPPING OUR PLACE IN THE WORLD

■ Though published in 1482, this map is based on the writings of Claudius Ptolemy, an Egyptian astronomer of the first century. The map presents a composite geographical image of the world as known to classic Greek and Roman scholars. *Geography and Map Division*

Throughout history, cartography has revealed the way humans perceived themselves.

In 1897, the Hall of Maps and Charts was established at the Library of Congress to house a growing collection of 47,000 maps and 1,200 atlases – thought at the time to be quite large.

The current collections of the Geography and Map Division now include over 5.6 million maps, terabytes of geospatial data and a variety of non-traditional cartographic items.

Those collections span the history of mapmaking. They are filled with maps from all over the world that collectively reflect the changing landscape over time, from the oldest piece in the collection, a portolan (navigation chart) dated 1320, to GIS mapping of the 21st century.

Maps, as defined by former division chief Walter Ristow, serve three primary purposes: “locational data for geographers, strategic planning for the military personnel and helpful guides to travelers.” However, maps can exemplify more than these basic tools. The way humanity views the world and its surroundings is often influenced by its prevailing culture and place in time. Maps can serve as a window into that viewpoint, a visual reflection of that society’s ideas and perceptions.

Our first insight can be found in the work of Greek astronomer Claudius Ptolemy. In A.D.

150, Ptolemy assembled a comprehensive compilation of maps that illustrated the positions of places on the Earth and instructions for making maps that would inform how the world was viewed for centuries to come.

In the following pages, Geography and Map Division specialists have selected examples of maps from the collections that exemplify these perceptions of the changing world and times. Highlights include the 1507 Waldseemüller world map, the first to include the name America, early aerial mapping, Marie Tharp and Bruce Heezen’s ocean floor map, and spatial imagery showing the moon surface.

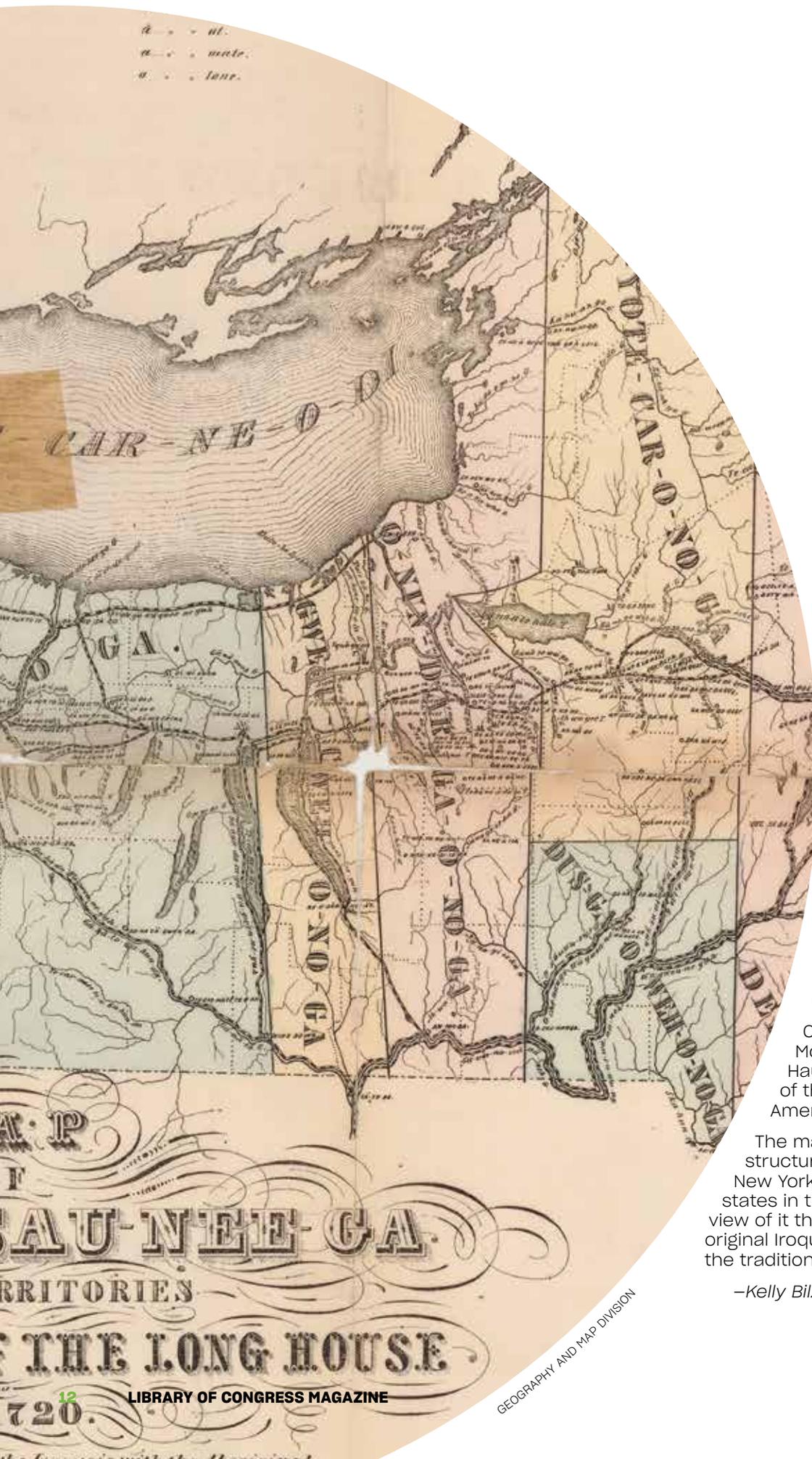
Today, the role of the cartography has changed because of the digital mapping revolution of the late 20th century, expanding beyond anything Ristow envisioned. We hope you enjoy the collection of maps presented here and visit us online to find many more cartographic treasures.

–Paulette Hasier is chief of the Geography and Map Division.

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## MORE INFORMATION

Geography and Map Division  
[loc.gov/rr/geogmap/](http://loc.gov/rr/geogmap/)



## IROQUOIS PLACE NAMES

This map incorporates the territory of the indigenous Haudenosaunee, also known as the Iroquois Confederacy or the Six Nations, whose governance structure has been recognized as a possible influence on the United States Constitution.

Cartographer Lewis Henry Morgan was fascinated by the Haudenosaunee and wrote one of the first ethnologies of Native American cultures.

The map demonstrates how power structures shape worldview: Though New York is one of the most recognizable states in the U.S., this map presents a view of it that few people have seen – using original Iroquoian place names and without the traditional colonial boundaries.

–Kelly Bilz is a librarian in residence in the Geography and Map Division.

GEOGRAPHY AND MAP DIVISION

# ISLAMIC WORLD MAPPING

Early in the 12th century, King Roger II of Sicily commissioned Arab Muslim geographer and cartographer Abū Abdallāh Muhammad ibn Muhammad ibn Abdallāh ibn Idrīs al-sharīf al-Idrīsī (or al-Idrīsī) to produce a book detailing the geography of the known world.

Over the course of nine years, and drawing on earlier works by Ptolemy, Arabic sources, firsthand information from world travelers and his own experience, al-Idrīsī in 1154 completed what became one of the most detailed geographical works created during the medieval period.

