Chet Van Duzer

Martin Waldseemüller’s ‘Carta marina’ of 1516

Study and Transcription of the Long Legends
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And I offer my thanks again to the Jay I. Kislak Foundation and to Arthur Dukelman for generously funding the release of this book in open access, which I trust will facilitate the enjoyment and study of Waldseemüller’s map by a wider audience than would otherwise be possible. Sadly, Mr. Kislak himself passed away on October 3, 2018; may he rest in peace.

Providence, RI, USA

Chet Van Duzer
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1 Introduction to the Carta Marina

1.1 Introduction

This book is devoted to an imposing world map, printed on twelve sheets and rich in detail, that was designed by the German cartographer Martin Waldseemüller in 1516, whose only surviving exemplar is in the Jay I. Kislak Collection at the Library of Congress. This map, the Carta marina, has tended to live in the shadow of Waldseemüller’s earlier world map, that printed in 1507, which is famous for being the first to apply the name “America” to the New World. The Carta marina lacks some of the striking audacity of the 1507 map, on which the cartographer not only debuts a new name for the newly discovered lands in the west, but also represents all 360 degrees of longitude at a time when the interior and the western reaches of the New World were unknown, and the vastness of the Pacific was still undiscovered by Europeans. On the Carta marina, by contrast, he more prudently omits as unknown everything between the eastern coast of the New World and the eastern coast of mainland Asia. Yet the Carta marina is the fruit of a cartographic boldness that is equally impressive: a willingness to discard almost all of the research done for the earlier map, and undertake the laborious creation of an entirely new detailed and monumental image of the world based on a new philosophy and a new projection, and using new sources. The map is a remarkable testament both to the cartographer’s determination to show the true form of the world and to the dynamism of early sixteenth-century cartography.

One of the many differences between the 1507 and 1516 maps is that there is a larger number of long legends on the latter. In the long text block in the lower left corner of the map (see Legend 9.3), Waldseemüller lists many of the sources that he used in creating the map, which are also the sources of many of the long legends. He clearly viewed the textual element of his map as very important, and yet in the more than one hundred years since the rediscovery of the Carta marina, few of the legends have been transcribed and translated, they have never been studied together, and their correlations with the sources that Waldseemüller lists on the map have not been explored. Thus an essential aspect of this important map, and of Waldseemüller’s effort to convey information to the map’s viewers, has remained uninvestigated.

We know little about Waldseemüller, and the general lack of scholarly attention devoted to the Carta marina represents not only a failure to address one of the masterpieces of the most important cartographer of the early sixteenth century, but also a lost opportunity to study the development of his cartographic thought, and thus add to our knowledge of the man. By examining how he used his sources, we can gain insight into Waldseemüller’s methods and character, and by seeing how his cartographic thought evolved, we can come to appreciate his intellectual openness and flexibility.

In this introduction I offer a detailed discussion of the Carta marina, focusing on a comparison of that map with the 1507, and also with the maps in Waldseemüller’s edition of Ptolemy’s Geography published in 1513, in the interest of revealing all that the later map can tell us about the development of Waldseemüller’s thought. Following this general discussion of the map comes a transcription, translation, and study of all of the long legends on the Carta marina, with particular attention devoted to the determination of their sources. My hope is that the book will be of use not only to readers with a direct interest in Waldseemüller, but also more broadly to any scholar working on early sixteenth-century cartography, and to anyone interested in seeing how an experienced cartographer of that period went about constructing a new image of the world.

1 All of the toponyms on the Carta marina, but not the legends, are transcribed by Meret Petrzilka, Die Karten des Laurent Fries von 1530 und 1531 und ihre Vorlage, die ‘Carta Marina’ aus dem Jahre 1516 von Martin Waldseemüller (Zurich: Neuen Zürcher Zeitung, 1970), pp. 42–110.
1.2 Martin Waldseemüller and His Works

Martin Waldseemüller was born between 1470 and 1475, either in Freiburg or the nearby village of Wolfenweiler, and studied at the University of Freiburg: he is registered as a student there in 1490. In about 1505 he moved to the town of Saint-Dié in the Vosges Mountains not far from Strasbourg, and in 1513 he became a canon of the collegiate church there, though at the time he was living in Strasbourg. Aside from that stay in Strasbourg, he spent his adult life in Saint-Dié, and died there in 1520. In 1507, Waldseemüller studied at the University of Freiburg: he is registered as a student there in 1490. In about 1505 he moved to the town of Saint-Dié in the Vosges Mountains not far from Strasbourg, and in 1513 he became a canon of the collegiate church there, though at the time he was living in Strasbourg. Aside from that stay in Strasbourg, he spent his adult life in Saint-Dié, and died there in 1520. In Saint-Dié, Waldseemüller worked with a small group of humanists who sometimes called themselves the Gymnasium Vosagense. There is no evidence that this group was involved in teaching, and it seems only to have been an association of scholars. The group was led by Gualtier Ludd, secretary to Duke René II of Lorraine, and the owner of a small press in Saint-Dié; the other members that we know of were Gualtier’s cousin Nicholas Ludd, Matthias Ringmann, and Johannes Basinus Sendacurius.

It is by following Walseemüller’s development as a cartographer through his works that we can learn the most about him. Those works are as follows:

1. In 1507, Waldseemüller, in close collaboration with Matthias Ringmann, published three works that were designed to accompany each other. The first was a short book, the Cosmographie introductio, printed in Saint-Dié, no doubt on Ludd’s press, which is an introduction to geography followed by a Latin translation of Amerigo Vespucci’s account of America: Early Maps of the New World, trans. Hugh Beyer et al. (Munich: Prestel, 1992), pp. 111–126.


his four voyages. The second was a set of woodcut gores for a terrestrial globe with a diameter of 12 cm (4.5 inches); the printer is not specified. And the third was the 1507 world map, printed on twelve sheets, each approximately 45.5 x 62 cm (about 18 x 24.4 inches), which were designed to be assembled into a wall map measuring 128 x 233 cm (50.4 x 91.7 inches). The map is titled Universalis Cosmographia Secundum Phtholomaei Traditionem et Americi Vespucii Aliorumque Lustrationes (A map of the whole world according to the tradition of Ptolemy and the explorations of Amerigo Vespucci and others). This map is the first to apply the name “America” to the New World, a name that Waldseemüller and Ringmann proposed in the Cosmographiae introductio. The printer of the map is not indicated. It survives in just one exemplar, which was owned by the astronomer, mathematician, and globemaker Johann Schöner (1477–1547) and preserved by him in a codex now called the Schönere Sammelband. The codex was discovered in 1901 by Joseph Fischer in Wolfegg Castle in Baden-Württemberg, Germany; in 2003, the Library of Congress completed its acquisition of the map. Elsewhere I have shown that the 1507 map, not only in terms of overall design and projection but also with regard to its long descriptive texts—but not with regard to its place names—is based closely on the large world map by Henricus Martellus at Yale, which was made c. 1491—or rather, not on the specific map at Yale, but on another, similar large map by Martellus that is now lost.

7The full title of the book refers to the accompanying map and globe (this is the title of the first edition): Cosmographiae introductio: cum quibusdam geometricae ac astronomiae principiis ad eam rem necessariss. Universalis cbosmographiae [sic] descriptio tam in solido quam plano eis etiam inseritis qua[ae] Phtholom[a]eo ignota a nuperis reperta sunt (Saint-Dié: [Gaultier and Nicholas Ludd], 1507). On the Cosmographiae introductio see Henry Harrisse, Bibliotheca americanae vetustissima: A Description of Works Relating to America, Published between the Years 1492 and 1551 (New York: G. P. Philes, 1866), #44–47, pp. 89–96; the work is reproduced in facsimile and translated into English by Joseph Fischer and Franz von Wieser in The ‘Cosmographiae introductio’ of Martin Waldseemüller in Facsimile, Followed by the Four Voyages of Amerigo Vespucci, with Their Translation into English (New York: The United States Catholic Historical Society, 1907). A new translation and discussion of the Cosmographiae introductio by John Hessler may be found in his The Naming of America: Martin Waldseemüller’s 1507 World Map and the ‘Cosmographiae introductio’ (London: D. Giles, 2008). There is a French translation by Pierre Monat in Albert Ronsin, La fortune d’un nom: America: le baptême du Nouveau Monde à Saint-Dié-des-Vosges (Grenoble: J. Millon, 1991), pp. 101–219. The work has also been reproduced in facsimile and translated into Spanish by Miguel León-Portilla in Introducción a la cosmovisión y las cuatro navegaciones de Américo Vespuccio (Coyoacán: Universidad Nacional Autónoma de México, 2007); the accompanying CD includes Spanish translations of all of the long legends on Waldseemüller’s 1507 map. There also is a facsimile with transcription and translation into German in Martin Lehmann, Die ‘Cosmographiae Introductio’ Matthäus Ringmanns und die Weltkarte Martin Waldseemüllers aus dem Jahre 1507: Ein Meilenstein fränkischer Kartographie (Munich: Martin Meidenbauer, 2010).

9There are five known surviving copies of the gories: at the University of Minnesota, in the Stadtbucherei Offenburg, at Charles Frodsham and Co. (purchased at the Christie’s sale of June 8, 2005), at the Bayerische Staatsbibliothek in Munich and at the Universitätsbibliothek in Munich (discovered in 2012). Serious questions have been raised about the genuineness of the exemplar in the Universitätsbibliothek in Munich: see Michael Blanding, “Why Experts Don’t Believe This Is a Rare First Map of America,” New York Times, Dec. 10, 2017. For general discussion of the gories see Henry Harrisse, The Discovery of North America (London: H. Stevens, 1892; Amsterdam: N. Israel, 1961), pp. 440–442, no. 67, and 467–468, no. 82; Fischer and von Wieser in The ‘Cosmographiae introductio’ of Martin Waldseemüller (see note 7), pp. 23–30; Edward L. Stevenson, Terrestrial and Celestial Globes: Their History and Construction (New Haven: Yale University Press, 1921), vol. 1, pp. 70–71; Americana vetustissima: Fifty Books, Manuscripts, & Maps Relating to America from the First Fifty Years after its Discovery (1492–1542) (New York: H. P. Kraus, 1990), pp. 30–31; and Cartography, Including the Waldseemüller Gores: Wednesday 8 June 2005 (London: Christie, Manson & Woods Ltd., 2005).

10Waldseemüller’s 1507 map has been published in facsimile in 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. Waldeemüller (Hainmühle) (Innsbruck: Wagner’schen Universitäts-Buchhandlung, 1903; Amsterdam: Theatrum Orbis Terrarum, 1968), with a good but brief introduction; and in John W. Hessler and Chet Van Duzer, Seeing the World Anew: The Radical Vision of Martin Waldseemüller (London: D. Giles, 2008). There is a French translation by Pierre Monat in Albert Ronsin, La fortune d’un nom: America: le baptême du Nouveau Monde à Saint-Dié-des-Vosges (Grenoble: J. Millon, 1991), pp. 101–219. The work has also been reproduced in facsimile and translated into Spanish by Miguel León-Portilla in Introducción a la cosmovisión y las cuatro navegaciones de Américo Vespuccio (Coyoacán: Universidad Nacional Autónoma de México, 2007); the accompanying CD includes Spanish translations of all of the long legends on Waldseemüller’s 1507 map. There also is a facsimile with transcription and translation into German in Martin Lehmann, Die ‘Cosmographiae Introductio’ Matthäus Ringmanns und die Weltkarte Martin Waldseemüllers aus dem Jahre 1507: Ein Meilenstein fränkischer Kartographie (Munich: Martin Meidenbauer, 2010).


2. In 1511, Waldseemüller produced a wall map of Europe on four sheets that measured 141 × 107 cm (about 56 × 42 inches). This map, the *Carta Itineraria Europae*, is the first printed wall map of the continent, and the first map of Europe to show (as its name suggests) the most important trade routes. No copies of the 1511 printing survive, but one exemplar of the 1520 printing is extant. The map was accompanied by a short book written by Ringmann that supplies a more detailed description of the regions of Europe than there is room for on the map, titled *Instructio manuductionem prestans in cartam itinerarium Martini Hila omilii* (Strasbourg: Grüninger, 1511).

3. In 1513 a new edition of Ptolemy’s *Geography*, on which Waldseemüller together with Matthias Ringmann and other colleagues had begun work in 1505, but which suffered various delays, was printed by Johann Schott in Strasbourg. In addition to the standard twenty-seven Ptolemaic maps, this edition has a very full collection of tabulae modernae or modern maps based on more recent data, all but one based on information from nautical charts. This was the most important edition of Ptolemy published in the sixteenth century.

4. In 1516, Waldseemüller published the *Carta marina*, which like the 1507 map is printed on twelve sheets, each approximately 45.5 × 62 cm (about 18 × 24.4 inches), which were designed to be assembled into a wall map measuring 128 × 233 cm (50.4 × 91.7 inches). The printer of the map is not specified. Also like the 1507 map, the *Carta marina* survives in just one copy, which was owned by Johann Schöner (1477–1547), and which was preserved together with a copy of the 1507 map in the Schöner Sammelband. Following the Library of Congress’s purchase of the 1507 map, the collector Jay I. Kislak bought the Sammelband, minus the 1507 map and a star chart by Albrecht Dürer. He has donated much of his large collection of Americanica, including the Sammelband with the *Carta marina*, to the Library of Congress, where the map now resides. In a separate transaction in 2016 the Library of Congress acquired the Dürer star chart that had been in the Sammelband, and thus now owns all of the elements that originally comprised the Sammelband.

Towards the end of his life Waldseemüller was working on books titled *Itineraria* and *Chronica mundi*, which had been promised to the publisher Johann Grüninger, but were never completed or printed. The brief references to these works have

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11The map bears the title *Carta itineraria Europae*, “Road map of Europe,” along its bottom edge; along the top and bottom borders, there is a fuller title: *Carta Europae topicae necoterae civitatum florivorum et montium [d]i[l]l[i]cencias eciam situm tam medi[ll]os quam veros indicans, opus corographie[m] et geographic[im] Martini Iiacomili Friburgensis. “Modern map of Europe showing the distances and locations (both measured and accurate) of cities, rivers, and mountains, a chorographic and geographical work by Martin Waldseemüller of Freiburg.”


13There is a brief discussion of the *Instructio manuductionem prestans* in M. d’Avezac, *Martin Hylacomilus Waldseemüller* (see note 5), pp. 135–141.

14Incidentally in my article “Colored as its Creators Intended: Painted Maps in the 1513 Edition of Ptolemy’s Geography,” forthcoming in *Imago temporis*, I identify the workshop hand-coloring scheme for the maps in the 1513 edition of Ptolemy’s Geography, that is, the coloring scheme intended by Waldseemüller and the other creators of the edition.


16The *Carta marina* was reproduced in facsimile together with the 1507 map in Joseph Fischer and von Wieser, *Die älteste Karte mit dem Namen Amerika* (see note 9), with a good brief discussion in the introduction; and in Hessler and Van Duzer, *Seeing the World Anew* (see note 9). The map is also discussed by Seymour I. Schwartz, *Putting America on the Map: The Story of the Most Important Graphic Document in the History of the United States* (Amherst, NY: Prometheus Books, 2007), pp. 197–206.

17On the Schöner Sammelband see note 10 above.

given rise to claims that some of the maps in the 1522 edition of Ptolemy’s Geography published by Grüninger were made by Waldseemüller and intended for one of these books, but this is unlikely to be true, as Waldseemüller had been moving away from Ptolemy for some years before his death. It has been plausibly argued, however, that Waldseemüller’s notes for these books were used by Lorenz Fries in writing his Uslegung der mercarthen oder Charta Marina, the booklet that accompanied Fries’s 1525 edition of Waldseemüller’s Carta marina, and was published by Grüninger in Strasbourg.22

In addition, the Uslegung contains a map showing the route that Alvise Cadamosto took on his voyage to Madeira and the Canary Islands in 1455,23 and it is very likely that Waldseemüller made this map for either the Chronica mundi or the Itineraria.24 Further, a copy of Francanzio de Montalboddo’s Itinerarium Portugallensium (Milan, 1508) in the Österreichische Nationalbibliothek in Vienna (signature 394.092-C.Kar) has a set of six maps that have been added to the book, a world map and five maps of the coast of West Africa that illustrate the voyages of Cadamosto (1455/56) and Pedro de Sintra (1463). One of these maps is very similar to (but not identical with) that in the 1525 Uslegung, and it seems likely that they were produced as part of the preparations for the Chronica mundi or Itineraria, either by Waldseemüller or by a closely affiliated cartographer.25 But some passages in the Uslegung and these maps are all that we have of Waldseemüller’s final projects.

### 1.3 Comparing and Contrasting the 1507 and 1516 Maps

As mentioned above, Waldseemüller’s Carta marina, like his 1507 map, is printed on twelve sheets that were designed to be assembled into a wall map measuring 128 × 233 cm (50.4 × 91.7 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, as mentioned above, is Universalis cosmographia secundum Ptolomaei traditionem et Americi Vespucii aliquo [mique] illustrateiones (‘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 of them at the top of the 1507 map.

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

Carta marina navigatoria portugallen[siorum] navigationes atque totius cogniti orbis terre marisque formam naturamque situs et terminos nostris temporibus recognitos et ab antiquorum traditione differentes eciam quorum vetusti non meminuerunt aures, hec generaliter indicat.

A nautical chart that comprehensively shows the Portuguese voyages and the shape and nature of the whole known world, both land and sea, 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 areas not mentioned by the ancients.

The change from Waldseemüller’s following Ptolemy to repudiating him is dramatic, and illustrates a dichotomy of Renaissance culture: on the one hand, admiration for the methods of enquiry and systems of knowledge of the ancients, and on the other, recognition that new investigations or explorations could produce results superior to those of the ancients—for example, the discovery that the equatorial Torrid Zone, which various classical authors held to be uninhabitable and uncrossable, was a myth.26 In a long introductory text in the lower left corner of the Carta marina, Waldseemüller discusses his earlier map (certainly the 1507 map),27 and his reasons for creating a new one. He concedes that a map with ancient place

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22 On Fries’s use of Waldseemüller’s notes in the Uslegung see Johnson, Carta marina (see note 21), pp. 96–99.
23 The map of Cadamosto’s voyage is only in the 1525 edition of the Uslegung, not in the 1527 or 1530 editions.
27 Peter W. Dickson, The Magellan Myth: Reflections on Columbus, Vespucci, and the Waldseemüller Map of 1507 (Mount Vernon, Ohio: Printing Arts Press, 2007), questions whether the earlier map described is in fact the 1507 map, asserting that Waldseemüller says that the earlier map represents the world according to Ptolemy, while the 1507 map contains more than that. Unfortunately this doubt is based on a misinterpretation or incomplete reading of Waldseemüller’s text. After Waldseemüller writes that he designed his earlier map so that “it would only have in it those customs and features that are known to have been extant or in use in Ptolemy’s time,” he continues: “Many things were added that were discovered and confirmed by the testimony of experience by the Venetian citizen Marco during the papacies of Clement IV and Gregory X, and by the Portuguese captains Christopher Columbus and Amerigo Vespucci.”.
names, like his earlier map, is of limited utility, since it is difficult to recognize modern places according to their ancient names, and also remarks that recent explorers have detected various errors in the geographical writings of the ancients, particularly in Ptolemy’s *Geography*. He then writes:

Quibus ipse permutos communi eruditorum utilitati studens hunc secundarium totius orbis typum primo adieci, ut sicut illic veterum constetit auctorum totius orbis terra marisque descriptio, sic refuerum hic non noua solum ac presens totius orbis facies, sed cum hoc mediorem temporum indito rebus mortalibus consueta et naturalis permutatio pateat ut unico habeas (si ita dixi iubet) contitu ui quid, quales, quomodo res cadue nunc iunt, qualesque priscis fuerint temporibus et quales aequin future a nobis nullatenus dubitari possint. Hanc igitur iuxta Neotericorum traditionem totius orbis spetiem & descriptionem Chartam placuit appellare marinam, eo que in maris descriptionibus vulgarem fuerimus & approbatissimam nauticarum tabularum notificationes inequuit, sumus insper in mediterranea Asie atque Aphrice descriptione Ne[otericorum] itinerarios, particulares tabulas, chorographias, & quorundam recensionum [for recen-tiorum] lustratorum relationes plerumque imitati. 

Moved by these considerations, and in the interest of the common utility of scholars, I have added this second image of the world to my first, so that just as in the first the image of the whole world, land and sea, agreed with that of the ancient authors, so in this one, not only may the new and present face of the world shine forth, but together with that, the customary and natural change introduced into worldly affairs in the intervening times, so that you can see (if I may say so) at a single glance why, of what kind, and how transitory things have come to be now, what they were like in former times, and how they will be in the future, without a doubt. Therefore, it seemed good to call this image and description of the whole world, made in accordance with the tradition of modern authors, a Carta marina, and for that reason, as far as the depiction of the oceans, I have followed the commonly used and the most approved nautical charts and their indications, while in the depiction of the Mediterranean, Asia and Africa I have made ample use of recent authors’ travel narratives, regional maps, descriptions of countries, and the accounts of some recent explorers. 

Though 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.

Together with this change in his thought about what a world map should be came a closely related change in cartographic models. His 1507 map is based on Ptolemy’s *Geography*—not only on Ptolemy’s geographical data regarding the locations of cities and other features in Europe, Africa and Asia, but also on his system for representing geographical space, using a grid of latitude and longitude. More specifically, Waldseemüller used as the model for his 1507 map a large world map of c. 1491 by Henricus Martellus Germanus (Fig. 1.1). Martellus’s map uses the Ptolemaic grid of latitude and longitude, and is laid out using a modification of Ptolemy’s second projection. Waldseemüller followed Martellus closely (Fig. 1.2), and used the same projection, has similar decorative wind-heads in the border of the map, arranged things so that Japan is at the eastern or right-hand edge of the map as it is on Martellus’s, and borrowed many descriptive texts from Martellus. Waldseemüller of course added the New World, often used different sources for place names, and depicted southern Africa very differently, but in other respects he made heavy use of Martellus, particularly for the outlines of Asia and for his long descriptive texts.

In his *Carta marina* Waldseemüller abandoned the Ptolemaic model, and instead adopted the model of nautical charts or portolan charts. The origin of nautical charts is unclear, but the earliest surviving examples date to the late thirteenth

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28For the full Latin text and English translation of this introductory paragraph see Legend 9.3.
30On Waldseemüller’s borrowing of the descriptive texts on his 1507 map from Martellus see note 12 above.
Fig. 1.1 World map made by Henricus Martellus c. 1491. Beinecke Rare Book and Manuscript Library, Art Store 1980.157. Image by Lazarus Project/MegaVision/RIT/EMEL, courtesy of the Beinecke Rare Book and Manuscript Library

Fig. 1.2 Martin Waldseemüller’s world map of 1507. Library of Congress, Geography and Map Division, G3200 1507 .W3. Courtesy of the Library of Congress
In essence, they are practical tools for navigation, usually hand-drawn on parchment, with the emphasis on coastal features and place names; 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. In addition to the relatively plain nautical charts used for navigation, others were elaborately decorated with cities, kings, animals, flags, and compass roses, and had descriptive texts added to them. This was the type of map that Waldseemüller chose as the model for his 1516 map, and in fact we know the specific map he used: the nautical chart by Nicolò de Caverio of Genoa, made c. 1503 (Fig. 1.3).

