

The PORTOLAN

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A Newly Discovered Early Sixteenth-Century Globe Engraved on an Ostrich Egg: The Earliest Surviving Globe Showing the New World

by Stefaan Missinne



The New World on the ostrich egg globe.

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Thomas F. Sander
Editor, The Portolan
9501 Burke Rd., # 10793
Burke VA 22009-8036 USA
sanderva@erols.com

SEND ALL NON-PORTOLAN CORRESPONDENCE TO:

John W. Docktor
3100 N. Highway A1A, PH A1
Ft. Pierce FL 34949-8831 USA
washmap@gmail.com

Cyrus Ala'i
Imre Josef Demhardt
Ralph E. Ehrenberg
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FROM THE EDITOR

For the first time in any publication, you will be reading about an amazing discovery—the earliest surviving globe showing the New World—engraved on a globe, and more uniquely this globe is engraved on an ostrich egg that has been proven to date back to the early 1500's. The author makes an astounding case for the age of the egg, shows amazing similarities with the renowned Hunt-Lenox Globe, a treasure of the New York Public Library, and presents suspicions that the engraver may have links to Florence and famous persons there. Do take the time to closely read this fascinating story of discovery and research—you will likely hear about it in national media as more scholars also have the chance to read the article.

Also in this issue, Carol Delaney presents a compelling case linking the voyages of Columbus with Jerusalem—perhaps the most important single city for so many religions. Have you ever wondered about who makes all the maps you see in fiction and non-fiction books? Claudia Carlson is one of those people, and she delivered a talk to the Washington Map Society on graphic design; her interesting story is included. Peter van der Krogt describes an interesting dolmen in west central France.

Bert Johnson attended the first of a series of map conferences in Athens; he describes that meeting. Also included are summaries of the WMS annual business meeting, the annual dinner, and remembrances of three members who recently died—each contributed to the history of cartography. Five book reviews are also in this issue, and there is more. Many excellent map events are happening in the months just ahead—be sure to attend at least one and enjoy learning more about maps.

Tom



WASHINGTON MAP SOCIETY

Fall 2013

Dear WMS Members,

On May 16, we completed a very successful program year with our Annual Dinner, held at the Metropolitan Club of Washington. In addition to fine fellowship (shared with over 70 members and guests) and delicious food, we had the pleasure of hearing a great talk by WMS member Richard Pflederer, on "Magellan, the Pacific Ocean and the Search for the Anti-Meridian." On the day following the Annual Dinner, the Library of Congress Geography and Map Division hosted a conference, co-sponsored by the Philip Lee Phillips Society and the John Carter Brown Library, entitled: "Re-Drawing Ptolomy: The Cartography of Martin Waldseemuller and Mathias Ringmann." Several speakers at the conference are members of the Washington Map Society.

Over the course of this past program year, we heard speakers on topics ranging from the mapping of the Warsaw Ghetto, London, Colorado, Virginia and Florida, to the Line established by the Proclamation of 1763, to Columbus' voyages, to the cartography of the Civil War. What a trip! The first several programs of the 2013–2014 program year, planned by our outstanding Vice-president and Program Chair, Ted Callaway, are described elsewhere in this issue, and I hope that many of you will be able to attend one or more of them.

In addition to the Fall WMS meetings, there are a number of other great opportunities to learn about maps and mapping this Fall. I will mention just three. On October 11–12, the Winterthur Museum, Garden and Library, near Wilmington, Delaware, is hosting a conference entitled: "Common Destinations: Maps in the American Experience." Speakers at this conference will discuss the nature and uses of popular American maps prior to 1900. From October 24–26, at the Newberry Library in Chicago, the Kenneth Nebenzahl, Jr. Lectures in the History of Cartography will present "The War of 1812 and American Cartography." From October 31–November 3, the Annual Meeting of the Society for the History of Discoveries will take place at the Tampa Bay History Center, in Tampa, Florida. Talks and exhibits at the SHD will celebrate the 500th anniversary of the European discovery of Florida. More information on each of these events can be found at John Docktor's website: www.docktor.com.

We welcome two new members to the WMS Board of Directors: Leigh Lockwood, the designer and webmaster of our newly designed Washington Map Society website, and Ed Redmond, a former President of the Society, and a Senior Reference Specialist and Curator in the Geography and Map Division of the Library of Congress. We also welcome, for another term, two Board members whose terms expired in 2013: Chas Langelen and Bob Moir. Members who left the Board of Directors in 2013 were Janice Downey and Natasha Green. We thank them for their service.

Finally, as many of you know, we lost two long-time leaders of the Washington Map Society in the last several months. Both were loyal WMS members for many years and both served in leadership roles. Robert Highbarger, who served two terms as President of the Society, in 1983–1984, and in 1995–1996, passed away in May of 2013. Michael Hirsch, who served on the Board, was Treasurer for several years, and who recently served as Chair of the Nominating Committee, passed away in June. We will miss them and their wise counsel. Some of you may have noticed that there is an "In Memory" section of the WMS website, and these two long-time leaders have been memorialized there.

I look forward to seeing you in the Fall, at one of the many opportunities for those who love maps.

J. C. McElveen
President

Washington Map Society Meetings

Regular meetings are held in the Reading Room, Geography and Map Division, B level, Library of Congress, Madison Building, 101 Independence Ave., S.E., Washington, DC. Please allow time to pass through the security checkpoint at the entrance. The Library is one block from METRO's Capitol South Station, on the Blue and Orange lines. To inquire about the following events or to offer meeting suggestions, please contact the chairman of the WMS Program Committee, Ted Callaway, tel. 202-879-5418 or email tedcallaway@yahoo.com

The WMS follows the closing decisions of the Federal Government. If the Federal Government is closed on a meeting day, our meeting will also be canceled. In the event bad weather develops during the day, we may be forced to cancel the evening meeting. We will attempt to send out an all-member e-mail in that case. Please check your email account for a WMS notice before coming to a meeting when bad weather is predicted.

On Thursday **September 19, 2013** at 7:00pm, Anthony Páez Mullan, Reference Specialist, Geography & Map Division, Library of Congress, will speak on *A Web of Imperial Connections: Some Eighteenth Century Surveyors and Planters in Eighteenth Century Dominica*. His presentation will focus on a detailed and striking eighteenth century Dominican estate map by Isaac Werden.

On Thursday, **October 17**, at 7:00pm, J. C. McElveen will speak on *The Use of Maps in Legal Proceedings*. From high-profile murder trials to tort cases to property disputes and more, maps have long played a role in lawsuits and other types of legal proceedings. Mr. McElveen will explain how maps have been used to assist fact finders in some of these cases, using examples from the mundane to the unsavory. J. C. McElveen, currently President of the Washington Map Society, is a retired lawyer and map collector who has used maps in a number of his own cases.

On Thursday, **November 21**, at 7:00pm, Scott Walker will speak on *Matthew Fontaine Maury: A Portrait of a 'Lost' Cartographer.* Mr. Walker's presentation will look at the 19th Century's "Pathfinder of the Seas" and developer of ocean-breaking charts which set the stage for the science of Oceanography. Maury was a native Virginian who became the first Superintendent of the U.S. Naval

Observatory in Washington. Yet, for all of his scientific advances, his work seems largely unknown today. The presentation looks at his life, his accomplishments, and his legacy.

On Thursday, **December 12**, at 7:00pm, John Fondersmith will speak on *Searching for Ushapia*. The presentation will focus on images and objects that depict the continental shape of the United States of America. These items illustrate the many ways in which the U.S.A.'s distinctive outline has been used as a logo for "Americanness" in a wide variety of contexts and forms. See Mr. Fondersmith's article on this subject on pages 75-77 in the Winter 2012 (issue 85) of *The Portolan*. Also, see the lead article on page 72 in this Fall 2013 issue for instructions on viewing items that were on display in the exhibit. Mr. Fondersmith worked for the Washington, D.C. planning office for 35 years, where his work focused on the revitalization of downtown. He is a charter member and former President of the Washington Map Society. 🌐



Visit www.WashMapSociety.org for up-to-date program information.

Exhibitions and Meetings

This section is drawn heavily from www.docktor.com, maintained by John W. Docktor. For expanded information, easy web links, and even more events on the constantly changing calendars listing of exhibitions and events, see www.docktor.com

2013

INDEFINITE

Rotating Exhibition. Washington, DC. *Exploring the Early Americas*, features the 1507 Waldseemüller world map plus rare books, manuscripts, historic documents, maps and art of the Americas from the Jay I. Kislak Collection. 10 am to 5 pm, Monday through Saturday, Thomas Jefferson Building, Library of Congress, 10 First St. SE. See www.loc.gov/exhibits/earlyamericas

UNTIL APRIL 13, 2014

Exhibition. Montreal. *20,000 Leagues Over Land and Sea* – Exploring six centuries of cartography. More than six centuries of mapmaking will be presented on a hundred maps, with special emphasis on the Age of Discovery, from the 15th to the 18th centuries. Stewart Museum, 20, chemin du Tour-de-l'Isle, Montreal. See www.stewart-museum.org/en/20-000-leagues-over-land-and-sea-106.html

UNTIL DECEMBER 1, 2013

Exhibition. La Jolla, California. *The Cartes of Jacinto 'Jo' Mora*. Map and Atlas Museum of La Jolla, 7825 Fay Avenue, Suite LL-A. Open Wednesdays and Thursdays 11am–4pm, and the first and Third Saturdays, same times. Free. Phone 855-653-2277 or visit www.lajollamap-museum.org

SEPTEMBER 9–11

IMCoS Annual Symposium. Fairbanks, Alaska. The International Map Collectors' Society's 31st international symposium. See www.imcos.org

SEPTEMBER 28, 2013 – FEBRUARY 15, 2014

Exhibition. Tampa, Florida. *Charting the Land of Flowers: 400 Years of Florida Maps*. Wayne Thomas Gallery, Tampa Bay History Center, 225 South Franklin Street, Tampa, FL 33602. Phone 813-228-0097, www.tampabayhistorycenter.org

OCTOBER 11–12

Symposium – Winterthur, Delaware. *Common Destinations: Maps in the American Experience*. Jointly hosted by the Winterthur Museum and the Center for Material Culture Studies, University of Delaware. This journey will examine maps in everyday life and material culture, a journey that traces maps from rare collectibles to ubiquitous objects

central to men's and women's senses of self. Phone 800-448-3883 or visit www.winterthur.org/?p=1039.

OCTOBER 24–26

Nebenzahl Lectures. Chicago. The 18th Kenneth Nebenzahl, Jr., Lectures in the History of Cartography's subject is *The War of 1812 and American Cartography*. The Newberry Library, 60 West Walton Street. Contact Will Gosner, gosnerw@newberry.org See www.newberry.org/kenneth-nebenzahl-jr-lectures-history-cartography

OCTOBER 31 – NOVEMBER 3

SHD Annual Meeting. Tampa, Florida. The Society for the History of Discoveries meets at the Tampa Bay History Center. Contact Ron Fritze, ron.fritze@athens.edu. See www.sochistdisc.org.

NOVEMBER 14 AND 28

'Maps and Society' Lectures. London, England. On November 14, Joaquim Alves Gaspar and Henrique Leitão (Centro Interuniversitário de História das Ciências e da Tecnologia, University of Lisbon) will present 'Squaring the Circle: Rhumbs, Globes and the Making of the Mercator Projection (1569)'. On November 28, Dr Frederik Muller (Antiquarian bookseller, Bergum, Netherlands) will present 'Recording the Discoveries: the Pacific and Tartary Mapped by Lorenz Fries in Early 1525'. University of London, Warburg Institute, Woburn Square, London at 5 pm. Contact (+44) 020 8346 5112, (Catherine Delano Smith) or Tony Campbell at t.campbell@ockendon.clara.co.uk Visit www.maphistory.info/warburgprog.html

NOVEMBER 21

Oxford Seminars in Cartography. Oxford, England. On November 21, Dan Terkla (Illinois Wesleyan University) will present *Medieval English Mappaemundi: Victorine Model and Idiosyncratic Copies*. 5:00–6:30pm, University of Oxford Centre for the Environment, South Parks Road, Oxford. Contact: nick.millea@bodleyan.ox.ac.uk, phone (+44) 1865–287119.

NOVEMBER 26

Cambridge Seminars in the History of Cartography. Cambridge, England. On 26 November 26, Andrew Macnair (University of East Anglia) will present *East Anglian large-scale county maps of the eighteenth century: what can we learn from a digital analysis?* 5:30pm. Gardner Room, Emmanuel College, St Andrew's Street, Cambridge CB2 3AP. Contact

Sarah Bendall at sarah.bendall@emma.cam.ac.uk, phone (+44) 1223-330476.

DECEMBER 7

Annual Conference. Brussels. The Brussels Map Circle annual conference with the theme *Mapping India*. See www.bimcc.org

2014

JANUARY 16 AND FEBRUARY 6

'Maps and Society' *Lectures*. London, England. On January 16, Dr Elizabeth Upper (University of Cambridge) will present 'Colour Printing in the Renaissance: The Strasbourg Edition of Ptolemy's Geography (1513)'. On February 6, Kenneth Morgan (Brunel University) will present 'Flinders and the Cartography of Australia 1795-1815'. University of London, Warburg Institute, Woburn Square, London at 5 pm. Contact (+44) 020 8346 5112, (Catherine Delano Smith) or Tony Campbell at t.campbell@ockendon.clara.co.uk Visit www.maphistory.info/warburgprog.html

FEBRUARY 8-9

International Map Fair. Miami. The Twenty-first Annual Miami International Map Fair. HistoryMiami, 101 West Flagler Street, Miami, Florida 33130. Visit www.historymiami.org/visit/miami-international-map-fair/. See article in *The Portolan*, Issue 84 (Fall 2012), page 71. Contact Amanda Israel at above address; phone 305-375-1614; or e-mail aisrael@historymiami.org.

FEBRUARY 25

Cambridge Seminars in the History of Cartography. Cambridge, England. On February 25, there will be a presentation by Jerry Brotton (Professor of Renaissance Studies, Queen Mary, University of London). 5:30 pm. Gardner Room, Emmanuel College, St Andrew's Street, Cambridge CB2 3AP. Contact Sarah Bendall at sarah.bendall@emma.cam.ac.uk, phone (+44) 1223-330476.

APRIL 8-12

AAG Annual Meeting. Tampa, Florida. The Association of American Geographers event will feature over 6,000 presentations, posters, workshops, and field trips by leading scholars, experts, and researchers. See www.aag.org/cs/annualmeeting



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<http://lcweb.loc.gov/rr/geogmap/gmpage.html>

Map History/History of Cartography
www.maphistory.info

Listing of Map Societies Worldwide
<http://www.maphist.nl/mapsoc/>

Caring for your Collection
<http://www.imcos.org/other-publications/caring-for-your-collection>

MAPHIST – A Forum on the History of Cartography
<http://www.maphist.nl/forum>

**Annotated List of Reference Books for the
Antiquarian Map Collector**
www.theprimemeridian.com/bibliography.htm

Web Resources for Map Collectors and Enthusiasts
www.theprimemeridian.com/collectorguide.htm

Strange Maps
<http://bigthink.com/blogs/strange-maps>



In Memorium

Robert A. Highbarger, 84, a cryptologist who retired from the National Security Agency in 1985, died May 23, 2013. He graduated from Northwestern University and received a master's degree in mathematics at the University of Iowa. The *Washington Post* called him a map enthusiast, but he was much more than just an enthusiast. He was president of the Washington Map Society from 1983–1984 and also from 1995–1996, and served also as Vice President twice and several times as WMS Board Member. Bob also contributed much to *The Portolan*: three articles (issues 36, 37, and 69), two meeting summaries (issues 15 and 26), reviews of two books (issues 41 and 64), and a membership spotlight (issue 65). He was adept at translating Italian into English, and his article 'The Isolario of Benedetto Bordone' was a good example of his skills. Bob also was past president of the Society for the History of Discoveries (1999–2001), and at the time of his passing was National Representative USA-East for the International Map Collector's Society. Survivors include his wife of 63 years, Virginia (Ginny) Highbarger.



Michael Hirsch, 70, died June 13, 2013. Michael served the WMS a number of times as a *Portolan* contributor and book reviewer, a presenter at the May 14, 2005 WMS Map Collecting Seminar, a member of the WMS Board of Directors, and as WMS Treasurer from 1987–1993. He contributed the following membership spotlight of himself for the Spring 2005 issue of *The Portolan*:

MICHAEL HIRSCH: Cartographic Interests: European mapping of North America pre-1776; American mapping of the United States from 1800–1850; and catalogues issued by map and book dealers pre-1970. Professional Background: MS and BS in EE from MIT. Comments: Before becoming a consultant on wireless technologies, I was the Vice President of Technology for the cellular industry trade association.

A chance encounter with Richard Arkway at a father-daughter weekend at Cornell University stimulated my interest in antique maps. I have been collecting since 1978 and have acquired a substantial collection of maps, atlases, and travel books containing maps. Presently I am selling some of the older maps in my collection to buy American imprints post-1800. I enjoy the interplay of map dealers, auction houses, and serious map collectors which, in reality, is a small, tightly knit, community of less than 500 people worldwide.

Early Washington Map Society member **H. Russell Morrison, Jr.**, died February 21, 2013 at the age of 83. Russ assembled one of the finest collections (the Huntingfield Map Collection) of Maryland and Chesapeake Bay maps with his friend and business partner, Owen Henderson. Russ's enjoyment came in sharing the collection with others. Huntingfield maps were included in exhibits at Washington College, the Calvert Marine Museum, the Maryland State House and the Maryland State Archives as well as numerous publications. Prompted by the opening of new Hall of Records building in Annapolis in 1985, Russ and Owen began to donate selected items from the collection to the State Archives, with the remainder of the collection becoming a gift in 1990. Although other institutions wanted the collection, the cooperative effort between Russ, Owen and the staff of the State Archives to preserve and safeguard the collection ensured that the maps would permanently reside in Annapolis.

(The above is heavily adapted from a memorial on the website of the Maryland State Archives. It may be read in full at http://msa.maryland.gov/msa/homepage/html/russell_morrison.html. An obituary is at www.myeasternshoremd.com/obituaries/article_9f5c140c-7f80-11e2-8e25-001a4bcf887a.html. Articles by or about Russ Morrison appear in issues 4, 12, 18, 19 and 69 of *The Portolan*. The article in issue 69 discussed the Huntingfield Collection of Maryland Maps.)





The 2014 Dr. Walter W. Ristow Prize For an Academic Paper in the History of Cartography

The prize, offered since 1994, recognizes academic achievement in the History of Cartography and honors the legacy of the late Dr. Walter W. Ristow, former chief of the Geography & Map Division, Library of Congress, and co-founder and first president of the Washington Map Society.



THE AWARD

\$1000 cash award, a one-year membership in the Washington Map Society, and publication of the paper in *The Portolan – Journal of the Washington Map Society*. Honorable Mention may be awarded for a paper or papers at the judges' discretion.



WHO MAY APPLY

Full or part-time undergraduate, graduate, and first year post-doctoral students attending accredited U. S. or foreign colleges and universities.



ENTRY CRITERIA

Research papers related to cartographic history and completed in fulfillment of course work requirements. The text, in English, and documented in a style selected by the author, may not exceed 7,500 words. Papers entered in the competition may have been previously presented at academic symposia. They may have been entered in other competitions. They must not, however, have been published, selected for publication, or in contention for publication at the time of entry into the Ristow Prize competition. This criterion is not circumvented by a change of title and/or wording to what is essentially the same article that has appeared in another publication. Serious copyright implications make this necessary.



FORMAT

Four unbound copies with a title page and cover sheet including the entrant's name, address, telephone number and e-mail address, and department and academic status.



JUDGING CRITERIA

Three broad criteria: (1) importance of research (e.g., originality, sources used), (2) quality of research (e.g., accuracy, source reliability), (3) writing quality (e.g., clarity, organization, command of cartographic terms).



DEADLINE

Postmarked no later than 1 June 2014 and mailed to **Dr. Evelyn Edson, Ristow Prize Chair, 268 Springtree Lane, Scottsville, VA 24590-9511, USA. Complete and comprehensive information is available on the Washington Map Society's web site: www.WashMapSociety.org.** For questions, contact eedson@pvcc.edu

A Newly Discovered Early Sixteenth-Century Globe Engraved on an Ostrich Egg: The Earliest Surviving Globe Showing the New World

By Stefaan Missinne

ABSTRACT

In this article the author discusses a previously unknown early sixteenth-century globe engraved on two conjoined halves of ostrich egg shells. The age of the globe is verified through scientific analysis of the shell. The geographical details of the globe are shown to be very similar to those of the Hunt-Lenox Globe at the New York Public Library, and the Lenox globe is argued to be a cast of the ostrich egg globe. The ostrich egg globe is thus the earliest surviving globe that shows the New World. Evidence is presented that the globe was created with some inspiration from the workshop of Leonardo da Vinci.

The purpose of this article is to announce the discovery of a previously unknown early sixteenth-century globe, confirm its age and genuineness, and to contextualize it and establish its relationships with other contemporary maps and globes. On the one hand, the globe is very closely related to the Hunt-Lenox Globe at the New York Public Library; on the other hand, the globe is engraved on the two conjoined halves of the shells of two ostrich eggs, and thus is a unique object in early modern cartography. The announcement of the discovery of any early sixteenth-century globe would cause considerable excitement, as these objects are extremely rare.¹ The fact that this globe was constructed in this unique fashion of exotic materials, and its links with the workshop of Leonardo da Vinci, adds considerable interest to the discovery.²

The globe (fig. 1), which is the size of a grapefruit, was found in 2012 by a globe and map collector at the London Map Fair. The owner prefers to remain anonymous. The dealer who sold the globe said that he had purchased

it from another dealer, and that he was informed that it had been part of an important European collection for many decades. I initiated research into the globe because I was skeptical about its date, origin, geography, and provenance. Before I start, I would like to thank the many scholars and librarians who have helped me, who are listed at the conclusion of this article.

PHYSICAL DETAILS OF THE GLOBE

The globe, approximately 11 cm in diameter, is constructed using the lower halves of two different ostrich eggs. To investigate the physical properties of the shells that compose the globe and to be able to judge its age, a new ostrich egg was purchased for comparison. The two eggs were then scanned at a computer tomography laboratory in Vienna (fig. 2). The conclusion of the radiologist and his laboratory expert was that "If the egg globe would be a human, this human would be very ill, as it has lost 50% of its calcium bone density compared to the new ostrich egg, measured in Hounsfield units."³ Why would

¹ A. E. Nordenskiöld, "A Remarkable Globe Map of the Sixteenth Century," *Journal of the American Geographical Society of New York* 16 (1884), p. 222; Matteo Fiorini, *Sfere terrestri e celesti di autore italiano oppure fatte o conservate in Italia* (Rome: Società geografica italiana, 1899); and Edward L. Stevenson, *Terrestrial and Celestial Globes; Their History and Construction* (New Haven: Yale University Press, 1921), vol. 1, pp. 60–61.

² On the uniqueness of the ostrich egg globe see Sebastian Bock, *Ova struthionis. Die Straußeneiobjekte in den Schatz-, Silber-, und Kunstkammern Europas* (Freiburg i. B.: Verlag S. Bock, 2005), p. 274.

³ Laboratory Research conducted by Univ. Prof. Dr. L. Wicke at the Bellaria City Diagnostic Center, Vienna, Austria, 21 June 2012.



Figure 1. The early sixteenth-century engraved ostrich egg globe among other ostrich eggs.

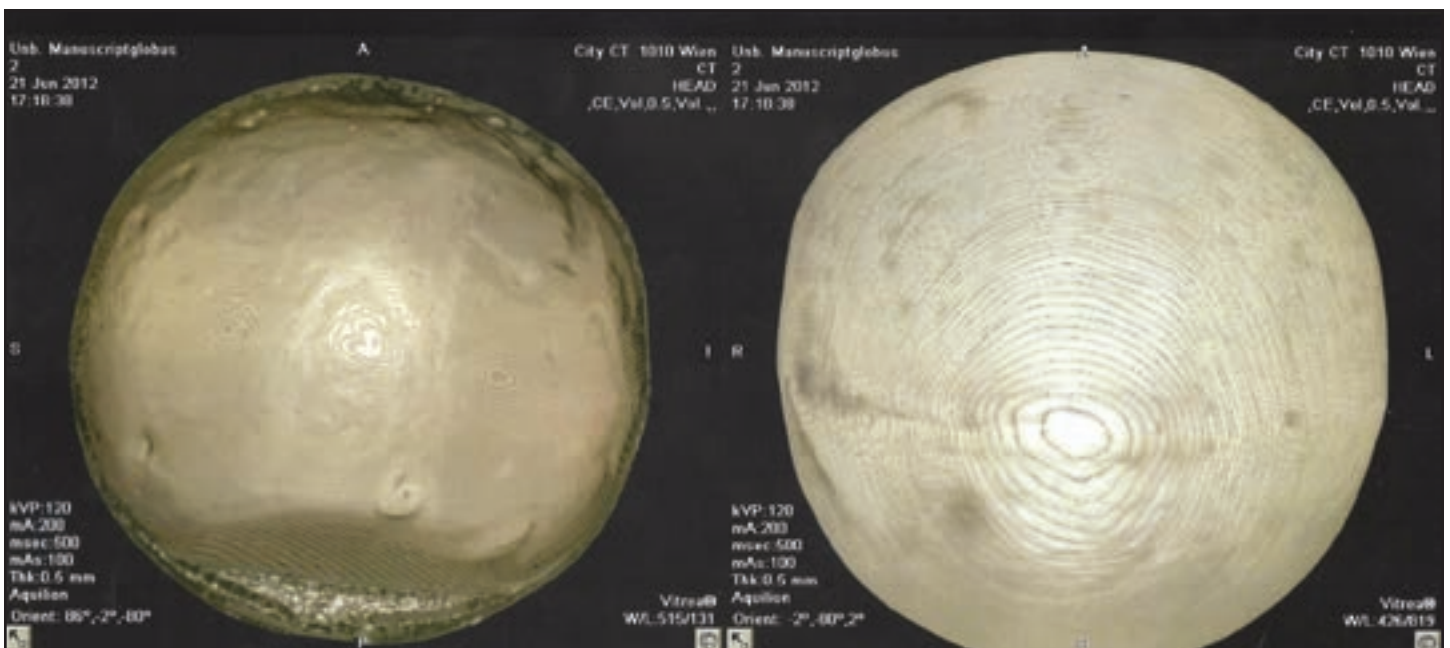
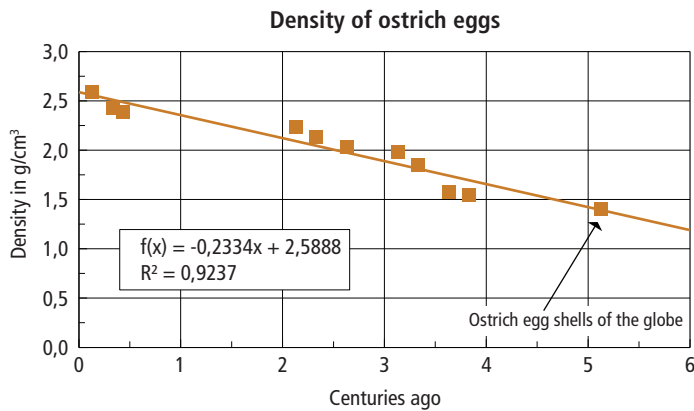


Figure 2. The inside (left) and the outside (right) surfaces of the ostrich egg globe as revealed by CT scans.

Figure 3. Regression analysis results of test on egg sample and data, confirming the connection between age and density of the ostrich egg. By Dr. DI. K. Guckelsberger, specialist in globes and nautical charts.



an ostrich egg lose so much density and weight? The answer is easy: as with humans, the bones lose density and therefore weight with age due to loss of moisture.

I collected data from different museums including the Museum of Natural History of Vienna, the Museum of Art History in Vienna, the Grünes Gewölbe in Dresden, and the City and Mining Museum in Freiberg, Germany. I asked for the height, diameter and weight of empty unmounted engraved ostrich eggs, and their age from the museum's records. I myself took measurements of a random selection of ostrich eggs at the Museum of Natural History in Vienna.

On this basis of comparison, and adding that the ostrich egg globe has a total weight of 134 grams, including 25.82 grams in a weight on the interior of the globe at the South Pole to keep it upright, a statistically significant relationship (Pearson: $r = 0.96$, level of significance: $P < 0.1$) between the density of the ostrich eggshell (weight) and time (age) was established.⁴ An unmounted ostrich egg loses approximately 10% of its density (0.233g/cc/century) per 100 years until it reaches a balance with its environment and it has no more moisture it can lose. This confirms the CT finding and the 50% loss of density of the ostrich egg as measured by the radiologist.⁵ A regression analysis using a linear or even an exponential regression confirmed that the ostrich egg globe is from c. 1500 (fig. 3).⁶

A sample from the counterweight material in the bottom of the egg was taken and mailed to the Curt-Engelhorn-Zentrum Archäometrie of the University of Tübingen, and

was subjected to Carbon-14 dating.⁷ The results show that the material in the bottom of the lower eggshell is of fossil origin, and has an age of 49,310 years (+/- 620 years). Barbara Goldmann from the Museum of Art History in Vienna had suggested that the bottom could be filled with fossil resin (e.g. Kolophonium—organic fossil material, used by Renaissance painters as a varnish),⁸ and the Carbon-14 dating renders this suggestion very likely.

