

# Waldseemüller's World Maps of 1507 and 1516: Sources and Development of his Cartographical Thought

By Chet Van Duzer

For the past several months I have enjoyed the support of a Jay I. Kislak Fellowship at the Library of Congress in order to study Martin Waldseemüller's *Carta marina* of 1516.<sup>1</sup> In this article I will present some of the results of that research, but I will begin by presenting some of my research on Waldseemüller's other cartographic masterpiece that resides at the Library of Congress, his 1507 map, which is the first to apply the name "America" to the New World. I will focus on the sources of the two maps, and by addressing both of them, I hope to provide evidence of the evolution of Waldseemüller's cartographic thought. We have very little documentation about Waldseemüller, but my work will shed some light on him. By looking at his sources we can learn what was on his bookshelf, which is so important in understanding any scholar, and by seeing how he used his sources we gain insight into his methods and character. In addition, by seeing how his cartographic thought changed, we can come to appreciate his intellectual openness and flexibility.

I begin by discussing a map that was absolutely essential to Waldseemüller in the creation of his 1507 map, but whose relationship with Waldseemüller's has never been properly explored, and whose role as a model for that map has never been fully appreciated. I will show that Waldseemüller used this map as a source for both the overall design and for the details of his 1507 map, and will also show some of the ways that Waldseemüller departed from that model.

The map in question is the so-called Yale Martellus map (see Figure 1), named for its current location in the Beinecke Rare Book and Manuscript Library at Yale.<sup>2</sup> It was made by Henricus Martellus, a German cartographer who worked in Florence in the late fifteenth century, and it is now at Yale University. It is impressively large, 122 × 201 cm, or about 4 × 6.5 feet, and was designed using an innovative pseudo-cordiform projection, a modification of

Ptolemy's second projection. The map was made in about 1491, and is the only surviving non-Ptolemaic map made prior to 1492 that has scales of latitude and longitude. This map is of particular importance because it is the best contemporary representation of Columbus's geographical ideas, and in fact it seems quite likely that Columbus had studied this map or one very similar to it.<sup>3</sup>

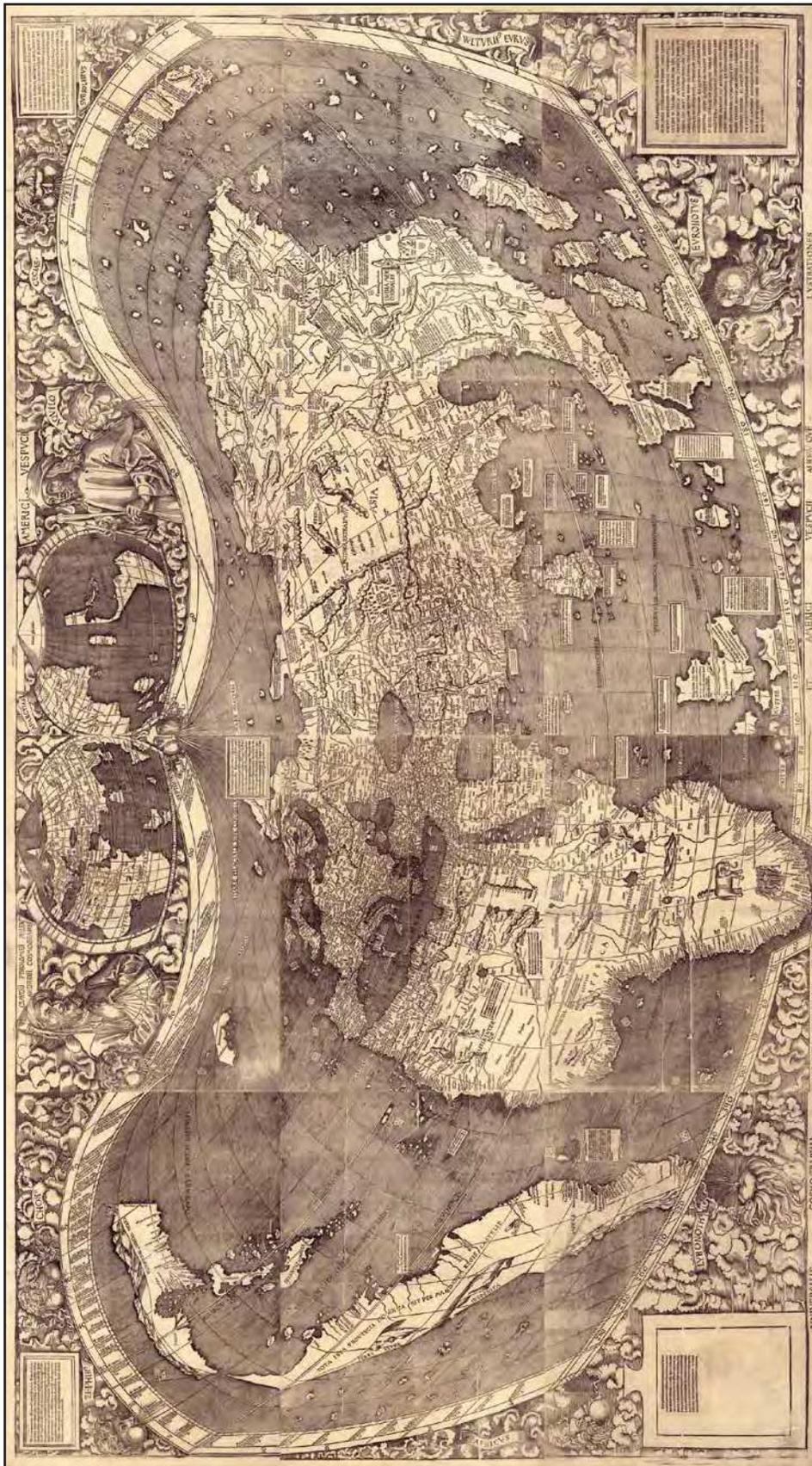
Most of the texts on this important map are extremely faded and almost illegible, and as a result the map has remained all but unstudied for the last fifty years. I recently had the opportunity to study this map using new images of it, including high resolution natural light images and ultraviolet images. My goal was to read the texts on the map that have never been read by modern scholars, in the hope of establishing the nature of its relationship with Waldseemüller's map of 1507 (Figure 2).