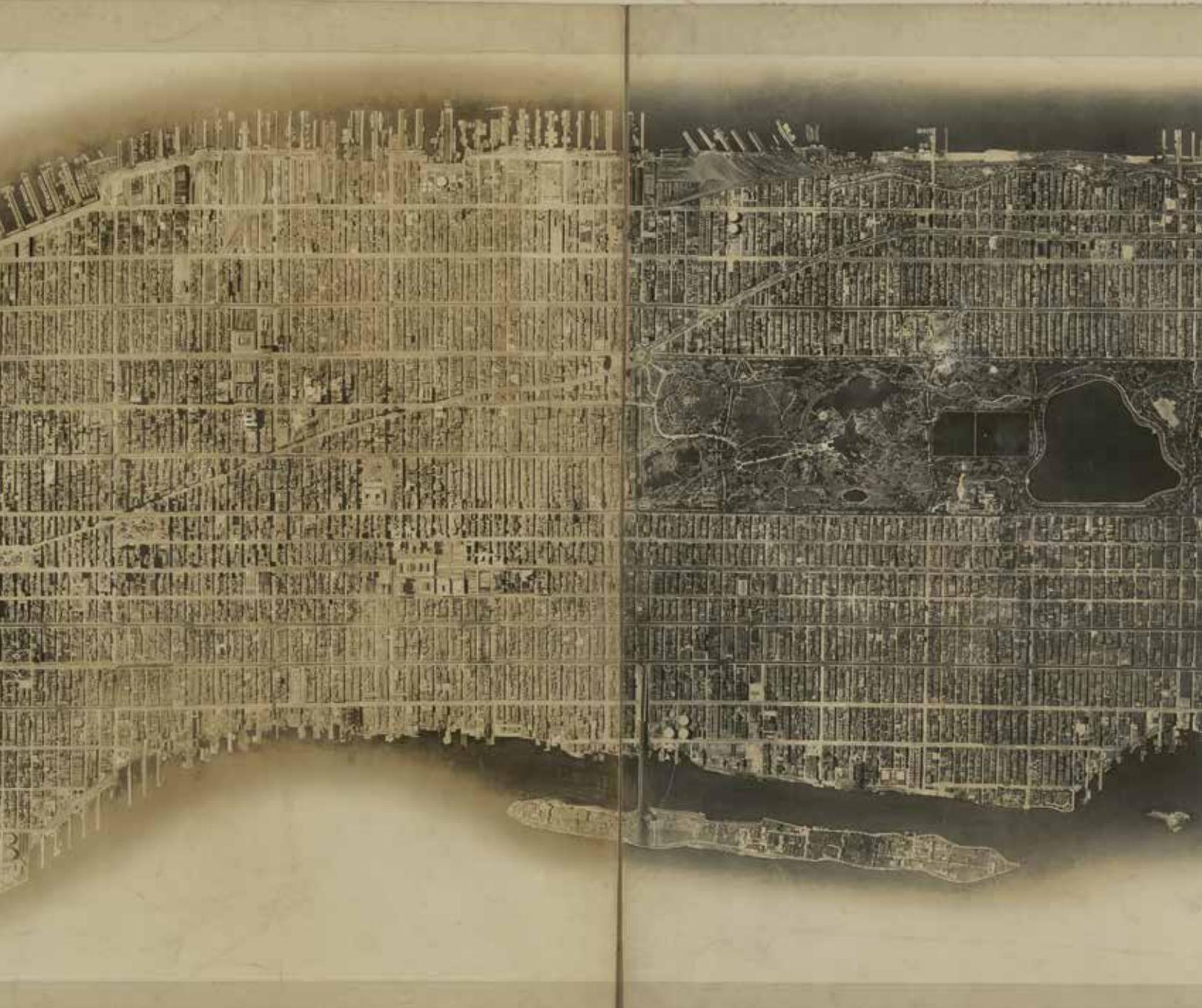
Consisting of 70 separate section maps with accompanying text, when put together the original sheets would have created a rectangular map 9 feet, 5 inches long. In 1928, Konrad Miller produced this re-creation of al-Idrīsī's original work.

To a modern viewer acclimated to north being placed at the top of a map, this view of the world may seem skewed or even upside down. However, orienting maps with the south at the top was a common practice in Islamic cartography. Viewed from this direction, Mecca, the most holy city in the Islamic world and its focal point, is at the top and most prominent section of the map.

*—Sundeep Mahendra is the head of the Research Access and Collection Development Section in the Geography and Map Division.*



GEOGRAPHY AND MAP DIVISION



## BIRD'S-EYE VIEW OF MANHATTAN

With the first flight of Orville and Wilbur Wright in 1903, the world dramatically changed in an instant, and it did not take long for cartographers to apply the implications of this journey to their work.

The value of aerial mapping became readily apparent during World War I. However, it was soon discovered that traditional cameras, with their slow shutter speeds, were not equipped to handle taking photographs from a moving airplane.

The solution came from Sherman M. Fairchild, a New Yorker with a passion for aerial photography. Rejected by the military due to poor health, Fairchild was determined to help the war effort in another way. So, he developed a camera with a between-the-lens shutter, which produced much clearer images when used from an airplane.

He continued to produce his cameras, and in February 1920 he founded the Fairchild Aerial Camera Corporation. From this beginning, Fairchild went on to start over 70 companies, introducing significant advancements in aviation, photography, aerial mapping and, eventually, mapping of the moon.

In 1921, Fairchild formed Fairchild Aerial Surveys and, that same year, produced two aerial maps: the first of Newark, New Jersey,



and the second the map of Manhattan Island seen here – the first civilian aerial maps of a large city. Made by taking photographs from a biplane, this map was created on Aug. 4, 1921, and assembled using 100 aerial photographs taken at an altitude of 10,000 feet.

The map shows a glimpse of New York City before the explosion of skyscrapers that was to take over the skyline only a few years later. A close examination reveals fascinating details – buildings, trees, cars, parks and more.

One eye-catching structure, the distinctly shaped Polo Grounds, can be seen in upper Manhattan near the Harlem River. The ballpark was the site of the 1921 World Series, played by the intercity rival New York

Giants and New York Yankees. In midtown sits the original Penn Station, completed only 10 years earlier, allowing train travel to the city from the south for the first time. The ornate building was torn down in 1963 and replaced by Madison Square Garden.

Aerial mapping continued to advance and eventually morphed into the satellite mapping available today. The ability to see a city or the world from the sky, starting with this map of New York City, altered the way humanity perceived their sense of place in the world forever.

*–Julie Stoner is a reference librarian in the Geography and Map Division.*



GEOGRAPHY AND MAP DIVISION

## KOREAN VIEW OF THE WORLD

Ch'önhado is a type of Korean quasi-cosmographical depiction that means “map of the world beneath the heavens.”

Koreans developed this view in the 17th century, and it remained popular until the 19th century. Scholars debate its origins but agree that the perspective is uniquely Korean. It exists in many iterations and often was included in atlases.

Sino-centricity is an essential element of the “Ch'önhado.

Front and center is China, shown as a red circle with a yellow interior. Korea – known as Chosŏn – is depicted as a yellowed-bordered rectangle with a red interior, and to its right is Japan, shown as a yellow rectangle.

The proximity of these lands is relatively correct. The surrounding rings of land and sea, however, represent both real and mythological peoples and places, whose source was primarily classical Chinese literature.

One should not mistake Ch'önhado as prototypical of historical Korean cartography. It contrasts with historical Korean administrative maps that were based on direct observation and contain very recognizable geography.

–Ryan Moore is a senior cataloging specialist in the Geography and Map Division.