The egg is not painted but the waves engraved in bodies of water on the globe still bear a faded very dark blue/black color which lacks the intensity of a color like Prussian blue. A renowned laboratory in Vienna specializing in the analysis of paint on old paintings was contacted. The result of the RFA analysis was that the egg is made of CaCO_3 , there are some traces of barium⁹ in the waves and a high level of iron.¹⁰ According to Dr. Helen Hansma

⁴ Thanks to Prof. Dr. A. Gamauf, Museum of Natural History in Vienna, for her help.

⁵ I thank Dr. DI. K. Guckelsberger, Globe and Marine Map Specialist, who applied a regression analysis on the sample and data and confirmed the connection between age and density of the ostrich egg, 25 March 2013.

⁶ The formula applied by DI. Dr. Kurt Guckelsberger was $M = x * M_c + (1-x) * M_v(t)$, where M = Mass, t = time, and $x = 0.39$ (residue % of calcium in an ostrich egg).

⁷ I considered performing carbon-14 testing on the egg shell itself, with the goal of confirming its age, but was informed by Prof. Dr. h.c. Bernd Kromer that "without knowing the geographical origin of the ostrich egg material and the specific living area of the mother bird, it is very difficult or even impossible to estimate a C-14 date for the egg because of possible interference resulting from the bird's eating other sources of carbon" (mail from July 19, 2012). Thus carbon-14 testing of the egg itself would not have helped achieve this goal.

⁸ Mail from 31 August 2012 from Dipl. Rest. Barbara Goldmann, KHM, Vienna. This was also mentioned by Mag. Jan Mokre, Director of the Globenmuseum (Globe Museum) in Vienna, 30 January 2013.

⁹ Thanks to Prof. Dr. Luisa Ottolini, CNR-IGG in Pavia for her message (12 November 2012), indicating that barium is found near Pavia Torre degli Alberi in concretions "septarias," which can be picked up from agricultural land. Concretions are very common and in that area contain aragonite, calcite, gypsum and barium. Barium can be enriched in soil, water etc. related to the presence of the concretions.

of the University of California at Santa Barbara, "Barium is a little like calcium, so it makes sense that some barium would get into such a calcium-rich structure as an egg shell."¹¹ The faded blue/black on the globe must be iron gall ink, originally mixed with an indigo blue perhaps made from iris flowers, a color used by Renaissance painters. Dark blue/black iron-gall ink does not rub off, but eats into organic material and reacts with the collagen, which makes the color last longer.¹²

THE CONNECTION WITH THE LENOX GLOBE

In order to be absolutely certain that the globe was from the sixteenth century, and not (for example) a nineteenth-century creation, I consulted Prof. Rudolf Schmidt, former president of the International Coronelli Society for the Study of Globes, in June of 2012. Upon examining the globe, Prof. Schmidt was convinced that this globe was ancient and not a product of the nineteenth or twentieth century. At this meeting it was also established that there is a very close similarity between the ostrich egg globe and the Lenox Globe, which is dated between 1504 and 1506, and kept at the New York Public Library (NYPL) (see figs. 4 and 5).¹³

The Lenox Globe is generally regarded as the earliest post-Colombian globe still in existence. Richard M. Hunt purchased it in Paris in 1855. The small globe (ca. 11.2 cm in diameter) is of excellent workmanship, and is made from two halves of a lustrous reddish copper alloy¹⁴ which is only 2 mm thick.¹⁵ The language used in the inscriptions is Latin. Early researchers believed it to be engraved and it is pierced for an axis at the North and South Poles; indicating that it was once part of or was intended for an armillary sphere.

A French origin had been suggested for the Lenox Globe,¹⁶ and Stevenson compared the Lenox with the Jagiellonian Globe, kept in Krakow and thought to date from about 1510. He stated the Lenox and Jagiellonian globes "appear to be the work of the same globe maker or copies of a common original."¹⁷

As to the representation of the newly discovered lands in the west on the Lenox Globe, two islands are named "Isabel" (Cuba) and "Spagnolla" (Dominican Republic/Haiti). North America is not shown. One nameless island located in the region of Newfoundland probably reflects the discoveries of Miguel and Gaspar Corte-Real.¹⁸ South America is shown and named "TERRA DE BRAZIL," "MVNDVS NOVVS," (comes from Amerigo Vespucci)¹⁹ and "TERRA SANCTAE CRVCIS" (fig. 6).

The existence of a copper globe very similar to the ostrich egg globe prompted many questions. In particular, is there any way to establish which globe was made first? And if they were made by different cartographers, who copied from whom?

¹⁰ I thank Univ. Prof. Dr. Manfred Schreiner of the Institut für Naturwissenschaften und Technologie in der Kunst, Vienna, for his comments. We refer to www.paintmaking.com/blue.htm (accessed April 18, 2013).

¹¹ I thank Dr. Helen Hansma (Physics/Biology) of the Physics Department of the University of California at Santa Barbara, mail of 6 August 2012 via UCSB ScienceLine.

¹² Lois Fruen, Iron Gall Ink, in *Breck School Science*, 2002. Available at <http://realscience.breckschool.org/upper/fruen/files/Enrichmentarticles/files/IronGallInk/IronGallInk.html>.

¹³ For discussion of the Lenox Globe see Stevenson, *Terrestrial and Celestial Globes*, vol. 1, pp. 72–74; and B. F. De Costa, "The Lenox Globe," *Magazine of American History* 3.2 (1879), pp. 529–540. I thank Mr. Jim Siebold, USA, for sending me a CD containing information from his webpages on early Renaissance maps and globes.

¹⁴ According to J. D. Draper of the Department of European Sculpture at the Metropolitan Museum of Art, the reddish bronze from Florence set a standard that metalworkers from other cities strove to emulate.

¹⁵ Several low-resolution images of the Lenox Globe are available via the NYPL's Digital Gallery, at <http://digitalgallery.nypl.org/nypldigital/dgkeysearchresult.cfm?keyword=hunt+lenox+globe&submit.x=0&submit.y=0>

¹⁶ See Józef Babics, "Globe d'or Jagellon du début du XVIe siècle," *Der Globusfreund* 18–20 (1969–1971), pp. 27–31, at 30.

¹⁷ Stevenson, *Terrestrial and Celestial Globes*, vol. 1, p. 74. For discussion of the Jagiellonian Globe, see Tadeusz Estreicher, "Globus Biblioteki Jagiellonskiej z początku w. XVI. – Ein Erdglobus aus dem Anfange des 16. Jh. in der Jagellonischen Bibliothek," *Anzeiger der Akademie der Wissenschaften in Krakau = Bulletin international de l'Académie des sciences de Cracovie* (1900), pp. 96–105; and Józef Babics, "Globe d'or Jagellon du début du XVIe Siècle," *Der Globusfreund* 18–20 (1969–1971), pp. 27–31.

¹⁸ Stevenson, *Terrestrial and Celestial Globes*, vol. 1, p. 74

¹⁹ Martin Lehmann, "Amerigo Vespucci and His Alleged Awareness of America as a Separate Land Mass," *Imago Mundi* 65.1 (2013), pp. 15–24, at 19–21.



Figure 4. Asia on the ostrich egg globe, showing the large peninsula jutting southward at the right which is evidence of the influence of Henricus Martellus.



Figure 5. Asia on the Lenox Globe, showing the very close similarity with the ostrich egg globe. Photo by the New York Public Library/© Rare Book Division, The New York Public Library.



Figure 6. The New World on the ostrich egg globe, which bears three names: "TERRA DE BRAZIL," "MVNDVS NOVVS," and "TERRA SANCTAE CRVCIS."

DETAILED STUDY OF THE LENOX GLOBE

I studied the Lenox Globe through the literature about it and through photographs²⁰ of a one-piece copper ball cast replica of the Lenox Globe that was made in 1984 by the Metropolitan Museum of Art.²¹ I prepared a transcription of the nomenclature on the Lenox Globe, the ostrich egg and the Jagiellonian Globe in Krakow.²² In addition, I studied the globe gores attributed to Louis Boulengier, also at the NYPL, which are generally dated to c. 1514.²³

I concluded that the globe gores of Louis Boulengier bear a strong resemblance to the Jagiellonian globe, and that resemblance between the Lenox Globe and the ostrich egg globe is much closer than the resemblance of either of them to the Boulengier gores or to the Jagiellonian Globe. The Jagiellonian Globe is smaller (7.35 cm in diameter) but has a richer nomenclature than the Lenox Globe or the ostrich egg globe. I believe that the Lenox and Jagiellonian are not copies from a common original as suggested by Tad Estreicher in his paper.²⁴

This comparative analysis led to the discovery of previously undocumented details on the Lenox Globe. For example, I maintain that the low ridge in the North Atlantic on both the ostrich egg globe and the Lenox Globe was intended to represent the line of the Treaty of Tordesillas (at 38°W, 1493) that divided the newly discovered lands in the west between Spain and Portugal.

By far the most important conclusion from my comparison of the Lenox Globe and the ostrich egg globe is that they agree in many minute details (figs. 7 and 8). The agreement between them is in many cases startling: the precise contours of small details on the two globes are often identical. In comparing the images of the Lenox Globe with the ostrich egg globe in conjunction with Prof. Rudolf Schmidt in Vienna, we reached the conclusion that the Lenox Globe is a cast of the ostrich egg globe.²⁵

There are differences between the two globes; however, when carefully considered these differences do not weigh against the suggestion that the Lenox Globe is a cast of the ostrich egg globe. First, the Lenox Globe is quite accurately spherical, while the ostrich egg globe has some irregularities in its shape: these are due to the shrinkage of the egg shells over time. Second, there are differences between the globes at the equator; in particular, the details at the equator on the ostrich egg globe are often poorly defined, while those on the Lenox Globe are sharp. The explanation is that the halves of the Lenox Globe were cast from the halves of the ostrich egg globe

before the two halves of the ostrich egg globe were joined together, and a number of equatorial details on the ostrich egg globe are obscured by the *gommalacca* used to join the halves. Third, at several places on the ostrich egg globe, there are small white accretions in the wave pattern of the oceans, but there are no corresponding protuberances on the Lenox Globe. I believe that this is because these imperfections were removed from the Lenox Globe during its finishing.

I maintain that the Lenox Globe was not engraved, but rather cast from the ostrich egg globe using a very specific and unusual technique. At this period, the usual technique for making a cast of the ostrich egg globe would have been to use a wax inter-model. That is, a plaster of Paris mold in several pieces would have been made of the object, the mold would have been used to make a wax inter-model of the object, and then a cast would have been made from the inter-model using lost-wax casting.²⁶ I believe that a single plaster of Paris mold was made of each half of the

²⁰ I thank Jim Sykes taking these pictures.

²¹ Thanks to Jim Sykes from New York for providing a copy of the letter from Joanne Lynman of the Metropolitan Museum of Art to the New York Public Library, dated June 11, 1984.

²² I thank Dr. Peter Meurer for his comments on my comparison between the Lenox, the ostrich egg globe and the Jagiellonian Globe. Mail from 1 August 2012.

²³ On the Boulengier gores see Gabriel Marcel, "Louis Boulengier d'Albi, astronome, géomètre et géographe," *Bulletin de géographie historique et descriptive* 4 (1889), pp. 163–172; A. E. Nordenskiöld, *Facsimile-Atlas to the Early History of Cartography* (Stockholm: Norstedt, 1889; New York: Dover Publications, 1973), p. 76 and plate XXXVII (1); and Stevenson, *Terrestrial and Celestial Globes*, vol 1, pp 78–79 and fig. 40.

²⁴ See Estreicher, "Globus Biblioteki Jagiellonskiej."

²⁵ This finding was confirmed by the art historian and specialist in metalwork Archduke Dr. Géza von Habsburg on 14 May 2013 during a personal inspection of the Lenox Globe at the NYPL and subsequently of the egg globe in Budapest on 20 May 2013.

²⁶ I thank Mr. Richard E. Stone, former senior conservator, Metropolitan Museum of Art, New York, for his explanatory comments received by mail on 15 October 2012. For a description of casting using an inter-model see his article "Antico and the Development of Bronze Casting in Italy at the End of the Quattrocento," *Metropolitan Museum Journal* 16 (1981), pp. 87–116.



Figure 7. Detail of Taprobana on the Lenox Globe—compare fig. 8. Photo by the New York Public Library/© Rare Book Division, The New York Public Library.

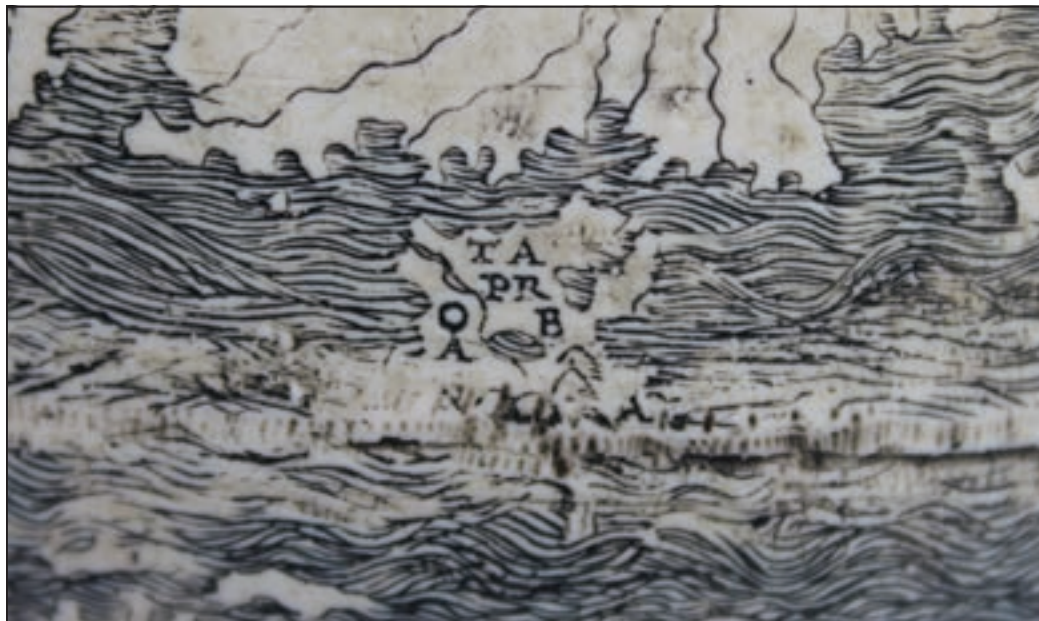


Figure 8. Detail of Taprobana on the ostrich egg globe. Comparison with fig. 7 shows the striking agreement of even the smallest details, and also the distortion along the equator of the ostrich egg globe caused by the joining of the two halves together with *gommalacca*.

ostrich egg globe (rather than using a mold made of several pieces for each half of the globe), and that the Lenox globe was cast directly from these two molds.

The 50% loss of shell density in the ostrich egg globe, as shown by computer tomography, is consistent with the globe having had an original diameter

of approximately 11.4 cm. In direct casting, shrinkage of about 1.5% from model to cast is typical,²⁷ and this

²⁷ See Stone, "Antico and the Development of Bronze Casting," p. 89.

is consistent with the Lenox Globe, which has a diameter of 11.2 cm, being a cast of the ostrich egg globe.

THE GEOGRAPHICAL AND OTHER SOURCES USED TO MAKE THE OSTRICH EGG GLOBE

E. L. Stevenson has remarked that geography on the Lenox globe came from several sources,²⁸ and this is therefore true of the ostrich egg globe, which was the model for the Lenox Globe. The maps in Ptolemy's *Geography* were used in the design of the European, African and Asian parts of the globe, but this was by no means the only source. The shape of Africa on the globes seems to have been influenced by Lusitano-Italian sources.²⁹ Gregory McIntosh during his inspection of the ostrich egg globe³⁰ noted that the shape of Asia, with its large "Tiger-Leg" shaped peninsula jutting south (fig. 4), shows the influence of Henricus Martellus (McIntosh called the peninsula the "Martellean Peninsula"), and the globe also has information from the travels of Marco Polo, clearly showing that the Lenox Globe and the ostrich egg globe had several sources.³¹

For the newly discovered lands in the west, the engraver must have had access to accounts of the travels of Columbus, the Corte-Reals, Cabral, and Amerigo Vespucci.³² It is noteworthy that the globe shows open water south of South America, even before Magellan's circumnavigation of the earth (1520).³³ The South American continent is drawn with its southern point extended to the east; there are other examples of this southern tip curving to the east, and these include the world map of Cantino (c. 1502), the Contarini-Rosselli map (1506), the map of Piri Reis (1513), and the world map by Lopo Homem in the Miller Atlas (1519).³⁴

This bending to the East of the southern tip of South America may have been inspired by an analogy with the southern tip of Africa. For several earlier maps, including maps by Henricus Martellus and also the image of the globe in the famous painting of Democritus and Heraclitus by Bramante (Milan, Pinacoteca di Brera, c. 1477), shows the southernmost tip of Africa which is curved strongly to the East.³⁵ The engraver of the globe—or else a cartographer whose work he was following—may have known one of these maps and used its depiction of southern Africa as inspiration for the southern tip of South America.³⁶

There are 71 names on the ostrich egg globe. Most of them, forty-one or 58%, are on the enlarged Asian continent; thirteen or 18% are on the European continent; eleven or 15% on the African continent; and only three

or 4% including ZIPANCRI (Japan) in the Caribbean area; and three are on South America. The names are listed in the Appendix.³⁷

There are several errors of spelling on the globe. Instead of HISPANIA, we have HISPANIS.³⁸ Unusual also is the name "EN GRON ELPIE APE" which combines two names for Greenland, "Gronland" and "Pilapelant." This latter

²⁸ Stevenson, *Terrestrial and Celestial Globes*, vol. 1, pp. 73–74.

²⁹ Gregory McIntosh is the author of this terminology. I also thank Univ. Prof. Dr. Patricia Seed for her mail of 1 September 2012 and the clarification that the shape of the mouth of the river on the West coast resembles the Casamanca rather than the Gambia River.

³⁰ I thank Gregory McIntosh for his very valuable assessments and advice, November 2012.

³¹ Gregory McIntosh, *The Johann Ruysch and Martin Waldseemüller World Maps: The Interplay and Merging of Early Sixteenth Century New World Cartographies* (Long Beach, CA: Plus Ultra Publishing, 2012), p. 9.

³² Gregory McIntosh, *The Johann Ruysch and Martin Waldseemüller World Maps*, p. 11.

³³ A. E. Nordenskiöld, *Facsimile-Atlas*, p. 226 who quotes Professor Wieser from Innsbruck, who explicitly stated that Portuguese seaman had circumnavigated the southern point of the American continent and then passed a sound not unlike the Strait of Gibraltar.

³⁴ I am grateful to the author and Piri Reis expert Gregory McIntosh for his mail of 21 September 2012.

³⁵ I thank Prof. Dr. Carlo Pedretti for his mail of 1 February 2013 and the bibliographical reference to Ellen Kaplan, "Leonardo's Telltale Legacy: Buckminster Fuller to Jasper Johns," *Achademia Leonardi Vinci* 5 (1992), pp. 143–146, figs. 1–14 and detail of fig. 1 in particular.

³⁶ Dr. Peter Meurer, in a personal conversation on 3 April 2013, suggested that the globe in Bramante's painting may be the lost large terrestrial globe made by Nicolaus Germanus in 1477, which was owned by Pope Julius II.

³⁷ I am grateful to Prof. Dr. Alfred Stückelberger for his mails dated 16 and 17 October 2012 and the bibliographical reference: Alfred Stückelberger et al., eds., *Klaudios Ptolemaios: Handbuch der Geographie* (Basel: Schabe Verlag, 2009), pp. 382–401, which was helpful with the place names from Ptolemy.

³⁸ I thank Univ. Prof. Dr. Agustín Hernando from Barcelona for this remark.

name appears on the map of Scandinavia in 1482 Ulm Ptolemy,³⁹ which is based on the 1427 Claudius Clavus map of that same region.⁴⁰ For the name of the Cape of Good Hope we have C DEBONE SPLRANZA, where it should be SPERANZA. We also have LIBIA INTEROIR instead of LIBIA INTERIOR. The spelling of the word ASSIA with a double “S” is very unusual. I know of only one map where ASSIA is spelled thus, namely the Cantino map of 1502, “PVNTO DE ASSIA” (and of course on the Lenox Globe, which was modeled on the ostrich egg globe). Other spelling errors can be found in the list of place names on the ostrich egg globe in the Appendix.

The names of the Arctic Circle and the Tropic of Cancer are engraved on the ostrich egg globe but the actual parallels are not engraved. On the South American continent there are traces (a fine double line) of engravings forming the parallel of the Tropic of Capricorn. The Equator is neither named nor engraved, but is formed by the joining of the two half spheres.

On the southeastern coast of Asia there is a legend that reads “HIC SVNT DRACONES” (Here there are dragons). This legend sounds like something that would appear on many medieval and Renaissance maps and globes, but in fact it is rare, and the ostrich egg globe and the Lenox Globe are the only two on which it is found.⁴¹

SEARCHING FOR THE MAKER OF THE OSTRICH EGG GLOBE

The Renaissance was a time of major changes and inventions in all fields of the arts and sciences; it was also the Age of Discoveries. In 1488 Bartholomew Dias sailed around the southern tip of Africa into the Indian Ocean, the first European to do so, and in 1492 Columbus discovered new lands in the west, and his discoveries were made public in print in 1493 immediately upon his return.⁴² This expansion of geographical horizons naturally created demand for three-dimensional cartographic representations of the world, i.e. globes. But where was the ostrich egg globe created? There are very good reasons to look to Italy.

First, the strong culture of artistic patronage in Italy created promising conditions for the creation of the ostrich egg globe. The competition among the ruling ducal houses including the Este in Ferrara, the Borgias and Sforzas in Milan, and the Medici in Florence, attracted and supported exceptional artists and created a demand for the unique. There were patrons of art in other European countries, of course, but the environment in Italy seem to have

been particularly favorable for the creation of something as exotic as the ostrich egg globe.

Some of the cartographic evidence on the globe, in particular, points to Italy: the distinctive Asian peninsula comes from Henricus Martellus, and Martellus was working in Florence. In 1500, Florence was the richest city of Europe and the center of power of the Medici family, who were important patrons of the arts. The city was also one of the most important centers of map production. Florence was not only home to Martellus, but also to the cosmographers Paolo Toscanelli, Francesco Berlinghieri, and Francesco Rosselli.

Rosselli attracted my attention because a map that was designed by Giovanni Matteo Contarini and engraved by Rosselli, and printed 1506,⁴³ is quite similar to the ostrich egg globe and the Lenox Globe.⁴⁴ Francesco Rosselli was a well-known engraver and prolific cartographer and is also said to have made globes. Thinking that Rosselli was a candidate for the creator of the ostrich egg globe, I visited the Biblioteca Nazionale Centrale in Florence to compare the calligraphy and other engraved details on his maps with the engraving on the globe, and came to the conclusion that the calligraphy and orthography on the ostrich egg globe is very different from those on Rosselli’s maps.

³⁹ The inventory of Leonardo’s books (Codice Madrid II f. 3r) indicates that he owned Ptolemy’s *Cosmographia*, but does not give a date or city of publication.

⁴⁰ I thank Dir. Henrik Dupont from the Royal Danish Library for this mail from 26 September 2012.

⁴¹ The legend about dragons is discussed by Erin C. Blake, “Where Be Dragons?” *Mercator’s World* 4.4 (July, 1999), p. 80.

⁴² Columbus’s letter describing his discoveries on his first voyage was first published in Barcelona in 1493 in an edition that lacks title and colophon; and next in Rome under the title *Epistola Christofori Colom... de insulis Indie supra Gangem nuper inventis* (Rome: Stephan Planck, 1493). The Basel edition of the same year includes illustrations which are reproduced in Kenneth Nebenzahl, *Atlas of Columbus* (Chicago: Rand McNally, 1990), p. 29.

⁴³ Contarini’s map is illustrated in Nebenzahl’s *Atlas of Columbus*, pp. 45–47, and reproduced in facsimile with commentary in *A Map of the World, Designed by Gio. Matteo Contarini, Engraved by Fran. Roselli 1506* (London: Printed by Order of the Trustees, Sold at the British Museum, 1926).

⁴⁴ I thank Peter Barber for this comment while personally viewing the ostrich egg globe on 10 September 2012.

Thus Rosselli cannot be accepted as the creator of the ostrich egg globe.

POSSIBLE LINKS WITH THE WORKSHOP OF LEONARDO DA VINCI

I would like to argue that influence from the workshop of Leonardo da Vinci played a role in the creation of the ostrich egg globe. Among his many talents, Leonardo was an accomplished cartographer.⁴⁵ Most of his surviving maps, which are painted, are local maps, for example his maps of the city of Imola (made in 1502), the Chiana Valley (1502), and of the coast south of Rome (1515). A world map in gores, dated to the early sixteenth century, has been attributed to Leonardo simply because it was found among papers written in Leonardo's hand in Windsor Castle.⁴⁶ I concur with scholars such as Girolamo d'Adda who have concluded that this map cannot be by Leonardo,⁴⁷ in particular because the handwriting on it is so different from Leonardo's. However, I will show that this map was produced with some influence from Leonardo's workshop, and it will be of value in suggesting that the ostrich egg globe was also made with influence from Leonardo's workshop.

As Enrico Carusi has noted, a close connection between the map-in-gores at Windsor and Leonardo's workshop is established by sketches on two folios of Leonardo's Codex Atlanticus in the Biblioteca Ambrosiana in Milan, specifically folios 521r (fig. 9) and 757r.⁴⁸ Both of these folios show sets of four equilateral triangles used to cover part of a sphere, exactly as is done in the Windsor map.⁴⁹ Further, in Manuscript G in the Bibliothèque de l'Institut de France, f. 68v, Leonardo draws an equilateral triangle and writes: *a b c triangulo vale l'ottavo della superfizie d'una sfera*, "The triangle a-b-c is 1/8 of the surface of a sphere."

This type of globe gore is very unusual. Typical globe gores are what we may call (with respect to the system sketched by Leonardo) "long gores," as they stretch from the North Pole to the South Pole, rather than being divided at the equator. E. L. Stevenson, in discussing the Windsor map, and without being aware of the drawings in the Codex Atlanticus, notes that this type of gore was never made by any other mapmaker:

As there was much inclination among map makers to experimentation in the matter of map projection so there was an inclination to experiment, as the years passed, in the matter of design for the globe gores. In the so-called Da Vinci gores one finds them drawn in two

groups of four each, and instead of the globe bi-angle there is the globe equilateral triangle. Their application to a spherical surface could only have been made with difficulty, if at all; indeed one cannot be certain that in so outlining a map of the world the draughtsman's intention was to use it in globe construction. The plan seems to have never been followed by any other map makers, or by any other globe maker. We find an interestingly early instance in which the gore map construction was clearly employed

⁴⁵ See Andrea Cantile, "Leonardo genio e cartografo," and L. Rombai, "Le opere cartografiche di Leonardo," in Andrea Cantile, ed., *Leonardo genio e cartografo: la rappresentazione del territorio tra scienza e arte* (Firenze: Istituto Geografico Militare, 2003), pp. 299–341 and pp. 350–371, respectively; Carlo Starnazzi, *Leonardo cartografo* (Florence: Istituto Geografico Militare, 2003); and Carlo Starnazzi, "The Maps of Leonardo," in his *Leonardo from Tuscany to the Loire* (Foligno: Cartei & Bianchi Publishers, 2008), pp. 55–73.

⁴⁶ Richard H. Major, "Mémorial on a Mappemonde by Leonardo da Vinci," *Archaeologia* 40 (1866), pp. 1–40, reprinted in *Acta Cartographica* 24 (1976), pp. 315–50; and Richard Uhdén, "Die Echtheit der Weltkarte des Leonardo da Vinci," *Comptes rendus du Congrès international de géographie, Amsterdam, 1938* (Leiden: E. J. Brill, 1938), vol. 2, part 4, pp. 48–54.

⁴⁷ Girolamo d'Adda, "Leonardo da Vinci e la cosmografia," *La Perseveranza* 7 (1870).

⁴⁸ Enrico Carusi, "Quel che c'è di Leonardo nel mappamondo a lui attribuito," in Mario Baratta, ed., *I disegni geografici di Leonardo da Vinci conservati nel Castello di Windsor, fascicolo unico* (Rome: La Libreria dello stato, 1941), Appendix 3, pp. 27–34; Carusi's conclusions are cited by Dawson Kiang, "The 'mappamondo' in Bramante's *Heraclitus and Democritus*," *Achademia Leonardi Vinci: Journal of Leonardo Studies and Bibliography of Vinciana* 5 (1992), pp. 128–135, at 130.

⁴⁹ These folios were drawn in about 1490, and thus these gores are almost two decades older than Martin Waldseemüller's gores for his globe of 1507. The late J. P. Snyder referred to Leonardo in *The History of Cartography* (Chicago: University of Chicago Press, 1987–), Volume 3, *Cartography in the Age of Renaissance and Discovery*, Part 1, Map Projections in the Renaissance, p. 374. Also see Austria Press Agency, "The Oldest Globe Gores in the World Discovered in the Codex Atlanticus of Leonardo da Vinci," press announcement dated 20 February 2013. For discussion of evidence for globes made in the fifteenth century, see Patrick Gautier Dalché, "Avant Behaim: les globes terrestres au XVe siècle," *Médiévales* 58 (2010), pp. 43–61.

merely as a method for plane map making, a method having certain very commendable features.⁵⁰

The uniqueness of this type of gores renders it essentially certain that the Windsor map was inspired by Leonardo's ideas and designs. In addition, this type of gore is extremely well suited to the transfer of map details onto the half spheres of a globe made of two hemispheres, as the ostrich egg globe is. In fact if gores were used in the creation of the ostrich egg globe, it seems very likely indeed that these Leonardo-style gores were used to transfer cartographic data to the halves of the ostrich egg globe. For the more usual long gores to have been used, the two egg shell halves would need to have been joined together first, which would have marred the details around the equator, and that marbling would be evident on the Lenox Globe, but the equatorial details on the Lenox Globe are perfectly clear.