We know this because of the close similarities of place names between Caverio’s chart and Waldseemüller’s Carta marina, and the striking similarities of layout between the two maps (Fig. 1.4), including the area of the world depicted and the locations of the nodes of the systems of rhumb lines.

What caused Waldseemüller to abandon the Ptolemaic model and projection he had used in his 1507 map and adopt a nautical chart model—and to abandon the bold idea he had implemented in his 1507 map of depicting the whole circumference of the earth?\(^3\) The former question is particularly intriguing, as we know that Waldseemüller had access to the Caverio when he made his 1507 map.\(^3\) Yet he still chose to use Ptolemy’s system of cartography rather than the nautical chart system, and also to use Ptolemy’s information for the shape of North Africa, for example, while the shape of

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33For tables comparing the place names on Caverio’s map and Waldseemüller’s Carta marina for the New World and the coast of Africa see Stevenson, Marshall World Chart (see note 32), pp. 84–110.

34Waldseemüller’s boldness in depicting all 360° of the earth’s circumference on the 1507 map is emphasized by the accompaniment of that map with a small globe based on the same geography as the map.

35For a list of some of the place names that are similar in the Caverio chart and Waldseemüller’s 1507 map—including the copying of errors—see Joseph Fischer and Franz Ritter von Wieser, Die älteste Karte mit dem Namen Amerika (see note 9), pp. 26–29.
that same region is markedly different (and more accurate) on Caverio’s chart. Evidently at some point between 1507 and 1516, perhaps while he was involved in the production of the 1513 edition of Ptolemy’s Geography, he became convinced of the superiority of the more recent geographical data available in nautical charts. I will explore this question, and the development of Waldseemüller’s cartographic thought, in more detail below, but certainly one factor in his decision to follow the nautical chart model was that the best data available was already in that format.

With regard to the latter question, namely why Waldseemüller chose not to depict the whole circumference of the earth in his Carta marina, although Waldseemüller clearly decided to be less venturesous in depicting little-known regions, the answer cannot be simply that he did not have good data about the parts of the world he does not depict on the Carta marina. One notable difference between Caverio’s map and the Carta marina is that Waldseemüller depicts less of the eastern part of the world than his model: Caverio shows substantial portions of the northeastern coast of continental Asia and of the ocean we now call the Pacific that Waldseemüller chose not to copy (compare Figs. 1.3 and 1.4). Waldseemüller had reasonably good information about the location of Japan from reading Marco Polo’s account of his travels, who placed Japan 1500 miles east of mainland China, and Waldseemüller depicted it on his 1507 map, but not on his Carta marina. The answer seems to be that Waldseemüller designed the Carta marina to be more practical than his 1507 map: it shows only the parts of the world where Europeans had traveled, and where trade was known to occur, and it shows those parts using a fundamentally practical cartographic format, one developed for use on ships.

In addition to omitting some 128 degrees of longitude from the Carta marina, Waldseemüller depicts much less of the northern polar regions: his 1507 map runs all the way to the North Pole, but the Carta marina is that Waldseemüller depicts less of the eastern part of the world than his model: Caverio shows substantial portions of the northeastern coast of continental Asia and of the ocean we now call the Pacific that Waldseemüller chose not to copy (compare Figs. 1.3 and 1.4). Waldseemüller had reasonably good information about the location of Japan from reading Marco Polo’s account of his travels, who placed Japan 1500 miles east of mainland China, and Waldseemüller depicted it on his 1507 map, but not on his Carta marina. The answer seems to be that Waldseemüller designed the Carta marina to be more practical than his 1507 map: it shows only the parts of the world where Europeans had traveled, and where trade was known to occur, and it shows those parts using a fundamentally practical cartographic format, one developed for use on ships.

In addition to omitting some 128 degrees of longitude from the Carta marina, Waldseemüller depicts much less of the northern polar regions: his 1507 map runs all the way to the North Pole, but the Carta marina only to a bit more than 70° N. The Carta marina does include several more degrees of latitude in the southern ocean than the 1507 map, but overall, Waldseemüller’s exclusion of large parts of the earth’s surface from the Carta marina, together with the Carta marina being almost exactly the same physical size as the 1507 map, and its border being much narrower, meant that Waldseemüller was able to show far more detail, including both texts and images, in the areas that he does depict than he could on the 1507

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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 sheet 6 of the 1507 map, there is room only for place names from Ptolemy and indications of mountains and rivers, but on the Carta marina there are images of Mecca and Medina as well as long legends describing the cities and features of the region (see Legends 7.6, 7.8, and 7.9).

One of the most striking differences between Waldseemüller’s Carta marina and its principal model, the Caverio chart, is in the interiors of the continents, particularly in Africa and Asia. On Caverio’s chart the emphasis (as is common on nautical charts) is on the coastlines, and he provides very few geographical details of the interior. In Africa there are images of two mountain ranges, three cities and three animals, some banners indicating the names of regions, and a decorative circular world map in place of a compass rose. Asia is largely empty, aside from some compass roses and a few banners with place names. The situation on the Carta marina is entirely different: both Africa and Asia are full of rivers, mountains, images of cities, sovereigns, peoples and animals, as well as descriptive texts. Waldseemüller also takes advantage of the open spaces in the unknown interior of South America and in the southern ocean to supply long texts, one the long introduction to the map quoted from earlier, another describing South America, and in the southeastern corner of the map (Legend 12.11), a list of the sources and prices of the spices in the great trading center of Calicut (now Kozhikode, India).

The abundance of geographical information and texts on the Carta marina should be considered from a few different perspectives. First, the advent of printed maps represented a great democratization of cartography, so that the information in a very expensive manuscript like Caverio’s could be made available to many people through the printing press at a much lower cost.37 What Waldseemüller chose to democratize, however, was not just Caverio’s chart, but a richer, more detailed, and more edifying version of the chart, with many more decorative elements and much more textual information. A number of manuscript nautical charts have a similar high level of expensive optional elements, including images and descriptive texts, such as the Catalan Atlas of 137538 and Mecia de Viladestes’s nautical chart of 1413,39 but Waldseemüller’s Carta marina is the first large printed nautical chart, and it matches or exceeds these particularly elaborate nautical charts in the amount of information it offers.

It is also possible that the large amount of text on the Carta marina, particularly the long introduction in the lower left corner, was intended to render a booklet to accompany the map unnecessary: Waldseemüller and his colleague Matthias Ringmann had accompanied the 1507 world map with the booklet titled Cosmographiae introductio, and the 1511 wall map of Europe with the booklet Instructio manuductionem prestans in cartam itinerariam Martini Hilaecomili.40 We cannot be certain about this surmise, however, as Lorenz Fries’s later German-language version of the Carta marina was accompanied by a booklet titled Uslegung der mercarthen oder Charta marina (Explanation of the Sea Map or Carta marina), which was probably written in part from Waldseemüller’s notes for his unfinished Chronica mundi or Itineraria.41

1.4 Waldseemüller’s Textual Sources on the Carta Marina

Waldseemüller’s 1507 map, like his Carta marina, has a large number of descriptive texts, particularly in Africa and Asia, but one of the most remarkable things about the texts on the Carta marina is that the overwhelming majority of them are different from the ones on the earlier map. Waldseemüller abandoned not only his earlier cartographic model (i.e. Ptolemy, by way of Martellus), but also most of his earlier textual sources, in order to create an entirely new and modern image of the world. This must have been exciting but also time-consuming, carefully studying various texts looking for just the right passages to explain different regions or cities or peoples, and also for clues about the relative locations of those places.

37We do not know the sale price of either of Waldseemüller’s large world maps, but according to a letter dated 26 February 1525, from Hans Grüninger to the Nuremberg printer and publisher Anton Koberger, a copy of Lorenz Fries’s 1525 version of Waldseemüller’s Carta marina was worth 5 florins. See Oskar von Hase, Die Koberger: Eine Darstellung des buchhändlerischen Geschäftsbetriebes in der Zeit des Überganges vom Mittelalter zur Neuzeit (Leipzig: Breitkopf & Härtel, 1885), p. cxxviii, document 116.
38The Catalan Atlas is in Paris, Bibliothèque nationale de France, MS Espagnol 30; the map has been reproduced in facsimile a few times, including Mapamundi del año 1375 (Barcelona: S.A. Ebrisa, 1983), and more recently El món i els dies: L’Atles Català (Barcelona: Enciclopedià Catalana, 2005). The atlas is also reproduced in Pujades, Les cartes portolanes (see note 31), pp. 202–203, and on the accompanying CD, number C16.
40On the Cosmographiae introductio see note 7 above, and on the Instructio manuductionem prestans see note 15.
41On these unfinished works by Waldseemüller see note 21 above.
Waldsemüller lists his textual sources in the long legend in the lower left corner of the map (Legend 9.3); here follows the list, rearranged chronologically by the dates of the authors:

- Giovanni da Pian del Carpine, or John of Plano Carpini (c. 1182–1252), who as papal legate traveled via a northern route to the Great Khan in China, by way of Russia and Mongolia. Manuscripts of Carpini’s travel narrative, which exists in two reductions, and are titled either Ystoria Mongalorum or Liber Tartarorum, are rare, and the whole of the Historia Mongalorum was not published until the nineteenth century.²² Waldsemüller almost certainly consulted his travel narrative via the excerpts that Vincent of Beauvais (c. 1190–c. 1264) incorporated into Book 32 of his Speculum historiale, which exists in many manuscript copies and was first printed in 1473.

- Friar Ascelinus, who was part of a group of Dominicans who visited the encampment of the Mongol prince Baiju in 1247. Simon of Saint Quentin, who traveled with Ascelinus, wrote an account of this mission,³⁴ and excerpts of his narrative (like the excerpts from Plano Carpini’s account) were included in Book 32 of Beauvais’s Speculum historiale.

- Marco Polo (c. 1254–1324), the famous Venetian traveler who spent twenty-four years in the East, and whose account of his travels includes descriptions of places in the Middle East, Central Asia, China, and the Indian Ocean. Marco Polo’s text exists in many manuscripts, translations, and editions; the first Latin edition was printed by Gheraert Leeu in approximately 1484.³⁶ Waldsemüller made heavy use of Marco Polo in his 1507 map, mostly through borrowings from a large world map by Henricus Martellus. He makes dramatically less use of the Venetian author’s work in his Carta marina: instead of copying descriptive texts from Martellus’s map, Waldsemüller searched out his own descriptive texts in a variety of geographical texts and travel narratives.

- Odorico of Pordenone (c. 1286–1331), an Italian missionary and diplomat who traveled from Venice across the Middle East to India, visited some islands in the Indian Ocean, and spent three years in China. His account of his journey was first published in Pesaro in 1513, under the title Odorichus de rebus incognitis (Odoric on Unknown Things) (despite the Latin title, the text is in Italian),⁴⁷ but was also available in manuscripts.⁴⁸

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³⁹For a bibliography on manuscripts of Odoric’s narrative see Marianne O’Doherty, “The Viaggio in Inghilterra of a Viaggio in Oriente: Odorico da Pordenone’s Itinerarium from Italy to England,” Italian Studies 64.2 (2009), pp. 198–220, esp. 200.
• Pierre d’Ailly (1351–1420), a French cardinal, theologian and cosmographer whose *Imago mundi* (Image of the World) is well known for having influenced Christopher Columbus’s geographical thought, specifically his conception of the width of the Atlantic; Columbus owned a copy of the book which he heavily annotated. The work survives in several manuscripts, and it was first published c. 1480–1483.

• Alvise Cadamosto (c. 1432–1483), a Venetian merchant and navigator who explored the western coast of Africa for Portugal in 1455 and 1456. Cadamosto’s *Navigazioni* were first published as Chaps. 1–47 of *Paesi novamente retrovati* (Newly Discovered Countries), an important collection of travel narratives first published in 1507 that was quickly translated into Latin and German. The *Paesi* was in fact the second most frequently printed early account of the discoveries in the New World, after Vespucci’s *Mundus novus*. The interest of Waldseemüller or his associates in the voyage of Cadamosto is indicated by the existence of proof sheets of maps from Waldseemüller’s workshop that show the course Cadamosto took down the coast of Africa.

• Caspar the Jew of India, also called Gaspar de Gama (1444–c. 1510–1520), a Jewish merchant who met Vasco da Gama in India and acted as an interpreter for da Gama and other Portuguese navigators. Material from Caspar was transmitted

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in a letter by Girolamo Sernigi included in Paesi novamente retrovati, Chaps. 60–62. 58 This book was among Waldseemüller’s most important sources, but Caspar is not identified by name in those passages, and Waldseemüller seems not to have made use of those chapters, as he had a superior version of Caspar’s account. In the text block on sheet 9 of the Carta marina (see Legend 9.3) Waldseemüller says that he had access to a travel narrative by Caspar that was sent to the King of Portugal, but that document does not appear to have survived.

- Francisco de Almeida (c. 1450–1510), 59 a Portuguese nobleman, soldier and explorer who was essential in the establishment of Portuguese power in the Indian Ocean. 60 On Almeida’s voyage of 1505 from Portugal to India, one of the passengers was Balthasar Springer, or Sprenger, the representative of a trading company in Augsburg, Germany. Springer wrote an account of the voyage, which is the work that Waldseemüller is really citing. 61 The first edition of Springer’s narrative, which was published in German in 1509, 62 was illustrated by Hans Burgkmair. 63 Waldseemüller made relatively little use of it, just for some toponyms in India and an image of an Indian man and an African man.

- Christopher Columbus (1451–1506), the famous Genoese explorer. Peter Martyr d’Anghiera began writing an account of the discovery of the New World in 1494, 64 and in 1504 some chapters from his work that give an account of Columbus’s first three voyages were translated into Italian and published in the now very rare Libretto di tutta la navigazione de Re Spagna de le isole et terreni nouamente trouati; 65 this material was incorporated into the Paesi novamente retrovati a few years later in 1507 (Chaps. 84–108), where it is Waldseemüller may have found it.

- Pedro Álvares Cabral (c. 1467–c. 1520), the Portuguese explorer who in 1500–1501 discovered Brazil, sailed on to India, and then returned to Portugal. 66 One of the earliest and most complete accounts of Cabral’s voyage was written by an

58The letter with material from Gaspar is translated into English in Ravenstein, A Journal of the First Voyage (see note 57), pp. 137–141, with an introduction on pp. 119–123.
59Banha de Andrade, Mundos novos do mundo (see note 54), vol. 2, p. 580, suggests that the authority Waldseemüller is citing is actually Francisco de Albuquerque, and that Waldseemüller was using manuscript letters of his, but this seems doubtful: there are really no similarities between the narrative about to be cited and Waldseemüller’s legends. For discussion of Francisco de Albuquerque see Jean Aubin, “Francisco de Albuquerque, un juif castillan au service de l’Inde Portugaise (1510–15),” Arquivos do Centro Cultural Português 7 (1974), pp. 175–188.
60For an account of Almeida’s life see Joaquim Candeias Silva, O Fundador do ‘Estado Português da índia’ D. Francisco de Almeida, 1457(?)–1510 (Lisbon: Imprensa Nacional, 1996). There is a portrait of Francisco de Almeida in New York, Pierpont Morgan Library, MS M. 525, f. 4r, the Livro de Lisuarte de Abreu of c. 1558, which has been reproduced in facsimile as Livro de Lisuarte de Abreu (Lisbon: Comissão Nacional para as Comemorações dos Descobrimentos Portugueses, 1992).
61For discussion of the Almeida/Springer voyage see Franz Hümmerich, “Quellen und Untersuchungen zur Fahrt der ersten Deutschen nach dem portugiesischen Indien 1505/6,” Abhandlungen der Königlich Bayerischen Akademie der Wissenschaften, Philosophisch-philologische und historische Klasse 30.3 (1918), pp. 1–153; and Thomas Horst, “The Voyage of the Bavarian Explorer Balthasar Sprenger to India (1505/1506) at the Turning Point between the Middle Ages and Early Modern Times: His Travelogue and the Contemporary Cartography as Historical Sources,” in Philipp Billion, Nathanael Busch, Dagmar Schüller, and Zelia Stolzenburg, eds., Weltbilder im Mittelalter = Perceptions of the World in the Middle Ages (Bonn: Bernstein-Verlag, 2009), pp. 167–197.
65Chapters 22 to 25 of the Libretto, which contain the description of Columbus’s First Voyage, are transcribed in Guglielmo Berchet, Fonti italiane per la storia della scoperta del Nuovo mondo, in Raccolta di documenti e studi pubblicati dalla R. Commissione colombiana (Rome: Ministero della pubblica istruzione, 1892–1896), part 3, vols. 1–2, in vol. 2, pp. 173–177. For an introduction to the Libretto, facsimile, and English translation see Thacher, Christopher Columbus (see note 64), vol. 2, pp. 438–456, 457–485, and 486–514, respectively. There is also a later facsimile of the copy in the John Carter Brown Library: Pietro Martire d’Anghiera, Libretto de tutta la navigazione de re Spagna de la isole et terreni nouamente trouati, Venice, 1504, ed. Lawrence Wroth (Paris: H. Champion, 1929); and a Spanish translation in Marisa Vannini de Gerulewicz, El Mar de los descubridores: documentos y relatos inéditos o poco conocidos sobre el descubrimiento y la exploración de los mares, islas y tierras del Nuevo Mundo (siglos XV–XVI) (Caracas: Comisión Organizadora de la III Conferencia de las Naciones Unidas sobre Derecho del Mar, 1974), pp. 111–158.
66On Cabral’s voyage see Max Justo Guedes, ed., A viagem de Pedro Álvares Cabral e o descobrimento do Brasil, 1500–1501 (Lisbon: Academia de Marinha, 2003), and the references cited in the following note.
unnamed member of the fleet and is known as the “Anonymous Narrative”; it was published in the *Paesi novamente retravati*, Chaps. 63–83.67

- Ludovico de Varthema (c. 1470–1517), an Italian adventurer and keen observer who wrote an account of his travels to Egypt, the Middle East, India and the islands of the Indian Ocean, though there is some dispute about whether in fact he traveled anywhere east of Cairo.68 His narrative was published soon after his return to Europe in 1508, first in Italian (1510), then in Latin (1511), and then in an illustrated edition in German (1515).69

- Joseph the Indian, or Priest Joseph (fl. 1490–1518), a Christian priest from Cranganore, India, who shipped with Cabral on his return to Portugal so that he could visit Rome and Jerusalem. During the voyage, and also during his stay in Portugal, he supplied detailed information about southwestern India that may have been published in 1505, and was certainly printed in 1507 as the final chapters of the *Paesi novamente retravati*.70

For Waldseemüller, the majority of these sources were recent: Varthema’s book, of which Waldseemüller made heavy use, was printed just a few years before Waldseemüller created the *Carta marina*. A number of the other sources he cites were published in the *Paesi novamente retravati* in 1507, about a decade before he made the *Carta marina*.

There are a couple of interesting omissions from Waldseemüller’s list. The first is the *Travels* of Sir John Mandeville,71 who claimed to have traveled widely in Asia and Africa. The book was written in the fourteenth century and circulated very widely both in manuscript and print, with incunable editions in ten different languages,72 including multiple editions published in Strasbourg (near Waldseemüller) with woodcut illustrations.73 The second is the narrative of the travels of Arnold von Harff to the Holy Land, Egypt, and the Indian Ocean in 1496–1499. The work was not published until 1860,74 but circulated in

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73 Johann Priss in Strasbourg published editions of Mandeville in 1483, 1484, and 1488; Bartholomäus Kistler in 1499; and Johann Knobloch in 1507—all of these editions illustrated. There were many other non-Strasbourg editions in both Latin and German to which Waldseemüller might have had access.

manuscript, a number of which were illustrated.\textsuperscript{75} Given Waldseemüller’s wide knowledge of recent travel literature, it is difficult to imagine that he was not familiar with von Harff’s book, and in fact it would be at least somewhat ironic, as his 1507 map has data that also appears in von Harff, probably by way of a map by Martellus.\textsuperscript{76} Despite the extravaganza of Mandeville’s narrative, he was accepted as an authority by some other Renaissance cartographers and geographers,\textsuperscript{77} but it seems likely that Waldseemüller chose not to use Mandeville and von Harff because he considered them unreliable.

If we look at Waldseemüller’s list again in the light of his 1507 map, one of the authors included in this list and another who is omitted from it are surprising. 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 Ringmann created from “Amerigo.”\textsuperscript{78} Moreover, their book Cosmographiae introductio includes Vespucci’s accounts of his four voyages. So it is surprising that Waldseemüller does not include Vespucci in his list of sources for the Carta marina, but does include Columbus.\textsuperscript{79} Indeed, the Carta marina makes it clear that Waldseemüller had realized, probably through the account of Columbus’s 1492 voyage in the Paesi novamente retrovati, the precedence of Columbus as discoverer: the name “America” does not appear on the map, and 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 (Legend 10.2).

Thus in making his Carta marina Waldseemüller not only abandoned the Ptolemaic cartographic model in favor of the nautical chart model; he also abandoned Vespucci as principal discoverer of the New World in favor of Columbus. The fact that the two figureheads, Ptolemy and Vespucci, displayed so prominently at the top of the 1507 map, 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, as well as to the dynamism of early sixteenth-century cartography in general. Waldseemüller’s willingness to discard all of the work he had invested in the 1507 map is all the more impressive given that the map was evidently well received.\textsuperscript{80} It was not the demands of customers, but rather his own

\textsuperscript{75}On the manuscripts of von Harff’s narrative see Patrick de Never and Volker Honemann, “Zur Überlieferung der Reisebeschreibung Arnold von Harff,” Zeitschrift für deutsches Altertum und deutsche Literatur 107.2 (1978), pp. 165–178; and Peter A. Jorgensen and Barbara M. Ferré, “Die handschriftlichen Verhältnisse der spätmittelalterlichen Pilgerfahrten des Arnold von Harff.” Zeitschrift für deutsche Philologie 110.3 (1991), pp. 406–421. The illustrated manuscripts of von Harff which are in more or less public collections are Bonn, Universitätsbibliothek, Cod. S 447; Schloß Burgsteinfurt in Steinfurt (Westf.), Fürstl. Bentheim-Stiftursche Schloßbibl., Hs. 4; Darmstadt, Landes- und Hochschulbibliothek, Hs. 138; Schloß Erpenburg (bei Büren), Archiv der Freiherren von und zu Brocken, Cod. HX. 100; Gießen, Universitätsbibliothek, Hs. 163, ff. 5r–155r; Cologne, Historisches Archiv der Stadt, Cod. W* 382; Munich, Staatsbibliothek, Cgm 2213/32, ff. 45r–615v; Trier, Stadtbibliothek, Hs. 1938/1469 8r, and Hs. 2424/2387 2r; and Wolfenbüttel, Herzog August Bibliothek, Cod. Helmst. ff. 207e–258v.


\textsuperscript{78}The relevant passage in the Cosmographiae introductio is in Chap. 7, on signature a iii in the 1507 edition. In Fischer and von Wieser, The Cosmographiae introductio of Martin Waldseemüller (see note 7), the passage is on p. xcv (Latin) and 63 (English); and in Hessler, The Naming of America (see note 7), it is on p. 94. For bibliography on the naming of America see note 7 above.