When scholars talk about Waldseemüller's cartographic sources, they generally refer to the large manuscript nautical chart by Nicolo de Caverio, made circa 1503 (see Figure 3).<sup>4</sup> Waldseemüller's placenames in the New World and on the west coast of Africa are almost identical to those used by Caverio. In fact Waldseemüller even repeats errors on Caverio's map, so he was using this specific map as a source—that is, he had this specific map in his workshop.<sup>5</sup> At the same time, Waldseemüller's and Caverio's maps are very different: by making even a brief comparison of figures 2 and 3, we can see that the layout of the maps is very different, the projections are different (simplistic nautical chart projection versus sophisticated Ptolemy-derived projection), and particularly in the level of geographical detail in the interior of Africa and Asia.

In fact Martellus's map was a much more important source for Waldseemüller than Caverio's chart. When we compare the two maps (see Figures 1 and 2), we see that Martellus's map obviously served as an inspiration for Waldseemüller in terms of overall layout, and he used the



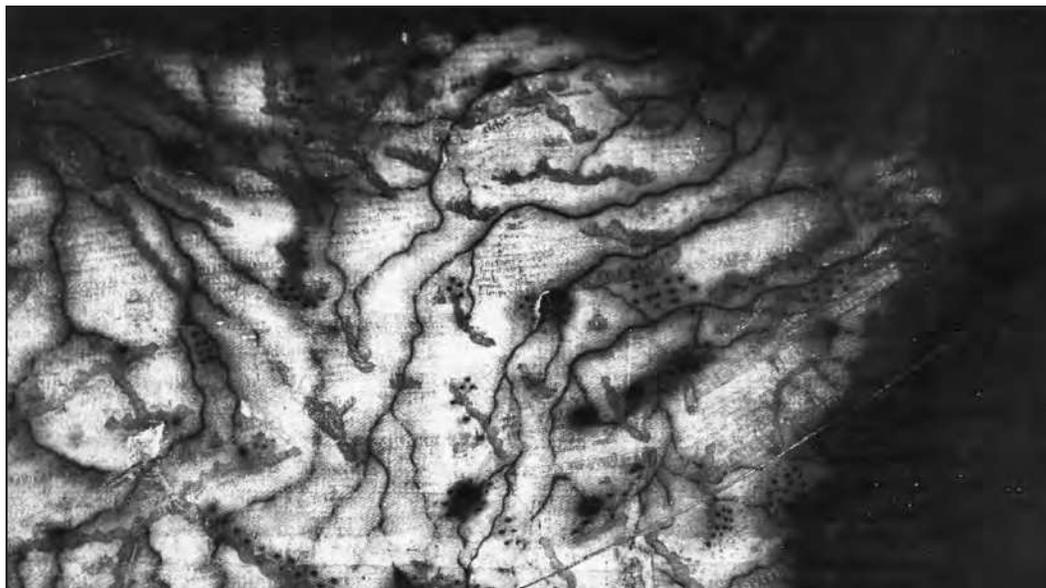
**Fig. 1.** World map of Henricus Martellus c. 1491, courtesy of the Beinecke Rare Book and Manuscript Library, Yale University. Image enhanced for benefit of reader visibility.



**Fig. 2.** Martin Waldseemüller's world map of 1507, courtesy of the Library of Congress. Detail viewable online at [http://memory.loc.gov/cgi-bin/query/D?gmd:2::/temp/~ammem\\_Uh01](http://memory.loc.gov/cgi-bin/query/D?gmd:2::/temp/~ammem_Uh01).