In addition, as Henry Harrisse remarks, the depictions of the New World on the gore-map erroneously attributed to Leonardo and the Lenox Globe (and hence on the ostrich egg globe) are similar, and "seem to be derived from the same prototype."⁵¹ As the evidence is strong that the gore-map was produced with some influence from Leonardo's workshop, it is likely that the ostrich egg globe was as well.

I would also like to note some iconographical evidence that connects the globe with Leonardo's circle. In the ocean south of Asia there is a large sailing ship, a square rigged carrack with one mast (fig. 10). I looked in the recent book of René Tebel, *Das Schiff im Kartenbild des Mittelalters und der frühen Neuzeit: kartographische Zeugnisse aus sieben Jahrhunderten als maritimhistorische Bildquellen* (Bremerhaven: Océaneum, 2012) for images of similar ships on maps, but could not find exactly the same ship as on the egg globe. But I did find a similar image in another source. During a visit to the offices of the publisher Il Bulino in Modena,⁵² I saw their facsimile of the manuscript in the Biblioteca Estense Universitaria of Modena known as *De sphaera* (signature: $\alpha.X.2.14=Lat. 209$), a beautifully illustrated manuscript of sixteen folios made around 1470.⁵³ On f. 2v of this manuscript there is a handsome illustration of a carrack (fig. 11) that is very similar to that on the ostrich egg globe. The miniatures in the manuscript are attributed to Cristoforo de Predis (1440–1486),⁵⁴ who knew Leonardo da Vinci well: Cristoforo was mute, and some of Leonardo's writings about mutes are thought to be the result of his acquaintance with Cristoforo.⁵⁵ Moreover, Leonardo was commissioned to guild the Immaculate Conception Altarpiece

in Milan with Ambrogio and Evangelista de Predis, sons of Cristoforo,⁵⁶ during which time Leonardo stayed with the brothers,⁵⁷ and Ambrogio and Leonardo co-authored a petition to Duke Ludovico Sforza.⁵⁸

There does not seem to be enough evidence, however, to establish any closer link between Leonardo and the ostrich egg globe. In Leonardo's voluminous surviving writings, there is no reference to the recent discoveries in Asia and the New World.⁵⁹ Although he was a man

⁵⁰ Stevenson, *Terrestrial and Celestial Globes*, vol. 2, p. 205.

⁵¹ Henry Harrisse, *The Discovery of North America* (London: H. Stevens, 1892; Amsterdam: N. Israel, 1961), pp. 470–471.

⁵² I thank Messrs. Mauro and Roberto Bini of Il Bulino for their help.

⁵³ The facsimile is titled *Sphaerae coelestis et planetarum descriptio (De sphaera) del sec. XV (1470 ca.): conservato alla Biblioteca estense di Modena* (Modena: Il Bulino, 1995); the accompanying volume of commentary, edited by Gianni Venturi, is titled *De sphaera: commentario all'edizione in facsimile del codice miniato $\alpha.X.2.14 = lat. 209$ della Biblioteca estense universitaria di Modena* (Modena: Il Bulino, 2010).

⁵⁴ See the study by Gianni Venture, "Alcune ipotesi di lettura del 'De Sphaera'," in the commentary volume just cited, pp. 13–48, at 16–22.

⁵⁵ See Nicholas Mirzoeff, *Silent Poetry: Deafness, Sign, and Visual Culture in Modern France* (Princeton, NJ: Princeton University Press, 1995), p. 13.

⁵⁶ Luca Beltrami, *Documenti e memorie riguardanti la vita e le opere di Leonardo da Vinci: in ordine cronologico* (Milan: Fratelli Treves, 1919), pp. 5–6, 12–20, 73–74, 102–107, and 124–127.

⁵⁷ See Francesco Malaguzzi Valeri, *La corte di Lodovico il Moro* (Milan: U. Hoepli, 1913–1923), vol. 3, p. 6.

⁵⁸ Emilio Motta, "Ambrogio Preda e Leonardo da Vinci (nuovo documenti)," *Archivio Storico Lombardo* 11 (1893), pp. 972–996; Woldemar von Seidlitz, "Ambrogio Preda und Leonardo da Vinci," *Jahrbuch der Kunsthistorischen Sammlungen des Allerhöchsten Kaiserhauses* 26.1 (1906), pp. 1–48. Also see Janice Shell, "Ambrogio de Predis," in David Alan Brown, ed., *The Legacy of Leonardo: Painters in Lombardy 1490–1530* (Milan: Skira Editore, 1998), pp. 123–130.

⁵⁹ Roberto Almagià, "Leonardo da Vinci geografo e cartografo," in *Atti del Convegno di Studi Vinciani: indetto dalla Unione regionale delle province toscane e dalle Università di Firenze, Pisa e Siena: Firenze-Pisa-Siena, 15–18 gennaio 1953* (Florence: L. S. Olschki, 1953), pp. 451–465.

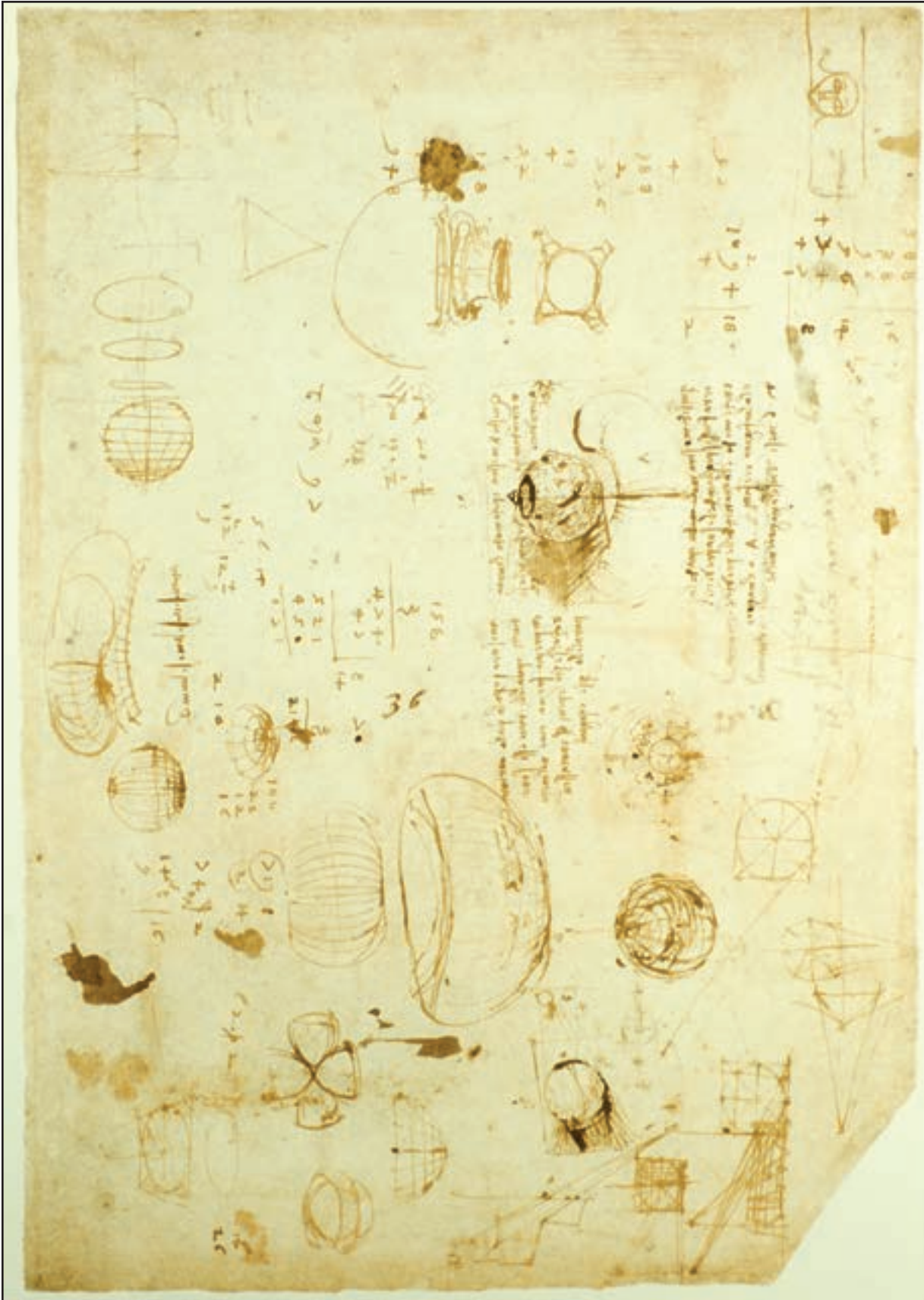


Figure 9. Leonardo da Vinci, Codex Atlanticus f. 521r, showing some of Leonardo's sketches of projections onto globes and his distinctive triangular globe gores. © Veneranda Biblioteca Ambrosiana – Milano/De Agostini Picture Library. Used with permission.



Figure 10. Detail of a ship in the eastern Indian Ocean on the egg globe.

of many talents, we have no evidence that Leonardo had done any engraving, and the ostrich egg globe was engraved by an artist skilled and experienced in that technique. In addition, the dynamic style in which water is depicted on the ostrich egg globe is totally different from that on any of the maps that we know Leonardo made. Leonardo was a very accomplished caster,⁶⁰ but then so were many other artists in Renaissance Italy, and there is no evidence that would connect Leonardo with the casting of the Lenox Globe from the ostrich egg globe.

CONCLUSIONS

I date the ostrich egg globe to c. 1504; as it was the model of the Lenox Globe, it certainly pre-dates that globe, and is the earliest surviving engraved globe, and the earliest surviving post-Columbian globe. Although the cartography of the ostrich egg globe was already familiar to historians from the Lenox Globe, the ostrich egg globe sheds essential new light on the genesis of the Lenox Globe

as a casting rather than as an engraved globe. There is intriguing evidence that the creator of the ostrich egg globe drew inspiration from the workshop of Leonardo da Vinci, and this evidence merits further investigation. Both the ostrich egg globe and the NYPL's Lenox Globe are rare and precious treasures of world cartographic history.

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⁶⁰ In fact in the *Codex Atlanticus*, f. 874r, in a passage dated January 2, 1496, Leonardo draws a sketch plan in two sections of a mold for the casting of two half spheres.



Figure 11. Detail from the ship in the manuscript known as *De Sphaera*, made in about 1470 and attributed to Cristoforo de Predis. „Su concessione del Ministero per i Beni e le Attività Culturali“. Used with permission of the Biblioteca Estense Universitaria di Modena.

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ABOUT THE AUTHOR

Stefaan Missinne, PhD, is a Belgian resident in Austria. He received his PhD in Economic and Social Sciences from the University of Economics in Vienna in 1990. He is Laureate of the Royal Prince Albert Society. By profession, he is a Real Estate Project Developer, based in Austria. Having spent many years abroad, including the USA (AFS), Latin America and Asia, he has been collecting art, including old maps, ancient globes and art chamber objects. He speaks several languages including Dutch, French, English, German, Spanish and Italian. As representative of IMCoS (the International Map Collectors Society) in Austria, he organized the IMCoS 2012 annual symposium in Vienna. He is a member of the WMS, Coronelli Society and BIMCC. He is the author of "Ivory Globes. Distinguishing Elephant Ivory from Calcium Carbonate, or distinguishing the real from the fake," in the IMCoS Journal Nr 79, Winter 1999 pp. 25–28. He is also the author of the article on the silver globe of King James II (c 1695), Issue 83 (Spring 2012) of The Portolan.

PORTOLAN EDITOR'S NOTE: *The owner of the globe is known to the editor of The Portolan. The Editor wishes to thank the unnamed members of the journal's Editorial Review Board, who closely read the paper and offered substantive comments. The Editor also acknowledges and thanks the anonymous guest editor who performed an exhaustive peer review and fact-checking of the author's paper.*

APPENDIX: PLACE NAMES ON THE OSTRICH EGG GLOBE

(The usual spelling is noted in parentheses, and in a few cases the English version is supplied)

In Asia: SARMATIA TRA IMAVM ASIATICA, SARMATIA, ALBANIA (Azerbaijan), ARMENIA, ASIA MINOR, IVDAE, SIRIA (Syria), PERSIA (Persia), ARABIA FELIX, MESOPOTANIA (Mesopotamia), PARTHIA, BABYLONIA, BACTRIANA, SCHITIAIN ESPESIL, TRALMAVM, SACHARVM REGIO (the region of the Sacae, mentioned by Ptolemy

and Pliny), CARMRNTA (Carmania = wine region referred to by Marco Polo), CALIQVT (port city in India not to be confused with Calcutta), TROPICVS CANCRI, INDVS, INDIA INTRA CANCEM (Intra Ganges), SCHITIA EXTRALAMVM (Scythia extra Imaun), CIRCVLVSARTICVS (Arctic Circle), SERICA REGIO, GARIENI,⁶¹ INDIA EXTRA (India extra Ganges), ASSIA (Asia), SINARVM REGIO, CACOBATE,⁶² INDIA SVPERIOR, GENGEM FLVIVM (Ganges Fluvius), SIMARVM SIT[VS] (i.e. Sinarum situs), INDIA DESERTA, INDIA ORIENTALIS, HIC SVNT DRACONES, MOABIA REGNO (Maabar, Kingdom of the Malays), VARP R (i.e. Varr Regnum, from Marco Polo), LOAC PROVINCIA (Marco Polo's Locac, on the eastern side of the Malay Peninsula).

Named Islands in Asia: MADAGASCAR,⁶³ CIRTENA, SEILAN, TAPROBANA.

In Europe: GALLIA, GERMANIA, SCOTIA, ANGLYA, ITALIA, HISPANIS, EN GRON ELPIE APE, DATIE, RVSIEA TANAIES, EVROPA, CRECIA (Greece), SARMATIA.

In Africa: ZAMOR, MACVSI (Machusier in Mauritania), GETVLIA, (Gaetulia) LIBIA DESERTA, AFERICA (Africa), C VERDE (Cabo Verde, Cape Verde), R. GRADE (Rio Grande), LIBIA INTEROIR (Libya Interior), PALVDES NIL, MEROVE INSVLA (Meroe), EGYPVTS (Egypt), C DEBONE SPLRANZA (Cabo de Bona Esperanza = Cape of Good Hope, discovered by Bartholomew Diaz in 1487).

In South America: TERRA DE BRAZIL, MVNDVS NOVVS, TERRA SANCTAE CRVSIS.

In the Caribbean: ISABEL, SPAGNOLLA, ZIPANCRI (i.e. Zipangri, Japan).

⁶¹ GARIENI comes from Garinaioi, lat. Garinei, near the *Serica regio* and the *Anubii montes* on Ptolemy's VIII Tabula Asiae, mentioned in Ptolemy *Geography* VI 16.5. We thank Univ. Prof. Emir. Dr. Folker Reichert, University of Stuttgart, for this identification.

⁶² CACOBATE comes from Cacobae (Kakobai). Ptolemy, VIII Tabula Asiae, mentioned in Ptolemy *Geography* VI 16.5. We thank Univ. Prof. Emir. Dr. Folker Reichert, University of Stuttgart, for this identification.

⁶³ Madagascar was first mentioned in European literature by Marco Polo.



Columbus and the Quest for Jerusalem

by Carol Delaney

On October 11th, 1492, 520 years ago, three small wooden ships had been sailing for 33 days—across an ocean that had never been crossed. The crew was restless and complaining. They thought maybe Columbus was mad and that they would never reach land. They even contemplated throwing him overboard so they could turn around. Just in time they began to see signs that land was not far. Late on October 11th, when a sailor on the *Pinta* called out that he saw a light, Columbus quickly ordered the crew to take down the sails and jog back and forth until daylight. Surely a night like no other.

Let us keep that suspense while I provide some background. Never did I imagine I would write a book about Columbus. I knew very little about him beyond “in 1492 he sailed the ocean blue.” Even the Quincentennial passed me by! That may have been a good thing since I was not exposed to the acrimonious debates that coalesced around that event.

When I began, I didn’t know he had two sons, I didn’t know he had made four voyages, and that he was returned from one of them in chains. (Figure 1) He was simply not on my radar. Not until the fall of 1999 did I tune in. I was teaching a course at Stanford University called “Millennial Fever. The purpose was to observe the frenzy that gripped the United States over the approach of the millennium and to study the history of apocalyptic, millennial thinking. In one of the readings for the course I came across a brief reference to Columbus’s apocalyptic beliefs. I had never heard of them, and neither had anyone else I asked. Thus began my quest.

I am a cultural anthropologist, not an historian, medievalist, or cartographer. But if “the past is another country” as the common saying goes, it seemed that I could visit it. I had a lot of ground to cover—fifteenth-century Europe, especially about what are today, Italy, Spain and Portugal, but also about medieval Christianity, the crusades, the plague, about ships and navigation, methods of sending letters, food and drink, clothing and court protocol. But, the more I read *about* Columbus, the more

I became dissatisfied. Most commentators have tended to portray him as if he were our moral and mental contemporary, as if only his clothes or his ships were different from ours. Some even want to view him as the first modern man persuaded more by science than religion. Medieval Christianity was often portrayed as merely a belief system he could choose rather than the world that enveloped him. Most scholars have tended to ignore his religious motivation. Yet, the years of becoming acquainted with Columbus or, as my agent told me, “sleeping with Columbus,” have convinced me that we must consider how the cultural and religious beliefs of his time colored the way he thought and acted.

Columbus lived in a Christian, Catholic world that encompassed his life. For Christians at the time, the concept of *a* religion—one among others, and each with a name, e.g. Christianity, Judaism, Buddhism, Islam, Hinduism—simply did not exist. Indeed, attaching “ism” to some of them was a late nineteenth-century invention. For Columbus and his milieu, the Christian way of life and view of the world was the one and only true way. From this perspective, the Jewish way or the Muslim way could only be considered false.

Later, in regard to the natives he met, Columbus claimed they had no *secta*. Unfortunately, this has usually been *mis*-translated as religion, thus meaning “they had no religion”—a negative evaluation. Instead, it was a positive one because, unlike Jews and Muslims, they would not have to be weaned away from their false beliefs. He thought they were already natural Christians for “they love their neighbors as themselves, and they have the sweetest speech in the world and they are always laughing,” and he wrote “they would become good Christians very quickly because they are of very good understanding.”

The Christian faith was not just a moral guide to life; it also incorporated a world view. Let me begin with the most basic coordinates of space and time. Columbus lived in a geo-centric world. The earth was at the center of the universe, around which the sun, the moon, and

the stars rotated in separate spheres. It was a much cozier place than the world we live in with its light years and expanding universe. If it is difficult to imagine what it was like to live in Columbus's world, the following passage should help. It was written by his friend, the priest Andres Bernaldez:

In the name of God Almighty. There was a man of Genoa whom they call Christoval Colon, a man of very high intellect without much book learning, very skillful in the art of Cosmography and the divisions of the world; who perceived, by what he read and by his own discernment, how and in what wise is formed the world into which we are born and in which we move. This he places within the sphere of the heavens, so that it touches them on no side, nor has aught of firmness to rest upon, but is only earth and water globed by heat within the hollow vault of the sky.

The earth itself was not only at the center of the universe, it was held in God's embrace as a number of *mappae mundi* portray. These maps were not meant to accurately represent the physical world; instead they were a form of religious education—a topography of faith—pointing out places of religious-historical significance. In addition, the world was believed to be composed of only three parts—Europe, Africa, and Asia—felt to be populated by the Descendants of the three sons of Noah—Japheth, Ham, and Shem—after the flood.

The notion of a three-part world was schematically represented in what are called T-O maps—where the O represents the round world and the T the rivers and sea that trisect it—the Nile, the Don, and the Mediterranean. (Figure 2). Jerusalem was assumed, if not always depicted, to be at the center, at the place where the three parts met. (Figure 3). It was sacred not only because it was the place where Jesus had walked and preached and been crucified, but also where he would return to judge the “quick and the dead” before the end of the world.

As space was circumscribed so, too, was time. Medieval Christians knew that the earth's existence was limited to seven millennia—one millennium representing each day of Creation, but they did not know when that time was up. (Figure 4). Turbulent events experienced over several centuries were seen as signs that the end was fast approaching. As Jesus had warned:

Nation shall rise against nation, and kingdom against kingdom: And great earthquakes shall be in diverse places, and famines, and pestilences; and fearful sights and great signs shall there be from heaven. (Luke 21:10–11)

There had been numerous wars, Europe had just endured years of famine and then been decimated by “The Great Pestilence,” later called “The Black Death.” In addition, the Schism within the *Latin* Church when there were two popes—one in Avignon and one in Rome—was taken as another sign. Pierre d'Ailly, whose work Columbus avidly read and annotated, wrote a treatise about this schism as one of the signs.

Then, to top it all, in 1453—two years after Columbus was born—Constantinople fell to the Muslims. Islam was in the ascendant, Christendom was under siege. In 1460, Pope Pius II mounted a new crusade. Columbus would have been nine when he witnessed the departure of the fleet from Genoa—surely a sight to impress a young boy.

The mood was apocalyptic—how much time was left before the End? In two places that we know of, Columbus tried to figure this out. In 1481, thus more than a decade before the first voyage, he had already tackled the problem. At the time he was living with his wife and son Diego on the island Porto Santo in the Madeiras and had the help of Franciscans at a nearby monastery. Like those before and after him, Columbus used the well-known practice of biblical genealogies, the years recorded in the Old Testament up to the birth of Jesus and then all the years until the current date of 1481 to reckon the number of years that had already passed. Then all he had to do was subtract that number from 7,000, and come up with the number of years left. He left his calculations on an empty page in his copy of a book by Aeneas Piccolomini, who became Pope Pius II. I detail his calculations in *my* book, but here I can only say that he figured there were 1,759 years left; plenty of time to complete the necessary tasks. First, all peoples had to be evangelized and hopefully converted so they would not burn in hell. [This had become more urgent since 1442 with the reinforcement of a papal bull that proclaimed “there is no salvation outside the church.”] Second, Jerusalem had to be in Christian hands so that the temple could be rebuilt, for that is where Jesus was to return in Judgment.

Later, however, he recalculated and decided there were only 155 years left. Regardless, he knew that in order

to retake Jerusalem, a new crusade would have to be mounted, and that would require a great deal of money. Columbus began to see his mission as crucial to this project; he would obtain the gold and spices from the East to finance the crusade. But how?

With the fall of Constantinople the overland trade route to the riches of the east and the pilgrimage route to Jerusalem were closed to Europeans. Another way had to be found. At the time, most Europeans thought that the only possible ocean route to the East was around the horn of Africa and into the Indian Ocean. But Columbus had a different, radical idea—to sail West to reach the East.

The idea was not original with him. Marco Polo's descriptions of the vast extent of the Asian landmass meant that the distance between Europe and Asia [across the ocean] was small. Columbus may also have seen a map like that of Behaim. Of course, no one at the time knew of the huge continent that stood in the way.

In 1477, on a voyage north, Columbus stopped in Ireland where he saw two frozen bodies with Asian facial characteristics. He assumed they had floated from Asia and took that as further evidence the ocean was narrow. He wrote of this in the margin of the same book by Piccolomini [Pope Pius II] as he had written his calculations about the end of the world. But perhaps the most important information in support of his argument came from a copy he had obtained of a letter written in 1475 by a Florentine mathematician named Toscanelli to King Alfonso of Portugal, claiming

that a westward voyage would be shorter than the one which you are pursuing by way of Guinea... Do not marvel at my calling "west" the regions where the spices grow although they are commonly called "east;" because whoever sails westward will always find those lands in the west, while the one who goes overland to the east will always find the same lands in the east.

Columbus hoped that the new king, Alfonso's son Joao, would be persuaded to try the new route, but he rejected it preferring the more conservative plan to round the horn of Africa. Columbus was distraught, but didn't give up.

Soon thereafter, he left for Castile with his 4 year old son Diego, as his wife had died. They landed at Palos de la Frontera from where, 7 years later, the first voyage

would depart. They stayed at the Franciscan monastery of La Rabida, where Columbus discussed his plans with the monks, one of whom arranged his meeting with Queen Isabella sometime in 1485. She was taken with the plan, but her advisors for not.

The narrowness of the Western Ocean was a major part of Columbus's argument for the voyage, and he quoted a passage from Esdras that claimed the earth was mostly land and only 1/7th was water. But the commission resorted to the canonical view of St. Augustine who believed that the globe consisted mostly of water, and so rejected Columbus's proposal. Columbus was on the road to petition the French king when Isabella called him back and decided, against the commission to support the voyage.

Columbus's plan was not *only* to sail west to reach the east, "by which route we do not know for certain that anyone previously has passed," his destination was Cathay, in what is now China. There, he expected to meet the Grand Khan about whom he had read in Marco Polo's travels, and to set up an outpost to *trade* for the gold and spices Polo had depicted. He also hoped to convince the Grand Khan to march on Jerusalem from the east when Europeans marched from the west. There was no intention of conquest or enslavement, nor could there be seeing as the Khan's empire was the largest and most luxurious in the world. Columbus carried letters from the Spanish sovereigns to him to other princes he might meet.

On August 3, 1492, ninety men and the three small ships were ready to sail. Although most people knew the world was round, some were still apprehensive since no one had proved it. On some maps, at the edges of the known world—"there be dragons." The crew might have been nervous as well about monsters thought to inhabit some of the islands they might encounter, but Columbus was not so credulous. All sailors were familiar with portolan charts which they used in the Mediterranean and along the European and African coasts, but there were none for an uncharted ocean.

Columbus followed his instincts [and the knowledge he had picked up sailing in the Mediterranean and along the Atlantic coast] and used only a compass, the sun, and the Pole star for direction. Their method of calculating their distance each day was done by the very crude method of Dead Reckoning. Although he had a quadrant he rarely used it and, on a rolling ship, it was not reliable.

After a lengthy stop in the Canaries to fix the rudder and change sails they headed out into the unknown and

set the route that would be used by sailors until the present, making that crossing in 33 days.

Let us now return to the night of October 11. After a sleepless night, their vigil was rewarded. Early on the morning of October 12th, a veil of mist opened and revealed "an island about fifteen leagues in length, very level, full of green trees and abounding in springs with a large lagoon in the middle." The men rubbed their bleary eyes, suspicious that Columbus had conjured it. He named the island San Salvador for their salvation. Soon people came swimming to the ships carrying gifts of parrots and cotton balls and a brisk trade took place. Columbus wrote that they "go naked as their mother's bore them....they are very well formed, with handsome bodies and good faces."

But because they were not dressed in the luxurious silks Polo had described, nor did their houses resemble the sumptuous palaces embellished with gold that he had expected, Columbus assumed this must be one of the islands Marco Polo had said lay off the Asian coast. So, after only a few days, they pressed on passing more islands. At Cuba, they had to abandon their explorations west due to bad weather. Turning east, they arrived at the island he named Hispaniola.

He also thought that it might be Cipango [today's Japan]. Later, he would think it was the biblical Ophir where Solomon had mined gold to gild the temple in Jerusalem and thought how wonderful it would be to obtain the same gold for the new temple. As they sailed east along the north coast of Hispaniola Columbus received an invitation from a local cacique to visit his village. They arrived around 11 o'clock on a starry Christmas Eve, 1492. Columbus went to get some sleep because he had been up for two days and two nights. The sailor keeping watch, seeing that the sea was "as smooth as water in a bowl" left the tiller in the hands of a ship's boy [something Columbus had always forbidden] and *also* went off to sleep.

Toward morning, Columbus felt a jolt as the *Santa Maria* went aground. Realizing that it was impossible to dislodge her, he and the crew, with the help of the natives from the nearby village, unloaded all their supplies. Later that night, he retreated to the listing deck of the flagship and wrote one of the longest of all his diary entries from that voyage. Believing that the shipwreck, on Christmas Day, was a sign from God that his mission was ordained, Columbus christened the nascent settlement *Navidad* in recognition of its birth from the body

of the *Santa Maria*. Then, addressing the Spanish sovereigns, he promised that when he returned he would

find a barrel of gold that those who were left behind would have acquired by *exchange*; and that they would have found the gold mine and the spicery, and those things in such quantity that the sovereigns, before three years are over, will undertake and prepare to go conquer the Holy Sepulchre; for thus I urged Your Highnesses to spend all the profits of this my enterprise on the conquest of Jerusalem.

The very phrase "for thus I urged" indicates that they had already spoken about this goal, because Columbus would not have had the audacity to spring it on them in this way. In any case, he added that they had agreed, and had said "that even without this profit they had that desire."

This was not the only time or place that Columbus expressed that goal. Later, however, he upped the number of years from three to seven that it would take to amass the amount of gold.

I had never heard about this goal, nor had anyone else I asked. Naturally, one of my questions was: *Why* has the religious purpose of Columbus's voyage been ignored for so long? One answer was voiced more than twenty-five years ago by historian Leonard Sweet who remarked that:

scholars most interested in millennialism have largely ignored Columbus, and those scholars most interested in Columbus have skipped over his millennialism.