# EXPANDING THE FRONTIER

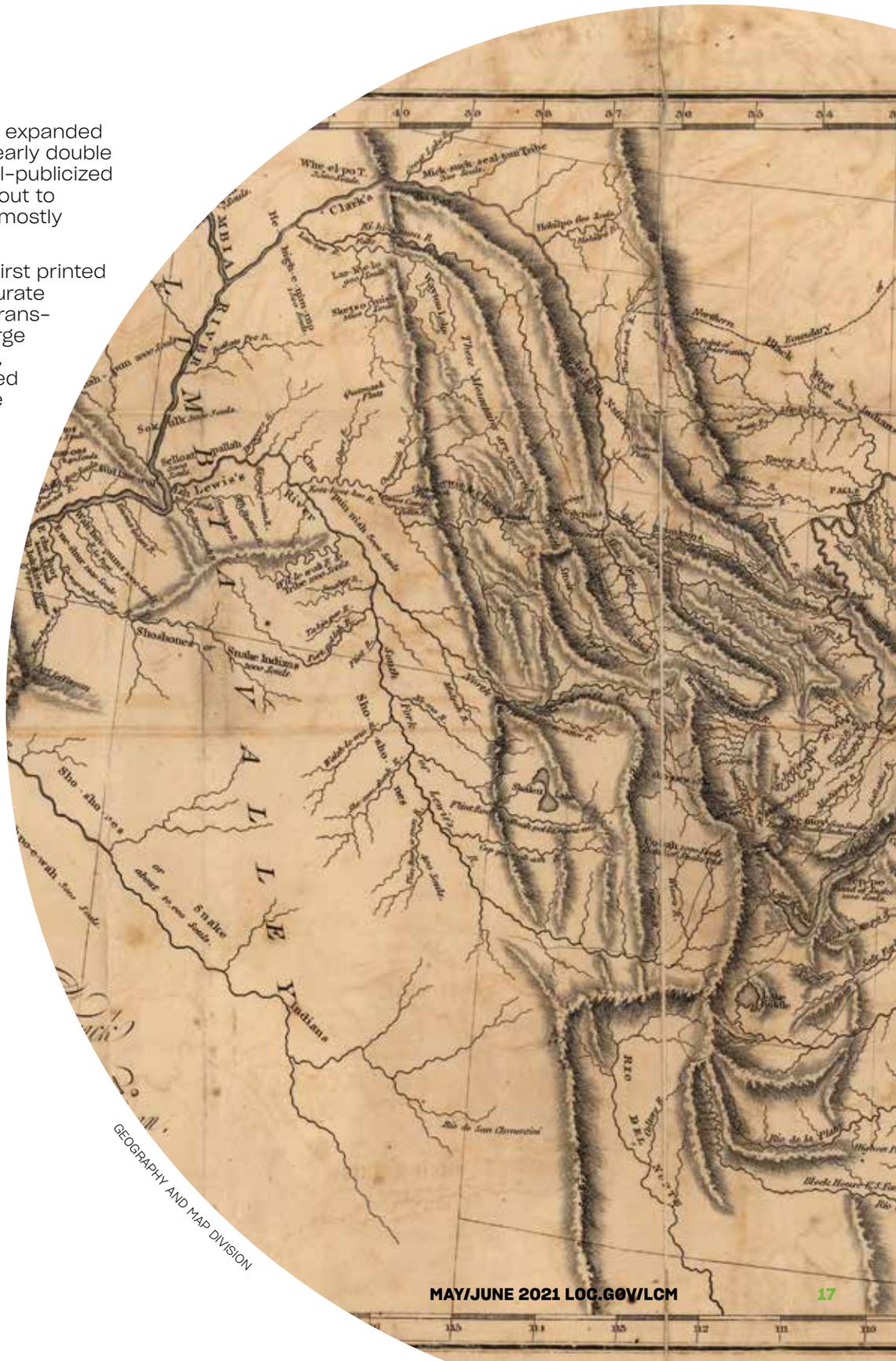
The Louisiana Purchase in 1803 expanded the United States territory to nearly double the size of the country. The well-publicized Lewis and Clark expedition set out to explore and map this vast and mostly unknown territory.

Published in 1814, this was the first printed map to display reasonably accurate geographic information of the trans-Mississippi West. Based on a large map produced by William Clark, the engraved copy accompanied Nicholas Biddle's "History of the Expedition" (1814).

As the landmark cartographic contribution of the expedition, this "track map" held on to old illusions while proclaiming new geographic discoveries.

Clark presented a West far more topographically diverse and complex than President Thomas Jefferson ever imagined. From his experience, Clark learned that the Rockies were a tangle of mountain ranges and that western rivers were not the navigable highways so central to Jefferson's geography of hope for a transcontinental pathway.

—Ed Redmond



GEOGRAPHY AND MAP DIVISION



# THE OCEAN FLOOR

With her background in mathematics, music, petroleum geology and cartography, American scientist Marie Tharp was well-suited to the task of interpreting the texture and rhythm of the Earth's surface, including the ocean floor – a space almost entirely unknown to humans since they began sailing the seas.

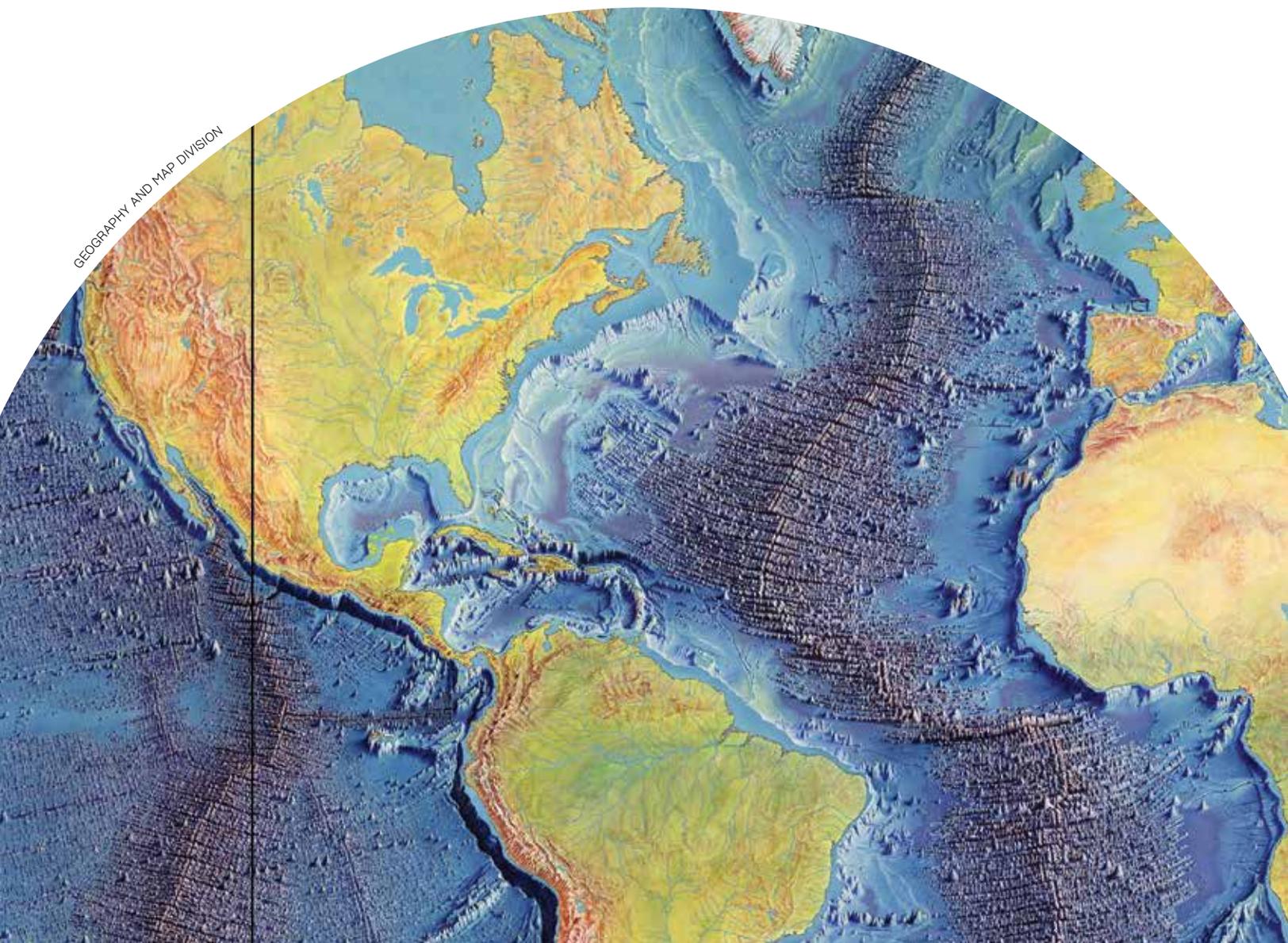
Tharp and lifelong collaborator Bruce Heezen arrived at Columbia University's Lamont-Doherty Earth Observatory shortly after World War II and began compiling thousands of files of data about the ocean floor (mostly sonar readings from U.S. Navy ships). The maps they created from that data verified the theory of continental drift – the idea

that the Earth's continents shifted across the ocean bed due to the movement of tectonic plates.