**Fig. 3.** Nautical chart by Nicolo de Caverio, c. 1504, courtesy of the Bibliothèque national de France (SH Archives 1).



**Fig. 4.** Ultraviolet photograph of the world map of Henricus Martellus (detail – northeast asia) now at Yale, revealing the many legends that cover the region, courtesy of the Beinecke Rare Book and Manuscript Library, Yale University.

same projection as Martellus, the pseudo-cordiform projection. Both cartographers added decorative wind-heads in the borders of their maps, and both also took advantage of the extra space in the lower corners of the maps created by the swooping lines of the projection to add text blocks in those corners. The shape of northern Africa is the same on both maps, that is, it is Ptolemaic with a sharp northwestern corner. The shape of eastern Asia is strikingly similar on the two maps, with a huge peninsula jutting southwestward into the Indian Ocean, and Japan is in precisely the same position on the two maps, at the eastern edge. Moreover, as an ultraviolet photograph of northeastern Asia reveals (Figure 4), the Martellus map, like Waldseemüller's, is dense with legends in the interior of its continents. The general similarity between the maps had been noted previously, but as the legends on the Martellus map were thought to be illegible, the closeness of the maps' relationship had not been investigated.

In the western Indian Ocean, there is a particular arrangement of cartouches on Martellus's map along the eastern coast of Africa, and exactly the same arrangement on Waldseemüller's map. This suggests that the texts in these cartouches might be the same, that is, it suggests a very close relationship between the two maps. I have been able to read the text in one of the cartouches on Martellus's map, and indeed it is extremely similar to the corresponding text on Waldseemüller's map. A comparison of other legends on the maps clearly confirms that Martellus's map was an essential source for Waldseemüller, not only for the overall design of the map, but also for many of the long legends. Even in cases where Waldseemüller was

saying something different than Martellus, for example in the textblock in the lower left corner of the 1507 map, he still borrowed words and phrases from Martellus.<sup>6</sup>

At the same time, it is important to emphasize that Waldseemüller did not merely copy or slavishly follow Martellus. In some cases he used what he found on Martellus's map for inspiration, but created something different, and in other cases he simply ignored what he found on Martellus's map. The Arabian Peninsula offers a good example of Waldseemüller's independence from Martellus in some areas. Arabia is one of the few areas on the Martellus map where one can readily read the placenames, and if we compare the placenames in this area on the two maps, the results are surprising. We might expect that Waldseemüller would simply have copied from Martellus, particularly as almost all of the placenames used on the peninsula by both cartographers come from Ptolemy's *Geography*, but in fact their selections of Ptolemaic placenames are entirely different. To reiterate, although the Martellus map was a very important source for him, Waldseemüller did not slavishly follow it, but pondered the map he had before him, accepting some parts, rejecting others, and adding the New World and other elements in the process of creating his own work.

This demonstration of the importance of Martellus's map as a source for Waldseemüller raises various new questions: How was it that Waldseemüller was able to obtain this large and no doubt expensive map in Saint-Dié, the town he worked in near Strasbourg? How did he learn of the map's existence, and how was he able to afford it? I do not yet have an answer to these questions, and in the



**Fig. 5.** Waldseemüller's *Carta marina* of 1516, Jay I. Kislak Collection at the Library of Congress, courtesy of the Jay I. Kislak Foundation. See a copy of this map at [www.loc.gov/exhibits/earlyamericas/online/aftermath/aftermath3.html#object144](http://www.loc.gov/exhibits/earlyamericas/online/aftermath/aftermath3.html#object144). See a webcast about the *Carta Marina* at [www.loc.gov/today/cybercl/feature\\_wdesc.php?rec=5539](http://www.loc.gov/today/cybercl/feature_wdesc.php?rec=5539)

second part of this article I will render this issue more problematic by hinting at the numerous sources that Waldseemüller used in the creation of his *Carta marina*.

Waldseemüller's *Carta marina* of 1516 (see Figure 5) has lived in the shadow of its older brother, the 1507 map—less famous and less studied. The 1507 map, of course, is the first to apply the name America to the New World, and it boldly represents all 360 degrees of longitude at a time when the interior and the western reaches of the New World, and also the vastness of the Pacific, were unknown to Europeans. But I would argue that the *Carta marina* is in some important ways more interesting than the 1507 map. It is more original, more detailed, and has a far richer iconographic program. Moreover, the *Carta marina* is the fruit of a remarkable cartographic audacity: in it Waldseemüller discarded almost all of the research he had done for his earlier map, and undertook the laborious process of creating an entirely new detailed and monumental image of the world, based on a new cartographic model and using new sources. The map is a striking testament to both the cartographer's determination to show the true form of the world and to the dynamism of early sixteenth-century cartography.