To delve into it, he said, would mean taking

a medieval journey into mysticism, dreams, visions, poetry, monasticism, crusading ideology, prophecies, messianic illusions, apocalypticism, and millennialism

Clearly, a journey few academics wanted to take. But I had already taken a degree from Harvard Divinity School—[I should add that it was an academic not a ministerial degree] before I did anthropology, so I was intrigued.

Columbus was a devout Catholic, and partial to the Franciscans who were the ones most involved in spreading the word of the impending Apocalypse. People at the time

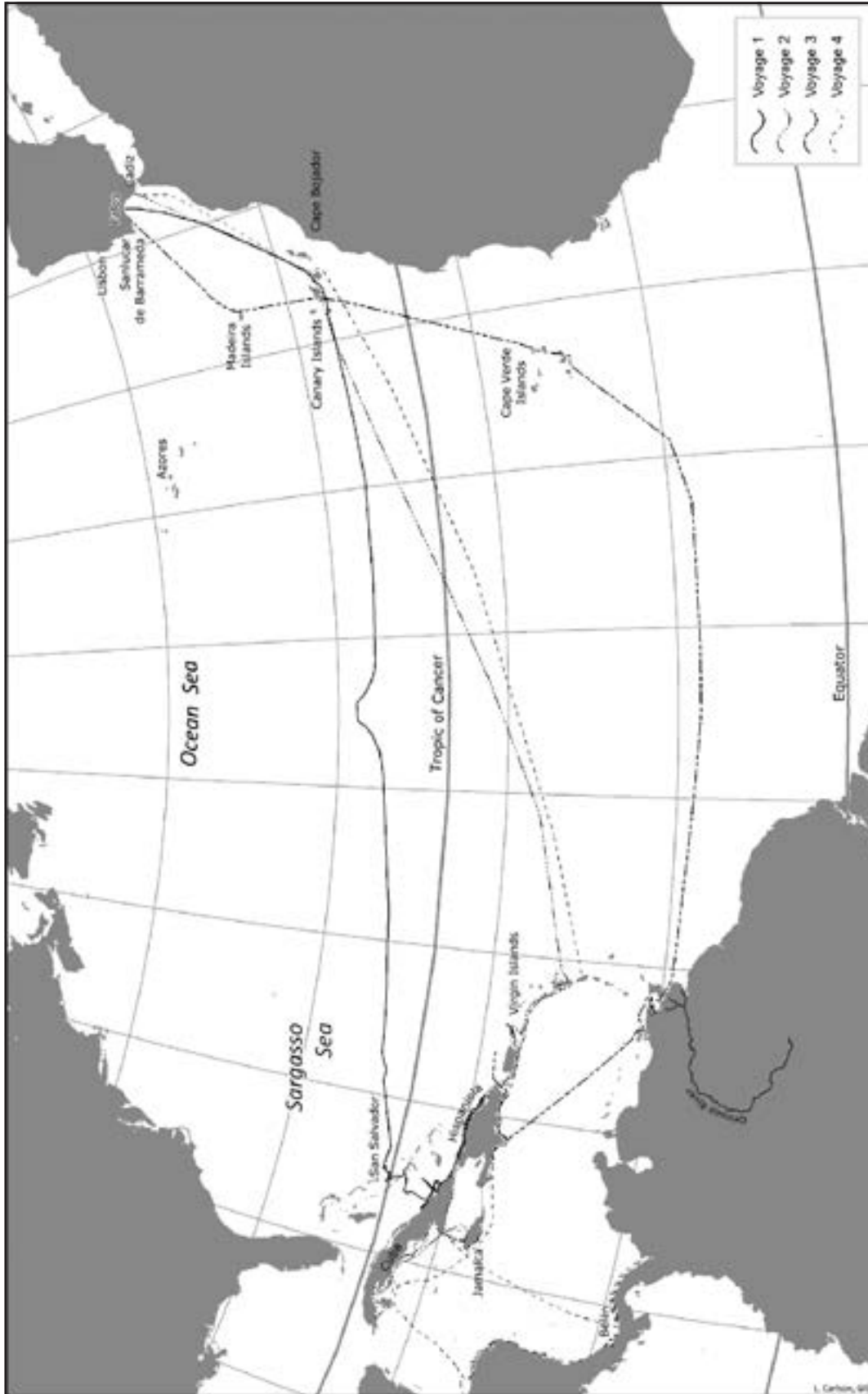


Figure 1. Map of the Four Voyages of Columbus. Prepared by Lynn Carlson, GISP.



Original in the John Carter Brown Library

Figure 2. T-O map, 448–1, Lilio, Zaccaria, *In hoc uolumine continentur hi libri*, Florence 1496. Courtesy of the John Carter Brown Library at Brown University.

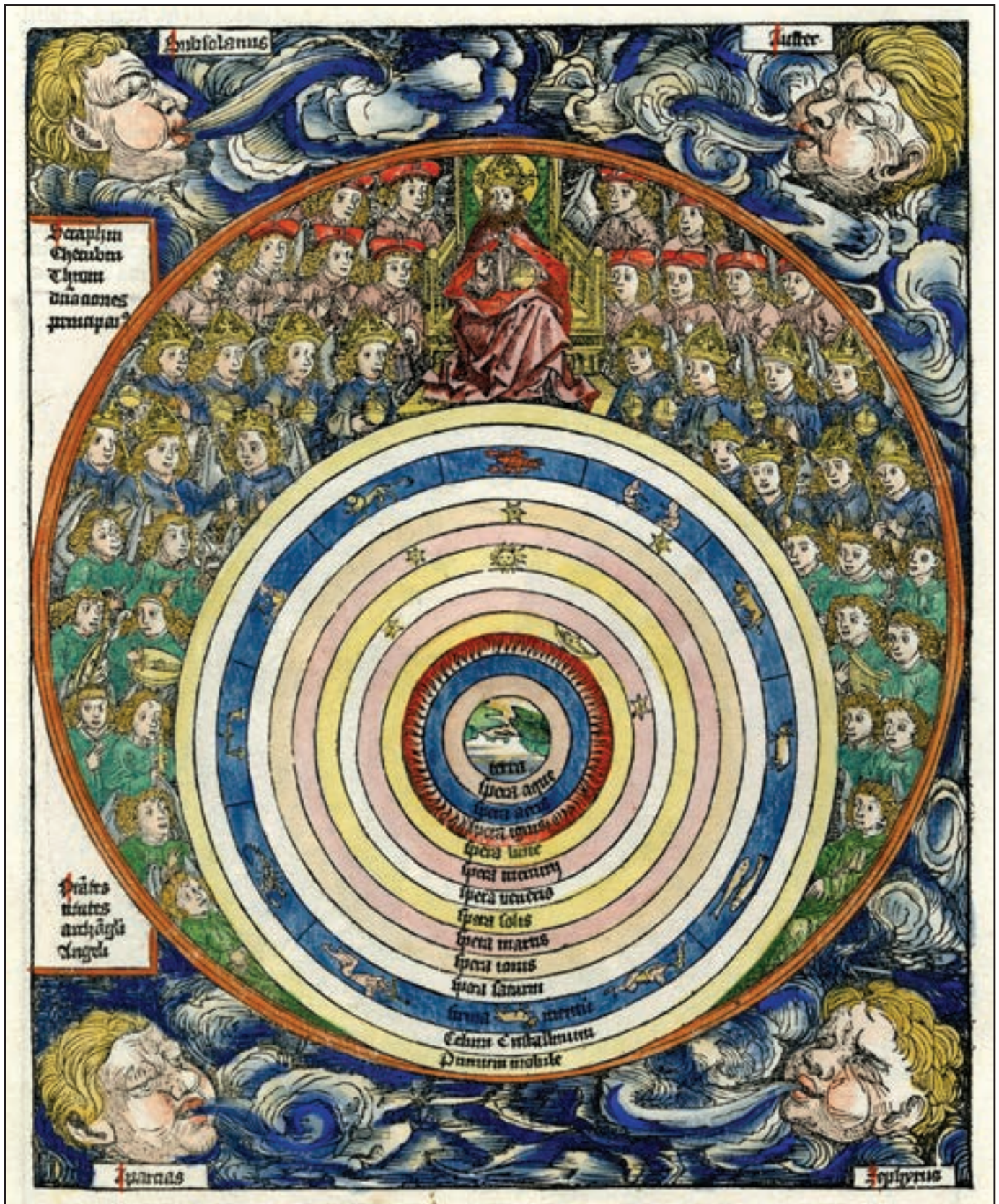


Figure 4. Creation: *Liber chronicarum* (1493) [Nuremberg Chronicle], folio v image. Courtesy of John Delaney.

noted his serious devotion. Bartolome de las Casas who knew Columbus and his family wrote that Columbus:

observed the fasts of the church most faithfully, confessed and made communion often, read the canonical offices like a church man or member of a religious order, hated blasphemy and profane swearing, and was most devoted to Our Lady and to the seraphic father St. Francis; seemed very grateful to God for benefits received from the divine hand... And he was especially affected and devoted to the idea that God should deem him worthy of aiding somewhat in recovering the Holy Sepulchre.

On the first voyage, Columbus devised a complicated signature or sigil that has yet to be interpreted except for the way he signed his name which is a combination of Greek and Latin that means "Christ-bearer"—a sign that he had taken his name, Christopher, to heart. In my book I lay out previous attempts to decipher the rest of the sigil, and I also provide my own interpretation—but you will have to read it to find out!

When he disembarked from the ship returning from the second voyage it was noted that he had adopted the attire of a lay Franciscan. Columbus the monk! Hardly the current image of the man. Once Columbus had found all the islands and, on the third voyage, what he imagined was the Terrestrial Paradise—both of which were taken signs that the end was near, he became more insistent about the urgency of his project.

In 1501, he recalculated the years left and concluded that there were only 155. In neither case would he be there for the end, but he used his remaining years urging the Spanish sovereigns to get on with it—to mount the crusade for Jerusalem. Queen Isabella had always been a supporter, but after her death in 1504, Columbus despaired. King Ferdinand was not so interested in the crusade despite the widely known prophecy that he was to be the Last World Emperor who would fight the Antichrist and become King of Jerusalem.

Columbus included all this in what is known as his *Libro de las profecias* or book of prophecies, but his title is much longer:

Here begins the book, or handbook, of sources, statements, opinions and prophecies on the subject of the recuperation of God's Holy city and Mount Zion, and on the discovery and evangelization

of the islands of the Indies and of all other peoples and nations.

For years, Columbus had been collecting passages from the Bible, church fathers and other ancient writers who prophesied that the discovery of islands was a sign that the end was imminent. Finally, between the third and fourth voyages, he had some time to gather them together, and with the help of his son Ferdinand and his friend Father Gorricio, copied them into a book. Columbus took it with him on the fourth voyage and added additional comments.

That manuscript, written in Latin, languished unprinted and unread for 400 years. In 1892, the Latin version was printed. It was not translated into any modern language, though not English, until 1984. That year two American scholars [Delno West and August Kling] found one of the Latin copies in the Princeton library. Its pages were still uncut, untouched, and unread. West and Kling made the first definitive translation into English, and it was published in 1991, just in time for the Quincentennial. Very few people have heard of it, let alone read it, and those who have, have tended to ignore or dismiss it.

To me, however, the book makes perfect sense as the culmination of Columbus's grand passion: the re-conquest of Jerusalem. This, I suggest, was the motivation and ultimate goal of Columbus's voyages. It was a vision that sustained him through all the long years of waiting before he set sail, and would sustain him through treacherous seas, mutinous sailors, rebellious settlers and, on the fourth voyage, being marooned on the island of Jamaica for a year with a divided crew and his 13 year old son Ferdinand wondering if they would ever be rescued.


In a number of surviving documents, including a letter to the pope, Columbus mentions this goal and his promise to provide the gold and spices that would fund the crusade. The day before he died, he ratified his will in which he had set aside a fund to encourage those who came after him to take up the cross and proceed with the crusade.

It is hard to imagine this was just an idle dream, a ruse to ingratiate himself with the sovereigns, or the ravings of a madman as some commentators have suggested. Instead, by situating Columbus in the context of his times, we gain a different perspective of his character and can better interpret some of his actions.

But that is not the only reason I wrote the book. Recall that I first became interested in Columbus during a class on contemporary apocalyptic, millennial thinking.

Columbus is a fascinating character but, by continuing to focus on Columbus the man, we divert attention away from the apocalyptic myth that inspired him and which continues in a very different and far more dangerous world than his. Today, Jerusalem is still an object of desire as well as conflict. In recent times, animus toward Muslims has become widespread; there is talk of crusades; and the word Apocalypse has become common. There are even some people who want "to bring it on." Last year, even the topic of the Antichrist emerged in an article in the New York Times titled: "Why the Antichrist Matters in Politics." Myths, especially important religious myths, are not just stories; they provide frameworks that both guide action

and help interpret experience. In ways we do not often imagine, we live by myths. My hope is that we can defuse this myth before it becomes a self-fulfilling prophecy. Columbus's story, in my view, can be read as a parable for our turbulent times.

—Carol Delaney is an Emerita Professor, Department of Cultural and Social Anthropology, Stanford University and an Invited Research Scholar at the John Carter Brown Library. Her most recent book is *Columbus and the Quest for Jerusalem*. This article is based on her presentation to the Washington Map Society on October 11, 2012. Images are courtesy of the author, unless otherwise noted. 

MORE MAPS OF IRAN

Readers of this journal will remember the map review that first appeared in *Portolan* Issue 58 concerning the map publishing program and some recent maps by Iran's Gitashenasi Institute. The Institute continues their active publishing program. Further articles appeared in the Cartographic Notes column in *Portolan* Issues 60, 62, 64, 66, 69, 72, 78, and 83 listing more products. Recent maps to appear are:

- a. Tehran 91 (2013, Persian) new, Item #464, 1:35,000, 100x70 cm. ISBN 978-964-342-285-1 \$7
- b. Tehran 92, General Map of, (2013, Persian), new, Item #418, 1:35,000, 100x70 cm. ISBN 978-964-342-357-5 \$7
- c. Tehran Municipality Area No. 5 (Persian), new, Item #605, 1:8,500, 100x140 cm. ISBN 978-964-342-420-6 \$15
- d. Tehran-e Faragir 92 (2013, Persian), Item #475, 1:35,000, 100x70 cm. ISBN 978-964-342-358 \$4
- e. Tehran Underground, Guide Map of, (Persian & English), Item #532, 1:60,000, 100x70 cm. ISBN 978-964-342-409-1 \$4
- f. Varamin Tourist Map of, (Persian & English), Item #543, 1:11,000, 100x70 cm. ISBN 978-964-342-422-0 \$7
- g. Tehran Province Political Map of, (Persian & English), new, Item #534, 1:200,000, 100x140 cm. ISBN 978-964-342-3 \$15
- h. Tehran Province, Tourist Map of, (Persian & English), new, Item #542, 1:270,000, 100x70 cm. ISBN 978-964-342-419-0 \$7
- i. Iran Islamic Republic of, (English), new, Item #449, 1:1,600,000, 100x140 cm. ISBN 978-964-342-231-8 \$15
- j. Iran 1392 (2013), Road Map of (Persian) New, Item #454, 1:2,250,000, 100x70 cm. ISBN 978-969-342-354-4 \$7
- k. Auto Atlas of Iran (2013, Persian), new, Item #478, 15x12 cm. ISBN 978-964-342-272-1 \$7
- l. Companion Atlas of Tehran (Persian), new, Item #505, 14x20 cm. ISBN 978-964-342-342-1 \$20
- m. Rahyab-e-Jibi-ye Tehran 1391(2012, Persian), new, Item #479, 15x12 cm. ISBN 978-964-342-388-9 \$10
- n. Road Atlas of Iran 1391 (2012, Persian), new, Item #540, 24x15 cm. ISBN 978-964-342-412-1 \$30
- o. Tehran Urbanology Atlas (Persian), new, Item #546, 14x20 cm. ISBN 978-964-342-426-8 \$35
- p. English Catalogue of 2013 & Price list
- q. Persian Catalogue & Price list printed in the occasion of 26th Book Fair of Tehran

Contact Information is as follows: Published by the Gitashenasi Cartographic and Geographical Institute, 15 Ostad Shahriyar Street, Vali-ye- Asr Crossroads, Enqelab Eslami Avenue, Postal Code 1133734611, Post Office Box 14155-3441, Tehran, Iran. Telephone (+9821) 6709335 or 6703460. Fax: (+9821) 6705782. Website: www.gitashenasi.com E-mail: info@gitashenasi.com. USA Representative in the USA: www.maplink.com; in the UK: Edward Stanford, London.

Mapping Real and Imaginary Worlds: Graphic Design in the Pursuit of Learning

by Claudia Carlson

It was an honor to be invited by the Washington Map Society to give a presentation on October 13, 2011. In this article I've tried to recreate my talk and go into more depth. My career is, itself, a map of the challenges and rewards facing a cartographer and graphic designer. A love of maps is also a love of research. Even when a place is imaginary, its design depends on visual reference.

In the 1980s I worked in the manufacturing department of Farrar, Straus, and Giroux, the famed literary independent press. I wasn't much interested in scheduling print and bind orders, I only stayed on that job for a year, but my interest in design and calligraphy were noted. One day my boss, the commanding Doris Janowitz, dropped by my desk and said in her quietly booming voice, "we need a map, you're taking that calligraphy class, we'll pay you 50 bucks to do it overnight if you're interested."

Sure, I was willing to try. I loved maps. A map in the beginning of a book was a visual promise of adventure. As I read, I'd trail my finger along the character's journey. I'd spent my childhood poring over E. H. Shepard's "100 Aker Wood" in *Winnie-the-Pooh*, the endpaper maps by Raymond McGrath for T. H. White's *Mistress Masham's Repose*, and of course Tolkien's own maps, and those done by Pauline Baynes for the C. S. Lewis *Narnia* books. I looked forward to opening the special maps that fell out of the *National Geographic* magazines stacked in my grandmother's bookshelves.

I'd been an English and art history major in college and enjoyed illustrating and designing for the student newspaper, magazine, and poetry journal. After college I took design classes at several art schools in New York City as I worked my way up in publishing companies. An opportunity to make a map counted as more training in the workshop of the real world.

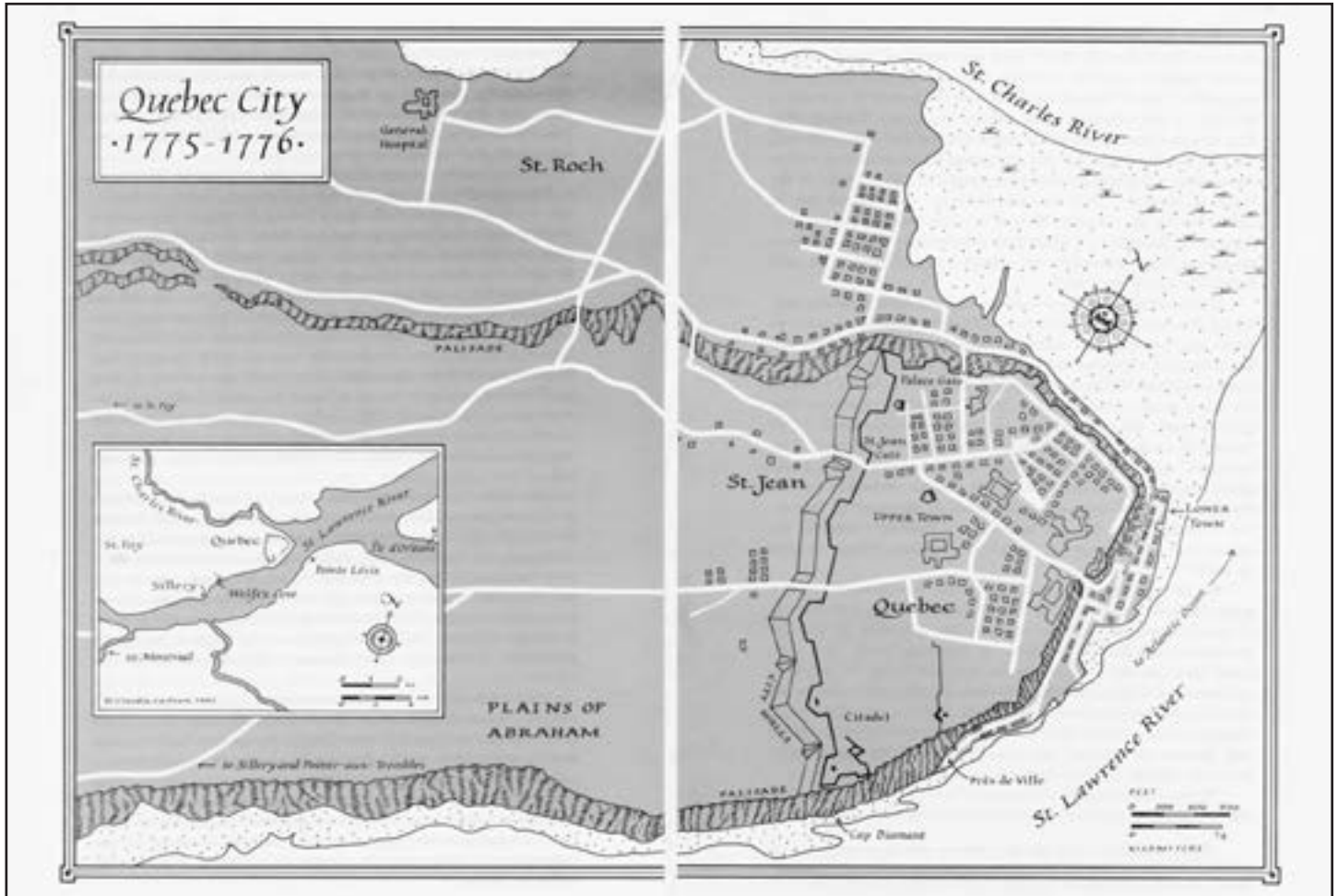
The map needed to show Iroquois settlements in New York State. I placed blurry photocopies of other maps on my light box at home and traced lines on smooth paper with a rapidograph pen. It was a challenge to fit the outline of New York State into the page ratio of the book. I followed a type written list of names and wrote them



Early work, lettering and illustration done with chisel-edged Mitchell's steel nibs, rivers and shorelines with rapidograph pens. I never used clip art. Note overabundance of border and water edges.

in calligraphy, soon discovering it was easy to misspell unfamiliar words. My steel calligraphy nibs skittered and splayed when I pressed too hard, sighs and curses fell after ink splatters. Then I hot waxed the back of the calligraphy. Each name was cut out with an X-Acto knife and squashed on a plastic sheet taped over the base drawing. I used a T-square and triangle to keep everything straight. After an all-nighter, it was done.

When I saw my work published, this led to capitalistic thinking. Salaries in legendary publishing houses were



Hand-drawn split-page map. The gray tints were done using an overlay of rubylith (a plastic sheet in two layers, the bottom is clear, the top is red and somewhat sticky, I'd cut away what I wanted to stay white with an X-Acto knife). If I wanted two shades of gray, I needed to do two rubyliths and indicate the tints to the printer. *The Man in the Mirror: A Life of Benedict Arnold* by Clare Brandt (Random House, 1994).

not equal to keeping my cat, let alone me, comfortably in kibble. I needed freelance work and here was something challenging, artistic, and short-term that also taught me something.

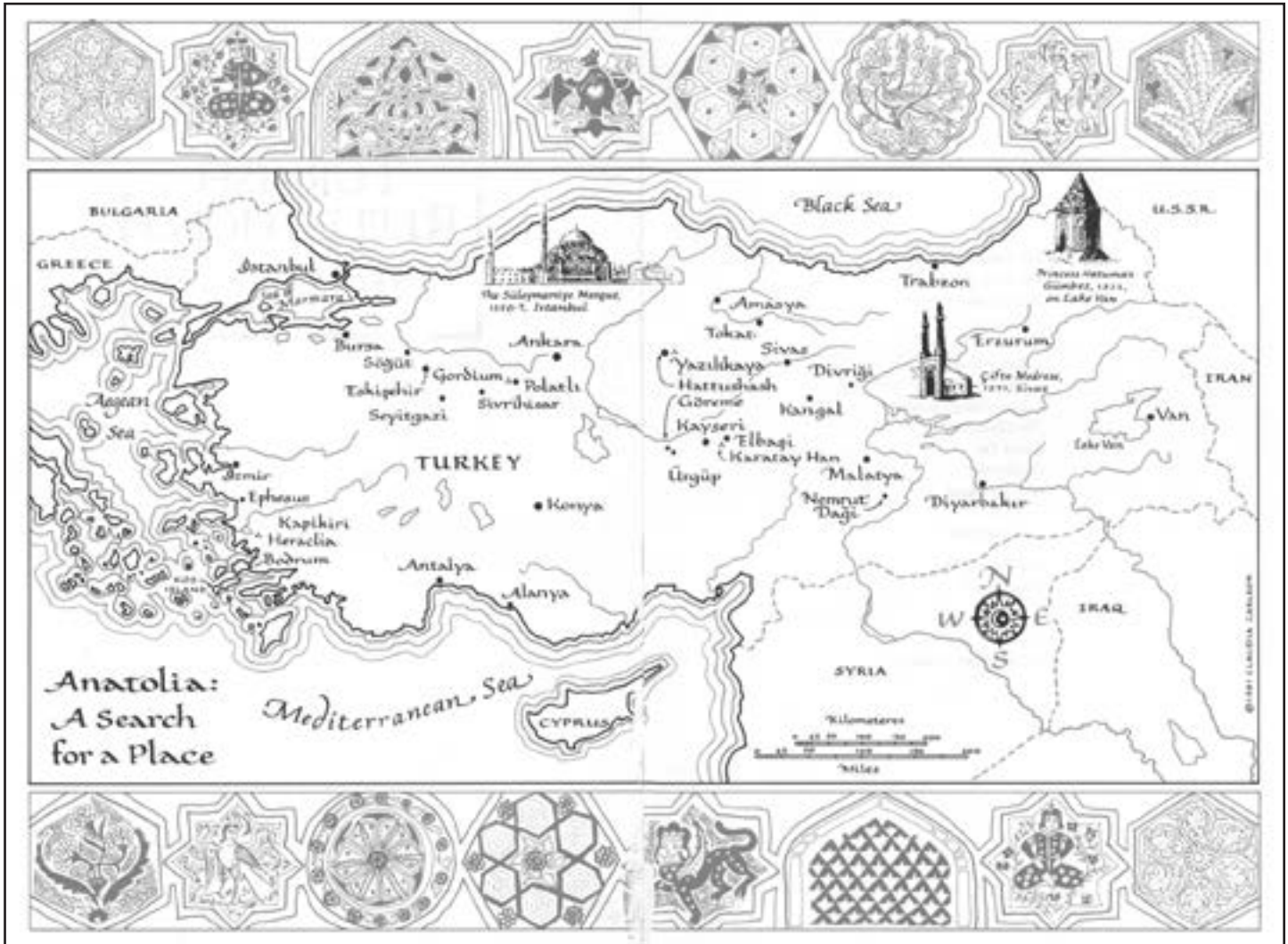
HAND DRAWN MAPS

I made a portfolio using the published Iroquois map and drew samples of imaginary places. I decided to start with the best and work my way down to the rest. Luckily, I got work from Knopf, top of the list. The art director, Virginia Tan, took a chance on me and I tried to not let her down.

Once I was making maps for Knopf, it was easier to get work from other publishers for historic, fantasy, mystery,

educational, ESL, non-fiction, and children's books. Soon I had a thriving sideline in handmade maps after my day shift as a book designer. I specialized in decorative maps but rarely turned a project down.