\textsuperscript{79}Waldseemüller and Ringmann’s favoring of Vespucci over Columbus as discoverer of the New World in the Cosmographiae introductio and the 1507 map is to be seen in the context of the greater interest in and popularity of accounts of Vespucci’s voyages rather than Columbus’s: see Rudolf Hirsch, “Printed Reports on the Early Discoveries and Their Reception,” in Fredi Chiappelli, Michael J. B. Allen, and Robert Louis Benson, eds., First Voyagers: The Narratives of the Early Voyages to the New World from the Year 1500 to 1550 (Baltimore: Johns Hopkins University Press, 1991), pp. 77–145, esp. 90–110. Johnson, Carta marina (see note 21), p. 125, note 22, also cites part of the passage. Waldseemüller also records René II’s enthusiastic reception of his 1507 map in the dedicatory letter in Ringmann’s Instructio manuactionem preseant in Cartam itinerarium (Strasbourg: Grüninger, 1511): Neque enim oblitum sumus qua auriun clementia: quam hilari valtu et quam grato animo generale orbis descriptionem: ac alio etiam litterarior laboris nostri monimenta sibi oblata a nobis susceperit, “For we have not forgotten with what indulgent hearing, with what a happy face, and with what a grateful spirit he received our general map of the world, and other samples of our literary works that we presented to him.” This passage is quoted and translated into French by M. d’Avezac, Martin Hylacomylus Waltzmeüller (see note 5), pp. 136–137; and into English by Toby Lester, The Fourth Part of the World: The Race to the Ends of the Earth, and the Epic Story of the Map that Gave America its Name (New York: Free Press, 2009), p. 373.
determination to find the best method for representing the world that led him to undertake the creation of an entirely new world map in the *Carta marina*.

In addition to recognizing Columbus’s primacy as discoverer of the New World, in the *Carta marina* Waldseemüller adopted a Columbian conception of the New World. This can be seen particularly clearly in the different indications of what is west of the New World on the two maps. One of the most striking and oft-discussed aspects of Waldseemüller’s 1507 map is his depiction of an ocean west of the New World before the European discovery of the Pacific by Vasco Nuñez de Balboa in September 1513. He also explicitly stated in the *Cosmographiae introductio* that the New World was an island. This depiction and statement have generated claims of an earlier, pre-Balboa discovery of the Pacific by a European voyage of which no other record survives. But there is a much simpler explanation for Waldseemüller’s depiction. Marco Polo had said that Japan was 1500 miles east of mainland Asia; Polo clearly stated that Japan was an island; so there must be water east of Japan, and thus between Japan and the New World. Quite probably on the basis of this reasoning, Waldseemüller shows water separating the New World from Asia on the 1507 map: they are two distinct regions.

Columbus had been seeking a route to Asia by sailing west, and during all four of his voyages and to the end of his life believed that he had been in Asia, albeit in some previously unknown outlying reaches of the continent. This is the view of the New World that Waldseemüller adopts in the *Carta marina*. It is particularly clear in the legend on North America, on sheet 1, which reads TERRA DE CVBA • ASIE PARTIS, “The land of Cuba, part of Asia” (Legend 1.1). Other evidence for this view is in the legend on sheet 5 describing Hispaniola in the Caribbean, which begins *Spagnolla que et Offira dicitur*, “Hispaniola, which is also called Ophir” (Legend 5.1)—identifying the island with the region mentioned in the Bible from which gold and other riches were brought to King Solomon. Columbus had shown great interest in the location of Ophir, and had himself asserted that Hispaniola was to be identified with that region. Thus in the *Carta marina* Waldseemüller has adopted a Columbian view of the New World. His decisions to show less of the ocean east of Asia than Caverio on his chart, and to exclude Japan, should be seen as part of this same new perspective.

In attempting to update his information about and depiction of the New World in the *Carta marina*, Waldseemüller inadvertently took a step backwards, since Columbus’s belief that the New World was Asia was incorrect. But in other parts of the map, particularly in Asia and the Indian Ocean, the updating is breathtaking, and in examining the changes one appreciates Waldseemüller’s assertion that the 1507 map shows the world according to old authors, while the *Carta marina* depicts the world according to the very latest information.

On the 1507 map, in western Asia Waldseemüller follows Ptolemy, while in eastern Asia—which was unknown to Ptolemy—he follows Marco Polo. Thus in western Asia his source was more than a thousand years old, while in eastern Asia it was some two hundred years old. On the 1516 *Carta marina*, Waldseemüller uses information from John of Plano Carpini,

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81 In Chap. 9 of the *Cosmographiae introductio*, Waldseemüller writes of the four parts of the world, “the first three parts [i.e., Europe, Africa and Asia] are continents, and the fourth [America] is an island, since it is seen to be completely surrounded by water.”

82 On the distance of Japan from mainland Asia see note 36 above.


Simon of Saint Quentin, and an unidentified source to describe Russia (the upper left part of sheet 3), using medieval names of Grand Duke’s domain (\textit{Rossia}) and the Principality of Moscow (\textit{Moscovia Regalis}); the inhabitants are said to follow the “Greek Rite,” meaning that they belong to the Orthodox Church (see Legends 3.2 and 3.3). The contrast with the 1507 map is stark: there the information comes from Ptolemy, who wrote long before the East-West Schism of 1054 and the founding of Moscow in 1147. In addition to much of the information being more recent on the 1516 map, it is far more detailed, with particulars about the religion and political relationships of the inhabitants and sovereigns.

In the Middle East on the 1507 map, Persia is merely a collection of place names from Ptolemy, while on the \textit{Carta marina}, in addition to there being modern names for the cities, there is a legend describing the region that mixes information from Marco Polo and a recent account from Varthema (see Legend 3.35):

\begin{quote}

\textit{Persia provincia nobilis destructa multum per tartaros sed nunc sub ditione victoriosissimi [sic] regis Sophi reparata est enim diuisa in octo regna sunt Macometani et homines fallaces}
\end{quote}

The noble country of Persia was largely destroyed by the Tartars, but now, under the control of the unstoppable king Sophi, it has been restored and divided into eight realms. The people are followers of Mohammed and are deceitful.

“Sophi” is Shah Isma’il es-Sufi (1487–1524), the destroyed by the Safavid dynasty, who gained control over Persia and Khorasan (now Iran and adjoining territories to the east) around the year 1500.88 This information was very recent indeed, compared with that on the 1507 map, and much more detailed, as it does not merely list place names, but also reveals the current political situation.

Northern India (the lower left hand part of sheet 4) is another area where Waldseemüller was following the most recent sources, but since those sources recycled traditional information, his depiction of the area is not, in fact, particularly modern. Both John of Plano Carpini and Pierre d’Ailly describe monstrous races of men in India—men with the heads of dogs, Cyclopes, men whose faces are in their chests (elsewhere called \textit{blemmyae}), pygmies, and so on. In listing these races, Plano Carpini and d’Ailly are availing themselves of the traditional view of India as a land of marvels and monsters, a perception that goes back to ancient Greece.89 Waldseemüller is the first cartographer to depict several of the monstrous races of India together on a map, but the source material, although it appears in relatively recent books, is old.90

In the northeastern corner of the map (sheet 4) is a large image of the Great Khan in his tent, and to the left of him, a long legend describing Tartaria (northern and central Asia, from the Caspian Sea to the Pacific)—the terrain, the customs, and the Khan’s great power (Legend 4.16). Marco Polo gives detailed descriptions of the Khan and his realm, and Waldseemüller made heavy use of Polo in his 1507 map, but curiously, he says almost nothing about the Khan either on that map or in the \textit{Cosmographiae introductio}.91 He indicates some lands under the Khan’s control with little escutcheons, or shield-shaped

88For bibliography on Sophi see Legend 3.35. Sophi is also illustrated in some of the manuscript maps by Battista Agnese, for example on his atlas of nautical charts in New Haven, at Yale’s Beinecke Rare Book and Manuscript Library, MS 560, map 3, an image of which is available via the Beinecke’s Digital Library. Sophi also appears on the unconserved Munich, Bayerische Staatsbibliothek, Cod. Icon. 131, which is discussed (but misdated to c. 1505) and well-illustrated in Ivan Kupélik, \textit{Münchner Portolankarten: Kunstmann I–XIII und zehn weitere Portolankarten = Munich Portolan Charts: Kunstmann I–XIII and Ten Other Portolan Charts} (Munich: Deutscher Kunstverlag, 2000), pp. 115–119; and on an undated and previously unattributed chart in the Nordenskiöld Collection in Helsinki University Library, illustrated in black and white in A. E. Nordenskiöld, \textit{Periplus: An Essay on the Early History of Charts and Sailing-Directions}, trans. Francis A. Bather (Stockholm: P. A. Norstedt & Söner, 1897; New York: B. Franklin, 1967), plate 23. Sophi is also mentioned on the unconserved chart attributable to Agnese which is Budapest, National Széchényi Library, Manuscript Collection, Cod. Lat. 353. And this sovereign also appears in a nautical atlas by Alosio Cesani, Parma, Biblioteca Palatina, MS Parm. 1616, from 1574. This atlas is briefly discussed and some maps from it are reproduced in \textit{Carte per navigare: la raccolta di portolani della Biblioteca Palatina di Parma} (Parma: MUP, Monte Università Parma, 2009), pp. 80–97; the map with Sophi is reproduced on pp. 86–87, and there is a detail of him on p. 88.


90For discussion of the monstrous races in India on the \textit{Carta marina} see Chet Van Duzer, “A Northern Refugee of the Monstrous Races: Asia on Waldseemüller’s 1516 \textit{Carta marina},” \textit{Imago Mundi} 62.2 (2010), pp. 221–231.

91The apparent lack of interest in the Great Khan on the 1507 map is in line with earlier humanist geography: for example, the Mongols are absent from Aeneas Silvius Piccolomini’s \textit{Asia}, which was completed around 1461: see Margaret Meserve, “From Samarkand to Scythia: Reinventions of Asia in Renaissance Geography and Political Thought,” in Zweder von Martels and Arjo Vanderjagt, eds., \textit{Pius II ‘el piu expeditivo pontifice’: Selected Studies on Aeneas Silvius Piccolomini (1405–1464)} (Leiden and Boston: Brill, 2003), pp. 13–39.
emblems, bearing the Khan’s symbol (the anchor) in western Asia, but strangely, not in eastern Asia. The great emphasis on the Khan on the Carta marina should be read as part of Waldseemüller’s new emphasis on practical matters: the Khan represented a threat to Europe, so Waldseemüller provides information about him, and a large image to emphasize his importance. As for the legend describing Tartaria, this is a case where Waldseemüller used an older source rather than a newer one, for his information comes primarily from John of Plano Carpini, who traveled to Asia a couple of decades before Marco Polo. This is no doubt an indication that Waldseemüller thought Plano Carpini more reliable than Polo.

The Indian Ocean is one of the regions where Waldseemüller’s updating of his image of the world is the most dramatic. On the 1507 map, his information about the Indian Ocean comes from Ptolemy and Marco Polo, and his legends about sea monsters come from an illustrated encyclopedia titled Hortus sanitatis, first published in 1491,[92] by way of a large world map by Henricus Martellus.[93] There are only small bits of information from the recent Portuguese explorations in the Indian Ocean, which followed Vasco da Gama’s first voyage from Portugal to India and back in 1497–99: for instance, there is a brief legend about the important trading center of Calicut, which da Gama had reached.[94]

On his Carta marina, almost everything about the Indian Ocean has changed. On the 1507 map, the depiction of Taprobana (modern Sri Lanka) is straight out of Ptolemy. On the 1516 map, in a legend in the upper left corner of sheet 12, Waldseemüller disputes the equatorial position that Ptolemy assigned to the island, siding instead with the Roman author Solinus and evidence from recent Portuguese voyages that place it further south (Legend 12.1); and on sheet 8, he discusses whether Taprobana is to be identified with Sumatra (Legend 8.10). Ptolemy had said there were 1,378 islands near Taprobana, and Waldseemüller quotes him to that effect on the 1507 map; on the 1516 map he instead quotes Varthema’s statement—around 1300 years more recent—that there were 8,000 islands near Sumatra (Legend 12.2). Ptolemy’s various islands of cannibals, together with the magnetic islands that pull the nails from ships, are simply gone, though there are still cannibals in the area, now on the island of Java, and the information about them now comes from Varthema (Legend 12.3).

Here again, Waldseemüller has set aside the information about Java on his 1507 map that came from Marco Polo. On the 1507 map a short legend describes the trading center of Calicut,[95] while on the 1516 map, at the right-hand edge of sheet 7 (just west of Calicut, which is at the left-hand edge of sheet 8), a long legend describes the merchandise available in that city (Legend 7.18). It also gives an account of the king and his many wives as well as the unusual sexual and religious practices in the region, and includes a few words about what the people drink and eat (rice, fruit, butter, sugar, and some fish, but no meat)—all of this from Varthema. Then in the lower right-hand corner of the map, a long legend (Legend 12.11) describes the systems of weights and money at Calicut, the regions from which the various spices were brought to that city, and the price of each of them in the Calicut markets,[96] all of which information comes from Chaps. 82–83 of the 1507 Pausi novamente retrovati.[97] Again, Waldseemüller is providing an abundance of current practical information about trade, navigation, and local customs.

[92] The Hortus sanitatis “major,” which is the work that interests us here, is to be distinguished from the Hortus sanitatis “minor,” which is a Latin translation of the German herbal often titled Gart der Gesundheit, first published by P. Schoeffer, Mainz, 1485. The herbal published in 1485 has 435 Chapters, while the Hortus sanitatis “major” of 1491 has 1,066 chapters. Details and discussion of the early editions of the Hortus sanitatis are provided by Arnold C. Klebs, “Herbals of 15th Century,” Papers of the Bibliographical Society of America 11 (1917), pp. 75–92; and 12 (1918), pp. 41–57, esp. 48–51 and 54–57. A more detailed discussion is in Joseph Frank Payne, “On the ‘Herbarius’ and ‘Hortus sanitatis.’” Transactions of the Bibliographical Society 6.1 (1901), pp. 63–126, esp. 105–24. The first edition of the work was published in Mainz by Jacob Meydenbach, 23 June 1491.


[95] For a translation of the legend about Calicut on the 1507 map see note 94 above.

[96] It seems likely that Waldseemüller’s long legend about the spice trade on the Carta marina was inspired by a long legend on the spice trade on Martin Behaim’s globe of 1492. For a transcription of Behaim’s legend on the spice trade see E. G. Ravenstein, Martin Behaim, His Life and His Globe (London: G. Philip & Son, Ltd., 1908), pp. 89–90. Behaim describes the alleged stops that cargoes of spices make on their journey from islands near Java Major, to Java Major itself, to Ceylon, and so on to Europe. Behaim seems to ascribe considerably too many stages to the journey, and the subject of his legend (the route the spices take) is different from Waldseemüller’s (the sources and prices of the spices), but nonetheless Behaim’s legend probably prompted Waldseemüller to think about a more detailed and informative legend about spices, with updated information.

[97] The Chapters of the Pausi on the systems of weights and money used in Calicut and the sources and prices of the spices are translated into English in Greenlee, The Voyage of Pedro Álvares Cabral (see note 70), pp. 91–94.
Waldseemüller updated his portrayal of the Indian Ocean in other ways, among them his treatment of the sea monsters. On his 1507 map, several legends describe sea monsters in the Indian Ocean, such as this one just north of Madagascar:

Hic cernitur orcha mirabile monstrum mari[nn]um ad modum [s]olis cum reverberat cuius figura vix describi potest nisi quod est pelle mollis et carne in mensa.

Here is seen the orca, an extraordinary sea monster, like the sun when it glitters, whose form can hardly be described, except that its skin is soft and its body huge.

Although this information ultimately comes from the illustrated encyclopedia *Hortus sanitatis*, Waldseemüller’s source for his legends about Indian Ocean sea monsters on the 1507 map was Henricus Martellus’s large world map discussed earlier. On the 1516 map, these sea monsters are gone, and the cartographer presents just one image of a sea monster in the southern ocean (sheet 11), south of the southern tip of Africa. In this image King Manuel of Portugal rides a sea monster through the waves, holding aloft a scepter and the banner of Portugal, proclaiming his nation’s mastery of the ocean, particularly of the passage to India around the Cape of Good Hope. The image alludes to a new title that Manuel had adopted following Vasco da Gama’s return from his first voyage to India, *Senhor da conquista e da navegação e comércio de Etiópia, Arábia, Pérsia e da Índia*, “Lord of the conquest, and navigation, and commerce of Ethiopia, Arabia, Persia and India”—the adoption of which title is reported in the *Paesi novamente retrovati*, Chap. 62.

The differences between the sea monsters on the two maps reflect a radical reconceptualization of the Indian Ocean. Most of the sea monsters on the 1507 map—all of which derive from Martellus—are dangerous, and thus would discourage navigation, while the image of King Manuel riding a sea monster on the *Carta marina* boldly proclaims human control over the dangers of the sea, and by extension, dominion over the oceans themselves. The riches on the distant shores of the Indian Ocean are no longer mere abstractions, things told of in tales; they are now commodities that are weighed out and sold in markets at specific prices (which are listed in the lower right corner of the map). And those markets can be reached by ship along well-established routes that are evidently untroubled by sea monsters. In the short space of nine years, Waldseemüller had set aside an essentially medieval view of the ocean and adopted a much more modern conception.

### 1.5 The *Carta Marina*’s Iconographical Program, and Its Sources

As mentioned earlier, in creating the *Carta marina*, Waldseemüller used Caverio’s chart as a basis, but added so many features as to create something essentially new: it has much more geographical detail in the hinterlands, far more textual information, and a more elaborate artistic decoration. This increased level of decoration sets the map apart not only from Caverio’s chart but also from the 1507 map. The borders of the 1507 map are decorated with information, and a more elaborate artistic decoration. This increased level of decoration sets the map apart not only from Caverio’s chart but also from the 1507 map. The borders of the 1507 map are decorated with renderings of mountains and small trees, flags and some small coats of arms, one city in Asia, one elephant and a few people in Africa, one ship in the South Atlantic and one parrot in South America, but little more. The *Carta marina*, on the other hand, boasts a rich and ambitious iconographical program, particularly in Asia.

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98This legend about the orca comes from the *Hortus sanitatis*, “De piscibus,” Chap. 64. I discuss the dependence of the sea monster legends on Waldseemüller’s 1507 map on those on the Yale Martellus map in Chet Van Duzer, *Henricus Martellus’s World Map at Yale (c. 1491): Multispectral Imaging, Sources, Influence* (New York: Springer, 2018), pp. 64–66. Also see my *Sea Monsters on Medieval and Renaissance Maps* (London: British Library, 2013), pp. 71–76.


On traditional manuscript nautical charts, many of the decorative elements were optional: the person commissioning the chart could choose to have various elements added to a basic chart, including images of cities, animals, trees, ships, and sovereigns (Fig. 1.5). On sumptuous nautical charts made in the fourteenth century, the sovereigns depicted are in North Africa, but on later charts, sovereigns in Asia and sometimes Europe appear as well. The Caverio chart has just one image of a sovereign, the Magnus Tartarus, or Great Khan. Waldseemüller included many images of sovereigns on the *Carta marina*—a far larger number than on any surviving manuscript nautical chart. The abundance of sovereigns can be interpreted as reflecting Waldseemüller’s interest in the world’s politics—that is, in adding practical information to the *Carta marina*. Moreover, Waldseemüller made use of a simple graphical convention that, although common in other media in ancient, medieval and Renaissance art, had essentially not been employed in the depictions of sovereigns on nautical charts: he used size to indicate the relative importance of the different sovereigns. Waldseemüller’s decision to make many of the sovereigns quite small allowed him to include the large number that appear on the map, and also meant that most of the sovereigns are artistically rather simple, and thus took less time to design and to cut into the woodblocks.

Two particularly large images of sovereigns appear on the map, one of the Great Khan in the northeast corner of sheet 4, and the other of King Manuel of Portugal riding the sea monster on sheet 11. It seems likely that Waldseemüller intended the viewer to compare and contrast the greatest power in the East with the greatest power in the West, one powerful on land, the other on the oceans. On Caverio’s map, the Great Khan is pudgy and unimposing, while on the *Carta marina* he is large, stern, and warlike (Fig. 1.6). The image is finely executed, and was probably made by a special artist rather than by Waldseemüller himself (we have no evidence that Waldseemüller had any woodcutting skills). This likelihood is increased by the fact that some details of the image do not agree as well with Waldseemüller’s textual sources as we might expect. The Khan’s facial features do not agree with Plano Carpini’s description of typical Tartar features, for example, while the Khan’s braided hair accords with Plano Carpini’s description, he also is quite clear that most Tartars do not have beards, but on the *Carta marina* the Khan does have one.

While the model of Waldseemüller’s image of the Khan is unknown, in the case of the image of King Manuel riding the sea monster (Fig. 1.7), which also seems to be the work of a specialized artist, we can identify the likely iconographical sources, as there are few surviving earlier Renaissance images of humans riding sea monsters. The Italian painter Andrea Mantegna produced a print in about 1485–88 known as the *Battle of the Sea Gods*, in which one of the gods rides a sea monster much as King Manuel does on the *Carta marina* (Fig. 1.8). But Waldseemüller’s direct source was more likely Jacopo de’ Barbari’s monumental six-sheet view of Venice of c. 1500, which was itself no doubt influenced by Mantegna: in front of the city, right in front of St. Mark’s Square, de’ Barbari has an image of Neptune riding a sea monster and holding aloft on his trident a sign that reads AEQVORA TVENS PORTV RESIDEO HIC NEPTVNVS (“I, Neptune, reside here, watching over the seas at this port”) (Fig. 1.9). This is a powerful image of the protection that Venice enjoyed from the

102 The only earlier chart I am aware of where greater size is used to indicate the greater importance of a sovereign is on the Catalan Atlas of 1375: Antichrist in the northeastern corner of the map is much larger than the other sovereigns. There are sovereigns of different sizes on the first map in an atlas of nautical charts by Vesconte Maggiolo (Parma, Biblioteca Palatina, MS parm. 1614), but it is not clear that these differences in size always reflect differences in importance: for illustrations see *Carte per navigare: la raccolta di portolani della Biblioteca Palatina di Parma* (Parma: MUP, Monte Università Parma, 2009), 56–57 and 64. But Waldseemüller did not have to look far afield for the idea of using size to indicate importance, for this convention was commonly used in depictions of cities on nautical charts.

103 The sophistication of the *Carta marina*’s image of the Great Khan can be appreciated by comparing it with earlier images of that sovereign, in addition to that on the Caverio map. For example, Paris, Bibliothèque nationale de France, MS 2810, f. 2v, in a famous fifteenth-century manuscript that includes Marco Polo’s travels, which shows the Polos paying homage to the Khan, and may be viewed via www.mandragore.bnf.fr; and Madrid, Biblioteca Nacional, MS 9267, f. 70v, in a manuscript of Louis de Langle’s *Tractatus de figura seu imagine mundi* made c. 1460; the image is reproduced in Marc-Édouard Gautier, ed., *Splendeur de l’enluminure: le roi René et les livres* (Angers: Ville d’Angers, and Arles: Actes Sud, 2009), p. 235.