The 1516 map, like the 1507, is printed on twelve sheets that were designed to be assembled into a wall map measuring about 50 × 92 inches. But while they share these physical characteristics, in most other respects the two maps are very different, and the differences are reflected in their titles. The title of the 1507 map is *A Map of the Whole World According to the Tradition of Ptolemy and the Explorations of Amerigo Vespucci and Others*. Waldseemüller's use of both Ptolemy and Vespucci as sources—of both ancient and modern authorities—is indicated in the portraits at the top of the 1507 map.

The title of the 1516 map indicates a radical repudiation of ancient authorities:

A nautical chart that comprehensively shows the Portuguese voyages and the shape of the whole known world, both land and sea, and its nature, its regions, and its limits as they have been determined in our times, and how they differ from the tradition of the ancients, and also the areas not mentioned by the ancients.

The change from Waldseemüller following Ptolemy to repudiating him is dramatic. In a long introductory text in the lower left corner of the *Carta marina*, Waldseemüller discusses his earlier map and his reasons for creating a new one. He concedes that a map with ancient

placenames, like his 1507 map, is of limited utility since it is difficult to recognize modern places according to their ancient names. He also remarks that recent explorers have detected various errors in the geographical writings of the ancients, particularly in Ptolemy's *Geography*. He then writes:

Moved by these considerations... I have added this second image of the world to my first, so that while in the first one there is an image of the whole world, land and sea, according to ancient authors, in this one would shine forth not just the new and present face of the world, but also the things added in the intervening times... Therefore... it seemed good to call this image and description of the whole world, a *Carta marina*, in which, as far as the depiction of the oceans, I have followed the common and tried-and-true indications of nautical charts ....

Although his 1507 map shows the New World, Waldseemüller here describes his earlier work as an image of the earth according to the ancients, no doubt to increase the attractiveness of his new map, which is based on the most recent information available.

In this text Waldseemüller alludes to his use of a new cartographic model in the new map. His 1507 map is based on Ptolemy's *Geography*—not only on Ptolemy's geographical data regarding the locations of cities and other features, but also on his system for representing geographical space, using a grid of latitude and longitude. More specifically, as I just showed, Waldseemüller used as the model for his 1507 map a world map by Henricus Martellus. Martellus's map uses the Ptolemaic grid of latitude and longitude, and is laid out using a modification of Ptolemy's second projection.

In his *Carta marina* Waldseemüller abandons the Ptolemaic model, and instead adopts the model of nautical charts or portolan charts. In essence, nautical charts are practical tools for navigation, usually hand-drawn on parchment, with the emphasis on coastal features and placenames. Rather than being marked with latitude and longitude, they have a system of rhumb lines that radiate out in the standard compass directions (or directions of the traditional winds) from points organized in one or two large circles. This was the type of map that Waldseemüller chose as the model for his 1516 map, and in fact we know the specific map that he

used: the nautical chart by Nicolo de Caverio of Genoa, made c. 1503, which was mentioned earlier. If we consider the maps together (Figures 3 and 5), the similarities between them are striking, including the area of the world depicted, the central location of Africa, the identical shapes of various coastlines, such as those of South America and of the two large peninsulas in southern Asia, and the identical location of the nodes of the systems of rhumb lines.

In addition to the change of cartographic model, there is another important change between the 1507 and 1516 maps, with regard to which explorer was credited with the discovery of the New World, and the adoption of that explorer's conception of the newly discovered lands. The 1507 map proclaims Amerigo Vespucci as the discoverer of the New World: Vespucci's portrait is at the top of the map, and the southern part of the New World bears the name "America," which Waldseemüller and his colleague Matthias Ringmann created from the name "Amerigo."<sup>7</sup> Moreover, their book *Cosmographiae introductio*, which was published to accompany the 1507 map, includes Vespucci's accounts of his four voyages. On the 1507 map, Waldseemüller famously shows water to the west of the newly discovered lands—that is, he indicates that the newly discovered lands are separate from Asia. He also explicitly stated in the *Cosmographiae introductio* that the New World was an island. Thus, the depiction of the New World on the 1507 map is in line with Vespucci's claim that the newly discovered lands were unknown to the ancients.

On the *Carta marina* it is clear that Waldseemüller had realized the precedence of Columbus as discoverer. First and most significantly, the name "America" does not appear on the map. In addition, in his list of sources in the lower left corner of the map, Waldseemüller lists Columbus, but not Vespucci. Also, a legend in the South Atlantic explicitly names Columbus as the first discoverer of the New World, Cabral as the second, and Vespucci as the third. Moreover, in the *Carta marina*, Waldseemüller adopted a Columbian conception of the New World. Columbus had been seeking a route to Asia by sailing west, and during all four of his voyages and also to the end of his life he believed that he had been in Asia, albeit in some outlying reaches of the continent.<sup>8</sup> This is the view of the New World that Waldseemüller adopts in the *Carta marina*. This is particularly clear in the legend in the northern part of the newly discovered lands,

which reads "The land of Cuba, part of Asia," and further, Waldseemüller does not show the western coasts of the newly discovered lands, suggesting that they are connected with Asia.