I used the *National Geographic* and *New York Times* atlases, which came out regularly with expensive new editions, for most of my current research. But they didn't cover history. I was hired for a series of maps featuring Benedict Arnold's battles in New England and Canada for *The Man in the Mirror: A Life of Benedict Arnold*, 1994, by Clare Brandt. I used the author's photocopied map sources and the resources of the New York Public Library map room collection. No modern atlas would do: rivers

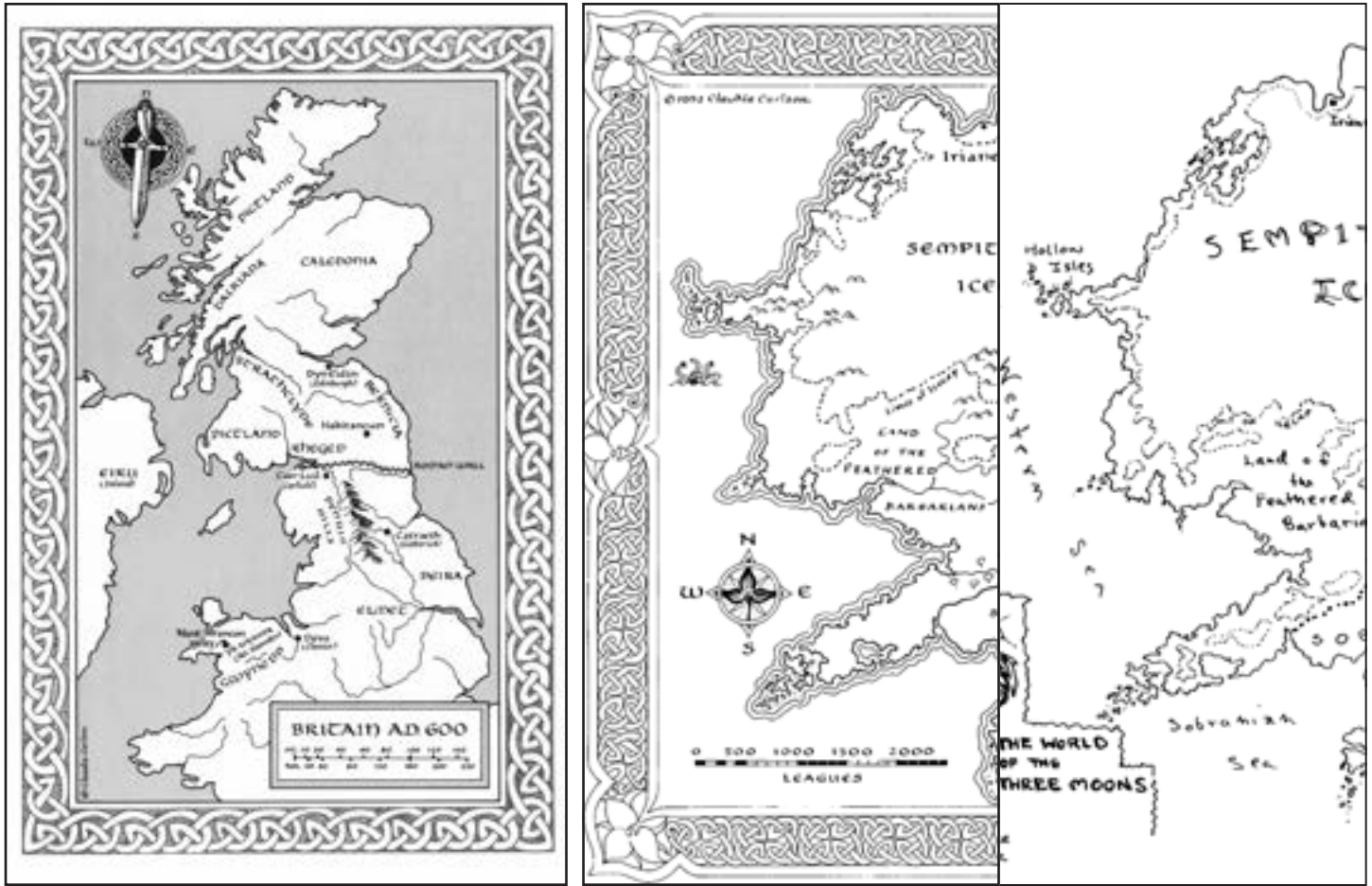


Endpaper map for *Turkish Reflections: A Biography of a Place* by Mary Lee Settle (Prentice Hall, 1991).

shift course, towns change borders, and shores revise over the centuries. Period maps were brought out and I was allowed to carefully, lightly trace them with a provided eraserless pencil on tracing paper (I brought) using a sheet of clear plastic in-between. I soon realized all historic maps have a point of view, a projection, shaped by what the observer saw or thought they knew and there is no perfect truth to be found. Instead, I compiled multiple sources and made my best aggregate guess for where roads, trails, and marshes fell. Ms. Brandt asked for changes based on her knowledge of terrain and history. She had hiked every trail Arnold had taken and knew how the landscape had changed.

Not all clients understood historic maps. I was asked to do a watercolor map of Sweden in the late 19th century and the editors made so many changes I had to repaint the whole thing. Hours later they fired me because the shoreline didn't look right, colleagues who had lived in Sweden said it looked nothing like this today. Well of course not, the Swedes used landfill to alter their environment to suit their needs. There was no convincing them.

As I was sending my work out to publishing companies in hope of getting more work, I also embarked on a series of studio visits so I could learn from other decorative cartographers. I visited Anita Karl and Jim Kemp,



Historical fiction, like *The Shining Company* by Rosemary Sutcliff (Farrar, Straus and Giroux, 1992), requires as much research as historical maps. I couldn't find much historic cartography on this era.

One of Julian May's *Trillium* series map sketches on the right, my finished interpretation on the left. Some place names and features were left out as it was thought by the editor to give too much of the plot away. A workshop in Celtic knot work informed my borders for awhile.

who did the terrific maps in the Barbara Tuchman book, *A Distant Mirror: The Calamitous Fourteenth Century*, among others. They did it all by hand and Anita's calligraphy was far more accomplished than mine. They faced each other working at two large tables. I was given valuable tips on craft. I continued to take classes from master calligrapher Jeanyee Wong. On a studio visit, Jeanyee showed me her maps and said she'd come to value simplicity over ornament as her career progressed. Like poetry, maps represent a concision of reality.

I used three excellent older books I found at used bookstores for my guide on using line, lettering, symbols, patterns, and projections: *Down to Earth: Mapping*

for Everybody by David Greenwood, Holiday House, 1944; *General Cartography* by Erwin Raisz, McGraw-Hill, 1938, and *Maps: Topographical and Statistical* by T. W. Birch, Oxford, 1949. The most useful book was written by a calligrapher, *Decorative Maps* by Heather Child, The Studio Publications, 1956.

In 1989, the editors of a series of travelogues and hired me to make all the endpaper maps. For *Turkish Reflections*, by Mary Lee Settle, I pretended to be a student to get into the main library at Columbia University to copy tiles and monuments from art books. This was pre-internet days. Also pre-current security at the library, I'd never get in without an ID now. I drew voodoo figures



Full design: cover type treatment, title page, map, and a part opening for *The Iron Ring* by Lloyd Alexander (Dutton, 1997). I used cover artist Jane Ray's arch shape as a motif. This was the first map that wasn't hand-lettered.

for the Haiti map, Chinese landmarks and cloud patterns for *Cathay: A Journey in Search of Old China*—becoming friendly with the author, Fergus Bordewich, (I suggested he turn one myth he recounted into a picture book, he did and got it published immediately)—and had a great time working with the authors and researching. They had something of the pictographic look of older *National Geographic* maps.

Some hand-drawn projects were so time consuming I vowed to never do ones like them again. I didn't have access to computer aided geographical data so I spent weeks drawing minute hills, marshes, and rivers... leaving room for military zones and battle lines for a map of the Vietnamese war. I used large historic topographic maps for reference. I wore out rapidograph pen nibs—today you would assume it was computer generated.

Another project involved the maps for a revised edition of a book about hiking in the Grand Canyon, *The Man Who Walked Through Time*, by Colin Fletcher. I drew for months! A couple of years ago I was contacted by a hiker who had retraced Fletcher's steps and wanted to use the same cartographer (I'm assuming the ones for Fletcher's other books in the '60s had already died) I didn't have the time.

I was hired to make a 2-page map for a picture book about a real life hero. "Stagecoach Mary" Fields, a six foot tall former slave, moved to Cascade, Montana and got a job delivering mail for the United States Postal Service

using a team of six horses, her pistols, and wits to out-manuever wolves and would be robbers. I did a lot of research on this fascinating subject. Since I had never been to Montana, I called the historical society in Cascade to verify the types of trees (cottonwood) and buildings (log and timber frame) Mary would have passed on her 17 mile route. I promised the helpful librarian that I'd send her a copy of the book once it was printed. When the book arrived, with a nice note of thanks from the publisher, I was saddened to find the artist who painted the illustrations had apparently confused West with Southwest, Mary's route featured adobe buildings and saguaro cactus. The book was well-reviewed and nobody mentioned the mistakes. I cringed at the disconnect between the map and illustrations, I didn't send the book to Cascade.

FANTASY MAPS

Drawing maps based on a fantasy world has its perils and delights. A fantasy author gave me a manuscript describing a river leaping out of a desert and running up a distant mountain. I pointed out this was unlikely to happen on an Earth-like planet (the author revised the course of that river).

For a number of years I drew the maps for David Eddings' heroic fantasy series. He once called me to say I'd completely misrepresented the scope of one of his rifts, he was miffed. His manuscripts ran well over a thousand pages, I'd missed it. That was the end my involvement.



Fantasy map done for *Answer My Prayer*, by Sid Hite (Holt, 1995), a children's book. I sketched characters from the book along the border and used a relative interest pictorial scale.

When I go to science fiction conventions, there are book sellers who pull me over to sign the pages of first editions with those maps.

Authors sent me their own rough map and I'd use it as the basis for creating a more legible and designed version. I was delighted to work on both designs and maps for children's book author Lloyd Alexander. I was brought in by the art director, Sara Reynolds, because she knew I was a fan and could act as designer and map maker. I wanted to echo Alexander's story in every choice for fonts and design

elements, on the cover, map, and interior of the book. For *The Iron Ring*, I utilized the arch motif used by the cover artist, Jane Ray. I was able to attend a celebratory lunch with the publishers and author, who let me know I'd gotten the right look for his invented world. *The Arkadians* cover art had a frieze-like illustration of the book characters. I asked if the illustrator, Trina Schart Hyman, would be willing to create silhouettes of the figures. She obliged and they became chapter opening art but I couldn't think of a way to include them in the map, it was busy enough and the shape of Greece took up the entire height of the page.

The single most important thing I could ask an author, editor, or art director was the title of their map, even if the map didn't use a title. This was the story the map needed to tell in a nutshell. It clarified the scope of what should



Watercolor and calligraphy map done for a picture book, *Lassie Come-Home* (Holt, 2000). I followed the color palate used by illustrator Rosemary Wells.

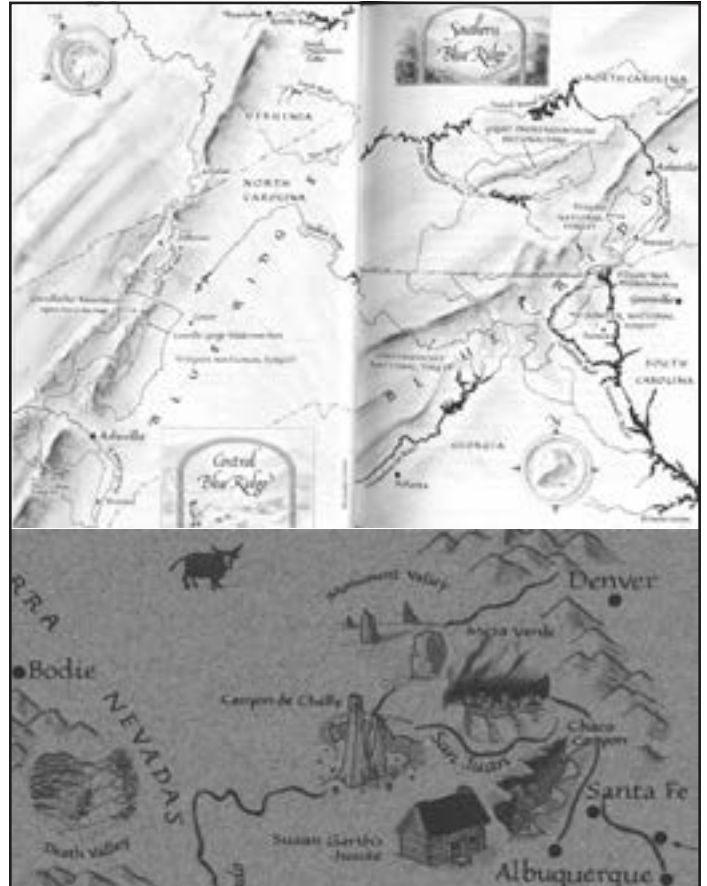
be represented, in time, place, and paths of journey. But some maps required no scale or compass rose. For children's book, *Answer My Prayer*, by Sid Hite, the adventure was suggested within a relatively small area. "No furlongs or leagues?" I hinted. "No, this book isn't about measuring the journey," answered the editor.

Then and now, I read the manuscript, make a list of features, and suggest adding places. As a reader, I dislike having major locations missing on a map. I request cover and interior designs, fonts, and trim sizes. I take it seriously even when it's entirely made-up. There may be a good reason editors leave things out, but sometimes I can make a map more complete.

DIGITAL DAYS

Everything changed by the mid '90s, for me and the print world. I started a family and worked freelance. The process of design and illustration left drafting tables and entered computers. I saw colleagues drop out of publishing because they refused to learn new skills. I shifted handmade skills to the future by cold calling and talk-edmy way into an interview with Steve Hademeyer in the map department of the *New York Times*. Despite having only one digital map example (done the night before in my first foray into vector software) I was hired to work fill-in shifts. I learned how to make maps and charts in Adobe Illustrator thanks to patient map gurus such as Baden Copeland (who later became the maps manager). It was a puzzle fitting type into the tiny one column width maps. I updated the daily maps of the Bosnia and Herzegovina conflict, battles changing location by millimeters. A few months after I'd been hired, the head of the department told me he took me on, despite my computer skills, because my portfolio showed him I knew how much of the story to tell. He'd fired guys with geography degrees because they'd overloaded maps with visual data and couldn't let go of what wasn't needed. All maps tell a story and it is as much about what is left out as what is put in.

My first maps drawn and designed entirely on the computer lacked hand-drawn charm and a few art directors said they'd never use me again—I felt awful. With analysis, practice, and gradually improving software, I eventually got the results I wanted. What made maps feel cold or warm? Especially when I usually had only one color to work with—black and tints of black—it was the echo of a heartbeat in the line that helped, a rhythmic



Not everything turned out well. These fly-fishing maps got too involved and readability suffered. Someone erred in picking a dark gray paper for this American West map (detail).

irregularity, as did the feel of a line travelling over a slightly textured surface. Perfect lines and shapes were best for purely informative maps. I tried to match the author's vision within the demands of page size and printing. I knew a mass market paperback would be printed on paper that absorbed ink as badly as cheap newsprint. Tints above 35% would clot into almost black, while tints under 12% would barely register as a faint smudge or print as white.

After a fire and attendant water ruined many original maps, I was happy to have work stored and backed up digitally. A compass rose or border I built for one map became the basis for creating another.

Knopf needed 21 maps for a cookbook by Pierre Franey on regional French cuisine. They wanted me to show them a design for the maps first. I came up with a

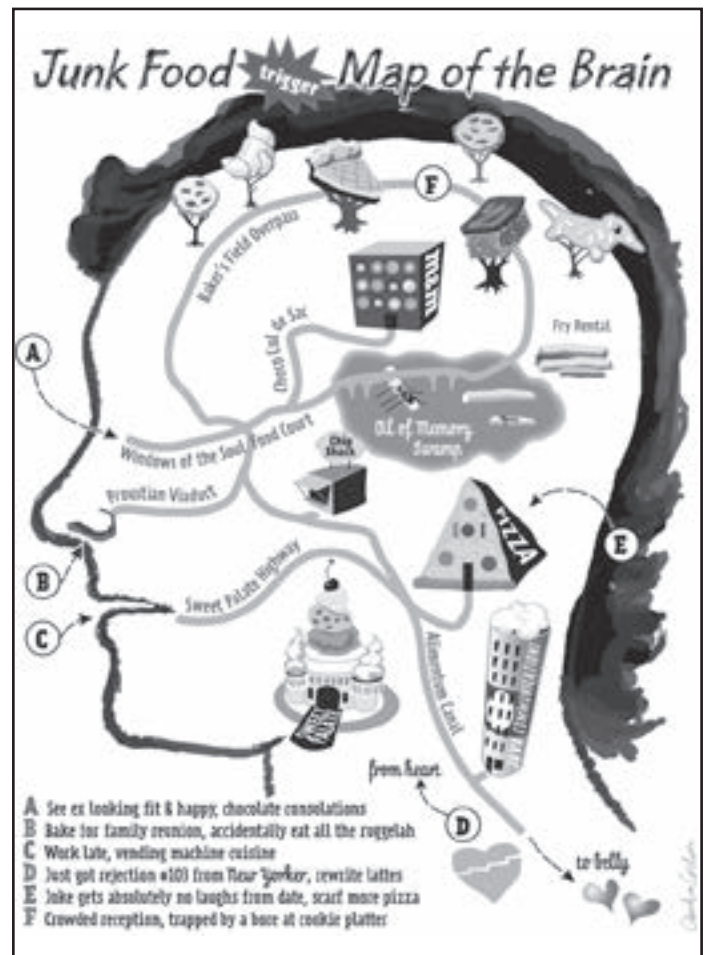


Pierre Franey's *Cooking In France* (Knopf, 1994). Based on a Public Television series of the same name, used my maps and general illustrations. Two-color printing.

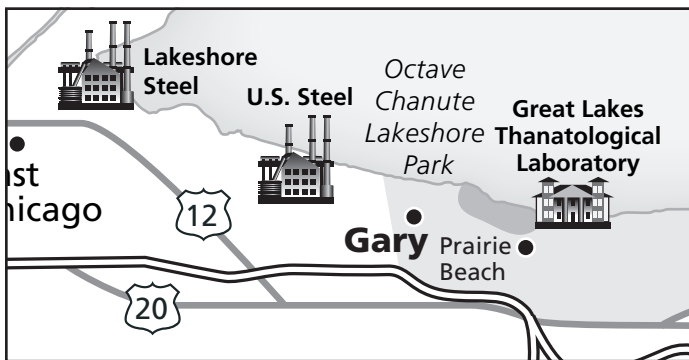
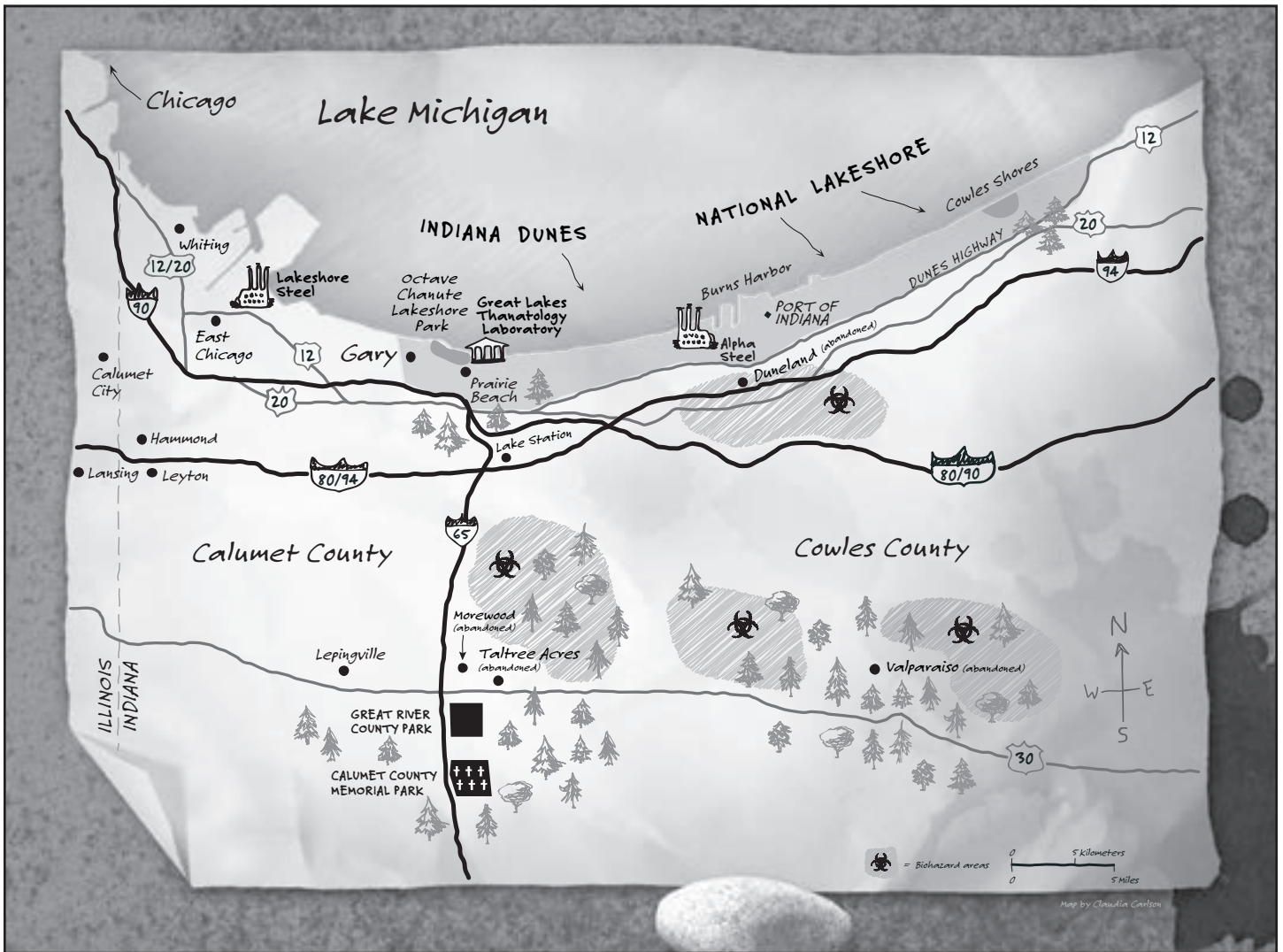
pattern for the water that thrilled me because I'd figured out how to do an automatic repeating background with the software (alas, cheesy looking today). I had two colors—black and wine red. As I built the frontispiece map I felt it deserved more—I sketched in pencil a border of French produce and animals. The designer liked the drawings and asked me to come up with 20 vignettes they could use decoratively throughout the book. I panicked. I could draw in pencil but these needed to be in ink and I knew I couldn't do it successfully in Adobe Illustrator. How was I supposed to draw it? I asked someone (a comic book editor) to introduce me to someone. I took a trip

to Brooklyn to observe a superhero comic book inker at work. "Joe" allowed me to sit at his side for an hour and watch him. He had a pot of black India ink and sharp metal nibs and drops splattered unheeded on floor, skin, and pants but never by mistake on the art. In the other room he had sweaty young drones doing less crucial work, such as filling in large areas with black magic markers. He yelled at them frequently as his nib flew across the paper and a small fan and bandanna kept his face from sweating on the art. His work was brilliant. Good line work isn't cramped or fussy—the line swooped, almost out of control, lively and astonishing.

By 2000, a Wacom tablet allowed me to draw pressure sensitive lines that finally looked hand-crafted. Adobe



Map as cartoon in *Alimentum: The Literature of Food*, 2011.



Details from *Dust* (written by Joan Frances Turner, Penguin Group, 2010) endpaper map of Indiana showing sites of zombie attacks. In the left early version, I'd done a guide book look. I revised it to appear drawn by a zombie. Note blood splatter in final map above.



For *The Love of My Youth*, a novel by Mary Gordon (Pantheon, 2011) I used Google's Street View to virtually tour Rome and draw the monuments using only Adobe Illustrator and a Wacom tablet.

software formed my new brushes and nibs. OpenType fonts, in 2007, with fuller character sets allowed flexibility and variation in lettering, achieving a calligraphic feel.

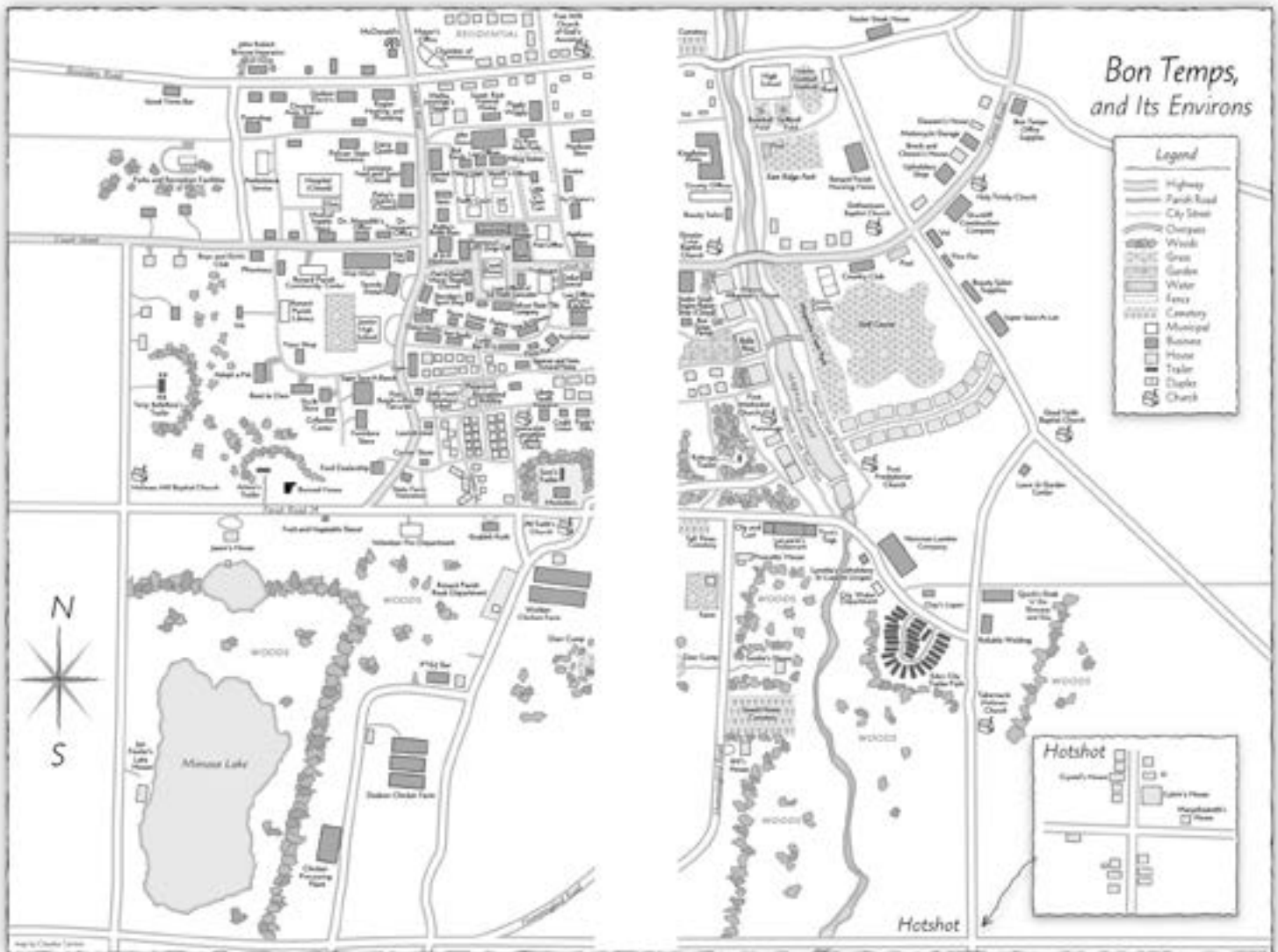
I design for small presses and one of my clients, the lovely journal *Alimentum: the Literature of Food*, had a blank page after I was done laying out the Summer 2011 issue. I asked the editors if I could supply a humor map, showing junk food regions of my brain. I scanned in a rough pencil sketch and using the Wacom, drew in Photoshop and Illustrator on a layer.

Sometimes I devised icons and they were the wrong flavor. Tiffany Estreicher, a design manager at Penguin, hired me to make a map of northern Indiana showing sand dune parks, refineries, the main roads, and zombie infestations for *Dust*, by Joan Francis Turner. Tiffany looked at my first pass and told me the map had to look less guidebook and more as if it were drawn by a zombie. My research and painstaking original icons of refineries and laboratories had to go. I redid the map in a more scribbled style.

One of my recent projects was to take a huge every-which way map drawn by author Charlaire Harris and turn it into a small two-page map for *The Sookie Stackhouse Companion* book. Harris had added neighborhoods and trailer parks as her *True Blood* Southern gothic vampire saga grew. I ended up using a tiny typeface and it took weeks to work out patterns and get every word to fit.

It's clear digital vector maps are here to stay in print and e-books. You can zoom in and out of a map in on a tablet or smartphone. There will continue to be work for a decorative cartographer when generic maps can't tell the right story. I'm sure maps will get more interactive. After a class in Flash animation I realized I don't want to be coding. As it is, designers have to keep up with digital software that comes out with yearly updates. I prefer my maps to stay still and all the walking, roving, rowing, and flying can take place in my imagination. But the digital revolution suggests I'll keep adapting to new technology. If I ever work on an animated project, it will be with an expert handling the technical end.

I've had a great time making maps and partnering with the author's story. Once I was part of a panel about fantasy book maps and a Very Famous Author announced mapmakers for the book industry are leeches that feed off the author's work. He claimed books like his didn't need maps. I doubt his fans agree with him. The ability of a map to symbolize, condense, and encompass a complex



This map for *True Blood* had to work for both hardcover and paperback editions. I picked tints that wouldn't get muddy on the lower quality paper of a mass-market paperback. *The Sookie Stackhouse Companion* by Charlaine Harris (Ace Hardcover, 2011).

narrative makes them a welcome addition in real and imaginary worlds. They become part of the design, from cover to page layout, illuminating the text. Maps in novels may not always be necessary, but they certainly add to the anticipation and participation of a reader.

—Graphic designer Claudia Carlson creates maps for books. She began her post-graduate career in the art departments of several publishers, including Farrar, Straus and Giroux and

Oxford University Press, where she served, for seven years, as senior book designer. She also worked in the New York Times map department for several years. Currently, she runs her own graphic design firm: ClaudiaGraphics Design Services and also works as the graphic designer for AFMDA, an affiliate of the Red Cross. This article is based on her October 13, 2011 presentation to the Washington Map Society.