Fig. 1.5 Detail of an elaborately decorated nautical chart made by Matteo Prunes in 1559. Library of Congress, Geography and Map Division, G5672.M4P5 1559 .P7 Vault: Vellum 7.Courtesy of the Library of Congress
god of the sea, but Waldseemüller’s recasting of this image is still more powerful: he has replaced the classical god Neptune with a contemporary king, thus almost effecting an apotheosis of Manuel\textsuperscript{107}; and rather than indicating the protection passively enjoyed by Venice, the new image illustrates Portugal’s active control of the lanes of navigation to India.\textsuperscript{108}

Waldseemüller also made use of recent sources for other images on his map, as part of his effort to create an entirely fresh and modern image of the world. In South America Waldseemüller has an image of an opossum (sheet 5), and this is the earliest surviving European depiction of that animal. Vicente Yáñez Pinzón was the first European to see an opossum in 1499; in fact it was the first marsupial that Europeans had ever seen, and was regarded as a marvel. Pinzón brought an opossum back to Spain and left this description of the creature\textsuperscript{109}:

\begin{quote}
Between these Trees he saw a strange Monster, the foremost part resembling a Fox, the hinder a Monkey, the feet were like a Mans, with Ears like an Owl; under whose Belly hung a great Bag, in which it carry’d the Young, which they drop not, nor forsake till they can feed themselves.
\end{quote}

\textsuperscript{107} Waldseemüller had included an image of Neptune riding a sea monster on his 1511 \textit{Carta itineraria Europae}, of which only one exemplar of the 1520 printing survives, in Innsbruck, in the Tiroler Landesmuseum Ferdinandeum. For bibliography on the map see note 14.


As Waldseemüller’s image is quite detailed, it seems likely that it was taken from a contemporary illustration of Pinzón’s opossum that no longer survives. 110 Waldseemüller’s image was copied both on later maps and in other media, mostly by way of the reproduction of Waldseemüller’s image in Lorenz Fries’s Carta marina of 1525, 1530, and 1531. 111

In Scandinavia, near the northern edge of the map (sheet 2), the animal that looks like an elephant is intended to be a walrus (Fig. 1.10). The accompanying legend reads (see on Legend 2.3):

Morsus animal ingens quantitate Elephantis huius dentes longos duos et quadrangulares carens quibus iuncturis in pedibus. Reperitur in promontoriis septentrionalibus Norbegie incedit gregatim gregatim agmine ducentorum animalium. The

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110 Waldseemüller’s legend about and image of the opossum are discussed in Gaetano Ferro et al., Columbian Iconography (see note 108), pp. 546–547. Waldseemüller could have read about the opossum in the Libretto de tutta la navigazione, Chap. 31 see Thacher, Christopher Columbus (see note 64), vol. 2, pp. 483 (Italian) and 511–512 (English); and in the Paesi, Chap. 113.

111 On Fries’s Carta marina there is a baby opossum suckling from its mother, and this is clearly the image that Sebastian Münster copied in his Cosmographiae universalis Lib[ri] VI (Basel: apud Henrichum Petri, 1552), Book 5, in the section titled “Pinzonus socis Admirantis quaerit nouas insulas,” p. 1108; this is also the image copied by Gerard Mercator in his world map of 1569, which is reproduced in facsimile in Gerard Mercator’s Map of the World (1569) in the Form of an Atlas in the Maritiem Museum ‘Prins Hendrik’ at Rotterdam (Rotterdam, 1961); and now as Atlas van der Wereld: De wereldkaart van Gerard Mercator uit 1569 (Zutphen: Walberg Pers, 2011). It should be remarked that the image of the opossum in the 1522 (Strasbourg), 1525 (Strasbourg), 1535 (Lyon), and 1541 (Vienna) editions of Ptolemy’s Geography is essentially identical to that on the Carta marina, so images of opossums that seem similar to Waldseemüller’s may have derived from one of these editions, rather than from the Carta marina.
walrus is a huge animal, the size of an elephant, and it has two long teeth which are quadrangular, and lacks joints in its legs. It is found in the northern promontories of Norway, and they travel together in groups of two hundred animals.

There is at least one discussion of a walrus by a medieval author, namely Albertus Magnus in his On Animals, but Waldseemüller did not make use of Albertus. The word Waldseemüller uses for the walrus, *morsus*, is usually held to have entered European literature in 1517, in Maciej of Miechów’s *Tractatus de duabus Sarmatiis*. In fact, William Caxton used it in 1480 in his *Chronicles of England*—but certainly Waldseemüller’s is among the earliest uses of it. On the one hand, it is clear that Waldseemüller (or his unknown iconographical source, if there was one) made the image from a vague description that emphasized the creature’s elephant-like tusks and size, rather than on the basis of seeing a walrus. On the other hand, Waldseemüller’s text about the animal is surely based on information derived from an examination of a walrus, as no other known early document mentions the walrus’s quadrangular tusks. The image and text pertaining to the walrus thus contain a mixture of good information and extrapolation, a common characteristic of attempts to interpret incomplete reports about unfamiliar things.

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113 There is also an interesting allusion to the walrus in Pletho’s treatise *Correction of Certain Errors made by Strabo*; the Greek text is edited by Aubrey Diller, “A Geographical Treatise by Georgius Gemistus Pletho,” *Isis* 27.3 (1937), pp. 441–451; and it is translated in Milton V. Anastos, “Studies in Pletho,” Ph.D. Dissertation, Harvard University, 1940, pp. 68–163, with the passage about the walrus on p. 152.


116 I am indebted to Klaus Barthelmes (d. 2011) for his discussions of Waldseemüller’s image of the walrus and its possible sources.
Fig. 1.9 Detail of Neptune riding a sea monster on Jacopo de' Barbari’s six-sheet view of Venice of c. 1500. Chicago, Newberry Library, Novacco 8f 7. Courtesy of the Newberry Library

Fig. 1.10 Detail of the elephant-like walrus on Waldseemüller’s *Carta marina* (sheet 2). Courtesy of the Library of Congress
Fig. 1.11 Detail of the rhinoceros in West Africa on Waldseemüller’s *Carta marina* (sheet 6). Courtesy of the Library of Congress

Fig. 1.12 Albrecht Dürer’s print of the rhinoceros, 1515. Washington DC, National Gallery of Art, Rosenwald Collection 1964.8.697. Courtesy of the National Gallery of Art, Washington DC
In West Africa (sheet 6), Waldseemüller shows a small image of a rhinoceros (Fig. 1.11), and this is another instance where he was using the most recent iconographical sources available. In 1514 Sultan Muzafar II of Gujarat had presented a rhinoceros to Afonso de Albuquerque, the governor of Portuguese India. Albuquerque sent the rhinoceros to King Manuel of Portugal, and Albrecht Dürer made an influential print depicting the animal in 1515 (Fig. 1.12). Waldseemüller used as his model not Dürer’s print, however, but a different one, also made in 1515, by Hans Burgkmair, that survives in only one copy (Fig. 1.13). The images of the rhinoceroses are similar in the two artists’ prints, but there are differences, and those differences indicate that Waldseemüller used Burgkmair’s print: in particular, Dürer shows hard plating and a small ancillary horn on the crest of the creature’s neck where Burgkmair places hair—and it is hair that we see in Waldseemüller’s image. It has been suggested that Dürer might have been involved in the engraving of the Carta marina, but given that Waldseemüller used Burgkmair’s image of the rhinoceros rather than Dürer’s, this seems unlikely.

In northeastern Asia, specifically in northern India at the bottom of sheet 4, is an image of sati or suttee, the Hindu practice whereby a widow burned herself to death on the funeral pyre of her husband. This custom very much surprised Western visitors to India, and there are legends on the subject on earlier maps, for example the metal Borgia mappamundi—see A. E. Nordenskiöld, “Die älteste Karte mit dem Namen Amerika” (see note 9), p. 19; and Johnson, Carta marina (see note 21), p. 27.


120 For the suggestion that Dürer was involved in the production of the *Carta marina* see Joseph Fischer and Franz Ritter von Wieser, *Die älteste Karte mit dem Namen Amerika* (see note 9), p. 19; and Johnson, *Carta marina* (see note 21), p. 27.

121 The *Borgia mappamundi* is in the Biblioteca Apostolica Vaticana, Borgia XVI, and is described and reproduced in Destombes, *Mappemondes* (see note 29), pp. 239–241 and plate 29. For the legend about *sati* see A. E. Nordenskiöld, “Om ett aftryck från XV:de seklet af den i metall graverade världskarta, som förvarats i kardinal Stephan Borgias museum i Velletri, Med 1 facsimile,” *Ymer* 11 (1891), pp. 83–92, at 90; the map is reproduced between 130 and 131.

marina (Fig. 1.14) shows a woman who has leapt into a fire pit, with a man standing over her and about to strike her with something in his hand, no doubt so that she will die sooner; on the right a horned devil stands looking on. No legend accompanies the scene, but it illustrates a passage in Varthema about the practice of sati in the city of Tarnassari. Varthema describes the fire pit, the beating of the woman with sticks and balls of pitch, and the participation of men clothed like devils.\textsuperscript{123} Waldseemüller’s scene here was clearly inspired by that in the first illustrated edition of Varthema, which has

woodcuts by Jörg Breu\textsuperscript{124} and was published in 1515,\textsuperscript{125} just one year before the Carta marina (Fig. 1.15): in this scene two men instead of one are beating down the woman, and a king and noble are present, but in other respects the scenes are quite similar, particularly the poses of the women and the depiction of the flames. Once again, Waldseemüller was using a recent iconographical source, and the evidence from these images gives us a window into Waldseemüller’s workshop, for we now know that the cartographer had a copy of the 1515 edition of Varthema on his bookshelf.

Waldseemüller used this same edition of Varthema as the source for two other images on his map. On f. 9v of the book there is an image of the mosque of Medina, with Varthema himself on the far left, and his guide beside him (Fig. 1.16). The guide points to the flames emanating from the top of the building, which he claims indicate the presence of the prophet’s body.\textsuperscript{126} This image of Medina, with its buttresses, windows, and other features, is used by Waldseemüller with very few changes to depict Mecca on the Carta marina (Fig. 1.17). The cartographer removes the flames issuing from the building’s roof, and replaces them, in effect, with an Islamic crescent which he may have borrowed from the building to the left in the image in Varthema. Waldseemüller’s choice to use an image of Medina for Mecca was perhaps guided by a desire to use the example he had of supposedly Islamic architecture for the more famous city; but certainly his use of this image demonstrates again his interest in giving his map a rich and accurate iconographical program from recent sources.

The important trading center of Calicut in India, mentioned above, is the only city in eastern Asia to bear a flag, and the flag is a curious one: it is of a black devil or demon (Fig. 1.18). The allusion is to the worship of devils that Varthema says


\textsuperscript{125}The illustrated edition in question is Varthema, Die Ritterlich und lobwürdig reis… (see note 69), with the illustration of sati on f. 51r. For discussion of the program of illustration see Stephanie Leitch, “Recuperating the Eyewitness: Jörg Breu’s Images of Islamic and Hindu Culture in Ludovico de Varthema’s Travels (Augsburg: 1515),” in her Mapping Ethnography in Early Modern Germany: New Worlds in Print Culture (Basingstoke and New York: Palgrave Macmillan, 2010), pp. 101–145, esp. 128–131 on the image of sati.

\textsuperscript{126}Varthema was one of first Europeans to realize the falsity of the common medieval myth that Mohammad’s sarcophagus was at Mecca, when in fact he was buried in Medina: for discussion of this myth see Sandra Sáenz-López Pérez, “La peregrinación a La Meca en la Edad Media a través de la cartografía occidental,” Revista de poética medieval 19 (2007), pp. 177–218. The scene of Varthema in Medina in the 1515 edition of Varthema’s travels is discussed by Leitch, “Recuperating the Eyewitness” (see note 125), p. 108.
Fig. 1.17 Detail of Mecca on Waldseemüller’s *Carta marina* (sheet 7). Courtesy of the Library of Congress

Fig. 1.18 Image of Calicut, India, with its flag displaying a demon on Waldseemüller’s *Carta marina* (sheet 8). Courtesy of the Library of Congress
took place in Calicut, though this is merely a misunderstanding of Hindu art, and the image on the flag is a simplification of an image of the devil supposedly worshipped in Calicut in the same 1515 edition of Varthema (Fig. 1.19).

On sheet 8, in southwestern India, there is a curious image of an Indian king with a crown on his turban who is standing rather than sitting on a throne (Fig. 1.20). Waldseemüller borrowed this image from another recent source, the 1509 edition of Balthasar Springer’s account of Francisco de Almeida’s voyage to India, which was illustrated by Hans Burgkmair (Fig. 1.21). Waldseemüller has rotated the man to the left, added the crown to his turban to make him a king, and shortened the handle of his weapon, but there can be no doubt where he obtained the image. Waldseemüller used Burgkmair’s image of this Indian man a second time on the map, in West Africa (sheet 6), to illustrate a king in the delta of the Senegal River (Fig. 1.22). The king stands almost with his back to us, and Waldseemüller seems to have borrowed this stance from that of a figure in another of Burgkmair’s illustrations of Springer’s narrative, namely the man shading the king in the fold-out Triumphus Regis Gosci sive Gutschmin, or Triumph of the King of Cochin (Kochi, India) (Fig. 1.23). It is interesting that Waldseemüller did not hesitate to use an image of an Indian man to illustrate an African, particularly as the 1509 edition of Springer’s book has images of Africans that Waldseemüller could have copied. One reason might have been that the

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Africans in Springer’s book are naked, and Waldseemüller’s colleague Matthias Ringmann, who had worked closely with him on the Cosmographiae introductio, the 1511 Carta itineraria Europae with its accompanying booklet, and the 1513 edition of Ptolemy, 131 had written against the illustration of full-frontal nudity in 1509. 132 On the other hand, the natives in southern Africa on the 1507 map are naked, and it would not have been difficult to add clothes to Burgkmair’s naked figures, so the matter is not clear.

We know that Waldseemüller had the Caverio chart in his workshop, but he twice alludes to having more than one nautical chart at his disposal. In the Cosmographiae introductio he says that he has followed nautical charts (plural) particularly with regard to the newly discovered lands, 133 and in the long text block on sheet 9 of the Carta marina he says that eo que in maris descriptionibus vulgarem fuerimus & approbatissimam nauticarum tabularum noti

ficationes insequuti, “as far as the depiction of the oceans, I have followed the commonly used and the most approved nautical charts and their indications” (plural). It seems very likely that some of the illustrations on the Carta marina were inspired by nautical chart legends or illustrations—legends or illustrations that do not appear on the Caverio chart—and an examination of these images can give us information about the other chart or charts that Waldseemüller had.

Fig. 1.20  Detail of a king in southwestern India on Waldseemüller’s Carta marina (sheet 8). Courtesy of the Library of Congress

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133 See Joseph Fischer and Franz von Wieser in The ‘Cosmographiae introductio’ of Martin Waldseemüller, Chap. 9, p. xxxvii (Latin), and p. 78 (English); and Hessler, The Naming of America (see note 7), p. 106. The passage is quoted below on p. 39.
Fig. 1.21  Hans Burgkmair’s woodcut illustration of an Indian man in the 1509 edition of Balthasar Springer’s account of Francisco de Almeida’s voyage to India. Munich, Bayerische Staatsbibliothek, Rar. 470, f. 12v. urn:nbn:de:bvb:12-bsb00045403-6. Courtesy of the Bayerische Staatsbibliothek

Fig. 1.22  Detail of a man in Senegal on Waldseemüller’s Carta marina (sheet 6). Courtesy of the Library of Congress
At the top of sheet 7 of the *Carta marina* there is a small image of Moses kneeling before Mount Sinai and receiving from God the two tablets with the commandments written on them (Fig. 1.24). I do not know of an earlier nautical chart that has a similar image of Moses, but many nautical charts have a legend that probably inspired Waldseemüller to include this scene. The Pizzigani chart of 1367, for example, has a legend that reads (in very idiosyncratic Latin) *Mons Sinay quo dominus jesus a de moyss instrudebat et ey legem cunferebat propter populum*, “Mount Sinai where Lord Jesus or God instructed Moses and gave him the law for the people.” The legend on the Catalan Atlas of 1375 is similar, *Mont de Sinai en lo*.


136 For references on the Catalan Atlas see note 38.
qual Dêu dona la Ley a Moyssès, “Mount Sinai where God gave the law to Moses.” Similar legends appear on many other nautical charts, including some sixteenth-century works by Ottomano Freducci, such as London, British Library, Add. MS 11548, made in 1529. It seems likely, then, that such a legend inspired Waldseemüller to add an image of Moses to his map; Waldseemüller may have drawn iconographic inspiration from the scene of Moses receiving the laws in Hartmann Schedel’s Liber chronicarum (Nuremberg: Anton Koberger, 1493), f. 30v (Fig. 1.25), as in both cases Moses is receiving the tablets with his hands gripping them from the sides, but there are so many representations of this scene that it is impossible to be certain that the Liber chronicarum was the source.140

On sheet 3 of the Carta marina just west of the Caspian (which is labeled Mare Abacuc…) there is a short legend that reads Arach mons super quam requieuit Archa noe, “Mount Ararat, upon which Noah’s Ark rested,” above which there is a small image of a ship on the mountains (see Fig. 1.26 and Legend 3.12). Isidore, Etymologiae 14.3.35, Marco Polo, and Pierre d’Ailly mention that Noah’s Ark can be found on some mountains in Armenia, but they do not give the mountains’ name.141 The case is much the same with Odoric of Pordenone,142 and Varthema does not mention Noah’s Ark. But there is a nautical chart tradition

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137 The legend on the Catalan Atlas is transcribed in Mapamundi del año 1375 (Barcelona: S.A. Ebrisa, 1983), p. 45.
139 The likelihood that Waldseemüller used Schedel’s Liber chronicarum as a source for the image of Moses is increased somewhat by the fact that he used the same book as a source for his image of a cynocephalus in India: see Van Duzer, “A Northern Refuge of the Monstrous Races” (see note 90), p. 226.
140 For example, there is an illustration of Moses receiving the tablet with both hands in John Mandeville, Johannes Montevilla der wyffaren de Ritter (Strasbourg: Mathias Hupfful, 1501), fol. D 2 r, and is reproduced in La Gravure d’illustration en Alsace au XVIe siècle (Strasbourg: Presses universitaires de Strasbourg, 1992–2000), vol. 2, p. 176. Incidentally there are representations of Moses receiving the tablets from God in some of the manuscript atlases by Battista Agnese: see Henry R. Wagner, “The Manuscript Atlases of Battista Agnese,” Papers of the Bibliographical Society of America 25 (1931), pp. 1–110, at 35. One of these atlases is Venice, Museo Correr, Port. 1, which is Wagner’s #55, pp. 91–93; this atlas has been reproduced in facsimile as Atlante nautico di Battista Agnese, 1553 (Venice: Marsilio, 1990), where the map in question is reproduced on plate 27. Another such atlas is New Haven, Beinecke Rare Book and Manuscript Library, MS 560, map 21: images of all of the maps in this atlas are available through the Beinecke’s Digital Library at http://beinecke.library.yale.edu/digitallibrary/.
141 Evidence from Waldseemüller’s 1507 map indicates that he was not using the Latin edition of Polo published c. 1484, De consuetudinibus et conditionibus Orientalium regionum (Gouda: Gerard Leeu, c. 1483–1485), but rather a manuscript similar to Naples, Biblioteca Nazionale Vittorio Emanuele III, Vind. lat. 50. The text of this manuscript has been published in Marco Polo, Marka Pavlova z Benáteck, Milion: Dle jediného rukopisu spolu s prlusuym zakladem latinskym, ed. Justin Václav Prášek (Prague: Nákl. České akademie císare Frantiska Iozefa, 1902), and the passage on Noah’s Ark is in Book 1, Chap. 13, pp. 17–18. For the passage in Yule’s translation see Marco Polo, The Book of Ser Marco Polo, Book 1, Chap. 4, vol. 1, p. 46. For the passage in Pierre d’Ailly see Ymago mundi, ed. Edmond Buron (Paris: Maisonneuve frères, 1930), vol. 1, pp. 302–03.
142 For the passage in Odoric see Henry Yule, ed. and trans., Cathay and the Way Thither: Being a Collection of Medieval Notices of China, revised by Henri Cordier (London: The Hakluyt society, 1913–16), vol. 2, pp. 101–102 (English), 280 (Latin), and 338 (Italian).
of illustrating Noah’s ark on a pair of mountains together with a brief text identifying the ship and the mountains, very much as we have on Waldseemüller’s Carta marina. The earliest surviving nautical chart that has a representation of Noah’s Ark is that of Angelino Dulcert of 1339, where the illustration is accompanied by the text Archa de Noe. Mons Ararat in quo permansit Archa Noe post diluuium, “Noah’s Ark. Mount Ararat on which Noah’s Ark remained after the Flood.” Very similar texts appeared on later luxury nautical charts including the Pizzigani chart of 1367, Catalan Atlas of 1375, Mecia de

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143Noah’s Ark is also illustrated on some mappaemundi, such as the Psalter map, the Ebstorf map, and the Hereford map, but the legend accompanying the image on the Carta marina is closer to what we find on nautical charts, and Waldseemüller shows no other signs of having used a large mappamundi. For the legend on the Ebstorf map see Hartmut Kugler, Die Ebstorfer Weltkarte (Berlin: Akademie Verlag, 2007), vol. 1, p. 76, 24.A1, and vol. 2, p. 135, 24/1; and for the legend on the Hereford map see Scott D. Westrem, The Hereford Map: A Transcription and Translation of the Legends with Commentary (Turnhout: Brepols, 2001), pp. 106–107, #224. For other appearances of Noah’s Ark on mappaemundi see Konrad Miller, Mappaemundi: Die ältesten Welkarten (Stuttgart, 1895–98), vol. 3, subtitled “Die kleineren Weltkarten,” pp. 6, 32, 93, 119, 145, and 148; there is also an image of the Ark, but without descriptive text, on Fra Mauro’s mappamundi of c. 1455: see Piero Falchetta, Fra Mauro’s World Map (Turnhout: Brepols, 2006), pp. 498–499, #1679.

144The 1339 Dulcert chart is in Paris, Bibliothèque nationale de France, Ge B 696 Rés. It is reproduced in Cavallo, Cristoforo Colombo e l’apertura degli spazi (see note 134), vol. 1, pp. 164–165, with descriptive text on pp. 162–163; and on a larger scale in Gabriel Marcel, Choix de cartes et de mappamondes des XIVe et XVe siècles (Paris: E. Leroux, 1896); and in Pujades, Les cartes portolanes (see note 31), pp. 120–121 and on the accompanying CD, number C8.


146On the 1367 Pizzigani chart see note 134.

147On the Catalan Atlas see note 38.
Viladestes’s chart of 1413,148 the chart of Joan de Viladestes of 1428,149 and the Catalan-Estense map of c. 1460150; there is also an image of Noah’s Ark on an elaborately decorated chart made by Grazioso Benincasa in 1482, but without the brief explanatory text.151 When the descriptive text does appear, it is quite similar to that on Waldseemüller’s Carta marina. On nautical charts the Ark is represented either as a chest, in a curious pyramidal shape,152 or as a building, whereas Waldseemüller’s image is distinctly a ship,153 but it would be quite natural for Waldseemüller to change the image he found in a nautical chart to something more shiplike.154 Thus we can be quite certain that in addition to the Caverio chart, Waldseemüller had a heavily illustrated luxury nautical chart.