Twenty years after their initial production of these “physiographic” maps, Tharp and Heezen combined their scientific acumen with the talent of Austrian artist Heinrich Berann, who hand-painted the revolutionary map illustrated here.

This map, richly decorated with rifts, ridges and mountains, attests to the vital landscape of the ocean floor. Indeed, the dark seams along the central ocean basins, which represent the outpouring of lava, signify the creation of the new and movement of the old formations.

*–Mike Klein is a reference specialist in the Geography and Map Division.*



# THE SOLAR SYSTEM

The Geography and Map Division's oldest globe, and one of its rarest, was produced in 1543 by Cologne-based mathematician and geographer Caspar Vopell.

In the early 1530s, Vopell set up a workshop to produce celestial and terrestrial globes, armillary spheres, sundials, quadrants and astrolabes.

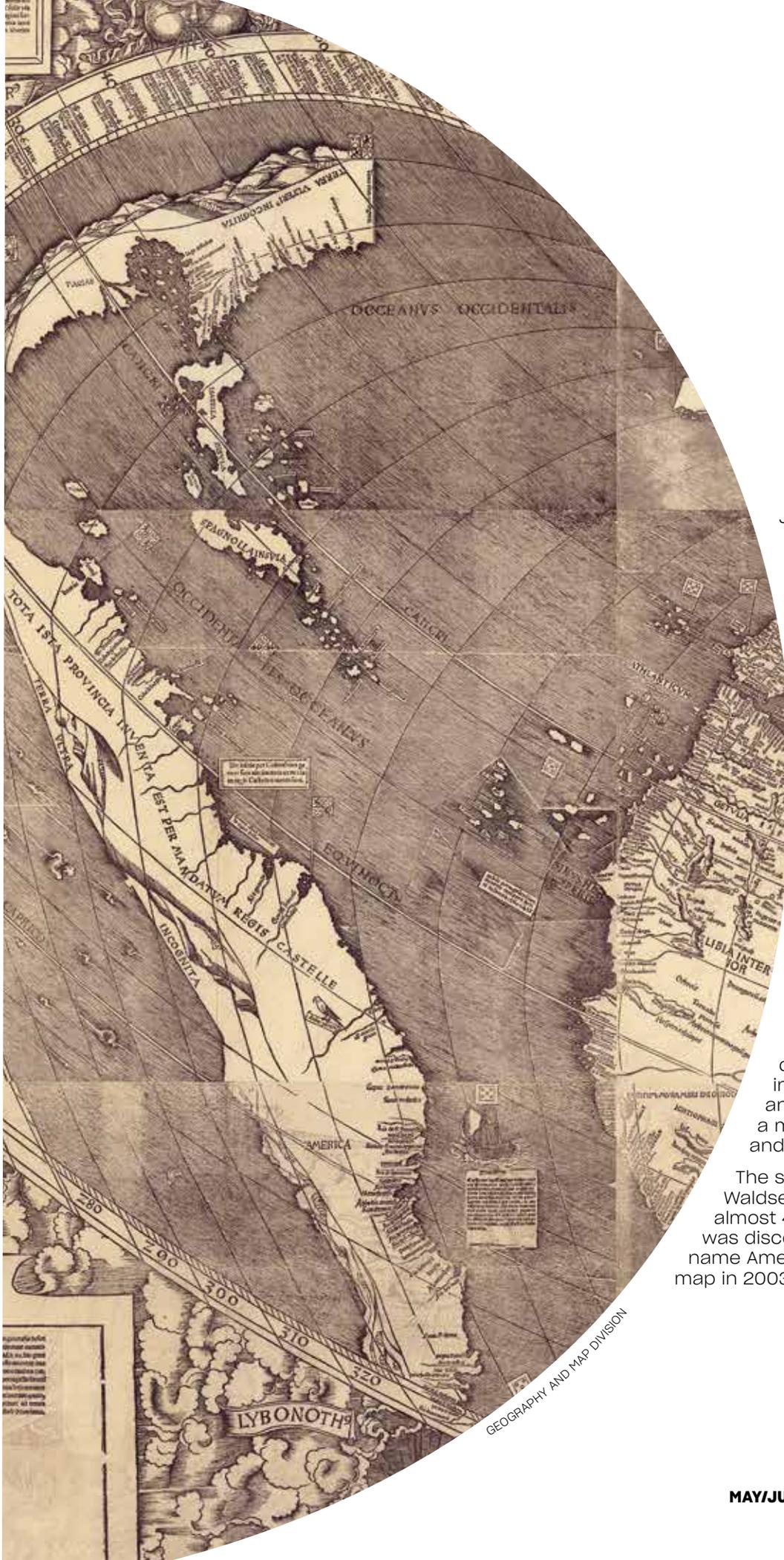
This example consists of a small manuscript terrestrial globe housed within a series of 11 interlocking armillary rings, illustrating the rotation of the sun, moon and stars in the Ptolemaic tradition – meaning the Earth is assumed to be at the center of the universe.

Ironically, this globe was produced the same year Copernicus published his heliocentric model of the universe, mathematically proving that the Earth revolves around the sun and revolutionizing the way humans saw their place in the universe.

—Julie Stoner



GEOGRAPHY AND MAP DIVISION



# AMERICA'S BIRTH CERTIFICATE

Just 36 years before Copernicus revolutionized humankind's perception of Earth's place in the universe, Martin Waldseemüller changed its view of the known world.

With the publication of this massive map in 1507, Waldseemüller added the Western Hemisphere to humanity's conception of the world, asserting the existence of a separate continent in the west, surrounded by water and lying apart from Asia. In recognition of Amerigo Vespucci's voyages, he called these new lands "America" – the first time they were so named.

The revolutionary advances of Copernicus and Waldseemüller shifted the understanding of the Earth during the Renaissance, when European artists and scientists combined inspiration drawn from classical sources with information derived from Spanish and Portuguese voyages to put forth a more humanistic form of geography and self-awareness.

The sole surviving copy of Waldseemüller's map lay hidden for almost 400 years. The map eventually was discovered and credited as the first to name America. The Library purchased the map in 2003.

–Mike Klein

GEOGRAPHY AND MAP DIVISION

■ These 1939 Sanborn maps show an overview (opposite) of the town of West Orange, New Jersey, and detail of one of the town's neighborhoods (right).  
*Geography and Map Division*

## SHARING SANBORN

Fire-insurance maps for all the states are now available on the Library's website.

The most heavily used collection in the Geography and Map Division depicts entire North American cities and towns in detail – right down to the windows, doors, sprinkler systems and fire alarms in their buildings.

The Sanborn Fire Insurance Maps, a collection of large-scale, building-level maps, depict the commercial, industrial and residential sections of some 12,000 cities and towns in the United States, Canada and Mexico from 1867 to the present.

The Sanborn collection includes about 50,000 editions of fire insurance maps comprising an estimated 700,000 individual sheets. The Library's holdings represent the largest extant collection of maps produced by the Sanborn Map Company.

The maps were designed to assist fire insurance agents in determining the degree of hazard associated with a particular property. They therefore show the size, shape and construction of dwellings, commercial buildings and factories as well as firewalls, locations of windows and doors, sprinkler systems and types of roofs.