The Pierre levée at Poitiers: A dolmen with graffiti by cartographers and draughtsmen

By Peter van der Krogt

About one kilometer east of Poitiers is a dolmen, a megalithic tomb from the Stone Age. A large limestone megalith is supported by a few smaller stones, hence the name "Pierre levee" (Raised Stone). On the stone, which has been broken, are various names scratched. Previously there have been more names, including those of some famous sixteenth-century cartographers and artists.

The stone was source for various legends. The local saint St. Radegund would have carried the stone on her head. If you look at the stone you could see the imprint of the saint's head. The smaller stones, on which the large stone rests, Radegund would have taken in her apron.¹

From the Middle Ages until the 19th century St. Radegund was worshipped near the stone. A fair was held near the stone. For students of the University of Poitiers the stone was an entertainment venue to cheerfully revel. The latter was used by the French writer François Rabelais (c. 1494–1553) to explain the origin of the stone. In his *Gargantua et Pantagruel* (Paris, 1532), he wrote, in a free translation:² "In the prosecution of which design he came first to Poitiers, where, as he studied and profited very much, he saw that the scholars were oftentimes at leisure and knew not how to bestow their time, which moved him to take such compassion on them, that one day he took from a long ledge of rocks, called there Passelourdin, a huge great stone, of about twelve fathom square and fourteen handfuls thick, and with great ease set it upon four pillars in the midst of a field, to no other end but that the said scholars, when they had nothing else to do, might pass their time in getting up on that stone, and feast it with store of gammons, pasties, and flagons, and carve their names upon it with a knife, in token of which deed till this hour the stone is called the lifted stone. And in remembrance hereof there is none entered into the register and matricular book of the said university, or accounted capable of taking any degree therein, till he have first drunk in the caballine fountain

of Croustelles, passed at Passelourdin, and got up upon the lifted stone.

The University of Poitiers, founded in 1431, is one of the oldest in France and in the sixteenth century it was regarded as the second best university in France. Only Paris was better. It seems obvious that Poitiers was selected as one of the destinations for foreign students in France. The university had many students from Spain, but also the Netherlands and Germany were represented. In the *Histoire de l'université de Poitiers*, published at the occasion of the 500st anniversary in 1932, the inscriptions on the Pierre levée are considered an important source for the presence of students from the Low Countries in Poitiers.³

BRAUN & HOGENBERG

In addition to students, the stone was also visited by "tourists", who also scratched their names. The stone is best known through the print after a drawing made by Joris Hoefnagel (1542–1600) at his visit in 1561: "La pierre leuee demie lieue de Poitiers". The print is together with a profile of Montlhéry placed under the profile of Poitiers in the fifth part of the city atlas of Braun & Hogenberg of about 1596.⁴ In the text on the back of the map, is a brief description of the stone:

"In Poitiers, about half a mile in the direction of Bourges is along the road a huge rock square in shape, and about fourteen feet wide. Most travelers write their names on it, as a reminder. There are several theories about this stone, about why and how and by whom it was brought there, and from where: because all these theories are only assumptions, we can not write with certainty about it. However, many think that he is risen from the earth, when it was covered by water, and he was raised by the residents because it was so exceptional. There is a distich about:

The Pierre levée at Poitiers: A dolmen with graffiti by cartographers and draughtsmen



Hoefnagel's print of the Pierre levée at Poitiers in the town atlas of Braun & Hogenberg (Gent: Antiquariaat Sanderus).

The Pierre levée on the *Carte de Cassini*, sheet 67 of *Carte de France*, mapped 1765–66, published circa 1770. Courtesy, Geography and Map Division, Library of Congress. G5830 s86.C3G5830 s86.C3.



The Pierre levée was still climbed in the early twentieth century (postcard in the collection of Peter & René van der Krogt).

The Pierre levée at Poitiers: A dolmen with graffiti by cartographers and draughtsmen



The high side of Pierre levée in 2011
(Photo: René van der Krogt)

The lower side of the Pierre levée
in 2011 (Photo: Peter van der Krogt)



A part of the surface with an inscription
(Photo: Peter van der Krogt)



*Hic lapis ingentem superat gravitate Colossum
Ponderis, & grandi sidera mole petat*

(In free translation: This stone surpasses the great Colossus in weight, and reaches for the stars with its large mass.)"

The origin of this distich is not known. The earliest mention of it is the text in Braun & Hogenberg.⁵ The source for this will have been a note by Hoefnagel, Hogenberg or maybe Braun. "Hic lapis" (this stone) could mean that the inscription was on the stone itself, but given the wording "de eo distichon extat" (about this there is a distich)—in the French translation "de ceste pierre on a fait ces vers" Gaillard supposed in 1836 that the text was not on the stone and was probably written to serve as a caption on a print of the stone because, he wrote, an inscription on the stone was impossible, since the surface is too rough.⁶

VISIT FROM THE LOW COUNTRIES

On his drawing Joris Hoefnagel outlined several tourists climbing the stone, enjoying the view and carving their names into the stone. He also added a number of names, which he had read on the stone. Some are illegible or only fragmentary readable, perhaps the actual situation. His own name, and those of a number of other visitors from the Netherlands, however, are legible.

Joris Hoefnagel visited the stone in 1561 with his friends Robert van Haeften, Guillaume Mostart (from Antwerp, later merchant in Alkmaar)⁷—and Jan van Bloemendaal from Vianen, led by their teacher Hubert Jansz. van Giffen (1534–1604) from Buren in Gelderland.⁸ The drawing of stone are their names in capitals

OBERTVS GYFANIVS BVRANVS
PAEDAGOGVS 1561
GEORGIVS HOVENAGLIVS A° 1561
ROBERTVS VAN HAFTEN 1561
GVILHELMUS MOSTAERT 1561
IOANNES A BLÖMEDAEL 1561

In the Antwerp archive is a safe-conduct from August 18, 1562 in which the Antwerp burgher Jean de la Haye was commissioned to go to Bourges to Hubert Jansz. van Giffen to pick up some students, sons of Antwerp merchants, and guide them home. Among the names students in Bourges are Hoefnagel, Van Haeften (not Robert, but

François, son of Robert van Haeften) and Mostaert.⁹ The group has therefore made a trip from Bourges to Poitiers.

The preceding year another group of cartographers had visited the stone: (to the left):

Franc. Hogenberg A° 1560.
Abrahamus Ortelius
Mat. Quadus
(on the right):
Gerard[us] Mercat. A° 1560.
Philippus Galleus A° 1560.
Johannes Sadeler

The 1560 visit to Poitiers is not mentioned in the letters of Ortelius and Mercator. This drawing is the only indication that in 1560 a group of Dutch map makers has visited Poitiers. This group consisted of Frans Hogenberg (1535–1590), Abraham Ortelius (1527–1598), Gerard Mercator (1512–1594), Filips Galle (1537–1612). Given their age, the name of Matthias Quad (1557–1613) has to be added later, and perhaps that of John Sadeler (1550–1600) as well.

Although the drawing was made in 1561, there are also a few later dates, on the left with barely legible names: 1562 ("Hieronym. Wierings"), 1569 ("Bartholm. Sprang"), 1570 ("Ow. Johannes") and 1577 (Henricus Goltz). To the right is clearly written "Georgius Braun Coloñ. 1580". It may be that Hoefnagel has returned later. Another possibility is that he, or the engraver Hogenberg, has added a number of names. The name of Braun possible as a tribute, or at his request. The addition of the names of Quad and Sadeler may also be seen as a kind of "honor".

LATER HISTORY

In the years following the publication of Hoefnagel's print the stone is still regularly described as attractions in travelogues and geographical descriptions.¹⁰ In most cases, the information appears based on Braun & Hogenberg and/or Rabelais. Sometimes the legend of St. Radegund is mentioned.¹¹ Only occasionally is anything is written about the carved names. Paul Merula (1558–1607) mentions in his *Cosmographia* of 1605 the distich and then writes:¹² "Very many travelers carve their names in it. I read among others [the names] Obertus Giffanivus Buranus, Gerardus Mercator, Abrahamus Ortelius, Philippus Gallaeus, Georgius Braun Coloniensem, Gerardus Hovenagium."

Some writers were of the opinion that Merula himself was also in Poitiers and has seen the stone himself,¹³ but 'I red' (legi) can also mean that he has read the text on the print. In 1631 Abraham Gölnitz reported only that there were names, without mentioning a single name, and continues on the legend of St. Radegunde and cites Braun & Hogenberg.¹⁴

In the first half of the nineteenth century the dolmen got attention as a historical monument, in particular through the activities of members of the Société des Antiquaires de l'Ouest, the Historical Society of Poitiers. In 1836 Nicias Gaillard studied the descriptions of Poitiers in various geographical works. One of the works cited by him was the *Atlas* of Gerard Mercator of 1595. Presumably he had a copy of this atlas at his disposal where the fifth part of Braun & Hogenberg was bound. The text of Poitiers he describes does not occur in Mercator's *Atlas*, but in Braun & Hogenberg. He does not mention the names, but only the distich, as has been discussed above. The question is whether he has carefully examined the stone itself.

Two years later Charles Mangon de Lalande, inspector of historic monuments and founder of the Société des Antiquaires de l'Ouest, presented a lecture. He had discovered an atlas of Braun & Hogenberg in the library of Aurillac and discusses the stone on the basis of Hoefnagel's print and also had made a reproduction of the engraving for the Society's *Mémoires*. That Nicias Gaillard two years earlier had discussed the same engraving was apparently unknown to him, probably because Nicias Gaillard attributed the text and engraving attributed to Mercator. Also Mangon has not studied the stone himself. When he talks about the carved names, he wondered if they would still be readable. He had not verified it, he added.¹⁵

A drawing by the Scottish-Canadian artist George Heriot from 1820 shows that the stone was broken.¹⁶

A century later several articles in the *Bulletin de la Société préhistorique de France* discussed the stone, but nothing is said about the carved names (Baudouin 1916; Rougé 1936, Baudouin 1937).

Today, the stone is still there. It stands on a small patch of grass in a suburb of Poitiers on Rue du Dolmen near the junction with the Rue de la Pierre Levée. You have to climb over a fence to get to it. A piece of stone is lying on the ground, a second piece is diagonally up and resting on some rocks. Despite the fact that the two street

names were derived from the stone, there is no information sign.

The names of the cartographers were already unreadable in the early nineteenth century, as the prefect of the department of Vienne wrote to Jean van Raemdonck about 1869.¹⁷ However Nicias Gaillard wrote in 1837 that there could never have been inscriptions on the rough stone. But there are indeed names carved in the stone, as I have seen myself in September 2011. The local historians in Poitiers presently presume that the names on Hoefnagel's drawing are fantasy.¹⁸ The reasons for this are that on Hoefnagel's drawing there are only names of Flemings, that there is no further evidence of a visit by Ortelius c.s. to Poitiers and that the stone is too hard to carve names in. Hence the office de tourisme on its website claims: "The curious visitor of today may have some trouble in finding any trace of these past rituals [the carved names, PvdK], since they seem to have existed only in the author's [Rabelais] fertile imagination!"

The current names in the stone probably date from the nineteenth century and show that the habit to carve names in the stone still existed not so long ago—although the local historian Hiernard supposes these names are carved to substantiate the story of Rabelais.

—Dr. Peter van der Krogt is head of the URU-Explokart research program for the History of Cartography, University of Amsterdam/University of Utrecht, the Netherlands. He is a member of the Editorial Advisory Board of *The Portolan*. This article was contributed by the author and is a translation of the article in *Caert-Thresoor* 31, 2 (2012).

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ENDNOTES

- 1 Office de Tourisme de Poitiers, Website <http://nl.poitiers-tourism.com/>
- 2 Translation by Thomas Urquhart and Peter Antony Motteux, <http://en.wikisource.org/wiki/Pantagruel>
- 3 Boissonnade 1932, 73, «des noms de consonance flamande ou germanique, tels que ceux de Hoogenberg, des Ortelius, des Georges Bruin sont gravés sur la Pierre-Levée.»
- 4 Van der Krogt 2010, nr. 3430. Erroneously I have Monthléry identified with Henrichemont. Hoefnagel's original drawing of the profile of Poitiers still exists, it is in the Albertina in Vienna, the original of the drawing of the Pierre levée is not known.
- 5 In later sources you find it a few times, as is evidenced by a search in Google Books.
- 6 Gaillard 1837, 129.
- 7 Bangs 1982
- 8 Hiernard 2006, 254–255.
- 9 Monballieu 1980, 101–102, gives a transcription of this document. For additional information on Mostart, see Bangs 1982.
- 10 E.g.: Jodocus Sincerus (Justus Zinzerling), *Itinerarium Gallicum* (Leiden: Jacobus du Creux, 1616), 155; Alcide de Saint-Maurice, *Le Guide fidèle des étrangers dans le voyage de France* (Paris 1672), 129–130; Paul Berkenmeyer, *Le curieux antiquaire* (Leiden: Pieter van der Aa, 1729), 79–80.
- 11 John Breval, *Remarks on several parts of Europe* (London: Lintot, 1738), blz. 253.
- 12 Used is a later edition: Paulus Merula, *Cosmographiæ generalis libri tres* (Amsterdam: Henricus Hondius, 1621), p. 399.
- 13 Thalès (1859) in his translation of Zinzerling (see footnote 10): «La Pierre levée est couverté de noms des voyageurs. Mérula y a remarqué ceux de Gifanius Buranus, de Gérard Mercator, d'Abraham Ortelius» (p. 153). Since Zinzerling himself did not mention Merula (editions of 1616, 1649 and 1655 are consulted), this sentence was to be added by Thalès.
- 14 Abraham Gölnitz, *Ulysses Belgico-Gallicus* (Leiden: Elsevier, 1631), pp. 293–294.
- 15 Mangon de Lalande 1839, 92.

- 16 Auction 2 December 2008, Waddington's Toronto. See http://www.arcadja.com/auctions/en/heriot_george/artist/13306/
- 17 Quoted by Averdunk & Müller-Reinhard 1914, 49–50.
- 18 Hiernard 2004, and e-mails by Jean Hiernard 29 April and 1 May 2012.

SUMMARY

The Pierre levée of Poitiers: A dolmen with graffiti by mapmakers and draughtsmen/ Peter van der Krogt

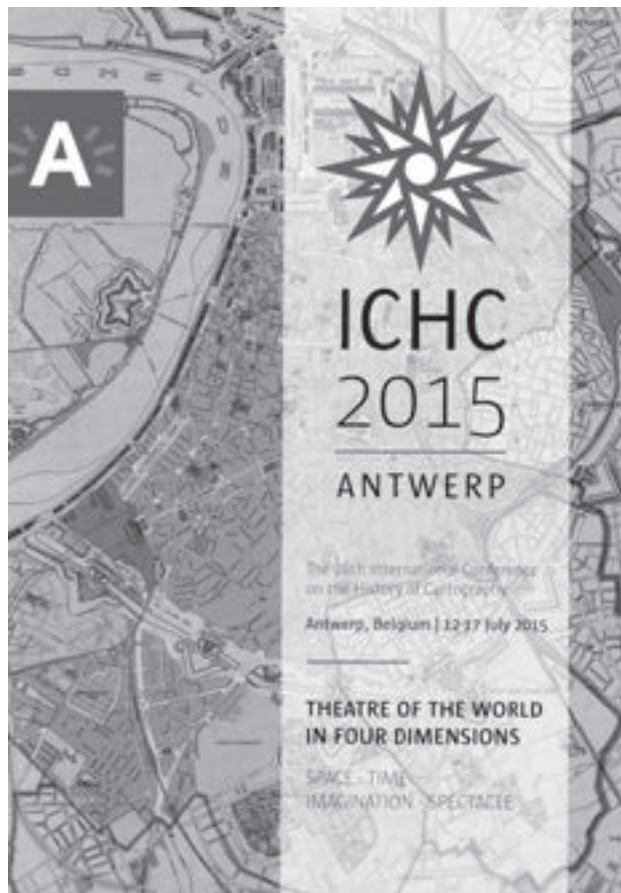
About a kilometer east of Poitiers in west central France is a dolmen, a large limestone megalith placed on some smaller stones, hence the name 'Pierre levée "(Raised Stone). Students and travelers used to climb onto the stone and scratch their names into it. Among these 'tourists' were some famous sixteenth-century cartographers and draughtsmen, such as Hogenberg, Mercator, and Ortelius. The

draughtsman Joris Hoefnagel visited Poitiers in 1561 when he and his companions inscribed their names in the stone, too, and Hoefnagel made a drawing of it. The drawing was later printed in the Braun & Hogenberg town atlas. On the stone, which broke into two pieces in the 18th century, various names are still legible; but those probably date from the 19th century. As was established during a visit in 2011, none of the earlier names are discernable. 🌐



PURPOSE OF THE WMS...

The purpose of the Washington Map Society is to support and promote map collecting, cartography, and the study of cartographic history.



THE WORLD IN TWO HEMISPHERES

Armitage, Geoff with Ashley Baynton-Williams. *The World at Their Fingertips: Eighteenth-Century British Two-Sheet Double-Hemisphere World Maps*. Vaduz, Liechtenstein and London: The Sylvia Ioannu Foundation and The British Library, 2012. 9.75 x 12.5 inches, hard cover, 262 pages, further reading, numerous color and sepia toned black-and-white images. ISBN 978-0-7123-5877-4. £45.00 \$65.00.

Reviewed by Dennis P. Reinhartz

The Western Intellectual Revolution, culminating in the Enlightenment, remains one of the most significant periods in history. What began as the Scientific Revolution in the sixteenth century, founded on the discoveries of Nicolaus Copernicus, Galileo Galilei, Johannes Kepler, Sir Francis Bacon, Rene Descartes, and others, climaxed in the new philosophical thinking and corresponding political, economic, and social ideas and institutions of the Enlightenment in the eighteenth century, the impacts of which are still felt across the globe today. Furthermore, the effects on geographical discovery, geography, and cartography of this amazing era were no less substantial. And information about this changing new worldview ever increasingly was broadcast across nascent global civilization via printed texts and images, in part through maps.

With an ancestry dating to the early sixteenth century, one of the most important cartographic genres, presenting this new global outlook, to emerge in the Enlightenment was that of double-hemisphere world maps. This type of cartographic production reached its apex in Great Britain in the eighteenth century. It is to a comprehensive study of these British maps as a corpus that *The World at Their Fingertips* by Geoff Armitage with Ashley Baynton-Williams is committed. Both are eminently qualified for the task. Armitage is a twenty-five year veteran of the British Library Map Collection and its current Head of Maps Reference and the author of *The Shadow of the Moon: British Solar Eclipse Mapping in the Eighteenth Century* (1997), among numerous other works in the history of cartography. Baynton-Williams is a London map dealer and most recently, along with Laurence Worms, is the co-author of the well-received *British Map Engravers: A Dictionary of Engravers, Lithographers and Their Principle Employees to 1850* (2011).

As Armitage points out in the "Preface," during his research he primarily sought to answer three questions: Who were the people involved in the British map trade in the eighteenth century and what connected them? What were the reasons for making these particular maps? And who were the affected consumers of these maps, and



why were they purchasing them? He further relates that answering these questions led him into a wider investigation of the largely English and London-based trade. His findings in the form of a more general picture of it and its mechanisms comprises the first, somewhat shorter part of the book, while the second is devoted to a detailed examination of the cartography with a map plate for each of twenty-four exemplars, carto-bibliography, and publication record for every map.

After the brief "Introduction" on the Enlightenment and its cartography, Armitage begins his story with "Chapter 1" on the first map of the genre, Alexis Hubert-Jaillot's two-sheet double-hemisphere "*Mappe-monde Geo-Hydrographique, ou Description Generale du Globe Terrestre...*," published in Paris in 1674. There follow other chapters on "British mapmaking," "high points" (e.g. Halley) and "low points" (e.g. Briggs—California as an island) of British eighteenth century mapping of the world, and "related topics" (e.g. Wildey-Moll map screen). Although these maps had European continental origins and were derivative of continental design, Armitage correctly asserts that tradition eventually became much stronger in Britain.

These maps were produced by the leading figures of the British map trade and to further the agenda of the emerging global British Empire in the eighteenth century. Given the lack of strong copyright laws until late in the eighteenth century, these cartographers also freely plagiarized from each other. These world maps contributed greatly to making London the new center of the map trade, replacing Amsterdam and Paris. The target market for this type of cartography was rising middle class whose members appreciated them for their scientific appearance, with their Enlightenment emphasis on content over decoration, and as intellectual and economic status symbols.

A thorough analysis of this genre is initiated in Chapter 6, "The British Double-Hemisphere Maps." Chapter 7 then offers a "Chronological Listing and Description of British Two-Sheet Double-Hemisphere World Maps 1680–1807" and is followed by a short "Conclusion." The producers of these elephant folio format maps include names such as Berry, Moll, Senex, Bowles, Overton, and West, among others. The German-born Herman Moll (1654?–1732) is somewhat featured for the quality of his work and the influence it exerted. Each of the twenty-four entries gives a full title and description of its particular map along with its various states and some locations and references for them. Biographical information for their makers also is to be found in the different listings. Explicably, the major source for most of them is the vast British Library Map Collection.

Also especially valuable to those seriously interested in even the overall subject matter of this book are its three appendixes. The first consists of not so familiar rather lengthy quotations on the making of these maps by some of their makers—Joseph Moxon, Robert Morden (3), William Berry, and Herman Moll. They are appealing and revealing of the cartographic process. Appendix II consists of the transcripts of twenty-seven "transcripts of contemporary announcements" from cartographers' (including those already mentioned and many more) catalogs and newspapers advertising numerous of these maps, offering additional insights into the London map trade of the time. And the last appendix lists all of the known addresses for the map makers of this era. It helps to trace not only their locations, but also their business acumen and development. The definitive secondary source for this compilation cited is Worms and Baynton-Williams' aforementioned *British Map Engravers*. A selected bibliography concludes this volume.

This is a complex and very worthwhile book and not in the vein of a more popular history. It is the first real

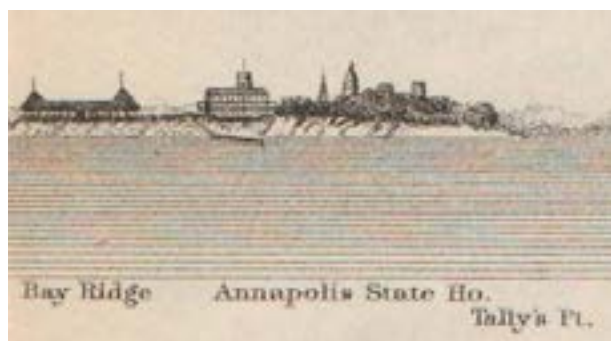
study of this significant category of world maps that reflect the cumulative gestalt of the Enlightenment, the very worldview that correspondingly shaped this major era of Western attainment. It also provides the reader with an enhanced understanding of the British cartographic commerce in the eighteenth century. While this volume is clearly and concisely written, it is not for the neophyte or generalist in the history of cartography. Its enduring value to knowledgeable individuals and learned institutions undoubtedly will be as reference volume.

—Dennis Reinhartz, a member of the Washington Map Society, is an emeritus professor of history at The University of Texas at Arlington and a past president of the Society for the History of Discoveries and the Texas Map Society. He is the author of *The Art of the Map: An Illustrated History of Map Elements and Embellishments* (Sterling, 2012), which was reviewed in Issue 86 (Spring 2013) of this journal.



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USCGS. **United States Coast Pilot. Atlantic Coast.
Part VI. Chesapeake Bay and Tributaries.**
Washington: Government Printing Office. 1889
with updates to 1898. 128, VII pp. VG. \$750.

AN HISTORIC VIEW OF NORWEGIAN NAVIGATIONAL CHARTS

Ginsberg, William B. ***Sea Charts of Norway, 1585–1812***. New York: Septentrionalium Press, 2012. Clothbound, 30x25 cm, 321 pages, 220 color and b/w images, graph and two appendices, bibliography, index of maps by title, index. ISBN 0-9787900-4-9. \$ 145. Available via www.septentrionalium.com and from Cohen & Taliaferro LLC www.ctraremaps.com

Reviewed by William A. Stanley

This is another fine addition to Dr. William Ginsberg's two previous publications dedicated to mapping of Norway and Scandinavia. Ginsberg has systematically gathered and described coastal charts by the principal geographers, publishers and mapmakers of Norway.

The publication provides a chronology of sixteenth to the nineteenth century chart descriptions with groupings capturing the development of marine cartography supported by both text and beautiful full color and sepia tone images of the chart reproductions, title pages and atlas centerfolds. The book's design moves the reader through time; carefully divided into thirteen chapters, each highlighting the works of the geographers, the variations of ownership of the printing plates, their businesses, as well as the printing periods, identifications, and the various states of issuance. Works of Waghenauer, Blaeu, then onto Colom, Theunis Jacobsz, Jansson, Goos, de Wit and van Keulen, followed by Dudley, Seller and Halley have been examined and described with their heirs and publishing houses. The clarity of the chart images is excellent and the geographic interpretations textually support the visual.

The chapters not only provide specific detail of the chart's coverage, but it captures a micro-historical glance of the economic and marine commerce of the coastal regions through the centuries. Each of the 320 illustrations and the 220 charts, graphic illustrations shows Ginsberg's efforts to ensure a comprehensive view of Norway's development in the coastal region. There is complete cartobibliographic title data with full English translations. Thus, the predominately Dutch chart makers move us through time to the predominance of the van Keulen period of navigational charts.

The English geographers follow with Dudley, Sellers and Halley, beginning from the mid-seventeenth century; with the Scandinavians efforts by Grove and then onto the French contributions to the seafaring admiralty editions by Jaillot and Bellin; concluding in the late eighteenth and early nineteenth century navigational era of chart making.

The book is a well defined guide for any antiquarian map collector. The publication is laid out chronologically by chapter and then each is provided a numbered identification to include an alpha designation for each state of the chart's issue. The manner in which Ginsberg identifies

the chart with the illustration allows the reader a numerical identification with an alpha support system so as to provide an easy comparison of the illustration and the narrative description. The chart numbering guide is then supported, by a graphic at the beginning of each chapter that illustrates the chart's location and

the boundaries of that chart along a particular section of coastline. This format is maintained for each section. This greatly enhances the reader's ability to identify and comprehend the various charts of that cartographer as it follows the chronology of the subsequent decades as one moves through the publication. Atlas descriptions include tables and specific characteristics of the charts depicted. Upon completion of each chapter there is an Appendix Gazetteer of the coastal place names, etc. The publication offers bibliographic information for referenced subjects, list of map titles, and a detailed index with a brief textual description of the small illustrations where double page charts have been displayed. Ginsberg has also included several rare or unrecorded atlas editions such as Thomas Jenner's coastal atlas of 1653.

Sea Charts of Norway, 1585–1812 is a delight to read. It has the ability to stimulate one's thoughts of historical cartography in a scholarly manner and at the same time provides the map enthusiast as well as dealers a beneficial tool for any map review of Norwegian cartography. The publication is a perfect addition to any map collector's library. The striking visual appeal, the diversity of information and the high quality of the illustrations makes this book a true reference tool.

—William (Bill) Stanley is a Past President and founding member of the WMS, Retired Chief Historian, National Oceanic and Atmospheric Administration (NOAA) and Owner of Cartographic Associates, antique map and print dealer. 🌐



EARLY EXPLORERS IN NORTH AMERICA?

Thompson, Gunner. *Viking America*. Port Townsend, Washington: New World Discovery Institute, Misty Isles Press, and lulu.com, 2012. Hardback and paperback, 8.5 x 11 inches, 336 pages, index, bibliography. ISBN 978-0-9788916-2-6 (paper) and 978-0-9788916-6-4 (hardback). Paper \$12.00 and hardback \$30.00. Available from Lulu.com (books).

Reviewed by Birgitta Wallace

V*iking America* spans 325 size A4 pages. The book claims that transatlantic voyages began millennia ago and that there were large colonies of Minoans, Phoenicians, Romans, Welsh and Norse in the Americas, all involved in thriving commercial ventures. The author argues that, in the 12th century, B.C., the Phoenicians discovered a large and fertile land west of Libya. This, according to the author, must have been the Americas. The author goes on to argue that the Minoans and the Romans imported vital supplies from these lands; Jewish immigrants settled in what is now Mexico; the Celtic king, Arthur, established the Albion Colony in northern America, in the 530s; and Leif Eriksson's Vinland Colony grew to enormous proportions. The author argues that the European population grew to a quarter million by the 13th Century, in part by virtue of the favorable weather in the Medieval Warming Period. The author concludes that, about 1350, two-thirds of these people died of the Bubonic Plague, and the survivors merged with native groups.

It is clear that a great deal of work has gone into this book. The author has consulted a wide range of maps and works pertaining to the Middle Ages. However, an overwhelming amount of scientific evidence argues against the author's theses. This evidence falls into at least four broad categories: archeological; pictorial; documentary and cartographic.

ARCHEOLOGICAL EVIDENCE

A quarter of a million Europeans would have made a significant imprint on the archaeological record, no matter what period they had lived in, especially as this colonization was said to have lasted for centuries. The Bubonic Plague did not cross the Atlantic. Iceland did have some serious epidemics in 1402 and 1495, but they had little influence on the demographics, and there is no evidence that the Plague ever reached Greenland, let alone North America.