In northeastern Asia on the Carta marina Waldseemüller has an image of a man riding a deer, certainly a reindeer, and a brief legend that says magis Septentrionales equitant ceruos, “In the far north they ride deer” (see Legend 4.17). On his 1507 map in the same area Waldseemüller has a legend about Balor Regio that derives from Marco Polo, and mentions that the inhabitants ride deer.155 The image and legend on the Carta marina are in essentially the same location as the legend on the 1507 map, but the image comes from a nautical chart illustration of an inhabitant of Scandinavia riding a reindeer—that is, Waldseemüller has transplanted a nautical chart image relating to Scandinavia to a location that accords with what Marco Polo says about northeastern Asia. There are just a few nautical charts that have an illustration of a Scandinavian man riding a reindeer: Mecia de Viladestes’s chart of 1413156; the Vatican Borgia XVI map mappamundi from the first half of the fifteenth century, which uses nautical chart data157; the anonymous nautical chart which is Florence, Biblioteca Nazionale

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149 Joan de Viladestes’s chart of 1428 is in Istanbul, Topkapı Sarayi, H. 1826, and is reproduced in Youssouf Kamal, Monumenta cartographica Aegypti et Africae (Cairo, 1926–51), vol. 4, fasc. 4, ff. 1456v–1457.

150 The Catalan-Estense map is in Modena, Biblioteca Estense Universitaria, C. G. A. 1, and has been reproduced in facsimile, with transcription and commentary, in Ernesto Milano and Annalisa Battini, Mappamundi Catalan Estense, escuela cartografica mallorquina (Barcelona: M. Moleiro, 1996); there is a high-resolution digital image of the map on the CD-ROM titled Antichi planisferi e portolani: Modena, Biblioteca Estense Universitaria (Modena: Il Bulino; and Milan: Y. Press, 2004), and a good study of it in Konrad Kretschmer, “Die katalanischen Weltkarten der Biblioteca Estense zu Modena,” Zeitschrift der Gesellschaft für Erdkunde zu Berlin 32 (1897), pp. 65–111 and 191–218.

151 The 1482 chart by Grazioso Benincasa is Bologna, Biblioteca Universitaria, Rot. 3, and is reproduced in Cavallo, Cristoforo Colombo and l’apertura degli spazi (see note 134), vol. 1, pp. 356–357, with descriptive text on pp. 353 and 358.


154 There is a boat-like image of Noah’s Ark on a mountain in a manuscript of Jean Mansel’s La Fleur des Histoires that was made c. 1455, namely Brussels, Bibliothèque Royale, MS 9231, f. 281v. This map is widely reproduced: see Destombes, Mappemondes (see note 29), p. 179, #51.1 and plate 20; Monique Pelletier, ed., Couleurs de la terre: des mappemondes médiévales aux images satellitales (Paris: Bibliothèque nationale de France, 1998), p. 34 (large and in color); and Peter Barber, ed., The Map Book (New York: Walker & Co.; and Delray Beach, FL: Levenger Press, 2005), p. 73 (large and in color).

155 The legend on Waldseemüller’s 1507 map reads: Balor regio. Incole istius regionis habitant in montibus sunt silvestres carent vino et blada utuntur carinis ceverorum et equitant ceras domesticos. For the passage in Marco Polo see Marco Polo, Marka Pavlova z Benátek, Milion: Die jedineho rukopisu spolu s prilusnym zakladam latinismy, ed. Justin Václav Prašek (Prague: Nákl. České akademie císare Františka Iozefa, 1902), Book 1, Chap. 62. 62. For the passage in Yule’s translation see Marco Polo, The Book of Ser Marco Polo, Book 1, Chap. 61, vol. 1, p. 269 with 271–272. Johann Schöner drew on this legend from Waldseemüller’s 1507 map for a legend on his manuscript globe of 1520.

156 On Mecia de Viladestes’s chart of 1413 see note 148 above.

Centrale, Portolano 16 (ca. 1439–1460)158; and the Catalan-Estense map (c. 1460). In addition, a mid fifteenth-century nautical chart which is now lost, but whose legends are preserved in a manuscript in Genoa has a text that says that in the provinces de Scachia et de Gotia… Sunt magni venatores et equitant ceruos, “of Scchia and Gothia… they are great hunters and ride deer.”160

In addition to the evidence of images, below in my discussion of the names Waldseemüller gives to the Caspian Sea (see Legend 3.25) I will show that those names come from a nautical chart, and are most similar to the names assigned to the sea on the Catalan Atlas of 1375 and the Catalan-Estense mappamundi of c. 1460.

The images of Noah’s Ark and the man riding the reindeer, and also the names of the Caspian Sea, are of particular value in shedding light on the type of nautical chart from which Waldseemüller drew these images. First it was a luxury nautical chart, as the hinterlands contained illustrations. Also, as most nautical charts show the rectangular area defined by a diagonal from the Red Sea northwest to Ireland, plus a bit more of the Atlantic, we know that Waldseemüller’s chart was larger than average, as it included lands north to Scandinavia and east to Armenia (Mount Ararat), and in fact to the Caspian. In particular, the surviving charts that have the illustration of a man riding a reindeer date from 1413 to about 1460. It would not surprise me if the chart fragment of c. 1375 which is in Istanbul, Topkapi Saray, H. 1828, once contained such an illustration,161 but in any case there are no charts later than c. 1460 that have this illustration. So in addition to the quite recent and no doubt very expensive Caverio chart, Waldseemüller had an older large luxury nautical chart, on which the hinterlands were much more elaborately decorated than on the Caverio chart. This is one case in which Waldseemüller was content to make occasional use of a somewhat older source.

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158 Florence, BNCF Portolano 16 is reproduced in Pujades, Les cartes portolanes (see note 31), pp. 270–271, and on the accompanying CD, number C41.
159 On the Catalan-Estense map see note 150.
160 The manuscript is in Genoa, Biblioteca Universitaria, MS B. I. 36. The legends in the manuscript are transcribed and translated into French in Jacques Paviot, “Une mappemonde génoise disparue de la fin du XIVe siècle,” in Gaston Duchet-Suchaux, ed., L’Iconographie: études sur les rapports entre textes et images dans l’Occident médiéval (Paris: Le Léopard d’Or, 2001), pp. 69–97. Paviot indicates that the lost map is from the late fourteenth century, but as one of its legends cites Antoniotto Usodimare, it must be from 1455 or later. The legend about the reindeer is legend 7, pp. 79 (Latin) and 89 (French).
161 For discussion of this chart fragment see Marcel Destombes, “Fragments of Two Medieval World Maps at the Topkapu Saray Library,” Imago Mundi 12 (1955), pp. 150–152; and Philipp Billion, Graphische Zeichen auf mittelalterlichen Portolankarten (Marburg: Tektum Verlag, 2011), pp. 184–188.
Waldseemüller’s use of so many recent sources, both textual and iconographical, clearly reflects his ambition to create a thoroughly up-to-date image of the world. It also provides insight into the cartographer’s schedule of work on the *Carta marina*: he was actively working on the map right until it was printed in 1516.

### 1.6 The Development of Waldseemüller’s Cartographic Thought

Waldseemüller’s use of Ptolemaic cartographic principles in his 1507 map and his repudiation of them in his 1516 map merit tracing in more detail. As we saw earlier, the title of the 1507 map describes an essentially Ptolemaic world map, with the addition of the New World. Waldseemüller’s description of his project in the accompanying *Cosmographiae introductio* is similar, except that he says he was influenced not only by verbal accounts of the new discoveries but also by nautical charts

> Haece pro inductione ad Cosmographiam dicta sufficient si te modo ammonerimus prius, nos in depingendis tabulis typi generalis non omnimodo sequitos esse Ptolomeum, presertim circa nouas terras, ubi in cartis marinis aliter animaduerimus, equatorem constituti, quam Ptolomeus foecerit. Et proinde non debent nos statim culpare qui illud ipsum notauerint. Consulto enim fœcimus quod hic Ptolomeum, alibi cartas marinas sequuti sumus.

All that has been said by way of introduction to cosmography will be sufficient, if we merely advise you that in designing the sheets of our world-map we have not followed Ptolemy in every respect, particularly as regards the new lands, where on nautical charts we observe that the equator is placed otherwise than Ptolemy represented it. Therefore those who notice this ought not to find fault with us, for we have done so purposely, because here we have followed Ptolemy, and elsewhere nautical charts.

So there was some tension between the Ptolemaic and nautical chart models in the 1507 map. In fact, expressions of doubt about or criticism of Ptolemy go back to the 15th century. Ptolemy’s report of the land on the western side of the ocean, and on nautical charts we observe that the equator is placed otherwise than Ptolemy represented it. Therefore those who notice this ought not to find fault with us, for we have done so purposely, because here we have followed Ptolemy, and elsewhere nautical charts.

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### References

162 See Joseph Fischer and Franz von Wieser in *The ‘Cosmographiae introductio’ of Martin Waldseemüller*, Chap. 9, p. xxxvii (Latin), and p. 78 (English); and Hessler, *The Naming of America* (see note 7), p. 106.


166 See Falchetta, *Fra Mauro’s World Map* (see note 143), pp. 452–453; *1405*; pp. 698–701; *283*; and pp. 710–711; *289*.

In 1505, Waldseemüller together with Matthias Ringmann and other colleagues began work on a new edition of Ptolemy’s *Geography*, which after several long delays was published in 1513. Two years earlier, Bernardus Sylvanus had published an edition of the *Geography* in Venice. In his introduction, Sylvanus says that in studying Ptolemy, specifically, he copied the coastlines from nautical charts (where available), but retained the place names and hinterland geographical details of Ptolemy, then extrapolated latitude and longitude values for the new coastlines, and adjusted the data in Ptolemy’s text appropriately. Thus Sylvanus’s edition clearly shows that nautical charts were seen as superior to then-available Ptolemaic maps at least in some quarters in the early sixteenth century, and from a comment that Waldseemüller makes in the introduction to the index in his edition of Ptolemy, it seems very likely that he had seen Sylvanus’s edition.

On the title page of his 1513 edition of Ptolemy, Waldseemüller says that it consists of two parts; first the text of the *Geography*, an index, a brief account of the Greek numbering system, and twenty-seven Ptolemaic maps, and then:

*Pars secunda moderniorum lustrationum viginti tabulis veluti supplementum quoddam antiquitatis obsoletae suo loco quae vel abstrusa vel erronea videbantur resolutissime pandit.*

The second part, through twenty maps of modern explorations, boldly offers a kind of supplement to obsolete antiquity [i.e. obsolete ancient authors] wherever it seems to be obscure or erroneous.

The separate one-page introduction to the second part of the work discusses how time changes many things, and how the names of many cities and regions are different than what they had been previously—a passage very similar to part of the introductory paragraph on the *Carta marina* (compare Legend 9.3):


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171Waldseemüller writes *Quod tanta ordinis sui confusione scatet, ut in plerisque locis an modernioribus an Ptolomaeo ipsi conquadret, lector etiam studioissimus nesciat*, that is, “There is so much confusion in the presentation, that in many places even very learned readers cannot tell which data comes from modern authors, and which from Ptolemy himself.”

172For bibliography on the 1513 edition of Ptolemy’s *Geography* see note 17.

We have confined the Geography of Ptolemy to the first part of the work, in order that its antiquity may remain intact and separate. But since the course of time changes many things from day to day as it passes, it has become generally evident that the author deviates notably from those more modern, as may be seen in the two Pannonias, which are now called Hungary and Austria; and the region which was called while it flourished, by the sole appellation of Sarmatia or Sauromatia, we now name in its divisions, Poland, Russia, Prussia, Muscovy and Lithuania. Change in the names of nations has also come into use. For those whom the ancients called Helvetii and Sequani, we now commonly call Burgundians and Swiss. Certain cities, too, have lost their primitive names, for who with his finger will point out on the River Rhine the cities Canodorum, Augusta Rauricum, Elcebus and Berthomagus mentioned by Ptolemy? He then continues:\footnote{174}

These or similar [inaccuracies in place names] let no one attribute to the ignorance of the author [i.e. Ptolemy], but rather from this supplement let him learn to inform himself more accurately about modern explorations, in which he will see an image of the three parts of the world more clearly adapted to our times. Specifically the nautical chart which they call a hydrography, which was surveyed by the very authentic explorations of a former Admiral of Ferdinand, the Most Serene King of Portugal, and of other explorers….

There is a slip of the pen here, as Ferdinand was not king of Portugal, but rather of Aragon, and through his wife, Isabela, of Castile.\footnote{175} The Admiral in question must be Columbus,\footnote{176} but it is misleading to call the map (as a number of scholars have done) “The Admiral’s Map,” implying a particularly close connection with Columbus. Waldseemüller clearly states that the map is based on the discoveries not only of Columbus but also of other explorers. In any case, we see that by 1513 Waldseemüller had realized that Columbus, rather than Vespucci, was the first to reach the New World.

The new world map in the 1513 Ptolemy (Fig. 1.27) serves as an important indicator of the development of Waldseemüller’s thinking about cartography at that time. The title of the map is Orbis Typus Universalis Iuxta Hydrographorum Traditionem, “General Map of the World According to the Tradition of the Hydrographers.” By “hydrographers” Waldseemüller means the makers of nautical charts: the map has a system of rhumb lines like a nautical chart, and no Ptolemaic grid of latitude and longitude, though it does indicate the equator and tropics. Thus the cartographer is clearly proclaiming that a world map “more clearly adapted to our times” must be based on nautical charts, and the depiction of southern Asia shows the influence of the Caverio chart, while the shape of Africa is also clearly based on recent Portuguese cartographic data. Moreover, and this is very important, of the twenty modern charts in the 1513 Ptolemy, all but one are made using a nautical chart projection, rather than one of Ptolemy’s projections—a strong confirmation of Waldseemüller’s recognition of the value of nautical cartography.\footnote{177}

At the same time, even while Waldseemüller proclaims that his new world map in the 1513 Ptolemy is based on nautical cartography, certain elements of the map do not derive from that genre: his depiction of Scandinavia and the sweeping rounded coast of eastern Asia clearly derive from one of the world maps by Henricus Martellus (Fig. 1.28).\footnote{178} Waldseemüller had based his 1507 map on a large world map by Martellus similar to that at Yale, so the elements from


\footnote{175}R. A. Skelton suggests the error was caused by words having dropped out of the text: see his “Bibliographical Note” in Ptolemy, Geographia, Strassburg, 1513 (see note 172), p. xvi.


\footnote{177}Some of Waldseemüller’s inclination to abandon Ptolemy is visible even in the Ptolemaic part of the 1513 edition of the Geography: in the Ptolemaic world map, Waldseemüller omits the traditional Ptolemaic land bridge along the map’s southern edge that (so Ptolemy believed) joined southern Africa and southern Asia, and would render it impossible to sail around Africa to Asia. Even while depicting the world according to Ptolemy, Waldseemüller could not bring himself to depict a landmass he knew did not exist.

\footnote{178}This map by Martellus is in Florence, Biblioteca Nazionale Centrale, Landau Finaly, Carte Rosselli, planisfero. It is very similar to the world maps that illustrate manuscripts of Martellus’s Insularium illustratum. For discussion of the map see Sebastiano Crinò, “I planisferi de Francesco Rosselli dell’epoca delle grandi scoperte geografiche,” La Bibliofilia 41 (1939), pp. 381–405, esp. 393–401; Roberto Almagià, “On the Cartographic Work of Francesco Rosselli,” Imago Mundi 8 (1951), pp. 27–34, esp. 3–2; and Tony Campbell, The Earliest Printed Maps, 1472–1500 (London: British Library, 1987), pp. 70–78, esp. 72–74.
Martellus in this new world map in the 1513 Ptolemy show that in some ways Waldseemüller was still holding onto this older style of cartography.

The 1513 Ptolemy shows Waldseemüller at a point of transition. Certainly he would not have devoted the time and energy to creating a new edition of Ptolemy if he did not believe in the value of Ptolemaic geography and cartography. The elements of Ptolemy and Martellus in his new world map also reflect that belief. But his twenty modern maps in the book, almost as many as Ptolemy’s twenty-seven, and all but one of which are made according to the principles of nautical charts, constitute a cartographic parallel universe to Ptolemy’s. Further, his declarations about the value of nautical charts clearly indicate that if one has to choose a cartographic system for a modern world map, it will be that of nautical charts—manifestly anticipating the purer expression of that philosophy in the Carta marina.

Fig. 1.27 “Modern” world map by Waldseemüller, the so-called “Admiral’s Map”, in the 1513 edition of Ptolemy’s Geography. Library of Congress, Rare Book and Special Collection Division, Rosenwald Collection 624. Courtesy of the Library of Congress

The large number of modern maps in the 1513 Ptolemy recall the collection of twelve such maps in a manuscript of Ptolemy’s Geography made between 1480 and 1496 (Florence, Biblioteca Nazionale Centrale, Magliabechiano XII 16) by a cartographer whose works were clearly well known to Waldseemüller, namely Henricus Martellus. For discussion of this manuscript see Sebastiano Gentile, ed., Firenze e la scoperta dell’America: umanesimo e geografia nel 400 fiorentino (Florence: L. S. Olschki, 1992), pp. 240–243 with plates 47–48, including a good list of the tabulae modernae and bibliography; and Cavallo, Cristoforo Colombo e l’apertura degli spazi (see note 134), vol. 1, pp. 517–521, with a good color reproduction of the world map on pp. 518–519. The manuscript has been published in facsimile as Ptolomei cosmographia (Florence: Vallecchi, 2004), with studies by Sebastiano Gentile and Angelo Cattaneo. The “Introduzione” by Cattaneo, pp. 23–53, is a valuable description and analysis of the manuscript and its maps.
Careful examination of the sheets of the Carta marina shows that multiple artisans were involved in cutting the woodblocks, and also a lack of close coordination among those workers. This contrasts with the situation with Waldseemüller’s 1507 map, where the signs of different hands and of lack of coordination between those cutting adjacent blocks are more subtle. Illustrations supporting the points made in the following paragraphs can be found in Fig. 1.4, of the whole Carta marina, and in the plates of each sheet of the map below at the beginning of the relevant sections of the transcription.

On the Carta marina there are significant differences of style in the rendering of the wind-heads and associated decorations in the map’s margins. For example, the lines representing the wind blown by two of the wind-heads in the margin of sheet 9, in the lower left corner of the map, cross the border into the map proper, but this is not the case on the other sheets. The margins of some of the sheets have stars as part of their decoration (1, 2, 4, 8, and 12), while the others do not; the styles of rendering the clouds varies, with those in the border of sheet 9 being particularly puffy; and the styles of drawing the heads themselves are inconsistent, with those in the border of sheet 12 being more stern in appearance, for example.

The style of rendering the oceans also varies from sheet to sheet. On sheet 1 in the upper left corner of the map the texture of the surface of the water is intermittently depicted, and some clouds are shown above the water, but the ocean on the adjacent sheet 2 has neither of these features—the difference is quite dramatic. On sheet 10 the block cutter gives some texture to the surface of the water, and shows a few clouds (differently than in sheet 1), and both sheet 6 above it, and sheet 11 to its right, have notably more plain styles of rendering the ocean.

The vast majority of the cartouches on the map are simple frames; a few have small geometrical decorations at their tops or sides, namely those on sheet 2 by the southern tip of Greenland, on sheet 6 by the Canary Islands, on sheet 7 off the coast from Mogadishu, on sheet 10 off the coast of Brazil, and on sheet 12 the large cartouche east of Java. And two other
cartouches have very elaborate artistic decoration: the large cartouche on sheet 9 is embellished with vegetal motifs, knots, scrollwork, and two dragons; and the small cartouche at the right edge of sheet 12 with vegetal motifs and knots.

The block cutters also rendered differently the very simple compass roses at the nodes of the rhumb line network. These compass roses consist of two concentric circles and pointers to the north and east. On sheet 10 they are small and there is very little gap between the two circles, while on sheet 6 directly above they are larger and have a larger gap between their circles. These many stylistic differences among the sheets of the Carta marina demonstrate clearly that multiple block cutters were working on the map.

There are additional differences between the sheets that point not so much to differences of style between the block cutters as to a lack of coordination among them. The most egregious example is found in the scale of latitude at the left-hand edge of the map, which runs down sheet 1 and sheet 5, but is not continued on sheet 9. Also on sheet 9, it is surprising that the decorative cartouche is cut off by the right-hand edge of the sheet—this sheet shows the most differences from its neighbors of any on the map, and is quite problematic. In addition, there are a few cases of rivers and mountain ranges that are discontinuous from one sheet to another, for example the mountains in Africa just north of the equator at the left edge of sheet 7 that do not continue onto sheet 6. Mention should also be made of the mountain range that extends from sheet 4 in India south onto sheet 8: it consists of sharp peaks north of that point, and rounded peaks south of that point.

What emerges from this examination of the details of the map is the fact that the production of the Carta marina was chaotic, with inadequate coordination among the artisans cutting the blocks for the map. Was the problem that the cutting was done hastily? Or could it have been the opposite, that the production was drawn out due to lack of funds (for example), and that the different blocks were cut at different times, and that was what reduced the consistency among them? In Legend 9.1 Waldseemüller offers thanks to Hugues des Hazards, Bishop of Toul from 1506 to 1517, presumably for his financial contribution to the production of the Carta marina, but this could have been funds that allowed the project to be brought to completion after a period of difficulties. Thus it does not seem possible to know the nature of the difficulties in the production of the Carta marina without additional evidence, but the inconsistencies among the sheets of the map show that it was indeed a challenging process.

### 1.8 Evidence for the Diffusion of the Carta Marina

Hildegard Binder Johnson has argued that the Carta marina was never published or sold, and that the only surviving copy was not part of the map’s print run, but rather a special proof printing; to my knowledge, no evidence to the contrary has been presented by other scholars.

The fact that only one exemplar each of Waldseemüller’s 1507 and 1516 maps survives has been used to raise questions about the degree to which both maps were diffused. But this fact does not tell at all against the maps’ diffusion: wall maps are notorious for their low survival rates, and there are many sixteenth-century printed maps, both wall maps and in smaller formats, that do not survive at all, or survive in only one or two exemplars. Such maps include:

Giovanni Contarini, world map of 1506 (one exemplar)
Francesco Rosselli, printed nautical chart, c. 1508 (two)
Waldseemüller, Carta itineraria Europae of 1511 (zero)
Louis Boulengier, globe gores of c. 1514 (one)
Dürer and Stabius, globe map of 1515 (none)

180 For the assertion that the 1516 Carta marina never reached the market see Johnson, Carta marina (see note 21), pp. 57–59. R. A. Skelton in his review of Johnson’s book in *Geographical Review* 55.2 (1965), pp. 307–308, accepts this conclusion.
182 Rosselli’s map is in Florence, Biblioteca Nazionale Centrale, Landau Finaly carte Rosselli.
183 For references on the 1511 printing of Waldseemüller’s Carta itineraria Europae see note 14 above.
184 The unique surviving exemplar of Boulengier’s globe gores are in the New York Public Library, Rare Book Division, *KB 1517 (Waldseemüller, M. Cosmographiae Introductio/Cvm Qvibvsdam/Geometriae)*.
185 Although no contemporaneous printings of the Dürer-Stabius globe-map survive, the woodblocks are in the Albertina in Vienna, with reference numbers HO2006/676–678; for discussion of the map see Günther Hamann, “Die Stabius-Dürer Karte von 1515,” *Kartographische Nachrichten* 21.6 (1971), pp. 212–223.
Waldseemüller, *Carta itineraria Europae* of 1520 (one)

Giovanni Vespucci, world map of 1524 (two)

Lorenz Fries, *Carta marina* of 1525 (zero)

Lorenz Fries, *Carta marina* of 1530 (one)

Lorenz Fries, *Carta marina* of 1531 (one)

Sebastian Cabot, world map of 1544 (two)

Giacomo Gastaldi, *Univesale* of 1546 (two)

Caspur Vopel, world map of 1558 (one)

Giacomo Gastaldi, world map of c. 1561 (one)

Diego Gutiérrez, map of the New World, 1562 (two)

Gerard Mercator, world map of 1569 (three)

Caspur Vopel, world map of 1570 (one)

Georg Braun, world map of 1574 (one)

Petrus Planci us, world map, Amsterdam/Anwerp, 1592 (one)

Jodocus Hondius, wall map of 1595–96 (one)

This list might very easily be expanded, so it is not at all unusual that Waldseemüller’s two wall maps survive in only one exemplar each, and the fact that more exemplars do not survive cannot be adduced as evidence of a small print run or low diffusion.