The maps also indicate widths and names of streets, property boundaries, building use and house and block numbers. They show the locations and dimensions of water mains and of fire alarm boxes and hydrants. Sanborn maps are thus an unrivaled source of information for their time about the structure and use of buildings in American cities.

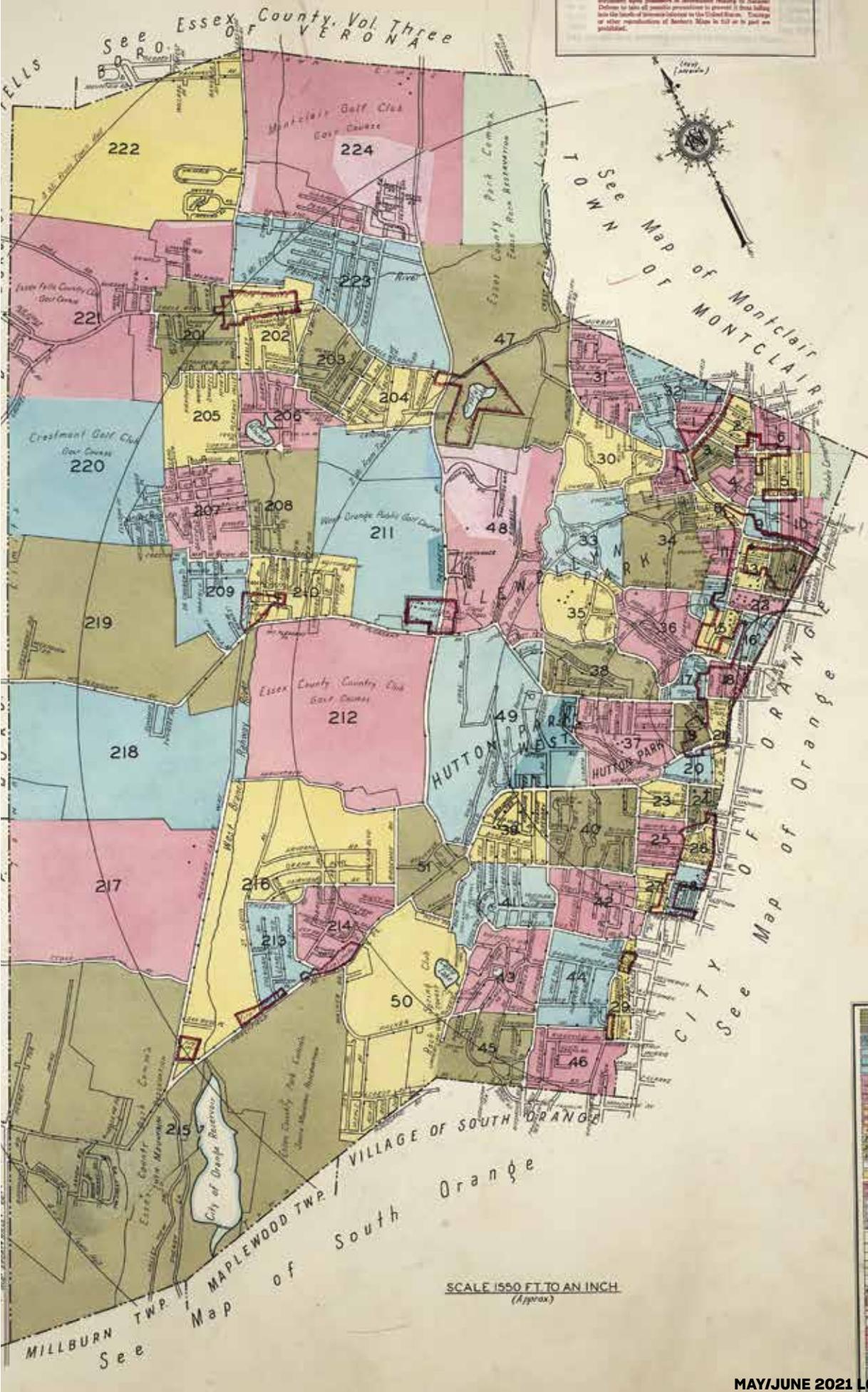


While these specialized maps – like this 1951 map of West Orange, New Jersey – were originally prepared for the exclusive use of fire insurance companies and underwriters, today they are used for multiple purposes: city planning, family history, environmental reports, town histories and more. They are popular because everybody has a personal connection with a city, a town, a street or even a particular building, whether it is a family home, a store, a ballpark or any number of places that have played significant roles in our lives.

Starting in 2014, G&M, in partnership with Historic Information Gatherers, began scanning the public domain map sheets in the Sanborn collection. In August 2020, the last of these sheets were placed on the Library's website and now can be freely accessed and downloaded by the public. These atlases include maps published before 1923 and through 1963 in which the copyright was not renewed. Additional sheets will be made available as they enter the public domain.

–Julie Stoner is a reference librarian in the Geography and Maps Division.

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POPULATION: 26,000

Prevailing Winds:--West

RAVING:--45 miles of paved streets.  
GRADES:--Elevations on shown maps from 100' to 200' above Mean Sea Level obtained from contour maps.

**WATER FACILITIES**

Privately owned by Consumers Water Co. Supply obtained from Cham Beach (see Map of Newark for details report), and divided into low and high services.  
Low Service: County system supplied directly from Cham Beach Pumping station. Underground booster station with 1 DeLaval double centrifugal pump, rated low per 24 hours.  
High Service: County system. Supply taken from low service by 2 DeLaval pumps, capacity 2,000,000 gallons per 24 hours each, and pumped to 2 standpipes at elevation of 210,000 and 211,000 gallons respectively (see Sheet 40). Overflow is provided by valve at elevation 60', capacity 1,000,000 gallons (see Sheet 41). 1 mainline drive, 1 DeLaval pump, 4 gallons per 24 hours, in reserve. Emergency connection to Montclair Distribution System.  
70 miles of 4" to 36" water pipe. 342 hydrants and single hydrants. Average daily use 600 gallons. Pressure ranges from 41 to 120 lbs. Pressure at Main St. and Valley Road 50' Main and Washington St. 30 lbs.

**FIRE DEPARTMENT**

Fullly paid consisting of 1 chief, 1 battalion chief, 6 officers, and 20 men, divided into 2 companies.  
One 1,200 gallon per minute American-LaFrance pumper with 100 gallon booster to 1,200' 2 1/2" hose. One 1,000 gallon per minute American-LaFrance pumper with 60 gallon booster to 1,200' 2 1/2" hose. One 1,000 gallon per minute American-LaFrance pumper with 80 gal 200' hose and 1,200' 2 1/2" hose. 1 American-LaFrance City Service truck with 250' of ladder.  
In Reserve: One 750 gallon per minute American-LaFrance pumper with 40 gallon booster to 1,200' 2 1/2" hose. 1 American-LaFrance City Service truck with 250' of ladder.  
General fire alarm system. 17 bells. Emergency located at Fire Department receiving train building at corner of Valley Road and Washington (see Sheet 40).

NO FIRE-RESISTIVE ROOFING ORDINANCE.