On the 1507 map, Ptolemy and Vespucci were prominently displayed (see the top of Figure 2), representing two of the cartographer's most important sources. On the *Carta marina*, however, Waldseemüller abandoned the Ptolemaic cartographic model in favor of the nautical chart model, and also abandoned Vespucci as principal discoverer of the New World in favor of Columbus. The fact that these two figureheads had both fallen by the wayside in 1516 is a powerful testament to the rapid development of Waldseemüller's cartographic thought and his willingness to change his ideas in light of new information. Waldseemüller's willingness to discard almost all of the work he had invested in the 1507 map is all the more impressive given that the map was evidently well received.<sup>9</sup> It was not the demands of customers, but rather his own determination to find the best method for representing the world that led him to undertake the creation of an entirely new map in the *Carta marina*.

On his 1507 map Waldseemüller had depicted all 360 degrees of longitude, even though about a third of that area was unknown. He also depicted the northern part of the world all the way to the North Pole. In making his *Carta marina*, Waldseemüller clearly decided to be less venturesome in depicting unknown or little-known parts of the world. He omitted some 128 degrees of longitude on the *Carta marina*, specifically the western parts of the New World and most of what we call the Pacific. In addition, he depicts much less of the northern polar regions: the *Carta marina* goes only to about 70° north. The *Carta marina* does include several more degrees of latitude in the southern ocean, but overall, the map shows much less of the earth's surface than the 1507 map. In addition, the border of the 1516 map is much narrower than that on the 1507 map, and consumes a much smaller percentage of the map's area. These factors, together with the *Carta marina* being almost exactly the same size as the 1507 map, entail that Waldseemüller was able to show far more detail in the areas he does depict than he could on the 1507 map. In comparison with the 1507 map, the *Carta marina* offers a "zoomed in" view of the known parts of the world. Thus, for example, in Arabia on the 1507 map, there is room only for placenames from Ptolemy and indications of mountains and rivers, but on the *Carta marina* there

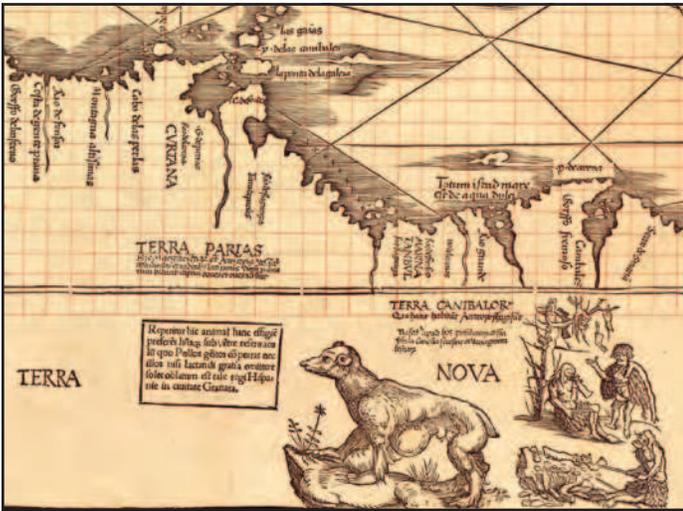


Fig. 6. The image of the opossum from Waldseemüller's *Carta marina*, the earliest surviving European image of the animal, courtesy of the Library of Congress.



Fig. 8. The image of Medina from Lodovico de Varthema, *Die Ritterlich und lobwirdig reyß* (1515), f. 9v, courtesy of the Bayerische Staatsbibliothek, München. Rar. 894, folio 9v.



Fig. 9. The image of *suttee* or *sati* on the *Carta marina*, courtesy of the Jay I. Kislak Foundation.



Fig. 7. The image of Mecca on the *Carta marina*, courtesy of the Jay I. Kislak Foundation.



Fig. 10. Image of *suttee* from Varthema, *Die Ritterlich und lobwirdig reyß* (1515), f. 51r courtesy of the Bayerische Staatsbibliothek, München. Rar. 894, folio 51r.

are images of Mecca and Medina as well as long legends describing the cities and features of the region.

Waldseemüller took full advantage of this “zoomed-in” view of the world on the *Carta marina* not just in Arabia, but most everywhere, to offer a rich array of both descriptive texts and images. It is worth emphasizing that the *Carta marina* offers a greater level of detail not only in comparison with his 1507 map, but also in comparison with Waldseemüller's cartographic model, the Caverio chart. On the Caverio chart the hinterlands, particularly in Asia, are almost empty of geographical detail, but Waldseemüller obviously wanted to surpass his model, and to offer a new level of detail, information, and images.

In adding these many details about politics, animal life, trade, and the sources of exotic goods, Waldseemüller did extensive research in the most recent travel literature on Asia, Africa, and the New World, carefully selecting passages for his legends and choosing interesting images.