The main difficulty in finding good evidence for the dissemination of Waldseemüller’s *Carta marina* is distinguishing between its influence, and the influence of its re-edition by Lorenz Fries. In 1525, Fries and the publisher Johann Grüninger produced a new version of the map, on a somewhat reduced scale (1876 × 1031 mm, or 74 × 40.6 inches, versus 2330 × 1280 mm, or 91.7 × 50.4 inches for Waldseemüller’s map), with most of the legends translated into German, and accompanied by a booklet with more detailed descriptions of various parts of the world than there was room for on the map itself. The booklet that Fries wrote is titled *Uslegung der mercarthen oder Charta Marina* (Explanation of the

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186 For references on the 1520 printing of Waldseemüller’s *Carta itineraria Europae* see note 14 above.


189 Fries’s 1530 *Carta marina* is in Munich, Bayerische Staatsbibliothek (Mapp. I, 9 m-1). Digital images of the map’s sheets are available at http://daten.digitale-sammlungen.de/bsb00012490/image_1.

190 Fries’s 1531 *Carta marina* is in Schaffhausen, Switzerland, Museum zu Allerheiligen (Inv. 6102).

191 The two exemplars of Sebastian Cabot’s world map are in Paris, BnF, Rés. Ge AA 582; and Klassik Stiftung Weimar, Kt 020-31 S.

192 Gastaldi’s *Univesale* is at Harvard, Houghton Library, pf 51-2492; and London, British Library, Maps K.Top.4.6.

193 Vopel’s 1558 map is at Harvard, Houghton Library, p 51-2577.

194 The unique surviving exemplar of Gastaldi’s world map of c. 1561 is in London, British Library, Maps C.18.n.1.

195 Diego Gutiérrez’s map is in Washington, Library of Congress, Geography and Map Division, G3290 1562 .G7 Vault Oversize; and London, British Library, Maps * 69810.(18.).

196 The three surviving exemplars of Mercator’s 1569 map are in Paris, BnF, Rés. Ge. A 1064; Basel, Universitätsbibliothek, Kartenslg AA 3-5; and Rotterdam, Maritiem Museum “Prins Hendrik,” Atlas 51.

197 Vopel’s world map of 1570 is in Wolfenbüttel, Herzog-August-Bibliothek, K 3.5.

198 Braun’s world map of 1574 is in Wolfenbüttel, Herzog-August-Bibliothek, K 2.6.

199 Plancius’s world map of 1592 is in Valencia, Colegio del Corpus Christi.

200 Hondius’s world map of c. 1595–96 is in Dresden, Sächsisches Hauptstaatsarchiv, 12884.


202 For a good discussion of this publishing project see Johnson, *Carta marina* (see note 21); Johnson compares many details of Waldseemüller’s and Fries’s maps on pp. 51–71. Also see Meret Petrzilka, *Die Karten des Laurent Fries von 1530 und 1531 und ihre Vorlage* (Zurich: Neuen Zürcher Zeitung, 1970). On Fries’s work as a cartographer see Robert W. Karrow, Jr., *Mapmakers of the Sixteenth Century and Their Maps: Bio-Bibliographies of the Cartographers of Abraham Ortelius, 1570* (Chicago: Published for The Newberry Library by Speculum Orbis Press, 1993), pp. 191–204.
Sea Chart or Carta marina), and was published by Grüniger in Strasbourg in 1525. No copy of the 1525 edition of Fries’s Carta marina is extant, but single copies of two later editions do survive: one of the 1530 edition in Munich in the Bayerische Staatsbibliothek (Mapp. I,9m-1), and one of the 1531 edition in Schaffhausen, Switzerland, in the Museum zu Allerheiligen (Inv. 6102), on which the legends are in Latin.

While it may well be true that the copy of Waldsemüller’s Carta marina now in the Library of Congress was specially printed, and while the existence of Fries’s re-edition makes it challenging to demonstrate the diffusion of Waldsemüller’s map rather than of Fries’s, there is in fact good evidence that the 1516 map was published and disseminated. The Huntington Library in San Marino, California, has a manuscript atlas of nautical charts known as the Vallard Atlas, made in the Dieppe region of France in approximately 1547, a product of the so-called Dieppe School of cartography. A study of the images in this atlas makes it clear that the cartographer had both Waldsemüller’s Carta marina and the later edition by Fries in his workshop. The image in the Vallard Atlas of the King of France riding a sea monster south of Africa (Fig. 1.29) is clearly copied from the image on Fries’s map (Fig. 1.30), and not from Waldsemüller’s (Fig. 1.7). But there are also images that prove that the creator of the atlas had a copy of Waldsemüller’s Carta marina. The image of Mecca in the atlas (Fig. 1.31) is strikingly similar to that on Waldsemüller’s map (Fig. 1.17), and it is essentially impossible that the cartographer would have painted an image of Mecca so much like Waldsemüller’s if he had been working from the simpler image on Fries’s map (Fig. 1.32). As shown above, Waldsemüller copied his image of Mecca from the image of Medina in the 1515 illustrated edition of Varthema. Although a detailed image of the city very similar to Waldsemüller’s was thus in theory available to the maker of the Vallard Atlas independently of Waldsemüller’s map, it is all but inconceivable that the cartographer of the atlas would have consulted Fries’s Carta marina and then the 1515 edition of Varthema, and yet not have followed the 1515 book in using the image for Medina, rather than Mecca. So the image of Mecca in the Vallard Atlas is indeed good evidence of the diffusion and influence of Waldsemüller’s Carta marina.

There is also strong evidence that the cartographer of the Vallard Atlas used Waldsemüller’s Carta marina in his depiction of the Indian Ocean. Specifically, on the third map in the atlas there is a scene of cannibal butchery on lille de geans or the Island of Giants, a man who looks European holds a large cleaver and is chopping up a human body that is laid out on a butcher’s table, with a small conduit to drain the blood into a bucket below (Fig. 1.33). This scene is not similar to the cannibalistic scene on the island of Java on Fries’s Carta marina: that scene is much more complex, as Fries has added a woman and a baby, the woman holding a plate for the meat; the stance of the man with the cleaver is different, the body’s head is on the ground, the bucket for the blood is off to the side rather than under the table, and there is no sign of the conduit (Fig. 1.34). But the scene in the Vallard Atlas is very similar to Waldsemüller’s on Java: the stance and arm positions of the man with the cleaver are the same, and both tables have the conduit and the bucket for blood

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203Johnson gives a good account of the Uslegung in Carta marina (see note 21), pp. 85–116. The full text of the Uslegung is translated into modern German by Petržilka, Die Karten des Laurent Fries (see note 202), pp. 115–162.

204A facsimile of the 1530 copy was published in Munich by the bookseller Ludwig Rosenthal c. 1926; digital images of the sheets of the map at the BSB are available at http://daten.digitale-sammlungen.de/bsb00012490/image_1.


206Fischer and von Wieser indicate that Mercator borrowed from Waldsemüller’s Carta marina in creating his famous 1569 world map, particularly in his legends in India and the topography and hydrography of southern Africa: see Joseph Fischer and Franz Ritter von Wieser, Die älteste Karte mit dem Namen Amerika (see note 9), p. 40. Johnson is skeptical of Fischer and von Wieser’s claim in her Carta marina (see note 21), p. 51, and the notes on p. 136. My own study of the matter has revealed only one legend on Mercator’s 1569 map that is similar to any on Waldsemüller’s Carta marina, and that is the description of the opossum—information that Mercator could have obtained from another source.


1.8 Evidence for the Diffusion of the *Carta Marina*

Fig. 1.29 Detail of the King of France riding a sea monster south of Africa from the Vallard Atlas. San Marino, California, Huntington Library, MS HM 29, f. 5. Courtesy of the Huntington Library

Fig. 1.30 King Manuel of Portugal riding a sea monster south of Africa on Laurent Fries’s *Carta marina* of 1530. Bayerische Staatsbibliothek, Mapp. I,9m-1. Courtesy of the Bayerische Staatsbibliothek
Fig. 1.31  Detail of Mecca from the Vallard Atlas. San Marino, California, Huntington Library, MS HM 29, f. 4. Courtesy of the Huntington Library

Fig. 1.32  Mecca on Laurent Fries’s Carta marina of 1530. Bayerische Staatsbibliothek, Mapp. I,9m-1. Courtesy of the Bayerische Staatsbibliothek
beneath them (Fig. 1.35). Again, it is inconceivable that the cartographer of the Vallard Atlas could have arrived at an image so similar to Waldseemüller’s if he were only working from Fries’s map.

There is additional corroboratory evidence in Northern Europe that the maker of the Vallard Atlas used of Waldseemüller’s Carta marina as a source. As we saw earlier, Waldseemüller portrays the walrus as a creature that looks very much like an elephant (see Fig. 1.10). Lorenz Fries copies this image in the 1522 edition of Ptolemy in the Tabula moderna Gronlandie et Rusie and also in his version of the Carta marina (1530, 1531), and there is a similar image in the Vallard Atlas in the map of Western Europe and the Mediterranean (ff. 7v–8r). But again, only Waldseemüller’s map can have been the source. The walrus in the 1522 Ptolemy has a long elephantine trunk, which the image on the Vallard Atlas does not have; the image on Fries’s Carta marina is much more similar to that on the Vallard Atlas, but it shows the elephant’s far ear sticking up above the elephant’s head to some extent, which is the case on Waldseemüller’s map, but not on Fries’s.

There is also good evidence that Waldseemüller’s Carta marina was available to the sixteenth-century Norman cartographer Pierre Desceliers. Elsewhere I have argued that Desceliers copied his image of the former Hindu practice of suttee or sati (in which a widow threw herself on her husband’s funeral pyre) on his 1546 world map from Waldseemüller’s Carta marina, rather than from the Tabula moderna Indiea in Fries’ 1522 Ptolemy or from Fries’ edition of the Carta marina. It also seems very likely that Desceliers copied his image of Jean-François de La Rocque de Roberval’s 1542 settlement in

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210There is no similar scene of cannibalism in the Indian Ocean in the 1513 edition of Ptolemy’s Geography that might have influenced the cartographer of the Vallard Atlas, and the scene of cannibalistic butchery in the Tabula moderna Indie Orientalis in the 1522 (Strasbourg), 1525 (Strasbourg), 1535 (Lyon), and 1541 (Vienna) editions of Ptolemy’s Geography, whose maps were made by Fries, is quite different, and certainly did not influence the cartographer of the Vallard Atlas. For descriptions of these editions of Ptolemy see Wilberforce Eames, A List of Editions of Ptolemy’s Geography 1475–1730 (New York, 1886) (reprinted from Joseph Sabin’s Bibliotheca Americana), pp. 15–17, 17–18, 18–19, and 20–21; and Carlos Sanz, La Geographia de Ptolomeo, ampliada con los primeros mapas impresos de América, desde 1507 (Madrid: Librería General V. Suárez, 1959), pp. 150–155, 156–164, 169–178, and 187–189.

211Desceliers’ 1546 map is in Manchester, John Rylands Library, French MS 1*; for discussion of the image of sati see Chet Van Duzer, The World for a King: Pierre Desceliers’ Map of 1550 (London: British Library, 2015), pp. 43 and 46.
Canada from Waldseemüller’s image of Mecca, discussed just above (see Fig. 1.17), but it is at least possible that Desceliers copied his image from that of Mecca in the Vallard Atlas (see Fig. 1.31), which was made three years before his 1550 map.

There is one other very clear piece of evidence confirming that Waldseemüller’s Carta marina was disseminated: Abraham Ortelius cites the map as a source in his Theatrum orbis terrarum of 1570. In his Catalogus auctorum tabularum geographicarum (Catalog of mapmakers), on p. Cii, Ortelius writes:

Martinus Ilacomilus Friburgensis, Europam; eam alicubi in Germania impressam habemus.

Martinus Waldseemuller, Universalem navigatoriam (quam Marinam vulgo appellant) in Germania editam. Puto hunc eundem esse cum Ilacomiloy praedicto.

Martin Ilacomylus of Freiburg, a map of Europe; we have a copy printed somewhere in Germany.  

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212 Van Duzer, The World for a King (see note 211), pp. 10–11.

213 The reference is to Waldseemüller’s Carta itineraria Europae, first published in 1511; for bibliography on the map see note 14 above.
Martin Waldseemüller, Universal nautical chart (which is commonly called a marine chart) published in Germany. I think that this cartographer is the same as the Ilacomylus just mentioned.

This passage is the clearest possible corroboration that the Carta marina did in fact circulate and influence other cartographers, and not just in the Dieppe region. However, some other claims that Waldseemüller’s Carta marina influenced later globes and maps, and thus implicitly must have been well diffused, cannot be accepted as proven, largely because of the difficulty presented in distinguishing between the influence of Waldseemüller’s map and Fries’s. It has been asserted that Gerard Mercator used Waldseemüller’s Carta marina as a source in his depiction of southern Africa on his terrestrial globe of 1541, but without any attempt to determine whether the influence was from Waldseemüller’s Carta marina or from Fries’s. In fact the place names in southern Africa are very similar on Waldseemüller’s map and Fries’s, so the similarities between Mercator’s globe and Waldseemüller’s map cannot be taken as providing additional evidence that the 1516 map was disseminated.

Fischer and von Wieser, in their introduction to their facsimile edition of Waldseemüller’s 1507 and 1516 maps, indicate that Gerard Mercator borrowed from Waldseemüller’s Carta marina in creating his famous 1569 world map, particularly in his legends in India and the topography and hydrography of southern Africa. But they do not provide details, and in fact after examining the legends on the 1516 and 1569 maps, I find a close correspondence in only one place, in the legends describing the opossum in South America—and Mercator could have borrowed that legend from the 1531 (Latin) edition of Fries’s Carta marina, where it is the same as on Waldseemüller’s Carta marina. With regard to southern Africa, as just mentioned, the place names in this region are very similar on Waldseemüller’s map and Fries’s, so the very similar place names on Mercator’s 1569 map and Waldseemüller’s Carta marina do not establish that Waldseemüller’s map reached Mercator.

Another aspect of the diffusion of Waldseemüller’s Carta marina is its copying by Lorenz Fries in his editions of 1525, 1530, and 1531, which have been mentioned several times now. It is unlikely that Fries made use of Johann Schöner’s exemplar of the map—the only one that now survives—as the model for his maps, so his editions suggest the existence of at least one other exemplar of Waldseemüller’s Carta marina. As Fries’s maps are smaller than Waldseemüller’s, they contain fewer legends and illustrations; they are also of a substantially lower artistic quality than Waldseemüller’s map, and in fact introduce a number of errors. But as the historian Henry Bruman has noted, the Fries-Grüninger Carta marina had a rather different aim than Waldseemüller’s map. Waldseemüller aimed to bring the latest geographical scholarship to a broad audience, while the Fries-Grüninger map was “an object of popularization and commerce, merchandised to a wide public,” designed “to disseminate reasonably recent, reasonably accurate information about different parts of the world in a picturesque, decorative way.” On the 1530 edition of the map, and presumably in the lost 1525 edition as well, most of the legends are translated into German—an effort at the democratization of cartographic knowledge that is a logical step forward from Waldseemüller’s own Carta marina, itself a democratization of an expensive manuscript nautical chart. But in the 1531

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216 See Petrizika, Die Karten des Laurent Fries (see note 202), pp. 54–55.

217 For the three surviving exemplars of Mercator’s 1569 map see note 196. The third of these is hand-colored and has been reproduced in facsimile as Gerard Mercator’s Map of the World (1569) in the Form of an Atlas in the Maritiem Museum ‘Prins Hendrik’ at Rotterdam (Rotterdam, 1961); and more recently as Atlas van der Wereld: De wereldkaart va Gerard Mercator uit 1569 (Zutphen: Walberg Pers, 2011). There is a good, easily accessible reproduction of the whole map in Kenneth Nebenzahl, Atlas of Columbus and the Great Discoveries (Chicago: Rand McNally, 1990), pp. 128–129.


220 Incidentally there is good evidence that Waldseemüller’s edition of Ptolemy, either the 1513 or the 1520 reprint, reached Mercator: in Mercator’s edition of Ptolemy, Tabulae Geographicae (Cologne: Typis Godofridi Kempensis, 1578), there is a ship in the Mediterranean on the map of the Holy Land positioned very much as the ship on the corresponding map in Waldseemüller’s edition, and there is no ship on this map in any other edition of Ptolemy before Mercator’s.

221 Johnson, Carta marina (see note 21), p. 66, claims that “Fries’s world map is altogether artistically superior [to Waldseemüller’s],” but most of Fries’s images on his map are plainly inferior to Waldseemüller’s.

edition, the legends are in Latin again, so either the edition in German was not well received, or the publishers wanted to sell a new version of the map to scholars.

Waldseemüller’s *Carta marina* also influenced another early sixteenth-century cartographer, a topic that has been little discussed by map historians, and this influence explains some features of the surviving copy of the *Carta marina*. As mentioned above, it was Johann Schönér who preserved the only surviving copies of Waldseemüller’s 1507 and 1516 maps. Schönér’s printed globe of 1515 was heavily influenced by Waldseemüller’s 1507 map, and his magnificent but largely unstudied manuscript globe of 1520 borrows a number of legends from the *Carta marina*.

The copy of the *Carta marina* that Schönér preserved has a number of corrections made by hand, in accordance with the list of corrections that was printed on the lower of two escutecheons in the southwest corner of the map, but is now covered by a small piece of paper (Legend 9.2). Thus Schönér seems to have taken care that the map was as correct as possible. The grid of red parallels and meridians drawn on much of the map bespeaks careful study and analysis of the map’s geography, no doubt by Schönér himself. Moreover, stored in the Schönér Sammelband together with the twelve printed sheets of the *Carta marina* was a careful manuscript copy that Schönér made of sheet 6 of the map (here labeled sheet 6A), which covers western Africa. The existence of this manuscript copy has not been previously explained, but we can be quite certain that it was made as part of Schönér’s preparations for using data from the *Carta marina* on his 1520 globe. This is confirmed by a difference between the printed sheet 6 and manuscript sheet 6A: on the printed sheet no legend appears in the Gulf of Guinea, but on the manuscript sheet there is a legend describing the islands in the Sāo Tomé group (see Legend 6A.1)—and there is a similar legend in the same location on Schönér’s 1520 globe.

We have few records that tell us much about Martin Waldseemüller, but his two multi-sheet world maps shed important light on his character. The maps are 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 of cartographic and geographic information necessary to produce these maps—rare manuscript maps, codices of Ptolemy’s *Geography*, recent travel narratives, images of exotic animals—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, demonstrates 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 image of the earth as it was known and traveled by human beings.

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225 Holst in his *Mundus, Mirabilia, Mentalität* (see note 224) alludes to Schönér’s borrowings from the *Carta marina* on Schönér’s 1520 globe. I hope to explore these borrowings in more detail in the future, but can confirm that several legends in Africa on the 1520 globe come from the *Carta marina*.


227 R. A. Skelton, in his “Bibliographical Note” in Ptolemy, *Geographia, Strassburg, 1513*, p. xx, says that the red lines were drawn on the sheets of the map before the sheets were printed. But Elizabeth Harris, in “The Waldseemüller World Map: A Typographic Appraisal,” *Imago Mundi* 37 (1985), pp. 30–53, at 31, as well as multispectral images made by the Library of Congress of both the 1507 and 1516 maps, confirm that, as one would expect, the grid of red lines was drawn after the sheets had been printed.

228 In fact, Schönér copied by hand a brief study that discusses the process of transferring cartographic data from maps to globes. This text is in Vienna, Österreichische Nationalbibliothek, MS Vind. 3505, ff. 124v–125r, and is transcribed by Dana Bennett Durand, *The Vienna-Klosterneuburg Map Corpus of the Fifteenth Century: A Study in the Transition from Medieval to Modern Science* (Leiden: E. J. Brill, 1952), pp. 364–367, with discussion on pp. 163–164.
1.8 Evidence for the Diffusion of the Carta Marina

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The long legends on the *Carta marina* will be addressed sheet by sheet, and within each sheet, from left to right and top to bottom. The legends are numbered with a two-number system, the first indicating the sheet, and the second the number of the legend on that sheet. The commentary aims to identify the sources of the legends whenever possible, and remarks will also be offered on images associated with the legends when necessary.

The Electronic Supplementary Material for this book, available via www.springer.com, include high-resolution images of each sheet of the *Carta marina* and a high-resolution image of the whole map. These will allow the reader to zoom in and better see the details being discussed. The ESM also includes an index PDF of the whole map that indicates with a number the location of each of the long texts on the map that are transcribed, translated, and studied in the sections that follow. This PDF is searchable, so that if the reader is having difficulty determining where exactly on the map Legend 8.7 is located, a search in the PDF for “8.7” will find it.
2.1 Sheet 1. North America, Caribbean, North Atlantic (Plate 2.1)

The toponyms on this sheet are transcribed by Petrzilka, *Die Karten des Laurent Fries*, pp. 42–43; they are transcribed and compared with those on Caverio’s chart in Stevenson, *Marine World Chart*, pp. 84–85. As discussed above in the introduction, in his depiction of the New World on the *Carta marina*, Waldseemüller changes from the Vespuccian conception that he depicted on his 1507 map to a Columbian conception, particularly in regard to the absence of the name “America” on the 1516 map and in the indication here on sheet 1 that the newly discovered lands are part of Asia. The island at the eastern edge of the sheet represents Newfoundland; on the 1507 map, and also on Caverio’s chart, a Portuguese flag indicates that it is under the control of that country, but here the flag is Spanish. This is a curious mistake on Waldseemüller’s part, as the legend that describes the island (see Legend 2.1), clearly states that it was discovered for Portugal. It is likely that Waldseemüller’s style of depicting the waters of the oceans in the 1507 map, by a dense and uniform covering of closely-spaced lines running parallel to the lines of latitude, was abandoned in the 1513 Ptolemy and the *Carta marina* in favor of shading near the coastlines and in patches in the open ocean, no doubt in an effort to use less ink, and also perhaps out of a desire to make the map more amenable to hand-coloring.

1.1 TERRA DE CVBA • ASIE PARTIS

The land of Cuba, part of Asia.

Plate 2.1 Sheet 1 of the *Carta marina*: North America, Caribbean, North Atlantic. Courtesy of the Library of Congress
On his 1507 world map Waldseemüller famously depicted the New World as separated from Asia by water, in accordance with Vespucci’s suggestion that it was an island, but on his Carta marina he reverts to a Columbian conception of the New World as part of Asia. There is an ample bibliography tracing the history of the idea that the newly discovered lands in the West were connected with Asia, and the cartographic expression of that idea, so there is no need to review the matter in more detail here.