CORRECTION RECORD			
NO.	DATE OF	ATTACHED BY	DATE ATTACHED
2	1/15	Ma...	1/15
3	2/15	Ma...	2/15
4	3/15	Ma...	3/15
5	4/15	Ma...	4/15
6	5/15	Ma...	5/15
7	6/15	Ma...	6/15
8	7/15	Ma...	7/15
9	8/15	Ma...	8/15
10	9/15	Ma...	9/15
11	10/15	Ma...	10/15
12	11/15	Ma...	11/15
13	12/15	Ma...	12/15
14	1/15	Ma...	1/15
15	2/15	Ma...	2/15
16	3/15	Ma...	3/15
17	4/15	Ma...	4/15
18	5/15	Ma...	5/15
19	6/15	Ma...	6/15
20	7/15	Ma...	7/15
21	8/15	Ma...	8/15
22	9/15	Ma...	9/15
23	10/15	Ma...	10/15
24	11/15	Ma...	11/15
25	12/15	Ma...	12/15
26	1/15	Ma...	1/15
27	2/15	Ma...	2/15
28	3/15	Ma...	3/15
29	4/15	Ma...	4/15
30	5/15	Ma...	5/15
31	6/15	Ma...	6/15
32	7/15	Ma...	7/15
33	8/15	Ma...	8/15
34	9/15	Ma...	9/15
35	10/15	Ma...	10/15
36	11/15	Ma...	11/15
37	12/15	Ma...	12/15
38	1/15	Ma...	1/15
39	2/15	Ma...	2/15
40	3/15	Ma...	3/15
41	4/15	Ma...	4/15
42	5/15	Ma...	5/15
43	6/15	Ma...	6/15
44	7/15	Ma...	7/15
45	8/15	Ma...	8/15
46	9/15	Ma...	9/15
47	10/15	Ma...	10/15
48	11/15	Ma...	11/15
49	12/15	Ma...	12/15
50	1/15	Ma...	1/15
51	2/15	Ma...	2/15
52	3/15	Ma...	3/15
53	4/15	Ma...	4/15
54	5/15	Ma...	5/15
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59	10/15	Ma...	10/15
60	11/15	Ma...	11/15
61	12/15	Ma...	12/15
62	1/15	Ma...	1/15
63	2/15	Ma...	2/15
64	3/15	Ma...	3/15
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97	12/15	Ma...	12/15
98	1/15	Ma...	1/15
99	2/15	Ma...	2/15
100	3/15	Ma...	3/15

**KEY**

1. Fire proof construction in fire insurance  
2. Fire alarm bell  
3. Fire alarm box  
4. Fire alarm bell  
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100. Fire alarm bell

## Diane Schug-O'Neill makes map collections available online.

### Describe your work at the Library

I'm a Jill of all trades within the Geography and Map Division (G&M). I work with reference staff to answer digital-related questions and to tailor digital projects to reflect the division's collections. I work with cataloging staff to ensure our digital objects are properly encoded within our online catalog and web presence. I also work closely with acquisitions and collections staff regarding disposition of objects as well as similarities between digitized objects and those that might be acquired. Lastly, I work with staff inside and outside G&M to ensure analog objects within the collections are properly digitized to provide faithful reproductions used in research and writing efforts.

### How did you prepare for your position?

Prior to coming to the Library, I earned a bachelor's degree in history at George Mason University and a master's degree in library science at Catholic University. Shortly after my undergraduate studies, I began to volunteer in archaeological programs at the local, state and federal level. These various projects provided hands-on work in research, conservation and handling of delicate objects.

In the 1990s, I worked with a federally funded research and development corporation that directly supported the U.S. Navy in Operations Desert Shield and Desert Storm. At the culmination of these operations, the corporation was tasked with digitizing and organizing Department of Navy documentation. At this organization and other jobs, I created and managed various projects; trained co-workers and analysts; and provided reference and research locally and around the world. All of these experiences honed my skills for the work I do in G&M and at the Library today.

### How has technology changed over the course of your work at the Library?

As you can imagine, technology has done more than just advance in the past 20 years; it has progressed by leaps and bounds! When I was hired through the



SHAWN MILLER

National Digital Library Project in 1999, there were five people doing what I do in G&M. It's hard to believe that I'm the sole survivor, but technology has made the difference.

The early scanners were 2 by 3 feet; now, we can scan 4 by 6 feet. We've moved from MUMS on a dumb terminal to Voyager on a laptop. Adobe Photoshop didn't have a large enough palette for G&M images. We had to pray that the Token Ring Network would move our large files completely, before kicking us off for the next user; now, we watch our files shoot over the network at near breakneck speeds.

These days, I work with the Library's Digital Content Management Section at both the front end (scanning technicians) and back end (digital collection specialists) to ensure G&M digital products are created now and remain available into the future.

### What memorable experiences have you had at the Library?

One of my favorite memories is scanning the atlas of Rochambeau's 1782 *Amérique Campagne*, depicting the French army's march from Williamsburg to Boston. Several entries depict towns in Northern Virginia that directly correlate to archaeological sites I have worked on; wonderful memories at work and at play.

## 'Rainbow,' 'Rhythm Nation' Named to Recording Registry

Librarian of Congress Carla Hayden in March announced the selection of 25 recordings for preservation in the National Recording Registry at the Library of Congress.

The selections included Janet Jackson's "Rhythm Nation 1814," Kermit the Frog's "The Rainbow Connection," the radio broadcast play-by-play call of Roger Maris' record-breaking home run in 1961, Louis Armstrong's "When the Saints Go Marching In" and a tinfoil recording made by Thomas Edison that might be the oldest playable recording of an American voice.

Under the terms of the National Recording Preservation Act of 2000, the Librarian of Congress, with advice from the National Recording Preservation Board, selects 25 titles each year that are "culturally, historically, or aesthetically significant" and are at least 10 years old. This year's selections bring the number of titles on the registry to 575.

**MORE: [loc.gov/item/prn-21-015](https://loc.gov/item/prn-21-015)**

## Library Acquires Collection Of Sketches from King Trials

The Library has acquired more than 200 sketches of the Rodney King police brutality trials against four Los Angeles police officers in the 1990s, drawn by courtroom sketch artist Mary Chaney.

King was an unarmed African American man beaten by four white police officers in 1991, after leading them on a high-speed chase at night during his arrest for drunken driving in Los Angeles. A video of the beating, made by George Holliday from his apartment balcony, is said to be the world's first viral video.

The collection of 269 sketches from the King criminal and civil trials between 1992 and 1994 – including 140 original sketches donated by Chaney's estate and 129 purchased by the Library – is a milestone for the Library, which until now had no courtroom drawings by California-based female artists.

**MORE: [loc.gov/item/prn-21-007](https://loc.gov/item/prn-21-007)**

## New Biography Explores Life Of Depression Photographer

The work of photographer Russell Lee is widely known, but his story has remained elusive until now. A new definitive biography, published by Liveright in association with the Library, establishes Lee as one of the most influential documentary photographers in American history.

Lee was the longest tenured and most widely traveled of the legendary Farm Security Administration (FSA) team of photographers, which included Dorothea Lange and Walker Evans. Living out of his car, Lee photographed life in 29 states between 1936 and 1942. Of the 63,000 prints in the Library's FSA Collection, Lee created 19,000 – more than twice than any other FSA photographer.

In "Russell Lee: A Photographer's Life and Legacy," historian and archivist Mary Jane Appel examines the paradoxes of Lee's dual status as an independently wealthy man and the most prolific photographer of the Great Depression.

**MORE: [loc.gov/item/prn-21-012](https://loc.gov/item/prn-21-012)**

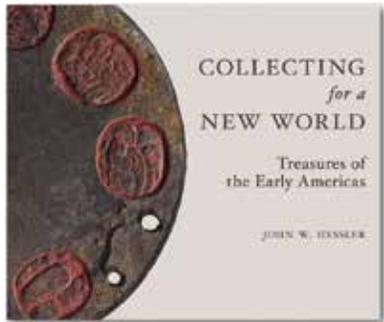
## Library Builds Collections Documenting COVID-19

Since the onset of the global COVID-19 pandemic, the Library has been collecting materials and documenting this time in history through a variety of initiatives.

The Library's rapid-response collecting since the start of lockdowns and social distancing measures over the past year has included acquiring photographs that document the pandemic's impact on individuals and communities, capturing artists' responses to the outbreak, mapping the pandemic's spread and archiving the world's response online.