One of Waldseemüller's important sources was a book called the *Paesi novamente ritrovati*, or *Newly Discovered Countries*, a collection of travel narratives that was first published in Italy in 1507.<sup>10</sup> Another was the travel narrative of Balthasar Springer, a German businessman who had sailed with the Portuguese from Portugal to India in 1505. The first edition of Springer's narrative, which was published in German in 1509, was illustrated by Hans Burgkmair.<sup>11</sup> A third source was the travel narrative of Ludovico di Varthema, an Italian who traveled in the East from 1502 to 1507, and whose narrative was published in an illustrated edition in German in 1515, a year before the *Carta marina*.<sup>12</sup>

The depiction of Asia on the 1507 map is based on Ptolemy and Marco Polo, that is, on information from the second century and the thirteenth century. Thus, when Waldseemüller used one of his new sources in making the *Carta marina*, he was giving his viewers information that was at least 200 years newer, and many cases, more than 1200 years newer. We can imagine that it was very exciting for Waldseemüller to be able to offer the viewers of his map this more recent information, and a thoroughly updated image of the world.

A good example of this updating can be seen in the case of the island of Taprobana in the Indian Ocean. On the 1507 map, the image of the island is purely Ptolemaic. On the *Carta marina*, Waldseemüller copies the position of

the island from the Caverio chart of circa 1503, thus availing himself of much more recent data. But Waldseemüller does more: he gives the island a new name, Samotra, that is, Sumatra, and he explains in a legend that the ancient island of Taprobana is best identified with Sumatra. In identifying the island with Sumatra, Waldseemüller was following either the *Paesi novamente ritrovati* or the narrative of Varthema—both works published shortly before the *Carta marina*.

On the 1507 map, the depiction of Persia is straight out of Ptolemy, that is, the data is more than 1200 years old. On the *Carta marina*, in addition to modern city names, there is an image of and a legend about King Sophi, who is said to have gained control over Persia and divided it into eight kingdoms. “Sophi” is Shah Isma‘il es-Sufi, the founder of the Safavid dynasty, who gained control of Persia around the year 1500. The information about Sophi again comes from Varthema. This information was very recent indeed compared with that on the 1507 map, and is also much more detailed, as it does not merely list placenames, but also reveals the current political situation.

In addition to using the most recent texts as sources for his 1516 map, Waldseemüller used the most recent images to create a multi-media source of geographical information. In South America, for example, Waldseemüller supplies the earliest surviving European image of an opossum (**Figure 6**). This animal was the first marsupial that Europeans had seen, and so it naturally excited considerable curiosity. It is likely that Waldseemüller drew his image on the basis of an earlier drawing or print, but that earlier work has not survived. Waldseemüller's image was quite influential.<sup>13</sup>

In Africa his image of the rhinoceros comes from a print made in 1515 by Hans Burgkmair, just one year before the *Carta marina* was published.<sup>14</sup> This demonstrates that Waldseemüller continued to keep his eyes out for new sources until close to its date of publication.

The image of Mecca on the map (**Figure 7**) comes from the 1515 edition of Varthema's travels (**Figure 8**). Curiously, Waldseemüller borrowed the image of Medina from the book and used it for Mecca, perhaps out of a desire to use a distinctive image for the better known city.

In India Waldseemüller has an image of *suttee*, the Hindu practice whereby a widow burned herself to death on the funeral pyre of her husband (**Figure 9**). In this case the widow has leapt into the hole where the funeral pyre

has been made, and a man stands over her and is about to strike her with something in his hand, no doubt so that she will die sooner; on the right a horned demon stands looking on. This scene was clearly inspired by the image in the 1515 edition of Varthema's travels (Figure 10), and Varthema mentions the presence of demons in his narrative.

Thus we see that Waldseemüller went to considerable lengths to base the *Carta marina* on the most recent sources possible, using those sources not only for the map's geography, but also for its legends and illustrations.

Waldseemüller's goal for the *Carta marina* seems to have been to offer a more practical, useful, and engaging map than his work of 1507. It is based on a cartographic model that was used by mariners in their voyages; it shows only the parts of the world that were known; and it is filled with current information about geography, politics, and trade—and has many attractive illustrations.

At the beginning of this article I suggested that by looking at Waldseemüller's use of his sources, we would be able to learn something about the cartographer's character. What have we learned? One thing we have learned is that he was comfortable working from a cartographic model, but was never satisfied with that model: he added many things to make the final product richer and more complete. For his 1507 map, he used the Yale Martellus map as a model, and added the New World and various details; for his 1516 map, he used the Caverio chart as a model, and added many legends and images from a variety of sources. His maps are the products of a cartographer with a great creative vision, and a great ambition to disseminate the latest cartographic knowledge to scholars throughout Europe. The fact that he and his colleagues were able to gather in the small town of Saint-Dié the diverse array sources necessary to produce these maps testifies to a remarkable drive and experience in research. Waldseemüller's willingness to cast aside all of the work that had gone into his 1507 map, and to create less than a decade later a new world map based on a new cartographic philosophy and almost entirely new sources, demonstrate a wonderful open-mindedness, energy, and thirst for knowledge. His *Carta marina* represents the culmination of more than a decade of thought about how the world should be mapped, and much painstaking research into the latest texts and images that could be used to create a rich and detailed picture of the world.