Among the most spectacular sites in North America are massive earth works in eastern and middlewestern North America built by Adena, Hopewellian, Fort Ancient and Mississippian native cultures in a sequence beginning

c. 1000 BC and lasting into contact time. The Adena are known for their huge burial mounds, up to 295' high and 300' in diameter at the base. The Hopewell built huge ceremonial enclosures between c. 200 BC to AD 500. They were succeeded about AD1000 by the Fort Ancient and Mississippian cultures who built large ceremonial platform mounds and villages centered on a central oval plaza. The sites have been extensively excavated and researched. During the 19th century, however, they were considered too impressive to have been constructed by native people (a view not adopted by Thomas Jefferson, whose excavations clearly showed that they were indigenous constructions). In 1848 an antiquarian by the name of Ephraim George Squire and a physician, Edwin H. Davis, published *Ancient Monuments of the Mississippi Valley* based on archaeological surveys of large earthworks in that valley. Although an attempt at scientific research, the conclusions consisted of speculations on European origins of these monuments, and today's archaeologists see them as quaintly typical for their time.

PICTORIAL EVIDENCE

The author argues that turkeys are another indication of pre-Columbian contact with America. He notes that birds are depicted on the Norman Bayeux Tapestry and the Swedish Skog tapestry, both dating from the 11th century AD. He states that the birds on these tapestries are turkeys. In reality there is nothing that identifies the tapestry birds as turkeys. The stylized shapes could be any large birds. In addition, the author states that Romans imported turkeys into Europe from America, naming the birds d'indon, Indian bird. Although many readers would conclude that this was because they were imported from India, the author sees it as proof that the birds came not from India, but from the West Indies.

DOCUMENTARY EVIDENCE

As further proof of European presence in the Americas, the author turns to Marco Polo's *Travelogues* and the Rossi collection of documents, as well as the *Inventio*

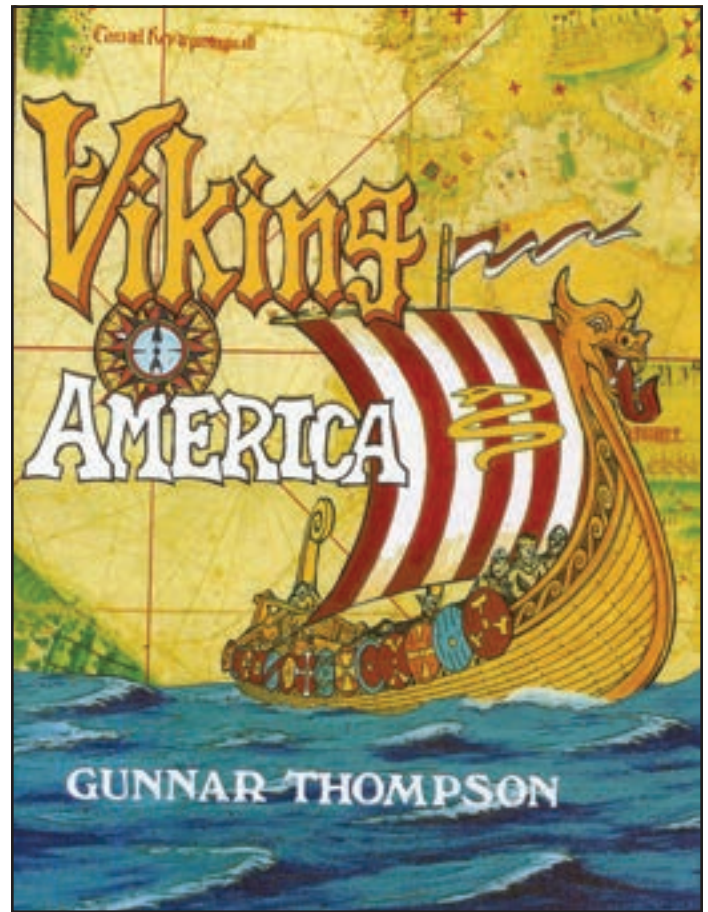
Fortunata. He sees Marco Polo's description of travels in Book I, Chapter 51 as a visit to the Canadian Arctic to fetch white gyrfalcons for Kublai Khan. Yet both Marco Polo's text and the Rossi documents state definitely that the birds came from an island in southern Siberia. Marco Polo himself locates the island in the lands of the Mekriti near Lake Baikal, 40 days of travel north of Mongolia's capital Karakorum. The text indicates that Marco Polo did not go there himself but relied on descriptions by the locals. The author places it on Baffin Island from where Marco Polo explored the entire American west coast all the way to Mexico. He also purportedly sailed the Canadian Northwest Passage (p.174).

The author is aware that sailing the Northwest Passage is not the easiest task even today when the sea ice is diminishing, but he believes that it was possible in the Medieval Warming Period, before the Little Ice Age hit around 1300. Modern research, however, indicates that the cooling began already around 1200. The King's Mirror, dating from c.1250, says that there is now sea ice around Greenland where there was none before. That a Chinese junk should have sailed the Northwest Passage in the late 1200s is improbable.

CARTOGRAPHIC EVIDENCE

The author also supports his theses by reference to the Rossi collection of maps and notes and the de Virga map. The creator of the de Virga map was a Venetian by the name of Albertinus de Virga (the author uses the Anglicized form Albertin). It was discovered in a Croatian bookshop in 1911 by the Austrian collector Albert Figdor. The map was examined by a well known expert, Professor Franz von Wieser who had no doubt about its authenticity. It was lost in the chaos of the Second World War, but good photographs of it are still available.

The de Virga map is a rectangular parchment with a calendar and two tables with inscriptions relating to it. A circular world map surrounded by decorative motifs occupies the rest of it. A fairly accurate rendition of the Mediterranean is close to the centre, with Africa and part of Asia to the south, Asia continuing east and to the north, with a large off-shore island. The European continent is fairly accurate until it reaches the Scandinavian countries and the Baltic. Here it follows a common pre-Columbian notion that the Baltic ran east-west instead of north-south, creating a totally distorted view of Sweden and Norway. Sweden is separated from Norway except



for a small "neck" running northwest. Attached to it is a large triangular land mass termed Norueca, Norway (not "North Norway" or "Norway Province" as stated by the author, pp. 252-253). Three other localities are also marked Norueca. The map historian Kirsten Seaver has suggested that they are Norwegian centers for the stockfish trade with Venice. East of Sweden is Russia and farther away Mongolia and China in a continuous mass with southeast Asia. The names and configurations make it clear that Marco Polo and Chinese maps were part of the sources for the de Virga map. The map part of the parchment is depicted in color on the back cover of the book. In the book itself the author has it only as a poor quality black and white illustration (p, 252). On the following page he shows a detail, but here he has replaced the original place names with his "identifications" of them. He has also disconnected Norueca from Sweden, whereas the two are contiguous on the original.

Although distorted, Norueca is, as pointed out by Seaver, not Greenland or any other continent. To the author, this

(continued on page 60)

PERHAPS THE MOST IMPORTANT REPOSITORY OF CARTOGRAPHIC NOTES

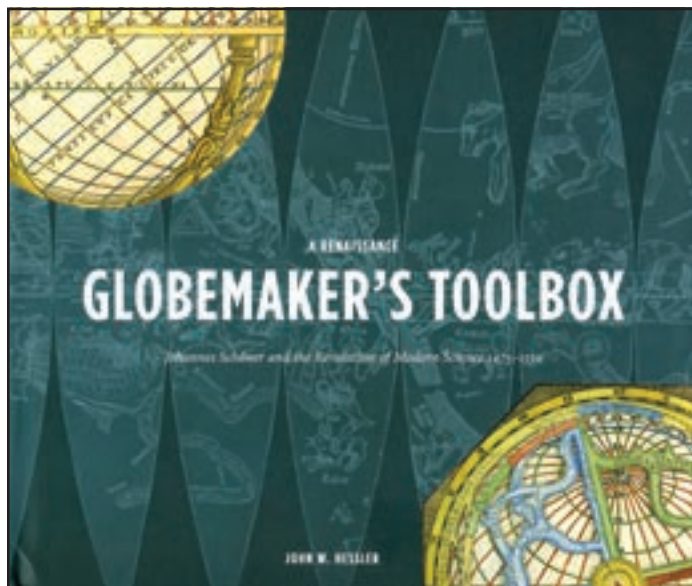
Hessler, John H. ***A Renaissance Globemaker's Toolbox – Johannes Schöner and the Revolution of Modern Science 1475–1550***. Washington, DC: The Library of Congress, in association with D. Giles Limited, London, 2013. Hardback, 9x7.5 inches (191 x 229 mm), 176 pages, 100 color illus., endnotes, index. ISBN 978–1-907804-16-8. UK£ 19.95, US\$ 29.95

Reviewed by Gregory McIntosh

In 2003, the Library of Congress, on behalf of the American People, acquired a hogskin leather bound portfolio, called the *Schöner Sammelband*, containing the only surviving copies of two of the most important maps of the early sixteenth century: the Martin Waldseemüller woodcut wall map of the world, dated 1507, and Waldseemüller's woodcut "Carta Marina" wall map of the world of 1516. The 1507 printed map (the extant copy is probably a later edition of about 1515) is renowned as the first to have the name "America." The *Sammelband* was assembled by Johannes Schöner (1477–1547), a German mathematician, astronomer, geographer, instrument maker, and an archetypal sixteenth century humanist polymath, whose two earliest terrestrial globes were markedly influenced by the cartography of Martin Waldseemüller. The portfolio also included some printed gores for terrestrial (1515) and celestial (1517) globes made by Schöner.

In the ten years since this national treasure came to our country, Dr. John W. Hessler, Senior Cartographic Reference Specialist in the Geography and Map Division of the Library, has studied, written, and published on the Waldseemüller maps and their milieu. The book under review—*Globemaker's Toolbox*—is the third (and last, he says) of a trilogy of works by Dr. Hessler about the Waldseemüller maps. The first was *The Naming of America: Martin Waldseemüller's 1507 World Map and the Cosmographiae Introductio* (2008), which was a new translation and commentary on the book published by the Vosgene Gymnasium of St.-Die, which included Martin Waldseemüller, to accompany the wall map of 1507, and illuminates their publishing activities and associated geographical ideas. The second was *Seeing the World Anew: The Radical Vision of Martin Waldseemüller's 1507 & 1516 World Maps* (2012), co-authored with Chet Van Duzer, but apportioned such that Hessler's bailiwick was the 1507 wall map.

In the third book, that under review, is presented a detailed examination of the physical contents of the *Sammelband* portfolio and how it acted as Schöner's repository of notes used for the construction of his terrestrial and celestial globes. Interesting handwritten notes by Schöner in the margins of books he owned and consulted are presented and allow us once in a while to peek over Schöner's shoulder as he contemplates a problem in natal astrology



or a report from India. Because the terrestrial and celestial printed globe gores made by Schöner in 1515 and 1517 respectively were found in the *Sammelband*, these globes receive the most attention. Schöner's other terrestrial globes of 1520 and 1523 are only mentioned in passing. That Schöner continued throughout his life to draw upon the information in his *Sammelband* is a point well realized in Hessler's investigations but there does not seem to be much added by Schöner to the *Sammelband* after 1516 or so.

The twelve sheets of the Waldseemüller 1507 world wall map and the twelve sheets of the Waldseemüller 1516 "Carta Marina" world wall map (plus an extra manuscript sheet by Schöner) are reproduced. The 1507 map sheets were earlier reproduced in Dr. Hessler's 2008 book. The 1507 sheets again and 1516 sheets were reproduced (twice each) in the sumptuous, large format publication of last year. The reproductions in the *Globemaker's Toolbox* are the smallest of the four reproduced sets of 1507 map sheets and of the three reproductions of the 1516 map sheets published in the three Hessler books, often allowing for each sheet an increased commentary over those of the 2008 and 2012 productions.

The 1507 and 1516 maps are reproduced on the website <http://www.globemakerstoolbox.com>, along with many of the other illustrations and commentary from the book, and the website is a fine companion to the volume.

The three publications by John Hessler—*Naming America* (2008), *Seeing the World Anew* (2012), and *Globemaker's Toolbox*—present a rich treasure trove of information on “America’s Birth Certificate.” The 1507 map has traditionally been known for over one-hundred years as the “Baptismal Certificate of America” but “Birth Certificate” is now used. Though we have been aware of the Waldseemüller maps, the Gymnasium Vosgene of St.-Dié, and Johannes Schöner for over one-hundred years, here a scholar has taken apart the old portfolio for the rest of us to look at with him. Drawing upon the maps and gores within the *Sammelband*, Hessler also opens up many volumes of Schöner’s publications, to read Schöner’s thoughts and ruminations about astrology and mathematics. The discussion is very often accompanied by photographic reproductions of the pertinent Schöner document. This immediacy, this intimacy, is further expanded by discussions and reproductions of the many personal annotations written by Schöner in books of his still extant personal library located in Vienna. Schöner’s personal bookplate, affixed to the portfolio holding the precious Waldseemüller maps, prophetically reads: “To you, Posterity, Schöner gives this; as long as it exists there is a monument to his spirit.” John Hessler has in his book added another monument to the spirit of Johannes Schöner.


A recent speculative theory that mapmakers, including Waldseemüller, were aware of the Pacific Ocean before 1513 and the Straits of Magellan before 1522 is unfortunately given some possible credence in this book and in Hessler’s previous books. This “mystery” (as it is referred to in the books) of how Waldseemüller could know of the Pacific Ocean (that is, an ocean to the east of China and to the west of America) before Balboa seems overstated. In designing a world map of the full 360 degrees, the ocean long assumed to be to the east of China and surrounding the islands of Japan must also be to the west of America, so the mystery can be simply explained. In placing large lands and islands to the west of Europe and east of Asia (and, thus, splitting the world ocean into two), Waldseemüller had only a few choices in his graphic presentation: leave the western edges of the lands unknown and undefined (as he did in his later “Carta Marina” of 1516); encircle the lands with ocean; or some combination of the two.

Waldseemüller in his 1507 map settled upon the last option, surrounding the new lands with water but specifying with inscribed scrolls that the western margins of the lands are undefined and unknown. It seems to this reviewer that Waldseemüller’s only interest in the ocean between Asia and America, as displayed on his map, was how he could use it to define, delineate, and outline the New World, proclaimed by Vespucci, as a separate and equal world—what an artist would call the negative space. Waldseemüller places the New World of Vespucci in the world ocean, surrounded by the world ocean. It is the new, Vespuccian status of the land that Waldseemüller is highlighting, not some hypothetically necessary expanse of ocean, much less muted whisperings of a secret knowledge.

In Hessler’s books the 1507 map is said to be radical and mysterious because it is the earliest map to show a Pacific Ocean. The 1507 map (one of the earliest maps to depict all 360 degrees, preceded only by the Contarini-Rosselli printed world map of 1506) is certainly radical—for declaring and displaying a fourth part of the world outside the tripartite known world, beyond the received world view of the ancient Greeks, especially Ptolemy. Though recognizing in his three books this inspiration for Waldseemüller’s map, more emphasis appears to be placed upon Waldseemüller’s seemingly esoteric and anachronistic knowledge of the pre-scient Pacific Ocean than upon the 1507 map being the first graphic, cartographic, and iconographic image of the recasting of the world with the Fourth Continent of the *Mundus Novus*, the New World of America.

Under the influence of the two published Vespucci letters, Waldseemüller is the first cartographer to consciously depict the *Mundus Novus* as an island-continent with its own name unattached to the Ptolemaic trilobate Old World of Europe-Africa-Asia. Prior to the 1507 map, the newly discovered landmass (South America based upon Spanish voyages to Venezuela and Portuguese voyages to Brazil) was depicted tentatively with indefinite coastlines, an amorphous blob in the ocean. It was not yet imagined to be of the stature of a New World, a continent as the other three but also as an island separate from the known world. Waldseemüller’s deliberate and assertive break with Ptolemy is a radical new view of the world. It is not the tentative, extrapolative waters of the Pacific Ocean that are revolutionary; it is the artistic conception and concrete delineation of the Fourth Continent, carving out and stamping the New World as a separate, different world, a distinct identity now emblazoned as America.

The Martin Waldseemüller printed woodcut wall map of the world of 1507 is a great map, one of the greatest maps ever produced. For the man who declared this to be a New World beyond the old three continents, who claimed to have been its first discoverer, with his portrait at the top, this map gave the new continent a name which has come to symbolize more than an Extra Ptolemeum land, more than even a place. America will always be the New World, a newer tomorrow, a shining city upon a hill. Vespucci's declaratory breakthrough discovery of another world outside of the known world, and Waldseemüller's attendant world image, marks the birth of America as a name for a continent, a nation, a civilization, and an ideal. In his large, magnificent wall map of 1507, Martin Waldseemüller gives graphic declaration of America as more than merely a new, fourth part of the world—it is an independent landmass, an island-world, a New World separate and beyond the known world as it was. This is the first map to distinctly and purposefully identify the new lands as a new Fourth Continent, convincingly separate from the Old World Continent, unattached and insular. Nothing could more epitomize the birth certificate for the fledgling, yet robust, branch of human history that is America than this map, this printed proclamation. Someday, perhaps, our fellow Americans may look upon this map with the same near reverence we do today at the Statue of Liberty, the Liberty Bell, or the American Bald Eagle as enduring symbols of the American Identity. The three books by Dr. John W. Hessler may eventually lead to making the American public more aware of their country's "Birth Certificate" of 1507.

—Gregory McIntosh is the author of *The Piri Reis Map of 1513* (2000), reviewed in this journal, issue 49 (Winter 2000-2001), *The Johannes Ruysch and Martin Waldseemüller World Maps: The Interplay and Merging of Early Sixteenth Century New World Cartographies* (2012), reviewed in this journal, issue 86 (Spring 2013), *Antique Map Reproductions: A Directory of Publishers & Distributors of Antique Map, Atlas & Globe Facsimiles & Reproductions* (1998); and the forthcoming book, *The Vesconte Maggiolo World Map of 1504 in Fano, Italy: Prolegomena to the History of the Lusitano-Italian-Germanic Cartography* (2013). He contributed chapters to *The Oxford Companion to World Exploration* (2007) and *California 49: Forty-Nine Maps of California from the Sixteenth Century to the Present* (1999). His articles have appeared in *Imago Mundi*, *Terrae Incognitae*, *Cartographica Helvetica*, *American Neptune*, *Mercator's World*, and *The Portolan*. 


EARLY EXPLORERS IN NORTH AMERICA?

(from page 57)

enlargement of Norway is a clear indication that it includes the North American seaboard, all the way down to Florida. He returns to this in many places in the book, weaving in other map sources as well as information from his text sources, especially *Inventio Fortunata*, but its descriptions do not conform to the de Virga map.

The Rossi collection was brought to the United States in the 1930s by a descendant of Marco Polo, Marian F. Rossi. It consists of 15 documents dating from the 13th to the 16th centuries of which 5 were donated to the Library of Congress, among them a map known as "Man with a Ship" depicting Asia and continental Europe. The collection was first published in 1948 by the Russian-born cartographic historian Leo Bagrow, the founder of *Imago Mundi*. The private part of the collection was published in 1965 and 1982 in the *Felicitation Volumes of Southeast Asian Studies*. Although not giving the source, the author relies heavily on these texts, and intermingles them with the traditional Marco Polo narratives. Some maps are clearly copies, and their authenticity has at times been questioned. What appears to be Alaska on one has been viewed as a modern addition. Another map was radiocarbon-dated to 1560±100 (p. 176). The date was on the parchment, not the ink, so it does not tell us when it was drawn. Though the author believes them all to be genuine, and that the maps show, without doubt, that Marco Polo visited portions of the New World, others see no indication that the voyages went beyond Asia.

Finding new sources—new evidence that turn old ideas on their head—is the specialist's delight. However, here, the audience would have been better served if the author had dealt directly with more of the information in the literature that is inconsistent with his theories.

—Birgitta Wallace is Senior Archaeologist (Emerita), Parks Canada. Educated at Uppsala University and University of Kansas, her research has focused on Viking archaeology, with special emphasis on the westward expansion. She has worked on sites in Norway, Sweden, Nova Scotia, Israel, U.S.A., and Canada, including the *L'Anse aux Meadows* site in Newfoundland, first with the *Ingstad* expedition and later with the *Parks Canada* team. She has published widely on the *L'Anse aux Meadows* site and Vikings in North America. 

MALTA'S CARTOGRAPHIC DYNASTY MEETS THE WORLD

Ganado, Albert; Schirò, Joseph; & Attard, Claude Micallef. *The Brocktorff Mapmakers*. San Gwann, Malta: Book Distributors, Ltd (BDL), 13, Giorgio Preca Street, San Gwann, Malta SGN 3511; www.bdlbooks.com; 2011. English text. (288 pp. inc. bibliography & index; 138 maps and plans; color illustrations; B5 [9.5 x 6.75 inches]). ISBN 978-99957-33-73-5. Soft cover. € 40 Euros from bdlbooks.com. [Limited hardback edition; 100 copies; ISBN 978-99957-33-74-2; price unknown]

Reviewed by Bert Johnson

Malta is an astonishing place. The island nation has less than a half million people and is less than twice the size of the District of Columbia, but its role in world history is huge: the shipwreck of St. Paul on its shores (ca. AD 60^{*}); the defeat of the Ottoman siege (1565); the failure of the Third Reich's punishing effort to bomb it into surrender (1940–42); and the US-Soviet Summit (1989), often cited as the end of the Cold War. It calls to mind the usually misquoted, misattributed line from a story by H.H. Munro that Crete produces more history than can be consumed locally; surely Malta has a better claim to those words. So it should come as no surprise that a nation with a population smaller than that of the Lancaster, PA, metro area is producing a series of histories of cartography which exceed all expectations.

The latest is this tale of a dynasty of mapmakers whose works captured Malta (and other locales) for much of the 19th century. Its founder was a man of many talents, several names, and quite a few mysteries. He was born in Kiel, in the Duchy of Holstein, on 11 June 1781 and christened Cai Friedrich von Brockdorff. The duchies of Schleswig and Holstein owed allegiance to the Danish royal house at that time but many ethnic German families like his looked southward. Little is known of his time in Germany, but in the Napoleonic Wars he served in the Army of Hanover. When that city fell to Napoleon, he and many comrades fled to Britain, whose King George III, of the House of Hanover, was still elector of that city. They formed the King's German Legion which served with great distinction from the Baltic to the Mediterranean. Brockdorff rose from private to lieutenant but left the regiment in 1810 while posted to Sicily. He married a local teenager named Sebastiana de la Micca, sixteen years his junior. That same year they moved to Malta, opened an art studio, and their first son was born the following April. The family moved to Constantinople around 1817–1818, but soon returned to Malta.

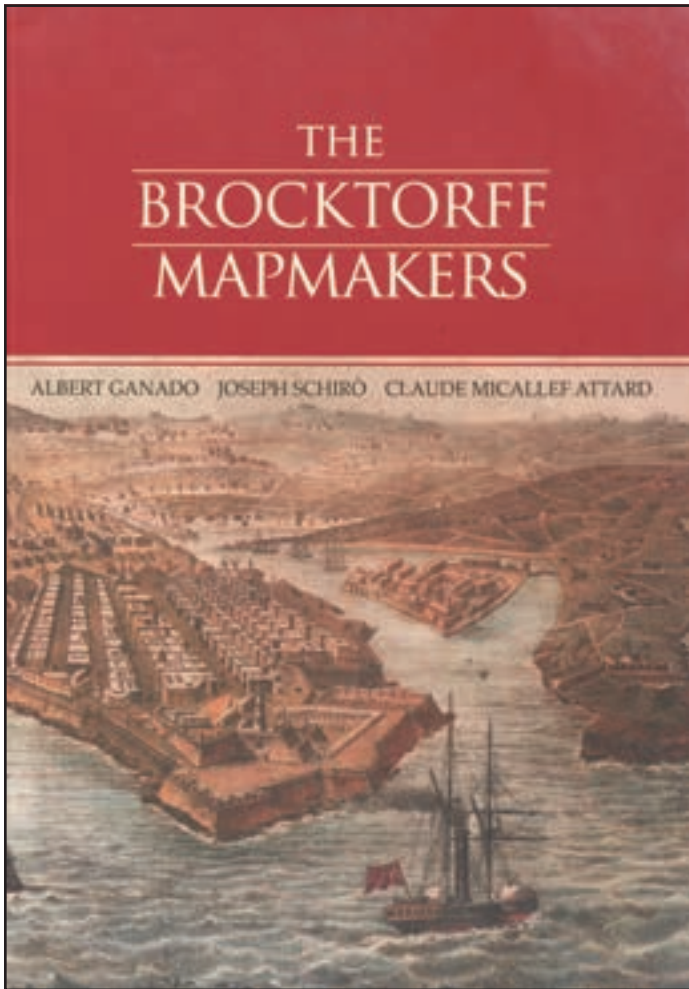
Little is known of his life in Holstein or how he got to Hanover. The males of the family had been hereditary barons of the Holy Roman Empire since 1432, but as a younger son of a minor branch, he would have had no expectation of inheritance. Presumably he had some

formal art instruction, but nothing has come to light. About the time of his Maltese migration, he changed his name from *von Brockdorff* to *de Brocktorff*, giving up the *von* (which denoted the family's minor nobility), and used *Charles* rather than *Cai* or *Karl*, although he appears to have used some variations interchangeably. No sources offer explanation for these developments, for the decision to settle in Malta, or for the brief Ottoman interregnum. What is apparent is that he and Sebastiana were proficient at making baby Brocktorffs. Their union produced at least six children who lived into adulthood, some of whom were part of the cartographic endeavor. (One source says there were twelve.) If their religious difference (he was Lutheran, she was Roman Catholic) was ever an issue, it isn't recorded; some, perhaps all, the children were baptized in their mother's faith. Charles de Brocktorff is best known in Malta today as a prolific water colorist of everything from street scenes to archaeological sites, and many of his works are considered national treasures. He was the least prolific cartographer of his lineage, but he established its role as illustrators of Malta, which led to its importance as mapmakers.

This book is the catalogue for an exhibit held from 30 November 2012 to 6 January 2013 at the National Museum of Fine Arts. It was the fruit of much labor by the Malta Map Society (MMS), building on its success with *Miniature Maps of Malta* (review: *Portolan* 77) and *German Malta Maps* (review: *Portolan* 83). The organizers had hoped to gather about 40 Brocktorff works and were amazed when they were able to offer 138 maps, plans, bird's eye views (BEV), etc. The Table of Contents has 105 entries because some are atlases and contain multiple maps.

The catalogue contains only nine works attributed to Charles de Brocktorff (1781–1850); of those, over half are unsigned but attributed. Eight of the nine are BEVs, all depicting the harbor at Valetta. The multiple tongues of fortified peninsulas offer an almost irresistible subject for an artist. Charles was also an astute businessman and quick to grasp the advantages of the new lithographic

* The Roman Catholic Feast Day of St. Paul's Shipwreck is a national holiday.



process, master its production, and incorporate it into the family business.

There are fifteen works by Federico Brocktorff (1811–1877). He did maps and BEVs of localities and archaeological sites, and while doing printing for an Anglican missionary society, he saw the market for an Arabic language atlas. He, his father, and his brother Luigi collaborated on its production. It was probably the closing of the mission printing office that prompted brothers Federico, Luigi, and Francesco to relocate to Constantinople where an Italian count had established a successful printing house for water colors and lithography. Federico and his family left Malta in 1844 and he remained in the Ottoman capital the rest of his life, where he prepared atlases in Ottoman Turkish.

There are 23 works by Luigi Brocktorff (1814–1857). The book contradicts itself on his death date. The Introduction states in one place that he died in Constantinople in 1865 at age 50, and in another that he died in that city in 1857 at age 43. While still in Malta

he made local maps and BEVs, plus other locales in the eastern Mediterranean which he presumably never saw. Of note is his map of Graham Island, a volcanic island which rose about 200 feet out of the water between Sicily and Malta, remained a few years, then eroded away, leaving a dangerous shoal. His most exotic subject was a small Ethiopian language atlas containing only seven maps. All his maps appear to have been done in Malta; none are recorded from Constantinople.

The largest number of works in this book—42—are by Giuseppe Brocktorff (c. 1817/18–1893). He had been born in Constantinople during the brief period of his parents' residence there, but did not return with his three siblings in search of work. He therefore became his father's main partner in carrying on the family business. He was personally quite talented in lithography and chromolithography. After his father's death in 1850, he and younger brother Leopoldo successfully maintained their trade. Giuseppe produced numerous maps of the Maltese islands depicting various aspects, detailed BEVs which depict changes or events in Valetta as years passed, and detail municipal maps for planning purposes. This reflects a significant portion of their business which supported government reports and publications. Leopoldo Brocktorff (1826–1886) has only one work attributed to him in this book. He performed lithography for the British Admiralty and was instrumental in helping Giuseppe maintain the family business.

This is an unusual book in that it was designed to be an exhibition catalogue but it works effectively as a history. The color rendition is excellent. Each entry has two sections of information. The first contains data that might appear near the item in the exhibit itself. This is set forth in cream colored box giving the name, date, dimensions, maker, orientation, and the collection from which it was loaned. The remaining text is a commentary which varies from map to map. It may address the contents of the map, describe the publication which contained it, explain phenomenon which are not immediately obvious, or set forth whatever else is useful. In dimensions, coloring, and format, this book forms the most recent in a trilogy of such publications by this same cadre of people. I sincerely hope that it will not be the last.

—Bert Johnson is a past WMS president who has lived and worked in the Med and would love to visit Malta someday.



Washington Map Society Annual Business Meeting



Thursday April 18, 2013

By Harold E. Meinheit

President J.C. McElveen called the Society's annual business meeting to order at 7:00 p.m. in the Geography and Map Reading Room of the Library of Congress. The agenda for the evening included reports by the Treasurer, the editor of *The Portolan*, the Program Chair, and the Membership Chair. The reports were followed by the election of the 2013–2014 Board of Directors.