"The extraordinary impact of the COVID-19 pandemic in our communities, families and social interactions is unlike anything we've seen in the past century," said Librarian of Congress Carla Hayden. "Archivists and librarians at the Library of Congress are committed to documenting and preserving this difficult time in history through the eyes of artists, photographers, scientists and digital communicators in our collections."

**MORE: [loc.gov/item/prn-21-010](https://loc.gov/item/prn-21-010)**



**“Collecting for a New World”**  
**Product #21107176 (hardcover),**  
**21107189 (softcover)**  
**Price: \$20**

John W. Hessler explores the manuscripts, maps, archaeological objects and rare books found in the collection of early American treasures at the Library.



**Squishy globe**  
**Product #21507138**  
**Price: \$3**

This palm-size globe, made of squeezable foam, serves as a great bouncy ball and stress reliever. Emblazoned with a colorful world map, it's educational, too.



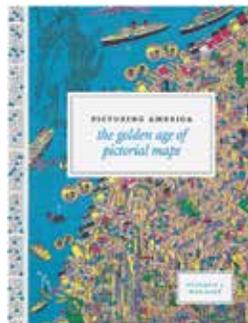
**Waldseemüller map print**  
**Product #216040122 (11x14)**  
**#216040121 (8x10)**  
**Price: \$16-24**

Martin Waldseemüller's monumental 1507 world map is the first document in history on which the name "America" appears. The print is available in two sizes.



**Planiglobii Terrestris map**  
**Product # see website**  
**Price: \$24, \$169**

Add a worldliness to your décor with this 1716 map made by celebrated cartographer Johann Baptist Homann. Choose a framed print or just the print itself.



**“Picturing America: The Golden Age of Pictorial Maps”**  
**Product #21107129**  
**Price: \$45**

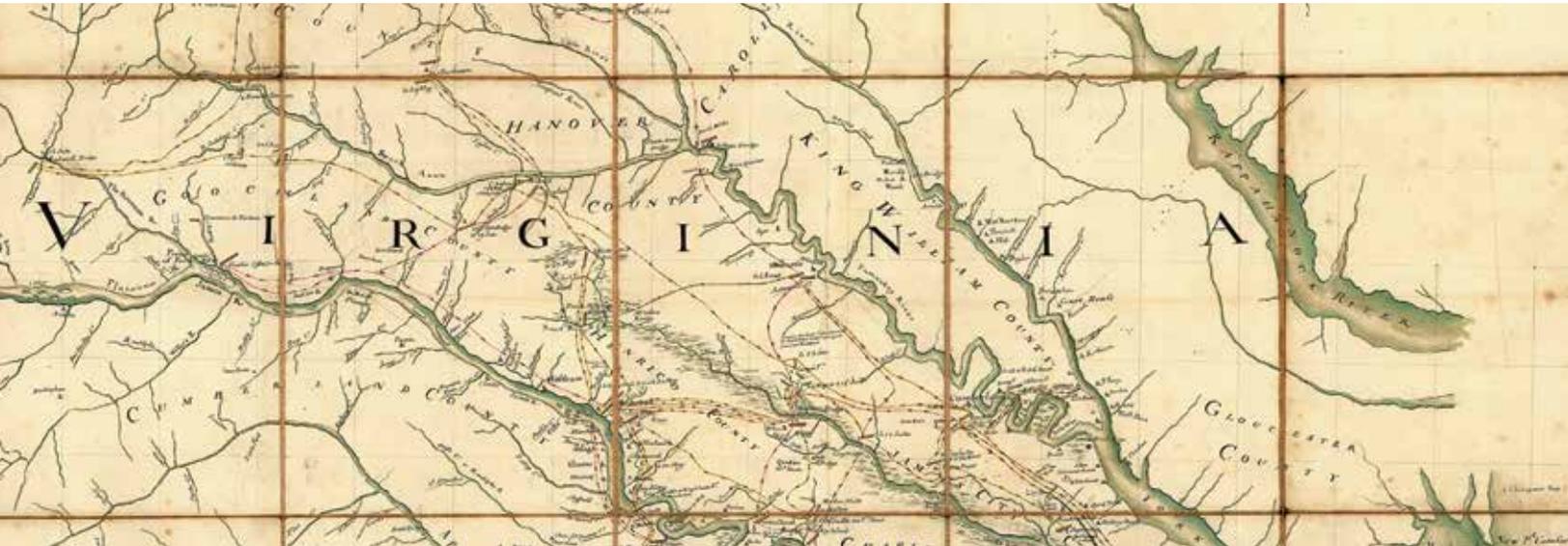
Geographer Stephen J. Hornsby gathers together 158 delightful examples of pictorial maps, most drawn from the extensive collections of the Library.



**Vintage globe ornament**  
**Product #21506040**  
**Price: \$18**

A handsome Renaissance map is rendered with authentic details, such as brass finials and papier-mâché, in this fun and educational ornament.

Order online: [loc.gov/shop](http://loc.gov/shop) Order by phone: 888.682.3557



## CHARTING THE WAY

Civic-minded philanthropists advance the acquisition of rare maps.

Maps and atlases have been an important part of the collections of the Library of Congress since its founding.

Over the past two centuries, the Library's cartographic holdings have grown to more than 5.6 million cartographic items, making it the largest such collection in the world. Those collections include 5.2 million map sheets, 105,000 atlases, hundreds of globes, terrain models and terabytes of geospatial data.

The Library acquires tens of thousands of maps and other cartographic materials annually through government deposits, transfers from federal libraries, copyright deposits, domestic and international exchanges, purchases and gifts.

Private philanthropy also has made a significant impact on the institution's ability to acquire unique and exceedingly rare maps. A key component of these successful endeavors have been members of the Library's signature support group, the James Madison Council.

Thanks to the coordination and generosity of the U.S. Congress and dedicated council members, the Library purchased the only

known copy of the 1507 world map by Martin Waldseemüller – the first map to use the name “America.” The late Madison Council member Jay I. Kislak, through the Jay I. Kislak Foundation, donated another Renaissance masterpiece of the mapmaker's art: Waldseemüller's 1516 map, the first nautical chart printed in the West, called the Carta Marina.

Other examples include a gift from former Madison Council chair Gerry Lenfest, who died in 2018, and Marguerite Lenfest that made it possible for the Library to acquire six rare manuscript maps drawn by the Marquis de Lafayette's aide-de-camp during the American Revolutionary War. Recently, council chair David M. Rubenstein purchased a rare copy of a 1784 map of the new United States by Abel Buell and generously deposited the map at the Library so that it could be publicly displayed.

To help support these kinds of acquisitions and the building of the Library's extensive map collections, the Philip Lee Phillips Map Society was established in 1995 and has made possible, through its generosity and dedication, the acquisition of many rare maps and other cartographic materials.

■ Madison Council donors made it possible for the Library to acquire six rare manuscript maps drawn by Lafayette's aide-de-camp during the American Revolutionary War, including this one. *Geography and Map Division*

### MORE INFORMATION

Make a Gift to the Library  
[loc.gov/donate/](https://www.loc.gov/donate/)

Donate to the Collections  
[loc.gov/acq/donatex.html](https://www.loc.gov/acq/donatex.html)

# LAST WORD

## MATTHEW H. EDNEY

Had this special issue of LCM appeared in, say, 1970 it would have featured a different selection of maps that changed the world.

The belief that maps are repositories of geographical information, nothing more, nothing less, meant that world-changing maps were those that presented either improved ways of mapping the world's surface or significant quantities of newly acquired information.

Strung together in chronological sequence, a sampling of these maps would demonstrate the rise of Western civilization and its global, imperial triumph.