2.2 Sheet 2. Newfoundland and Europe (Plate 2.2)

On this sheet Waldseemüller retained and expanded his use of one of the decorative motifs on the relatively sparse 1507 map, namely displaying the coats of arms of the various countries—and he had had practice with this motif on his map of Europe of 1511, which survives in one copy of a printing of 1520, whose border is filled with coats of arms; and on his map of the Duchy of Lorraine in the 1513 edition of Ptolemy. He had room to increase his use of this motif on the Carta marina because this map, though the same physical size as the 1507 map, shows less of the earth’s surface, so that it presents a “zoomed in” view of the world, with more room for geographical detail, text, and images. In terms of geography, in the Carta marina Waldseemüller has moved well beyond his 1507 map. He retains some features of the modern world map in the 1513 Ptolemy (see Fig. 1.27), such as the large peninsula of Scandinavia curving down into the North Atlantic (which derives from Martellus, see Fig. 1.28), but in other respects he has innovated even with respect to the 1513 Ptolemy. For example, the shape of Spain is substantially different on the Carta marina than it is in the modern map of Spain in the 1513 Ptolemy, and various other examples might be adduced. On the 1507 map the Azores have a Portuguese flag; on the modern map of Spain in the 1513 Ptolemy, the islands have wandered north to what was the position of the Cassiterides on the 1507 map, while on the Carta marina they are back in their more or less correct position, and now have a Spanish flag. The islands have a Portuguese flag on both the Cantino and Caverio charts, and it is not clear on what authority Waldseemüller departed from this tradition. The place name Islanta on an island near the northern edge of the sheet was not printed by Waldseemüller, but was written there, probably by Schöner—in accordance with the list of corrections in Legend 9.2.

2.1

Hec Terra Coterati inuenta est ex mandato regis Portugallie per Casparum Coterati capitaneum duorum nauium anno domini 1501. quam ob sui magnitudinem litoris plus quam 600. milliarii probat. Habet hec pluralitatem magnorum fluminum et enim populosa gens quae huies. Habet domos ex maximis lignis constructis. quarum tecta ex coriamentis piscium compacta. vestes eorum sunt de pelibus ferarum quorum in estate pilos ab extra, in hieme vero ab intra vertentes portant. Sunt signati facie: tamquam indi. carent ferro et loco illius: lapideis instrumentis vulturunt. Magnam habent copiam lignorum de genere pini etiam multos piscis Salmones Aleca and Strumulos.

This land of the Corte-Reals was discovered by order of the King of Portugal by Gaspar Corte-Real, the captain of two ships, in the year 1501. Because of the size of its shore, which extends more than six hundred miles, it was thought to be part of a continent. It has many large rivers and its people are numerous. They have houses made from very large logs, whose roofs are made from the skins of fish. Their clothes are the furs of wild beasts, which in the summer they wear with the fur on the outside, and in the winter with the fur turned inward. Their faces are painted, like those of people in India. They have no iron, and in its place they use stone tools. They have a great abundance of pine wood and many fish, including salmon, herring, and stockfish.

There is no corresponding legend on the Caverio chart or on Waldseemüller’s 1507 map, but there is one on the earlier Cantino chart, albeit shorter than the one on the Carta marina.5 The source of Waldseemüller’s legend is a letter from Pietro Pasqualigo to his brothers, dated October 19, 1501, which was published Paesi novamente retrovati, Book 6, Chap. 126.6

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3 On the 1513 edition of Ptolemy’s Geography see note 172 in Chap. 1 above.
5 The legend on the Cantino chart is transcribed and translated by Armando Cortesão and Avelino Teixeira da Mota, Portogaliae monumenta cartographica (Lisbon: Comissão Executiva das Comemorações do Quinto Centenário da Morte do Infante D. Henrique, 1960–62), vol. 1, p. 11: Esta terra ha descoberta per mandado do muy alto exelentissimo principe Rey dom manuell Rey de portuagall a qual descobrio gaspar de corte Real cavelheiro na cassa do dito Rey, o qual qu aio a descobrio mandou ha naujo com certos omes e molheres que achou na dita terra e elle ficou com outro naujo e náca mais veo e crese que he perdido e aqui ha muitos mastos; “This land is discovered by order of the very high, most excellent prince King Dom Manuel, King of Portugal, which was discovered by Gaspar de Corte Real, a knight in the house of the said King, and when he discovered it he send a ship with certain men and women whom he found in said land, and he remained with another ship and never more returned, and it is believed that he is lost, and there are here many mast[s].”
The island is thought to represent Labrador and Newfoundland.\textsuperscript{7} The prominent trees on the island on both the Cantino map (where the legend does not mention trees) and the Caverio map (where there is no legend) indicate that the depiction on the Cantino map was made by a cartographer who had access to Pietro Pasqualigo’s letter, which mentions the trees. Waldseemüller used the past tense, the land \textit{was} thought to be \textit{terram} \textit{firmam}, that is, part of a continent,\textsuperscript{8} to contrast with his depiction of it as an island. Again, Waldseemüller’s placing of a Spanish flag on the island (visible on sheet 1) is a strange mistake, as his legend says that Gaspar Corte-Real was sailing for the king of Portugal; there is a Portuguese flag just south of the island, but it is not clear what land it is supposed to be marking.

\textbf{2.2}

\textit{TOTAM SEPTENTRIONALEM PLAGAM, CUM SUIS CONDITIONIBUS, LATIUS DESCRIBERE PLACUIT HUCUSQUE DIFFERRE AD PARTICULARE NOStrum ob variorum lustratorum controversiam. Spero tamen in breui hec eliminare juxta verum}

\textsuperscript{7}For discussion of the cartographic history of this island see Heinrich Winter, “The Pseudo-Labrador and the Oblique Meridian,” \textit{Imago Mundi} 2 (1937), pp. 61–73.

\textsuperscript{8}On the meaning of \textit{terre ferme} in the sixteenth century see Wilcomb E. Washburn, “The Meaning of ‘Discovery’ in the Fifteenth and Sixteenth Centuries,” \textit{The American Historical Review} 68.1 (1962), pp. 1–21.
It has seemed good to postpone fully depicting the entire northern region and its characteristics till I can make a special map because of the controversies of various explorers. However, in a short time I hope to eliminate these [controversies] according to the truth.

This text was transcribed but not translated by Fischer and Björnbo. Fischer rightly remarks that Waldseemüller apparently never did draw a new map of the northern regions, but Waldseemüller’s remark here indicates both his interest in the area and continuing ambition to create more maps.

2.3
Morsus animal ingens quantitate Elephantis huius dentes longos duos et quadrangulares carensque iuncturis in pedibus. reperitur in promontoriis septentrionalibus Norbegie incedit gregatim agmine ducentorum animalium.

The walrus is a huge animal, the size of an elephant, and it has two long teeth which are quadrangular, and lacks joints in its legs. It is found in the northern promontories of Norway, and they travel together in groups of two hundred animals.

This legend was discussed above in the introduction; it certainly indicates Waldseemüller’s access to a recent source from Scandinavia, but we do not know what that source was: it was not any of the books that he lists in the long text block on sheet 9 of the Carta marina (see Legend 9.3). In 1519, a few years after the Carta marina was printed, the Norwegian archbishop Erik Walkendorf sent Pope Leo X the salted head of a walrus, and it was displayed in the city hall in Strasbourg; a sketch of a whole walrus was made based on this head in 1519, and in 1521 Albrecht Dürer sketched the head of a walrus using an unknown model. Despite the availability—at least in some circles—of these quite accurate renderings of walruses, Waldseemüller’s elephant-like depiction was copied on a number of later maps, including the 1522 (Strasbourg), 1525 (Strasbourg), 1535 (Lyon), and 1541 (Vienna) editions of Ptolemy’s Geography, Lorenz Fries’s Carta marina, Olaus Magnus’s Carta marina of 1539, the Vallard Atlas of c. 1547, and Pierre Desceliers’s world map of 1550.

2.4
Regiones iste pellium preciosorum feracissime sunt que portantur ad partes occidentales.

These regions produce many valuable furs, which are transported to the west.

This legend represents one of the few pieces of information that Waldseemüller retained from his 1507 map, where there is a legend that reads:

hinc portantur pelles ferarum ad partes occidentales christianorum et qui habitant has regiones que longa est.10. dietarum habent regem de stripe magni cham sunt idolatre et aliqui adorant natigas.

From here the pelts of wild beasts are carried to Christian regions in the West, and those who live in this region, which is a ten day’s journey long, have a king who descends from the Great Khan. They are idolaters, and some worship Natigas [a Mongolian divinity].

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11Olaus Magnus’s Carta marina survives in two copies: Munich, Bayerische Staatsbibliothek 12 Mapp VII, and Uppsala University Library (no shelfmark). The map has been reproduced in facsimile as Olat Magni Gothi Carta marina et descriptio septentrionalium terrarum ac mirabilium rerum in eis contentarum (Malmö: In officina J. Kroon, 1949), and as Olaus Magnus, Die Wunder des Nordens, ed. Elena Balzamo and Reinhard Kaiser (Frankfurt am Main: Eichborn, 2006). For discussion of the map see Edward Lynam, The Carta marina of Olaus Magnus, Venice 1539 & Rome 1572 (Jenkintown, PA: Tall Tree Library, 1949).

12On the Vallard Atlas see note 207 in Chap. 1 above.

Waldseemüller took this information from one of the most important sources for his 1507 map, a large world map by Henricus Martellus very similar to that now at Yale, where there is a damaged legend in the same position that addresses the same subject. However, I have not been able to find the source of this material on Martellus’s map: it does not come from Marco Polo or John of Plano Carpini, for example. The long-standing fur trade from Russia to Flanders had been under the control of the Hanseatic League, but around 1480 Russia began to win back trading rights in the West. There is a legend about the flow of furs from Russia to Flanders on a nautical chart by Ottomano Fредucci made in 1529 (British Library, Add. MS 11548), but unfortunately it does not shed light on the possible sources of Waldseemüller’s or Martellus’s legend. Compare Legend 3.6 below.

2.5

Regio hec mutua ditione Magni principis Russie et regis datie obtemperatur. Habitatores sunt homines inculti habentes facies adinstar Simearum

This region is under the joint control of the great prince of Russia and the king of Denmark. The inhabitants are wild and have faces similar to those of apes.

This legend relates to Lappia, i.e. Lapland. I have not been able to find the source of either of the two parts of this legend. The 1326 Treaty of Novgorod specified which of the Sami in Finmark would pay tribute to Novgorod, and which to Norway. Following the union of Norway and Denmark in 1380, Norway’s rights went to the King of Denmark, and with the Grand Duchy of Moscow’s annexation of Novgorod in 1478, Novgorod’s right to collect tribute from the Sami went to Moscow, but I do not know a source earlier than 1516 that describes the situation in terms similar to Waldseemüller’s. With regard to the comparison with apes, Paolo Giovio, in his *Libellus de legatione Basillii Magni Principis Moschotiae ad

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15 A lost mid-fifteenth-century chart mentioned earlier had a legend about the fur trade from Russia to Flanders, so this information did exist in the nautical chart tradition, though there is no way to be certain that Martellus obtained the information from a nautical chart. For the legend on the fifteenth-century chart see Jacques Paviot, “Une mappemonde généose disparue de la fin du XIVe siècle,” in Gaston Duchet-Suchaux, ed., *L’Iconographie: études sur les rapports entre textes et images dans l’Occident médiéval* (Paris: Le Léopard d’Or, 2001), pp. 69–97, legend 52, pp. 83 (Latin) and 93 (French). The legend runs: *Ibi naues sunt Alamanorum, que huc veniunt, videlicet in Rosia. Et onerantur pelipariis, cera di corporibus, et aliam mercibus. Et ipsas in Flandriam conducunt,* “These are German ships, which come here, in Russia. They are loaded with furs, wax and other products, which they bring to Flanders.”


19 For example, Hartmann Schedel in his *Liber chronicarum* of 1493, ff. 282v–283r, gives a brief account of the history of northern Europe, but does not mention the division of Lappia between Denmark and Russia.
Clemente. VII. Pont. Max., first published in Rome in 1525, says that beyond the Lapps in the darkness of the far north there are pygmies who are a fearful race of men, who speak by chattering and seem to be as close to apes as they are far from human beings of normal height in terms of their stature and intelligence. Incidentally, this passage from Giovio is borrowed by Baron Sigismund von Herberstein in his Notes upon Russia, first published in 1549. But it is not at all clear that Giovio and Waldseemüller were using the same source. Waldseemüller had access to an unknown source for this legend and a few others on sheet 3 (see Legends 3.1, 3.2, and 3.3) that relate to Russia and northwestern Asia; I have consulted all of the candidate sources that I can find, but I have not discovered the source that Waldseemüller was using. Some fifty years ago Leo Bagrow briefly examined the geography of Waldseemüller’s depiction of Russia on the Carta marina, focusing on the fact that the toponyms indicate that the data had been supplied in a series of itineraries to Moscow. Unfortunately he ignored the descriptive texts, thus omitting from his analysis an essential element of the map.

See Paolo Giovio, Pavli Iovii Novocomensis Libelli de legatione Basiliij Magni principis Moschouae ad Clementem VII. pontificem max. (Basel: [Johann Froben], 1527), p. 17: ...meticulosum genus hominum & garrita sermonem exprimens, adeo ut tam Simiae propinquii quam statuara ac sensibus ab instae proceritatis homine remoti uideantur. This passage is translated into English in Baron Sigismund von Herberstein, Notes upon Russia: Being a Translation of the Earliest Account of that Country, entitled ‘Rerum Moscovitcarum commentarii’, ed. and trans. R. H. Major (London: Printed for the Hakluyt Society, 1851–52), vol. 2, p. 239. For discussion of the tradition of ape-like men in the far north see Leonid S. Chekin, Northern Eurasia in Medieval Cartography: Inventory, Texts, Translation, and Commentary (Turnhout: Brepols, 2006), pp. 255–256. See Baron Sigismund von Herberstein, Notes upon Russia: Being a Translation of the Earliest Account of that Country, entitled ‘Rerum Moscovitcarum commentarii’, ed. and trans. R. H. Major (London: Printed for the Hakluyt Society, 1851–52), vol. 2, p. 239: “Some men of great credite and auctoritie, do testifie that in a region beyond the Lapones, betwene the West and the North, oppressed with perpetuall darknesse, is the nation of the people called Pigmee, who being growen to theyr ful grought, do scarcely excede the stature of our chyldren of ten yeares of age. It is a fearefull kynde of men, and expresse theyr wordes in suche chatteryng sort, that they seeme to be so muche the more lyke vnto Apes, in howe muche they dyffer in sence and stature from men of iust heyght.”


2.3 Sheet 3. Northern Asia (Plate 2.3)

This sheet is dense with legends, reflecting a strong interest in Asia. Along the top edge of the sheet some monstrous races are enclosed by mountains; Waldseemüller retained the mountainous enclosures that on his 1507 map contain the *iudei clausi*, or Enclosed Jews, which on other maps with the same configuration of mountains are referred to as Gog and Magog. and here he places entirely different races inside. There is a system of borderlines indicated on this sheet that does not immediately appear to the eye: it runs from the bit of the OCEANVS SEPTEN[TRIONALIS] that appears in the upper left-hand part of the sheet, down along the mountain range that Johann Schöner has labeled the Hyperborean and Riphaean mountains, perhaps by analogy with a range on the 1507 map, to the Mare Maj[or] or Black Sea. From the eastern shore of the Black Sea it runs first to the south, and then weaves its way east across the sheet. The line is not labeled on this sheet, but on sheet 4 the line is explicitly said to separate India from Tartaria to the north, and on sheet 3 it also marks the limits of the Tartars’ empire: most of the sovereigns to the east and north of the line are said to be under the control of the Great Khan. The nature of the northern part of the border is indicated by the series of crosses just to the west of it: here it separates Christians from heathens. But the area between the Black and Caspian Seas which is north of the borderline, and thus under Tartar control, is dense with crosses, the density no doubt an indication of concern about the Christians under Tartar control.

3.1
apud istum Laram [i.e. Lacum] reperiuntur Ursi albi

By this lake are found white bears.

I have not found the source of Waldseemüller’s *Lacus Albus* or of the polar bears on its shores. The *Lacus Albus* refers to Beloe ozero or White Lake: this identification is confirmed by the presence of the city Kargopolis or Kargopoli on the lake, and of Belosor or Beloozero on the east shore of the lake (the modern city is on the southern shore). Thus this legend is one of a few relating to this region (see also Legends 2.5, 3.2, and 3.3) that quite probably come from a single unknown source. There is a brief legend about polar bears on Waldseemüller’s 1507 map further to the northeast, on the shore of the northern ocean, but it is not clear that there is any connection between the two legends.

3.2
Hic dominator Magnus princeps et Imperator Russie et Moscovie podolie ac plescovie rex

Here the ruler is the great prince and Emperor of Russia and Moscow, the king of Polodia and Plescovia.

This legend is right above an image of the Emperor, who is above an image of Moscow, which is where we are to understand that he resides. The use of the title “Emperor” is politically significant, as the use of this title by Princes of Moscow was controverted at this period.

The image of the Emperor, and also of the city of Moscow below (which is located on the *mosca Fl.*) emphasize the Christianity of both: the Emperor wears a crown that looks rather like a bishop’s miter, and is topped by a cross; near his outstretched hand there is a staff topped by a cross, and the building that represents Moscow is topped by a cross.

The Moskva River is a tributary of the Oka which is a tributary of the Volga, and Waldseemüller shows the Moskva as a tributary of the Volga, so his representation is reasonably accurate. The coat of arms to the left of the Emperor, which has a lion rampant and a dragon rampant, combatant (see Fig. 2.1), is problematic. First, it is not clear whether it is intended to be the coat of arms of Novgorod, the Emperor, or Moscow; and second, although the sixteenth-century coat of arms of Moscow does involve a dragon or basilisk, it depicts a man on horseback slaying the creature below—nothing like a rampant dragon.


25 I would like to offer my enthusiastic thanks to Leonid Chekin for remarks to me on the identification of this lake and on various points in my discussion of this and the following two legends.

26 Joseph Fischer in “Der russische Zar als ‘Kaiser’ auf der Carta Marina Waldseemüllers vom Jahre 1516,” *Stimmen der Zeit* 90 (1916), pp. 108–116, and “Die Entdeckung Russland durch Nikolaus Poppel in dem Jahren 1486–1489,” *Stimmen der Zeit* 89 (1915), pp. 395–400, argued that the representation of the Emperor on the Carta marina indicated that Waldseemüller had made use of information from Niclas von Popplau (c. 1443–1490). But as Bagrow notes in “At the Sources” (see note 23), p. 34, and *A History of the Cartography of Russia* (see note 23), p. 48, there is no unique detail that connects Waldseemüller’s image of Russia with von Popplau’s account.
and the lion was not a part of the heraldic imagery of Novgorod, Moscow, or Russia at that time. Plescovia refers to the principality of Pskov (Pleskau), which fell to Vassily III and the Muscovite army in 1510, so Waldseemüller’s source here is very recent, but I have not been able to determine what it is. Podolia is mentioned in Hartmann Schedel’s *Liber chronicarum* of 1493 as the part of Poland closest to Russia, but not as part of the Russian dominions—and indeed it was not part of Russia until 1793, so there is an error here by either Waldseemüller or the source he was using. Podolia and Plescovia (Pleskovia) are mentioned in Maciej z Miechowa’s *Tractatus de duabus Sarmatiis*, but this book was first published in Krakow in 1517, a year after the *Carta marina*, so it does not seem that Waldseemüller could have used it as a source.

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27See Schedel’s *Liber chronicarum*, in the section “De Sarmacia regione Europe,” in the chapter “De regno polonie et eius initio.” For an English translation of this passage see Hartmann Schedel, *Sarmatia, the Early Polish Kingdom: From the Original Nuremberg Chronicle, Printed by Anton Koberger in 1493*, trans. Bogdan Deresiewicz (Los Angeles: Plantin Press, 1976), p. 17: “A few years earlier the Polish kingdom had been very large but wars with the perfidious nations Tartars and Turks brought great losses to all of Sarmatia. Thus a province bordering upon Russia, which the people called Podolia, was totally burned down and devastated so that it could not provide travelers with food, even though it was a most fertile land where the grass grew higher than a tall man.”


At the western (left) edge of Sheet 3 of the Carta marina there is an image of the city Nouoguardia (Novgorod) on a lake (Ilmen?) through which flows the Volga fl., with the legend:

3.3

Ruteni sunt Cristiani cismatici Grecorum ritum seruantes habent specialem literam.

The Rutheni [i.e. Russians] are schismatic Christians who follow the Greek Rite, and they have their own alphabet.
Waldseemüller knew something about Novgorod when he made his map of Europe in 1511, for although the city does not appear on that map, it is mentioned in the pamphlet that was written by Ringmann to accompany it, his *Instructio manuductionem prestans in cartam itinerarium Martini Hilacomili* (Strasbourg: Grüninger, 1511), f. 12r: *Russia ciuitatem permaximam Novardiam appellatam: ad quam mercatores Theutonici magnu labore perueniunt. hutus regionis populi appellantur Rutheni: quos Strabo Crossones videtur nominare, “The largest city of Russia is called Novgorod, to which German merchants come with great difficulty. The people of this region are called Rutheni, whom Strabo seems to call Crossones.”*30 John of Plano Carpini does mention that the Rutheni have their own alphabet,31 but does not explicitly mention that the Rutheni follow the Greek Rite. One might infer from Plano Carpini’s text that the Rutheni follow the Greek Rite, but the fact that he does not state this explicitly makes it seem likely that Waldseemüller was using another source.

On the *Carta marina* there are two Novgorods, one at 63° N on a lake through which the Volga flows (the one just mentioned), and the other at 54° N on the Dnieper.32 The northern of these two cities is Velikii Novgorod (58°33′ N, 31°17′ E), and the more southern city is Novgorod-Siversky (51°59′ N, 33°16′ E): the name of the city should be understood as being divided by the name of the Dnieper (*neper fl.*), and thus reads *nouoguardia severski.*33 Waldseemüller shows the city on an unnamed tributary of the Dnieper, and Novgorod-Siversky is on the Desna, which is a tributary of the Dnieper, but Waldseemüller’s tributary flows into the Dnieper from the northwest, while the Desna flows in from the northeast.34 A good understanding of how Waldseemüller arrived at his perception of the region’s geography is elusive.

The sources whose phrasing is closest to that in Waldseemüller’s legend is in Maciej z Miechowa’s *Tractatus de duabus Sarmatibus*, Book 2, Tractate 1, Chap. 1: *Ruteni habitu et ecclesiasticis officiis Graecos insequuntur habentque proprias litteras et abecedarium instar et proximum Graecis, “The Rutheni follow the Greeks in both their clothing and their ecclesiastical offices, and they have their own language and an alphabet similar to that of the Greeks.”* The *Tractatus* was published a year after the *Carta marina*, so it is not clear what to make of this similarity: perhaps Waldseemüller and Miechowa made use of the same source.

It should be mentioned that while it seems that Waldseemüller’s source contained some of the same information as Miechowa’s *Tractatus de duabus Sarmatibus*, it does not seem that Waldseemüller had access to a manuscript of Miechowa’s work or anything of that nature, as Miechowa locates Novgorod at 66° N (*Habet elevationem poli Nowygrod sexaginta sex gradum*),35 whereas Waldseemüller has it somewhat further to the south.

3.4

Hyperborei and Riphaei montes non sunt in rerum natura

The Hyperborean and Riphaean mountains do not exist.