## ABOUT THE AUTHOR

Chet Van Duzer is currently a Kislak Fellow at the Library of Congress, and an Invited Research Scholar at the John Carter Brown Library. His articles on the history of cartography have appeared in *Terrae Incognitae*, *Imago Mundi*, *Orbis Terrarum*, and *Geographical*. His monograph on Johann Schöner's terrestrial globe of 1515 was published in 2010 by the American Philosophical Society, and he has two new books, one just published, the other coming out soon. The first, *Seeing the World Anew: The Radical Vision of Martin Waldseemüller's 1507 & 1516 World Maps*, is a new facsimile edition of Martin Waldseemüller's world maps of 1507 and 1516, written with John Hessler and published in 2012 by the Library of Congress and Levenson Press; and the second, *Sea Monsters on Medieval and Renaissance Maps*, is being published by the British Library.

## ENDNOTES

- 1 For a more detailed presentation of my research on the *Carta marina*, see the new facsimile edition of the two maps, John W. Hessler and Chet Van Duzer, *Seeing the World Anew: The Radical Vision of Martin Waldseemüller's 1507 & 1516 World Maps* (Washington, DC: Library of Congress, and Delray Beach, FL: Levenson Press, 2012). Both the 1507 and 1516 maps are reproduced in an older facsimile edition as well, Joseph Fischer and Franz Ritter von Wieser, *Die älteste Karte mit dem Namen Amerika aus dem Jahre 1507 und die Carta marina aus dem Jahre 1516 des M. Waldseemüller (Ilacomilus)* (Innsbruck: Wagner'schen Universitäts-Buchhandlung, 1903; Amsterdam: Theatrum Orbis Terrarum, 1968).
- 2 The shelfmark of the Martellus map in the Beinecke is Art Store 1980.157.
- 3 See Roberto Almagià, "I mappamondi di Enrico Martello e alcuni concetti geografici di Cristoforo Colombo," *La Bibliofilia* 42 (1940), pp. 288–311, esp. 307; particularly R. A. Skelton, "World Map by Henricus Martellus Germanus, c. 1489, at Berne," January 10–17, 1960 (an unpublished study kept in a file about the map in the Beinecke Library, without separate shelfmark), pp. 14–17; and Carlos Sanz, "Un mapa del mundo verdaderamente importante en la famosa Universidad de Yale," *Boletín de la Real Sociedad Geográfica* 102 (1966), pp. 7–46, esp. 11–18. Arthur Davies, "Behaim, Martellus and Columbus," *Geographical Journal* 143.3 (1977), pp. 451–459,