The putative issue would certainly have included the Ptolemaic map of the ecumene and Waldseemüller's large wall map of 1507. But in place of al-Idrīsī's atlas, the Korean ch'ŏnhado and the plan of Manhattan, there would be Gerhard Mercator's wall map of 1569, the one on that projection, and a later 18th-century map showing the geographical results of James Cook's voyages in the Pacific.

But then, in a 1978 essay, art historian Juergen Schulz looked from a new angle upon a classic city view: that of Venice by Jacopo de' Barbari, printed in 1500 on six large sheets. Assembled, it measures 135 by 282 cm (4 feet 5 inches by 9 feet 3 inches); you can examine it for yourself at the National Gallery of Art (go to [nga.gov](http://nga.gov) and search for "Barbari Venice"). This was the study that changed the field of map history.

Previous scholars had treated Jacopo's huge view as a factual guide to a city that is notoriously difficult to navigate on foot. If that were the case, however, visitors would have had to fold and unfold a mass of paper much larger than the size of a standard exterior house door. No, the map was about something else. But what?

Schulz made three key interventions. First, he realized that different kinds of 15th-century maps served different purposes: Some were intended to be factual and geometrically correct, like those already beginning to be made for the military, whereas others were intended to communicate ideas and concepts. Second, he demonstrated that Jacopo's map was highly selective in its geometry and its content: Palaces were enlarged,



ALAN BENNETT/UNIVERSITY OF SOUTHERN MAINE

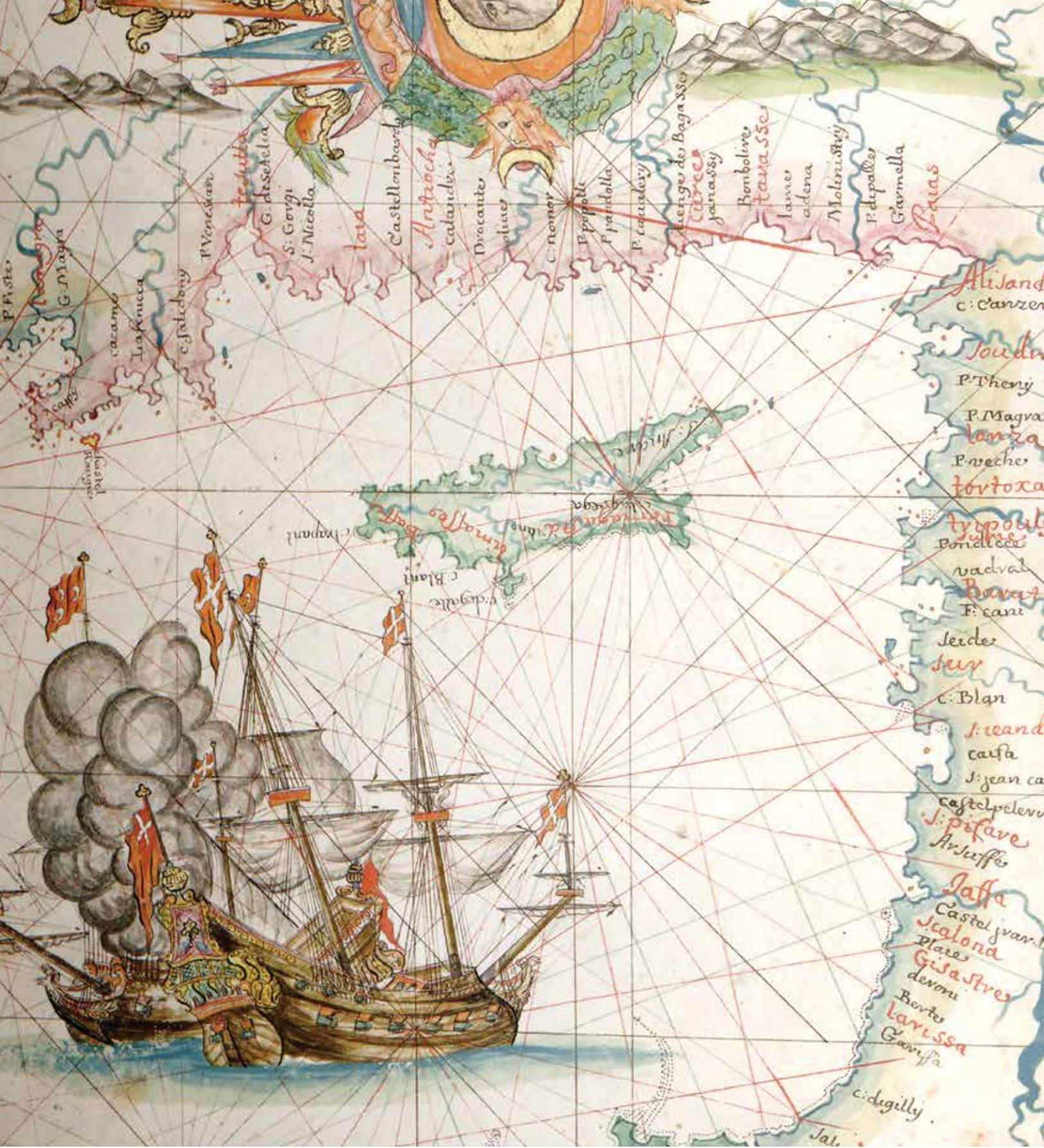
tenements hidden. And, third, Schulz read the map using the methodology of iconology, exploring the natural meaning of the buildings and canals depicted in the image, the conventional meanings borne by these and Jacopo's depictions of Neptune and Mercury, and from these carefully elicited the cultural meaning of the image as a whole.

This was, he concluded, not a factual map of a city, no matter how much it might look like one, but an emblem of the city's power and its glory, a work to be hung on walls to celebrate La Serenissima.

Schulz's essay was the pebble bouncing down the mountainside that kicks off a landslide. It began to turn the heads of map scholars so that they saw maps in a new way.

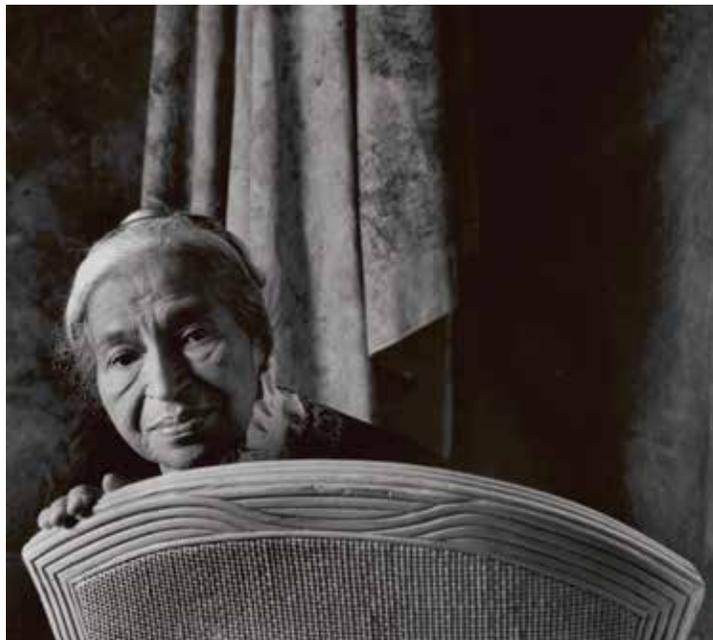
Maps, they demonstrated, are works made by and for humans. Maps tell us as much about the people who made and used them as they do about the world. This has been a profound transformation for map studies: Maps are not just reflections of the world, they change it.

—Matthew H. Edney is Osher Professor of the History of Cartography at the University of Southern Maine and director of the History of Cartography Project at the University of Wisconsin–Madison.



■ Two sailing ships battle on the high seas in this detail from a 1670 nautical chart of the Mediterranean and Western Europe, created with pen and ink and watercolor on vellum. Geography and Map Division

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