Finances: The financial report, prepared by Treasurer Pete Porrazzo, was presented by J.C. McElveen. The Society is on solid financial ground. At the ninth month of the 2012–2013 fiscal year, assets total over \$52,000, which include pre-paid dues over \$11,000. Approximately \$23,900 is invested in one-year certificates of deposit, with the remainder in the Society's checking account.

Income for the 2012–2013 fiscal year is projected to be over \$28,000, with expenses somewhat over \$27,000. The primary expense is the publication and distribution of *The Portolan*, budgeted at \$23,500. Income from advertising in *The Portolan* is expected to exceed the budget due to an increase in the number of ads. Expenses

Board Attendance: Ted Callaway, Manuel Knight, J.C. McElveen, Harold Meinheit, and Richard Moore.

Board Absences: Jeffrey Katz, Chas Langelan, Robert Moir, and Peter Porrazzo.

Others in Attendance: Members and guests totaling about 40 people.

will probably slightly exceed the budget as the result of an increase in publication and distribution costs of *The Portolan*.

The Portolan: J.C. McElveen also read the *Portolan* editor's report, prepared by Editor Tom Sander. Three issues of *The Portolan* were produced over the past twelve months—Fall 2012, Winter 2012, and Spring 2013. Each year, *The Portolan* and the Washington Map Society are actively promoted at the Miami International Map Fair, the Washington Antiquarian Book Fair (Rosslyn, Virginia),



President J.C. McElveen and Vice President Ted Callaway

and the meetings of the International Map Collectors' Society and the Society for the History of Discoveries. Several new members have joined as a result of these efforts. In addition, WMS and *The Portolan* will be publicized by WMS members attending the International Conference on the History of Cartography in Helsinki in June/July 2013.

Full sets and individual back copies of *The Portolan* are available to those who would like to have full runs of the journal. A complete listing of the contents of all past issues and an index to the articles in those issues may be found at *The Portolan's* website. The editor's report also pointed out that WMS members are the most important resource for the journal. Regular contributions from members include Joel Kovarsky's "Recent Publications" column, John Docktor's "Exhibitions and Meetings," Bert Johnson's articles and book reviews, and Leigh Lockwood's frequent articles. Other members agree to do "Member Spotlights," to review books, and to provide excellent articles. Recently a new member has been added to the editorial team, with the arrival of Pat Ahrens, who will be increasingly involved with the production of the journal.

Programs: Vice President Ted Callaway, Program Chair, reviewed the 2012–2013 program year, listing the eight speakers and the range of topics covered. In February WMS members participated in a special tour of the exhibit at Ford's Theater of "Torn in Two: the 150th Anniversary of the Civil War." The tour was led by WMS member and curator of the exhibit, Ron Grim of the Norman B. Leventhal Map Center at the Boston Public Library. In addition, the speaker at the Society's annual dinner in May

will be Richard Pflederer, who will present: "Magellan, the Pacific Ocean and the Search for the Anti-Meridian."

Membership: Reading from the report of the Membership Chair, Robert Moir, J.C. McElveen stated that current membership stands at 393, consisting of 345 individuals and 48 institutions.

Election of Directors: Dennis Gurtz, Chair of the Nominating Committee, thanked Janice Downey and Natasha Greene for their service on the Board. Of the four positions open on the Board, two were the result of resignations (Downey and Greene) and two were due to term expiration (Chas Langelan and Robert Moir). The officers (President, Vice President, Treasurer, and Secretary) all have another year remaining in their terms. To fill the four vacancies, the Nominating Committee's recommended: (1) Leigh Lockwood for a one year term, expiring April 2014; (2) Robert Moir for a two-year term, expiring April 2015; (3) Chas Langelan for a three-year term, expiring April 2016; and Edward Redmond for a three-year term, expiring April 2016.

There being no nominations from the floor, the membership unanimously approved the electoral slate.

J.C. McElveen adjourned the business meeting at 7:15 p.m., turning the floor over to Ted Callaway to introduce the evening's speaker, Tom Touchton, whose presentation was entitled "Florida in Maps."

Washington Map Society Officers and Directors

President, 2012–2014 – J.C. McElveen
Vice President, 2012–2014 – Ted Callaway
Treasurer, 2011–2014 – Pete Porrazzo
Secretary, 2011–2014 – Harold Meinheit

Director, 2011–2014 – Richard Moore
Director, 2013–2014 – Leigh Lockwood
Directors, 2012–2015 – Jeff Katz and Manuel Knight
Director, 2013–2015 – Robert Moir
Directors, 2013–2016 – Chas Langelan and
Edward Redmond



Washington Map Society Annual Dinner 2013

The Metropolitan Club, Washington D.C.

May 16, 2013



By Thomas Sander

The 34th Annual Washington Map Society Dinner was held Thursday May 16, 2013 at The Metropolitan Club in Washington DC; the club was offered through the courtesy of club member and WMS President J.C. McElveen, Jr. The Metropolitan Club is one of Washington's oldest and most valued private institutions. Since its founding in 1863, at the height of the Civil War, it has pursued its primary goal of furthering "literary, mutual improvement, and social purposes." Today, nearly 150 years after its founding, the Club continues to attract distinguished members from around the world. The Metropolitan Club's proximity to the White House and other icons of the nation's capital has made it a destination for many local, national and international leaders,

including nearly every U.S. President since Abraham Lincoln. Its location and dedication to a tradition of social civility provide members with a haven from the bustle of Washington's professional life, while offering amenities associated with contemporary urban living. The clubhouse, which opened in 1908, is listed on the National Register of Historic Places and is a District of Columbia historic landmark.

Seventy-two members and guests attended the gala event. Food and drink and service were befitting of the distinguished venue. Following dinner, guest speaker and WMS member Richard Pflederer delivered an illustrated presentation entitled "Magellan, the Pacific Ocean and the Search for the Anti-Meridian. The profusely illustrated talk included many portolan charts, the specialty of Mr. Pflederer. As in recent years, this year's dinner was timed to coincide with the annual conference of the Philip Lee Phillips Society, Geography and Map Division, Library of Congress. This year's conference "Redrawing Ptolemy" was co-sponsored by the John Carter Brown Library, and focused on the cartography of Martin Waldseemüller and Mathias Ringmann.

—Tom Sander is Editor of *The Portolan*; he provided the photograph of our guest speaker and three members visiting from Florida.



Joe Fitzgerald, Richard Pflederer, Bob David, Tom Touchton.



New Conference Series in Athens

By Bert Johnson

The First International Conference on the Greek World in Travel Accounts and Maps was held at the Museum of Cycladic Art (MCA), in Athens, Greece, from 18–20 October 2012. The series is sponsored by the Sylvia Ioannou Foundation (SIF), formed in 2009, which owns the great collection of books and maps about Cyprus amassed by its benefactor. Its guiding principle is encouraging public access to its more than 2000 books and over 600 atlases and maps. With the publishing firm AdVenture, it has produced several cartographic works, including *A Catalogue of Printed Maps of Greece, 1477–1800*, by Christos G. Zacharakis, and *Sweet Land of Cyprus: The European Cartography of Cyprus, 15th–19th Centuries*, compiled by Artemis Scutari, assisted by Leonora Navari (both reviewed in *The Portolan*.) The lecture series will address the entire Greek world, but saluting its roots, the inaugural focus was *Cyprus on the Crossroads of Travelers and Map-Makers from the 15th to 20th Century*. The SIF also recently established scholarships in the humanities and social sciences on subjects related to Cyprus. Thus, although the Foundation is a relative newcomer, it has significant achievements to its credit.

Planning began in early 2011 to produce a conference to coincide with Cyprus holding the rotating presidency of the European Union from July through December 2012. The names of those involved read like a *Who's Who* of scholars, collectors, and benefactors in the history of cartography in the Greek speaking world. The nine-person Honorary Committee included a Nobel laureate, a cabinet minister, the rectors of two universities, a former Greek ambassador to Cyprus and later to the United States, and so forth. These selections were not honorifics; all are distinguished intellectuals, most connected with Hellenic studies or the history of cartography. The Organizing Committee consisted of SIF Founder Sylvia Ioannou, SIF Director Artemis Scutari, and five prominent academic and intellectual figures. From the beginning, they set out to recruit the best possible speakers. Foundation funds covered speaker expenses, with rooms at the five-star Intercontinental Athenaeum Hotel and fine dining around the city. The venue was a lecture hall on the fifth floor of the MCA, furnished and equipped by the Foundation, which has begun a continuing collaboration with the MCA. There was no cost for registration or attendance. Even coffee, lemon drinks, and snacks during the

breaks were provided. Attendees were responsible only for their own lodgings and meals.

Several weeks before the conference, late registrants were told that no more seats were available for the opening session on the evening of 18 October, only for the main sessions the next two days. By the opening date, all places had been filled with 140 actual attendees. The opening session consisted of brief remarks from a senior member of the MCA and four members of the Honorary Committee. There was then a brief keynote by Stelios Chrystodoulou, Ms Ioannou's son, and president of the Foundation. In a well delivered address, he spoke humorously of growing up with his book collecting mother and the preservationist habits she had ingrained in him. He also spoke warmly of Artemis Scutari, his mother's friend who had led her into map collecting, and who was the force of nature behind this conference. The group then reassembled in the Stathatos Mansion, which is part of the MCA, for an enjoyable reception.

Presentations were divided into four segments. *Images of Cyprus in Early Modern Times: Threads of Tradition* had 12 papers, some by persons well known to WMS members: Catherine Delano Smith, Tony Campbell, Chet van Duzer, and George Toliás. Session II, *Changing Images and Points of Correspondence: Ottoman Domination and Western Penetration*, contained six papers. Session III, *Contrasts and Challenges: Colonialism and Nation*, offered eight papers. Finally, Session IV, *Cartographical and Travellers' Collections in the Digital Age*, closed with a single paper. Most speakers were Greek or Cypriot, with France, Germany, Spain, Israel, Romania, the UK, and the US also represented. Of 28 speakers, 13 were women. Most papers were in Greek; English was the second language, with two papers in French. Simultaneous translation was available. This conference was not exclusively cartographic. It was a marriage of maps and traveler accounts over the past five centuries. This is a natural pairing which worked very well. I was more interested in the maps, but some of the best papers did not contain a single one. I look forward to seeing this promising format developed in this series. As the conference ended, work was already underway on the next one. In the weeks that followed, Ms Ioannou and Ms Scutari sought out participants for detailed questioning as to what went well and what could be improved. We discussed some possible



refinements, but this really was a great beginning, and the next one will be even better.

Most of this conference is available on line. Go to <http://www.sylviaioannoufoundation.org>. Click on "Conferences" and from that menu click on "1st International Conference." Click on "Proceedings" and you will find a menu containing the sessions and papers. There are podcasts of all papers and texts of most papers, in their original language. Ten papers are in English, and twelve podcasts. This is an excellent extension of the conference.

—Bert Johnson is interested in the history of the cartography of Greece and the Aegean World and is a past president of the WMS.



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Spotlight on the Membership



A recurring profiles feature to help members know each other and appreciate the talent and diversity that are distinguishing characteristics of the Washington Map Society.

LEIGH LOCKWOOD: *Cartographic Interests:* My fascination with cartography might be a subliminal public service to keep the world safely spinning on its axis by counterbalancing my wife's total muddle with maps. Or maybe it is because I am able to buy for \$5.00 at Barnes & Noble an atlas containing more than the total accumulated geographic knowledge in 1900. Come to think of it, my wife's first gift to me, a *Goode's Atlas*, really launched my interest. Like many, my interests are eclectic, synonym for undisciplined. I want them all, and at the moment I am collecting 1700–1800 English road atlases and strip maps. I quoted from *Britannia Depicta* for a *Portolan* article and am drawn back by finding charming quotes like, "St. David's.... indeed no collection of houses aspiring to the rank of a town can exhibit a more wretched and sickening appearance." I also like maps evoking an emotional response, the most compelling being the 1889 Hornaday "Extinction of the American Bison..." which in a glance shows the poignant plight of the bison reduced to near extinction by the 1880's. And I like the stories: Le Perouse, Cassini, Everest, Bilby towers.....

BARRY RUDERMAN: *Cartographic Interests.* Maps. They're all interesting! As a reformed collector, the maps that excite me most are the maps and mapmakers I've never seen before. *Professional Background:* Commercial Insolvency Lawyer: 1987–2006. *Owner:* Barry Lawrence Ruderman Antique Maps/RareMaps.com (La Jolla, California), 1991–2013. *Comments:* I discovered antique maps on a ski trip to Taos, New Mexico in 1990, where I met George Robinson. My next stop was Santa Fe, where I visited Bill Talbot, Andre Dumont and Dee Longenbaugh's short-lived Santa Fe shop, where I bought my first map. I was instantly hooked and tried selling maps, printing my first catalog in 1993 and launching RareMaps.com in 1996. My current map passion is where and why maps were first printed. Whether it's Bologna in 1477 or San Diego in 1877, the first local to print a map always comes with a fascinating story the speaks to the history of the time and place of publication and often reveals a host of other interesting historical details about local life, commerce

and technology. RareMaps.com has allowed me to parlay my passion for maps into a vocation and lifestyle. My wife Kathy and I count many of our closest friends and best travel and food experiences around our treks around the world in search of the next great treasure.

LUKE A. VAVRA: *Professional Background.* BS in Civil Engineering, Master of Education. Career Army officer. Served in both the Korean and Viet Nam conflicts. I studied the theory of guided missiles and then spent six years teaching and operating the Army's guided missiles. I served on three different joint staffs: two involved strategic planning at Offutt Air force Base and the US military headquarters in Europe; the third was in Viet Nam where I monitored the latest scientific and experimental warfare technologies for potential value to the armed forces. After retiring from the service I worked as an engineer for a defense contractor in Connecticut for eight years. *Cartographic Interests.* Antique maps of Virginia, Washington, DC and the Gulf Stream. *Comments.* After learning to survey and make maps at the University of Utah, I used maps almost daily in much of my military career. My wife Patricia and I began our antique map business in the late 1970s, naming our business 'Cartographic Arts' which encompassed not only maps, but globes and scientific instruments related to using and making maps. When I retired as a Colonel we returned to Virginia and began to focus on early maps of Virginia. I catalogued maps for the Virginia Historical Society in Richmond as a volunteer for ten years. With the passing of my wife in 2010, I made the decision to carry on with the business and now reside in Chester, Virginia. My latest effort is building two specialized collections: plans of Washington, DC and charts of the Gulf Stream.



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Plan von Neu Ebenezer, Matthias Seutter, 1747. Established by Protestants expelled from Salzburg in 1734 as a "religious utopia," the site for Old Ebenezer proved to be a poor location due to the sterile land. New Ebenezer was settled just two years later, closer to the Savannah River, and it was here that the town prospered until the end of the eighteenth century. Notable for its silk mills and its brief status as the capital of Georgia in 1782, the town deteriorated after being hit particularly hard by the Revolutionary War; by 1855, it was a ghost town. Seutter's orderly grid plan of New Ebenezer shows roads, marketplaces, the church and school, with waterways, cattle and woods surrounding the town.



MAPS · ATLASES · GLOBES · REFERENCE BOOKS

Letter to the Editor

My attention was drawn only recently to the review of *Maps in Books of Russia and Poland Published in the Netherlands to 1800* in *The Portolan* 84 (2012), pp. 38–45, and to the reviewer's comments on the academic qualifications of the editors of that book.

Now I have read the review, and the banner under which it appears (with its bold reference to 'volunteer work'), I have to say I find personal comments of such nature wholly out of order. It matters not whether an author attended this or that university, or any at all, provided they do the job well and correctly. If there are errors in the published work, as is plainly the case with the book in question, these should be pointed out for the benefit of readers of the journal. There are, however, acceptable and unacceptable ways in scholarly writing of doing so. In the final analysis, it is the editor's responsibility, and privilege, to guide the reviewer to suitable wording without diluting the critical value of the review.

I am particularly saddened to see the implied exclusion of non-academically qualified people from scholarly work both by the reviewer and by *The Portolan*. The intellectual merit of a work is independent of whether the author has a string of university degrees after their name or not. The history of cartography community would be irreparably damaged were we to start excluding anybody without a first degree; to start with, how many leading map collectors and dealers, even librarians—and their invaluable bibliographical work, for instance—would be lost?

The instance of this cited review is not the only one I have come across in the last few months. The most recent issue of the *Cartographic Journal* includes two book reviews signed 'Anonymous reviewer' (inserted without the book reviews editor's knowledge, as it happens). The excuse, when I wrote to protest, was that it was difficult these days to find 'academic cartographers' as reviewers. The selected pair were, apparently, professional (commercial) cartographers. So what? What does that matter? Either they are sufficiently competent as individuals to contribute from their expertise or they are not. If they are unsure how to word their adverse comments so as to demonstrate the impartiality of their criticism, that is the responsibility of the editor/ book reviews editor to guide them.

I am just so sorry to see a potential chasm opening up between those with and those without the appropriate formal qualifications or between what will soon be deemed appropriate and inappropriate occupations (i.e., not employed by universities or institutions) for contributors to the field of the history or maps. Most of us have been labouring hard over the years to pull in everybody and anybody to the community of those interested one way or another in early maps while rigorously maintaining the highest intellectual standards in oral presentations and publications. We need all the support available to encourage those standards.

Dr Catherine Delano-Smith
Senior Research Fellow, Institute of Historical
Research, University of London
Editor, *IMAGO MUNDI*, The International Journal
for the History of Cartography

RESPONSE FROM THE PORTOLAN EDITOR:

Most who enjoy and study old maps and are map collectors and *aficionados* seldom possess academic credentials in the history of cartography or a related field. Over the years, great individual knowledge is gained as all of us focus on the aspects of this interest area we all love. *The Portolan* seeks book reviewers with a known interest in the subject material. These reviewers may be members, independent scholars, or renowned scholars; their map interest and background is cited at the end of each review. The Washington Map Society is proud of diverse backgrounds of its membership; these have been shared in 'Spotlights on the WMS Membership,' a feature of *The Portolan* since Issue 53 (Spring 2002). The writer's cited aspects of the review of *Maps in Books of Russia and Poland Published in the Netherlands to 1800* are correct, and should not have occurred. Our apologies for any offense taken.



Cartographic Notes

Compiled by Thomas F. Sander



USHAPIA EXHIBIT IMAGES NOW ON OSHER MAP LIBRARY WEBSITE

Information (photographs, graphics and text) on the exhibit, *Iconic America: The United States Map as a National Symbol*, is available on the Osher Map Library website. Go to www.oshermaps.org/ and open "Previous Exhibitions" (under "Exhibitions") and click on "Iconic America" to see the first of 14 pages that show and describe the exhibition. The exhibit was on display at the Osher Map Library, University of Southern Maine, in Portland, Maine, for the period September 11, 2012-February 28, 2013. Washington Map Society member John Fondersmith was guest curator for the exhibit and many of the items in the exhibit were from his collection. Fondersmith collects objects and graphics in the map shape of the United States. He calls these ushapia. These images of the exhibit will be on the website on a permanent basis. For additional information on the exhibit, see Fondersmith's article, "The United States Map as a National Symbol" in the Winter 2012 issue of *The Portolan* (pages 75-77). Mr. Fondersmith is to deliver a presentation on *Iconic America: The United States Map as a National Symbol* to the Washington Map Society on December 12, 2013.

RGS FORDHAM AWARD TO CATHERINE DELANO-SMITH

The Royal Geographical Society in London has awarded the Fordham prize to Dr Catherine Delano-Smith, for distinguished contributions to the field of cartography. Dr Delano-Smith has facilitated and promoted cartography and the history of cartography across nearly five decades through her own research and teaching and, especially, her editing and seminar organisation. Since 1994 Dr Delano-Smith has edited *Imago Mundi*, the only international scholarly journal in map history. She has created, convened and chaired the 'Maps and Society' series of monthly lectures in London, now in twenty-second annual season, more than 130 meetings. Dr Delano-Smith was instrumental in founding the Harley Trust for international fellowships in the history of cartography in 1992. She was also recently a founding trustee for the new International Society for the History of the Map. Her own academic work, while rooted in the medieval field, has ranged to consider many other ground-breaking aspects of all periods and facets of this history of cartography. Dr. Delano-Smith is a member of the WMS.

SELDEN MAP OF CHINA

This feature in *Portolan* issues 82 and 83 alerted readers to this 17th century treasure at the Bodleian Library, University of Oxford. A short documentary on the Selden Map of China can now be found at www.torch.ox.ac.uk/selden-map.

EXPLOKART MOVES TO AMSTERDAM

The Explokart research program on the history of cartography (see www.explokart.eu) has moved from Utrecht to Amsterdam. Starting June 2013 its new postal address is:

Universiteitsbibliotheek Amsterdam
Bijzondere Collecties (Special Collections)
Oude Turfmarkt 129
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1012 GC Amsterdam
The Netherlands Tel: +31-20-5252355

PRE-ORDERS FOR COMING MALTA MAP BOOK

In view of the particular importance of their next publication—*The Earliest Maps of Malta*—the Malta Map Society has decided to publish the work in hardback only. Demand is expected to be high for this book and those interested in acquiring a copy are advised to register their interest with the Malta Map Society Secretary Joseph Schirò e-mail: joseph.schiro@onvol.net.

THE LATEST FROM MALTA

An exhibition of the earliest maps of Malta from Ptolemy to before the Great Siege of Malta of 1565, will be held in December 2013. A catalogue and update of Dr. Albert Ganado's ground-breaking preliminary study of this period will also be published at this time.

DIGITAL PUBLIC LIBRARY OF AMERICA PARTNERS WITH DAVID RUMSEY MAP COLLECTION

The Digital Public Library of America (DPLA) is partnering with the David Rumsey Map Collection www.davidrumsey.com to provide online access to tens of thousands of significant historical maps and images. As part of the relationship, David Rumsey will provide metadata for over 38,000 maps and images, making the entirety of his notable online collection instantly accessible via the DPLA

website <http://dp.la> and API <http://dp.la/info/developers/codex>.

Rumsey began building a collection of North and South American historical maps and related cartographic materials in 1980. His collection, with more than 150,000 maps, is one of the largest private map collections in the United States. In 1995, Rumsey began the task of making his collection public by building the online David Rumsey Historical Map Collection www.davidrumsey.com/. Currently the online web site has over 38,000 high-resolution images of maps from his collection. In 2009, Rumsey committed to donating his entire collection—both physical and digital—to Stanford University, which is currently creating an all-new Map Center to house it. Rumsey's online collection of maps is free to the public and is updated monthly. All of the online maps are searchable via the DPLA. DPLA brings together the riches of America's libraries, archives, and museums, and makes them freely available to the world. It strives to contain the full breadth of human expression, from the written word, to works of art and culture, to records of America's heritage, to the efforts and data of science. The DPLA aims to expand this crucial realm of openly available materials, and make those riches more easily discovered and more widely usable and used. More information is online at <http://dp.la>.

THE DOWN SURVEY OF IRELAND

Taken in the years 1656–1658, the Down Survey of Ireland is the first ever detailed land survey on a national scale anywhere in the world. The survey sought to measure all the land to be forfeited by the Catholic Irish in order to facilitate its redistribution to Merchant Adventurers and English soldiers. Copies of these maps have survived in dozens of libraries and archives throughout Ireland and Britain, as well as in the National Library of France. This Project has brought together for the first time in over 300 years all the surviving maps, digitized them and made them available as a public online resource. See more at <http://downsurvey.tcd.ie/>. Many thanks to WMS member Kieran McAuliffe for providing this information.

EARLY NORFOLK MAP DONATED TO THE LIBRARY OF VIRGINIA

Although important and expensive historic documents frequently come up for auction, institutions like the Library of Virginia (LVA) are often unable to muster

the necessary funds to purchase them—or to find “angels” with the financial capability to act on their behalf. “Recently, the Library was on the receiving end of such kindness. Working with the Special Collections librarians at the College of William and Mary, Helen Elizabeth “Bee” McLeod and her husband John Goodenow “Goody” Tyler helped the Library purchase an incredibly significant colonial Virginia map at auction last summer to ensure that it remained in Virginia and accessible to the public. The original hand-drawn map of Norfolk, executed by Samuel Boush in 1762, may be the earliest plan of this Virginia port city. The Boushes owned large amounts of land in Norfolk, and Colonel Samuel Boush was the first mayor there in 1736. The Boush family was instrumental in planning the development of the borough of Norfolk, specifically in the areas where Boush Street, Church Street, and Charles Street were established. The plan descended directly through the Boush family and was on loan to the Chrysler Museum in Norfolk from 1945 to 2012. The watercolor-on-sheepskin map is currently being conserved and photographed. Once complete, digital images will be made available online and copies will be provided to the College of William and Mary to broaden accessibility to this newly acquired treasure.” (This information appeared in the LVA's April 2013 e-newsletter.)

MAPS FOR EARLY IRISH STUDIES

www.pmoran.ie/archives/143 contains some interesting map references for those interested in early Ireland.

BRITISH HISTORIC TOWNS ATLAS

The website for the British Historic Towns Atlas (www.historictownsatlas.org.uk) is live.

NATIONAL LIBRARY UNVEILS TREASURE TROVE – RARE MAPS

The National Library of Australia in Canberra has unveiled a new permanent gallery showcasing some of the treasures of its collection. The Treasures Gallery brings some of the library's valuable gems out of the vaults, with some on show for the first time. It is an eclectic display including rare manuscripts and Captain James Cook's Endeavour journal, along with Doncker's exquisite atlas, that pre-dates Abel Tasman, showing a very different map of Australia. See: www.abc.net.au/news/2011-10-07/national-library-treasures-gallery/3344114?WT.mc_id=newsmail.

DUTCH MAPS OF CYPRUS ONLINE

An online web exhibition ("van de beste eylanden eene", The Dutch mapping of Cyprus) of 37 Dutch maps of Cyprus has been developed at Leiden University Libraries. High resolution of the scans makes it possible to view the maps in detail; these maps are all in the special collections of the UBL and together they give an almost complete overview of maps of Cyprus published in the Low Countries. This exhibition shows the spatial history of Cyprus and the development in its cartographic representation from the 16th to the 18th century. Because a lot of Dutch atlases contain a map of Cyprus, it can also be seen as an example that shows the history of Dutch map production, especially the history of atlas publishing in the southern and northern Netherlands. Among the highlights in this exhibition are some unique manuscript charts from the Amsterdam publishing house Van Keulen, of which probably only one copy was made. See www.bibliotheek.leidenuniv.nl/nieuws/nederlandse-kaarten-van-cyprus-online.html.

MATTHEW PICTON'S MAP SCULPTURE

For Matthew Picton's Map Sculptures of Cities Made of Books about the City see www.brainpickings.org/index.php/2011/12/09/matthew-picton-maps-cities. Thanks to Kieran McAuliffe for providing this.

CAPTURED NAZI MAPS

R. Lee Hadden authored an article about The Heringen Collection of The US Geological Survey Library, Reston, Virginia. Originally published as "The Heringen Collection of the US Geological Survey Library, Reston, Virginia." In *Earth Science History*, Volume 27 (2), 2008 (ISSN: 0736-623X) (Pages 242-265), it can be read online at www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&doc=GetTRDoc.pdf&AD=ADA496551 ABSTRACT: "A special collection of German, Polish, and Russian language books, maps and reports in the US Geological Survey Library has an interesting and unusual history. The so-called 'Heringen Collection' came from Nazi Germany. Many of these items were captured from libraries, offices and even private homes as the German Army advanced into neighboring countries. In the last days of the war, these maps, reports, photos and other records were sent from the Military Geology offices in Berlin to the safety of a deep potash mineshaft in Heringen (Werra), in Hessen, Germany. A group of US Army soldiers found these lost records of the Third Reich. When removed from the Heringen mine, those

records that dealt with the earth sciences, terrain analysis, military geology and other geological matters were sent to the USGS, and eventually came to reside at the USGS Library. The printed papers and books were mostly incorporated into the main collection, but a portion of the materials have never been cataloged, calendared or indexed. These materials have many current uses, including projects of value to citizens in their nations of origin."

CAERT-THRESOOR

This Dutch journal focuses on antique maps/cartography pertinent to the Netherlands, and other places as well. *Caert-Thresoor* is published mainly in Dutch, but the primary articles contain an English summary at the end of the article. For more information, see their web site at www.caert-thresoor.nl or write to *Caert-Thresoor*, Postbus 68, 2400 AB Alphen aan den Rijn, The Netherlands.

LISTING OF CONTENTS AND INDEX TO THE PORTOLAN

A full listing of the contents of all past *Portolans* is at the *Portolan* website, as is an index to those contents. With those features you can see the wide breadth of topics that has been covered in all past issues. The lists may be downloaded if you would like a paper copy. Visit www.washmap-society.org/The-Portolan-Journal.htm.

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Recent Publications

Compiled by Joel Kovarsky

EDITOR'S NOTE: Please supply materials for this column directly to Joel at joel@theprimemeridian.com or by mail to Joel Kovarsky, *The Prime Meridian: Antique Maps & Books*, 1839 Clay Drive, Crozet, VA 22932 USA.

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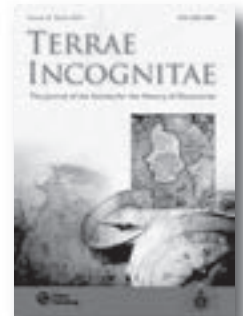
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