- went so far as to suggest that the map was made by Columbus's brother Bartholomew, and merely assembled by Martellus; this untenable view is refuted by Ilaria Luzzana Caraci, "Henricus Martellus' Map in the Yale University Library and the Columbus Brothers," in the author's *The Puzzling Hero: Studies on Christopher Columbus and the Culture of his Age* (Rome: Carocci, 2002), pp. 281–291.
- 4 The Caverio chart is Paris, Bibliothèque nationale de France, Cartes et plans, SH archives 1. The chart is well reproduced in Kenneth Nebenzahl, *Atlas of Columbus and the Great Discoveries* (Chicago: Rand McNally, 1990), pp. 41–43, and at a larger scale in the eleven-sheet black-and-white facsimile that accompanies Edward L. Stevenson's study of the map, *Marine World Chart of Nicolo de Caneiro Januensis 1502 (circa)* (New York: American Geographical Society and the Hispanic Society of America, 1908). There is also a color facsimile: *Planisphère nautique sur vélin du Génois Nicolao de Caverio* (Paris: Bibliothèque nationale, 1992), but on a much smaller scale than the original.
  - 5 For discussion of Waldseemüller's use of the Caverio map as a source see Fischer and von Wieser, *Die älteste Karte mit dem Namen Amerika* (see note 1), pp. 26–29.
  - 6 I supply many examples of Waldseemüller's borrowing of legends from Martellus in my forthcoming study, *The Yale Martellus Map: Sources and Influence*.
  - 7 For discussion of the naming of America see Franz Laubenberger, "The Naming of America," *Sixteenth Century Journal* 13.4 (1982), pp. 91–113; and Christine R. Johnson, "Renaissance German Cosmographers and the Naming of America," *Past & Present* 191 (2006), pp. 3–43. G. C. Hurbult, "The Origin of the Name America," *Bulletin of the American Geographical Society* 18 (1886), pp. 301–316, offers a good discussion of early uses of the name "America" for the New World following Waldseemüller's 1507 map; on this subject also see Fischer and von Wieser, *Die älteste Karte mit dem Namen Amerika* (see note 14), pp. 36–41.
  - 8 On Columbus's belief that his discoveries were part of Asia, see George E. Nunn, *The Geographical Conceptions of Columbus: A Critical Consideration of Four Problems* (New York: American Geographical Society, 1924); expanded edition with an essay titled "The Test of Time" by Clinton R. Edwards (Milwaukee: American Geographical Society Collection of the Golda Meir Library, University of Wisconsin-Milwaukee; and New York: American Geographical Society, 1992); and E. G. R. Taylor, "Idée Fixe: The Mind of Christopher Columbus," *The Hispanic American Historical Review* 11.3 (1931), pp. 289–301; John H. Parry, "Asia-in-the-West," *Terrae Incognitae* 8 (1976), pp. 59–72; and Folker Reichert, "Columbus und Marco Polo—Asien in Amerika. Zur Literaturgeschichte der Entdeckungen," *Zeitschrift für historische Forschung* 15 (1988), pp. 1–63.
  - 9 Waldseemüller mentions the positive reception of his 1507 map in a dedicatory letter addressed to his colleague Matthias Ringmann in Waldseemüller's *Architecturae et perspectivae rudimenta*, which was published with Gregor Reisch's *Margarita philosophica nova* (Strasbourg: Grüninger, 1508). Waldseemüller also records René II's enthusiastic reception of his 1507 map in the dedicatory letter in Ringmann's *Instructio manduccionem prestans in Cartam itinerariam* (Strasbourg: Grüninger, 1511).
  - 10 For a brief discussion of the 1507 edition of the *Paesi novamente ritrovati*, see Henry Harrisse, *Bibliotheca Americana Vetustissima: A Description of Works Relating to America, Published Between the Years 1492 and 1551* (New York: G. P. Philes, 1866), no. 48, pp. 96<sup>d</sup>–99. The most detailed account of the *Paesi* in English is in Antony Vallavanthara, *India in 1500 A.D.: The Narratives of Joseph the Indian* (Mannanam: Research Institute for Studies in History, 1984), pp. 11–24 and 295–311. There is now a detailed discussion of the work's contents in Norbert Ankenbauer, *'Das ich mochte meer newer dyng erfahren': die Versprachlichung des Neuen in den 'Paesi novamente ritrovati' (Vicenza, 1507) und in ihrer deutschen Übersetzung (Nürnberg, 1508)* (Berlin: Frank & Timme, 2010), esp. pp. 51–123.
  - 11 Balthasar Springer, *Die Merfart vn[d] erfahrung nüwer Schiffung vnd Wege zu viln onerkanten Inseln vnd Königreichen von dem großmechtigen Portugalische[n] Kunig Emanuel Erforscht funden bestritten vnnd Jngenomen* ([Oppenheim]: [Köbel], 1509). For an English translation, see Balthasar Springer, *The Voyage from Lisbon to India, 1505–6: Being an Account and Journal*, ed. C. H. Coote (London: B. F. Stevens, 1894). Note that the work is misattributed to Vespucci in this

edition. On Burgkmair's illustrations of Springer's narrative see Jean Michel Massing, "Hans Burgkmair's Depiction of Native Africans," *RES: Anthropology and Aesthetics* 27 (1995), pp. 39–51.

- 12 For an English translation of Varthema's narrative, see Lodovico de Varthema, *The Travels of Ludovico di Varthema in Egypt, Syria, Arabia Deserta and Arabia Felix, in Persia, India, and Ethiopia, A.D. 1503 to 1508, translated from the original Italian edition of 1510... by John Winter Jones and edited, with notes and an introduction, by George Percy Badger* (London: The Hakluyt Society, 1863). Notes on the different editions and translations of the work are on pp. iii–xvi. The illustrated edition in question is Lodovico de Varthema, *Die Ritterlich und lobwirdig rayß des gestrengen und über all ander weyt erfahren ritters und Lantfarers herren Ludowico vartomans von Bologna* (Augsburg: H. Miller, 1515).

- 13 See Charles R. Eastman, "Early Portrayals of the Opossum," *The American Naturalist* 49.586 (1915), pp. 585–594; and Susan Scott Parrish, "The Female Opossum and the Nature of the New World," *The William and Mary Quarterly* 54.3 (1997), pp. 475–514, esp. 485..
- 14 For discussion of Burgkmair's rhinoceros, see Donald Lach, *Asia in the Making of Europe*, vol. 2, bk. 1, *A Century of Wonder: The Visual Arts* (Chicago: University of Chicago Press, 1970), p. 164 and plate 120; and Jim Monson, "The Source for the Rhinoceros," *Print Quarterly* 21.1 (2004), pp. 50–53.



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