This is a manuscript addition to the *Carta marina*, no doubt made by Johann Schönner, but it is of sufficient interest to list among the legends on the map. This denial of the mountains’ existence, written right along a chain that it is reasonable to identify with the Riphaean mountains based on Waldseemüller’s 1507 map and the *Tabula moderna Sarmatiae* in the 1513 Ptolemy, comes almost verbatim from Maciej Miechowita’s *Tractatus de duabus Sarmatibus*, Book 1, Tractate 2, Chap. 5: *Accipe quarto, quod montes Riphei et Hyperborei non sunt in rerum natura, “And take this fourth [conclusion], that the

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30Ringmann’s source here would seem to be Schedel’s *Liber chronicarum* of 1493, f. 280v, “De Russia”; *Rutheni quos appellant crossanos vt Strabo videtur lituanis contermini sunt... In hac gente civitatem permaximum [esse] tradunt Novardiam appellatam, ad quam theutonici mercatores magno labore perueniunt, or else Schedel’s source, which was Aeneas Silvius Piccolomini’s *In Europam*. For discussion of this passage in Schedel see Leonid Chekin, “Открытие арктического острова русскими мореплавателями эпохи Колумба: Сводный анализ источников,” *Вопросы истории естествознания и техники* 3 (2004), pp. 3–42, esp. 11–13. Yet Waldseemüller was using a different source on his *Carta marina*, as Schedel does not mention the use of the Greek Rite or a special alphabet.


32On Waldseemüller’s map titled *Tabula moderna Sarmatiae* in the 1513 edition of Ptolemy’s *Geography* the city also appears twice, near the upper edge of the map at about 56° N (*nouograde*), and about 53° N (*nouogradactus*). But neither of these cities is on a river, so it is clear that Waldseemüller was using a new source of information in making this part of his *Carta marina*.

33Petrižika reads these two toponyms separately in *Die Karten des Laurent Fries* (see note 202 in Chap. 1 above), pp. 99 (*Seuerf.*) and 87 (*nouoguardia*).

34I thank Mitia Frumin for his advice regarding the geography of this region.

Riphaean and Hyperborean mountains do not exist.”36 This is a very interesting and previously unknown datapoint in the reception of Maciej Miechowita’s work,37 and also indicates that Schöner had access to Miechowita’s book, though in his Opusculum geographicum (Nürnberg: [Joannes Petreius], 1533), Chap. 5, he still refers to the Riphei montes. This may indicate that Schöner only saw Miechowita’s work—and learned that the Riphaean Mountains did not exist—later in his life, and made this annotation to the Carta marina sometime between 1533 and his death in 1547.

3.5
in istis promontoriorum reperiuntur falcones albi

In these promontories white falcons are found.

This legend is at the northern tip of what is apparently the Riphaean mountain range, where it reaches the northern ocean. A number of nautical charts have legends about falcons that are found in the north, but legends about white falcons are less common. There is a legend to this effect on the Borgia metal mappamundi from the first half of the fifteenth century: in the north the text reads Hic sunt usri et falcones albi et consimilia, “Here there are white falcons and bears and similar creatures,”38 and there is a related legend on the lost mid fifteenth-century nautical chart mentioned earlier: the legend speaks of “aves albi” in Norway.39 Albertus Magnus speaks of white falcons coming from the far north,40 and Pero López de Ayala in his late fourteenth-century manual of falconry says that white falcons usually come from Norway.41 But given Waldseemüller’s reference to promontories, the likely source would seem to be an interpolated version of Claudius Clavus’s description of the north, which is preserved in Vienna, ÖNB, Cod. Vindob. lat. 5277, ff. 271r-276r, which contains the statement Liste promontorium, ubi capiuntur falcones albi, “The Liste promontory [unidentified], where white falcons are captured.”42 This text was circulating in Germany and was used by Johann Schöner in his Luculentissima quaedam terrae totius descriptio (Nürnberg: Johannes Stuchs, 1515), and Francisculus Irenicus (Franz Friedlieb) in his Germaniae exegeses volumina duodecim (Hagenoe: typis Thomae Anshelmii… sumptibus Ioannis Kobergii, 1518), and in fact Irenicus repeats the passage about the white falcons on Liste promontorium.43

3.6
DE TOTO ISTO LATERE SEPTENTRIO[NALI] PORTANTVR PELLES PRECIOSI AD PARTES OCCIDENTALES

From this whole northern coast valuable furs are exported to the West.

See above on Legend 2.4: this material derives from Waldseemüller’s 1507 map, and Waldseemüller took it from a large world map by Henricus Martellus, but I have not been able to find Martellus’s source.

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36 On Miechowita’s denial of the existence of the Riphaean mountains see Leo Bagrow, A History of the Cartography of Russia up to 1600, ed. Henry W. Castner (Wolfe Island, Ontario: Walker Press, 1975), p. 48; and Marshall Poe, “Muscovy in European Cosmographies, 1504–1544,” Russian History 25.1–2 (1998), pp. 89–106, at p. 91. Incidentally Paulo Giovio also emphatically denies the existence of these mountains, not only in the text of his Libellus de legatione Basilii Magni Principis Moschouiae ad Clementem VII, but even in the latter part of the title, which runs: ... Caeterum ostenditur error Strabonis, Ptolemaei, aliorumque Geographiae scriptorum, ubi de Rypheis motibus memin...nulla omnino montes ea in regione multa etiam hominum peregrinatione reperiantur, ita ut Ryphes montes & Hyperboreos toties ab antiquis celebratos plerique regionum eruditissimorum versus & versiculis magnopere missi; et auctores, qui de illis scrivere voluerunt, nullas aliam locum habuisse, omni auctoritate praebentur. The passage in the book proper, which is on p. 22 in the 1527 edition, runs: ...nullae omnia montes ea in regione multa etiam hominum pererigrinatione reperiantur, ita ut Ryphos montes & Hyperboreos toties ab antiquis celebratos plebiisque Cosmographiae uterius studiosi penitus fabulosos esse arbitrentur. The passage in the book proper, which is on p. 22 in the 1527 edition, runs: ...nullae omnia montes ea in regione multa etiam hominum pererigrinatione reperiantur, ita ut Ryphos montes & Hyperboreos toties ab antiquis celebratos plebiisque Cosmographiae uterius studiosi penitus fabulosos esse arbitrentur.


39 The manuscript is in Genoa, Biblioteca Universitaria, MS B. I. 36. The legends in the manuscript are transcribed and translated into French by Jacques Paviot, Une mappemonde géniose disparue de la fin du XVe siècle, in Gaston Duchet-Suchaux, ed., L’Iconographie: études sur les rapports entre textes et images dans l’Occident médiéval (Paris: Le Léopard d’Or, 2001), pp. 69–97. Paviot indicates that the lost map is from the late fourteenth century, but as one of its legends cites Antoniottio Usodimare, it must be from 1455 or later. The legend cited here is Paviot’s no. 5, on his pp. 79 (Latin) and 89 (French).


43 On Schöner and Irenicus’s use of Clavus see Anthon Björnbo and Carl S. Petersen, Der Düne Claudius Claussens varte, Chap. 4, “Die Ulmer Ausgaben, Schöner und Friedlieb,” pp. 48–63; and for Irenicus’s quotation of the material about the white falcons see his Germaniae exegeses, Book 10, Chap. 18, f. 20r (a mistake for f. 19r): Haud procul Lisse promontorium Norvegiae, ubi candidi falcones capiuntur, cuius dimension 35, 62, 10 aestimatur. I thank Kirsten Seaver for her advice on these subjects.
3.7  
Qui hanc habitant regionem Bileri vocantur et sunt sub mandato Tartarorum.

Those who inhabit this region are called Bileri [Bulgari] and are under the control of the Tartars.

This legend derives from John of Plano Carpini, who says that the Bileri were conquered by the Tartars.\textsuperscript{44} Beazley explains the identity of the Bileri: “The Byleri or Bulgaria Magna are the Old or Black Bulgarians of Bolghar and the Volga below Kazan, at its junction with the Kama; they are called Bil[a]r[s] in several Moslem geographers and historians, e.g. Abulfeda and Rashid-ed-din.”\textsuperscript{45} The place name Bulgaria Magna appears just to the south of this legend, and further to the southwest that place name is repeated with the following legend about this region.

3.8  
BVLGARIA MAGNA  
A nepro flu[mine] usque huc ambulat et dominatur princeps tartarorum de Crema campestrie et Gazarie dominus estque imperator super armatorum 600000 pro custodia contra cristianos.

Great Bulgaria. From the Dneper to this point the prince of the Crema Tartars of the fields and the lord of Gazaria lives as a nomad and rules; he is the commander of 600,000 armed men who defend against the Christians.

The Cremanis are the inhabitants of the Crimean Khanate. Much of this legend,\textsuperscript{46} which is about the Mongol chief Corenza, comes from John of Plano Carpini, who explains in a bit more detail than Waldseemüller does that this king is charged with keeping watch on the Christians to the west, to prevent them from making an unexpected attack on the Tartars.\textsuperscript{47} Plano Carpini, via Vincent of Beauvais, \textit{Speculum historiale}, Book 32, Chap. 20, at least in the Strasbourg, 1473 edition of the text, lists the number of soldiers under this king as 60,000 rather than 600,000. But Waldseemüller was apparently convinced that 600,000 was the correct number, as he repeated it in the list of corrections in Legend 9.2. Also, Waldseemüller adds new information from an unknown source to what he found in Plano Carpini, for he extends Corenza’s realm south to Gazaria, and gives him titles similar to those of the emperor of Moscow.\textsuperscript{48}

3.9  
Hic ambulat et dominatur Bathot Magni imperatoris Cham princeps maximus de Casana et imperator super sexingenta [sic] .m. armatorum virorum tam christianorum quam Saracenorum qui cum exercitu suo tempore Estiuali super ripam fluminis ad montes ascendit, tempore uero hyemali ad mare descendit.

Here Batu lives as a nomad and rules, the greatest prince of Casana [and descendant] of the great emperor Chan, and commander of sixty thousand soldiers, both Christians and Saracens, who with his army ascends over the riverbank to the mountains in the summer, but in the winter descends to the sea.

Batu or Baatu, better known today as Batu Khan of the Golden Horde, was son of Jochi, and thus a grandson of Genghis Khan. He conquered Russia and was Khan of that territory from 1227 until his death in 1255, and led the main contingent of the Mongol attack on Eastern Europe in 1241.\textsuperscript{49} Most of Waldseemüller’s legend comes from John of Plano Carpini,\textsuperscript{50} but Waldseemüller goes somewhat further than Plano Carpini in indicating that Batu is ruler of Kazan, and again, I do not know the source of this additional information. Just above the legend is a large but generic image of Batu seated in his tent.
3.10
GEORGIA REGNUM in eo sunt .18. episcopatus et sunt cristiani cismatici

The Kingdom of Georgia. In it there are eighteen bishoprics and they are schismatic Christians.

I do not see that Plano Carpini says that the people of Georgia are schismatics: Benedict the Pole, who traveled to the Mongol Empire 1245–1247, mentions that they follow the Greek rite.51 but there is no other evidence that Waldseemüller made use of Benedict’s work, and it may have simply been common knowledge that the Georgians were not adherents of the same branch of Christianity as the countries of Western Europe. The information about the eighteen bishoprics comes from Simon of Saint-Quentin.52 As indicated above in the introduction, Waldseemüller in his long text block in the lower left corner of the map (see Legend 9.3) cites the traveler, Friar Ascelinus, rather than the author, Simon of Saint-Quentin. Georgia is on the Tartar side of the borderline on sheet 3 of the Carta marina, but is marked with several crosses, indicating a Christian population that is in danger.

3.11
Omnes sunt tonsi sicut clerici sunt boni bellatores

They all have their hair cut like monks and they are good fighters.

This legend comes from Plano Carpini’s general description of the Tartars.53 Noah’s Ark is depicted just to the right of this legend.

3.12
Arach mons super quam requieuit Archa noe

Mount Ararat, upon which Noah’s Ark rested.

This legend was discussed in the introduction (see p. 38), where I suggest that Waldseemüller drew the text from a large, elaborately decorated nautical chart that probably contained an illustration of the Ark as well, but that he gave the Ark a more boat-like shape than is typical of the illustrations of the Ark on nautical charts.

3.13
ARMENIA MINOR Hic sunt christiani cisma[tici] sub dominio Tarcorum [corrected to Tartarorum]

Lesser Armenia. Here there are schismatic Christians under the dominion of the Tartars.

Lesser Armenia was the part of Armenia that was west of the Euphrates, and that is how Waldseemüller depicts it, though one has to follow the river quite a ways to the south and then east to see its name. Marco Polo has a chapter on Lesser Armenia that was perhaps Waldseemüller’s source here,54 though his legend is so general that it is difficult to be certain. The Euphrates runs north and south here right where the borderline of the Tartar empire might be, which makes it difficult to notice that there is a break in the borderline so that Armenia Minor is included in the region under the control of Tartaria, as the legend indicates.

3.14
ARMENIA MAIOR Sunt christiani iacobite et nestoriani cismatici sub dominio Tartarorum

Greater Armenia. They are Jacobite Christians and schismatic Nestorians under the dominion of the Tartars.

Marco Polo has a chapter on Greater Armenia,55 and he specifies that the people are under the dominion of the Tartars, and does mention Nestorians and Jacobites in the kingdom of Mosul two chapters later, but given that Mosul (Mosalia) is indicated some distance to the east of this legend, it seems likely that Waldseemüller was using a different source. That source was the account of Priest Joseph, whom Waldseemüller cites in the long text block in the lower left corner of the

51For the passage in Benedict the Pole see Dawson, The Mongol Mission (see note 31), p. 82.
53See Giovanni da Pian di Carpine, Storia dei Mongoli (see note 31), pp. 232 (Latin) and 340 (Italian); and Dawson, The Mongol Mission (see note 31), p. 6.
55See Marco Polo, Marka Pavlova z Benátek, Milion (see note 54), pp. 18–19; and The Book of Ser Marco Polo, Book 1 (see note 54), Chap. 3, vol. 1, pp. 45–46.
Carta marina (see Legend 9.3); Priest Joseph’s account was published in the Paesi novamente retrovati, and the material cited here is from Chap. 133.\textsuperscript{56} Waldseemüller mentions Jacobite Christians frequently in the texts on the Carta marina, so a few words about the history of this sect will not be out of place. The Jacobite Church of Syria, Iraq, and India was founded in Syria by Jacob Baradaeus in the sixth century with assistance from Empress Theodora. It is a Monophysite church and recognizes the Syrian Orthodox Patriarch of Antioch as its spiritual leader.\textsuperscript{57} Waldseemüller probably read about the sect in Bernhard von Breydenbach’s Peregrinatio in terram sanctam (Mainz: Peter Schöffer the Elder, 1486), ff. [80v]–[81r], in a section titled “De Jacobitis et eorum erroribus.”\textsuperscript{58}

3.15
Hic resedit patriarcha omnium christianorum orientalium cismaticorum qui dicitur Catholica

Here lives the patriarch of all the eastern schismatic Christians who is called Catholica.

Marco Polo in his chapter on Mosul mentions this patriarch, but calls him “laholith” rather than “Catholica,”\textsuperscript{59} so it seems that Waldseemüller’s source here was not Marco Polo but rather Priest Joseph, whose account was published in the Paesi novamente retrovati, and who does use the name “Catholica.”\textsuperscript{60} Just to the right of the legend there is a labeled image of the Catholica, and he is dressed as a European bishop might be.

3.16
in Taurisio ciuitate que est opulentis sunt maxime mercaciones de quibus recipit imperator plus quam rex Francie de toco suo regno

In the city of Tabriz, which is wealthy, there are great markets from which the emperor receives more than the King of France receives from his whole realm.

Tabriz was once a major Silk Road market city. This legend comes from Odoric of Pordenone\textsuperscript{61}; the image of the city to the right of the legend is a variant of a design that Waldseemüller uses quite often for important cities.

3.17
Hic dominatur Soldanus Halapie sub tributo tartarorum

Here rules the Sultan of Aleppo, who pays tribute to the Tartars.

This legend comes from Plano Carpini.\textsuperscript{62} This legend tends to confirm that Waldseemüller was using the 1473 printed edition of Vincent of Beauvais’s Speculum historiale as his source for material from Plano Carpini, rather than a manuscript of Plano Carpini’s work, as most manuscripts of Plano Carpini mention the Sultan of Damascus in this passage,\textsuperscript{63} but the printed edition of Vincent of Beauvais’s Speculum historiale (32.16) mentions the Sultan of Aleppo, as Waldseemüller does. There are no crosses in this area on the Carta marina, since the people are under the control of a Sultan.

\begin{itemize}
\item[^{56}]{Greenlee, “The Account of Priest Joseph” (see note 70 in Chap. 1 above), pp. 95–113, at 103.}
\item[^{58}]{see Jeffrey Jaynes, Christianity beyond Christendom: The Global Christian Experience on Medieval Mappaemundi and Early Modern World Maps (Wiesbaden: Harrassowitz Verlag in Kommission, 2018), p. 287.}
\item[^{59}]{see Marco Polo, Marka Pavlova z Benátk, Milion (see note 54), p. 19; and The Book of Ser Marco Polo (see note 54), Book 1, Chap. 5, vol. 1, pp. 60–61.}
\item[^{60}]{The passage that Waldseemüller is using here is in Chap. 133 of the Paesi; for an English translation of the passage see Greenlee, “The Account of Priest Joseph” (see note 70 in Chap. 1 above), pp. 95–113, at 102–103.}
\item[^{61}]{see Henry Yule, ed. and trans., Cathay and the Way Thither: Being a Collection of Medieval Notices of China, revised by Henri Cordier (London: The Hakluyt society, 1913–16), vol. 2, pp. 103–105 (English), 280 (Latin), and 338–339 (Italian).}
\item[^{62}]{see Giovanni da Pian di Carpine, Storia dei Mongoli (see note 31), pp. 274–275 (Latin) and 362 (Italian); and Dawson, The Mongol Mission (see note 31), p. 32.}
\item[^{63}]{see the critical apparatus in Giovanni da Pian di Carpine, Storia dei Mongoli (see note 31), p. 274.}
\end{itemize}
3.18
ARABIA DESERTA
Hic est mare terrestre arenosum seu sabuli quod est mare mirabile et periculosum in eo reperitur mumia. habitanti sunt[?][i]n montibus predones maximi quorum. x. milia vel. xx. m [a]liquando sunt in societate qui Charvanam mercatorum inaudunt degunt sicur Tartari.

Desert Arabia. Here there is a terrestrial sea, which is of sand or gravel, and it is a marvelous and dangerous sea. Mummy is found in it. The inhabitants live in the mountains and are egregious thieves, of whom ten or twenty thousand sometimes unite and attack the caravans of merchants. They live like the Tartars.64

This is a very interesting composite legend: what Waldseemüller has done is to locate the sea of sand in accordance with Odoric, but as Odoric does not describe the sea in any detail, the cartographer took elements from the descriptions of other seas of sand from Marco Polo and Varthema. Odoric mentions the sea of sand in his chapter is about “De civitate magorum,” “The city of the Three Wise Men,” i.e. Cassan,65 and Waldseemüller has Crassan, which he identifies as the city from which the Wise Men came, just to the northeast here. Odoric also mentions the land of Job that Waldseemüller has to the east, and the mountains with manna that Waldseemüller has just to the east. The material about the thieves comes from Marco Polo,66 although Polo is describing a sea of sand near Kathmandu, which of course is nowhere near Arabia. The detail about the mummy being found in the sand comes from Varthema,67 who is describing a sea of sand between Mecca and Medina, not far to the south of the area described by the legend on the Carta marina. Thus it is curious that Waldseemüller did not simply adopt Varthema’s description, but it is true that Marco Polo’s is more colorful—so our cartographer did have some taste for the dramatic.

The mummy mentioned in the legend means bodies of people who died crossing the desert and were then desiccated by the sun, which was used medicinally in Europe into the seventeenth century.68

The words Charvanam and inaudunt near the end of the legend are corrected by hand in accordance with the list of corrections in Legend 9.2.

3.19
[H]VNGARIA [M]AGNA
Qui hanc habitant vocantur Bastarci et sunt sub imperio Tartarorum carent blada

BASTARCI

Great Hungary. Those who inhabit this region are called Bastarci and they are under the power of the Tartars. They have no wheat. Bastarci.

Great Hungary, the ancestral home of the Hungarians, was mentioned by Plano Carpini, who says that it lay north of Bulgaria magna. The Bascarts, the ancestors of the modern Bashkirs, are mentioned by Plano Carpini in conjunction with the races described in the following legends,69 but Plano Carpini says nothing about their being under the control of the Tartars and lacking wheat. Given Waldseemüller’s use of Plano Carpini for nearby legends, it seems most likely that the cartographer added these details from those other legends as pertaining to the region as a whole.

3.20
PAROSITAR[UM] GENUS. hic habitant homines habentes parvos stomachos et os parvum non manducantes sed carnes coquunt et super ollam se ponunt et fumo re

fi ciuntur.

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64Unfortunately Johnson, Cartamareina (see note 21 in Chap. 1 above), p. 141 note 52, misinterprets Waldseemüller’s legend, and claims that he says that “the mummies were thought to date back ten or twenty thousand years.” She translates the corresponding shorter legend on Fries’s Cartamareina on p. 79.
65The passage from Odoric is in Yule, Cathay and the Way Thither (see note 61), vol. 2, pp. 107–108 (English), 281 (Latin), and 339–340 (Italian).
66See Marco Polo, Marka Pavlova z Benátek, Milion (see note 54), p. 25; for an English translation see The Book of Ser Marco Polo (see note 54), Book 1, Chap. 18, vol. 1, pp. 97–99, on the city of Camati or Camadi. The phrase in societate is also used of the thieves in a fifteenth-century manuscript, Vatican City, BAV MS Barb. lat. 2687: see Der mitteldeutsche Marco Polo, nach der Admonter handschrift herausgegeben, ed. Horst von Tschanner (Berlin: Weidmann, 1935), p. 8. This manuscript is briefly described by Tschanner, pp. x–xi, and see Consuelo Wagner Dutschke, “Francesco Pipino and the Manuscripts of Marco Polo’s Travels,” Ph.D. Dissertation, University of California at Los Angeles, 1993, pp. 456–458 and 1135–1138.
The Parossites. Here live men who have small stomachs and tiny mouths, and they do not eat; they cook meat and lean over the pot and refresh themselves with the steam.

I have discussed the three monstrous races along the top edge of this sheet (see Fig. 2.2) on a previous occasion, when I showed that the races come from John of Plano Carpini, no doubt by way of the excerpts of Plano Carpini in Vincent of Beauvais’s *Speculum historiale*. I do not know the source for the illustration of this race.

3.21
SAMOEDORUM REGIO. Habitatores vivunt ex venacionibus vestes et tabernatula sunt ex pellibus bestiarum, habent enim mirabilem modum tractandi cum mercatoribus, servunt tartaris, carent blada.

The Region of the Samoyeds. The inhabitants live from hunting, and their clothes and tents are made of animal skins; they have a remarkable way of dealing with traders; they serve the Tartars, and have no wheat.

The term Samoyed was applied to some of the indigenous peoples of Siberia. This information about this people, like that described in Legend 3.20, comes from Plano Carpini. There are illustrations similar to Waldseemüller’s here in two fifteenth-century manuscripts of *Le livre des merveilles du monde*, namely New York, Pierpont Morgan Library, MS M. 461, f. 41v, and Paris, BnF, MS fr. 1378, f. 11v. In the past I thought it unlikely that an image from a manuscript of this work might have influenced Waldseemüller, but the Morgan manuscript was commissioned by either René d’Anjou, Duke of Lorraine, or someone close to him, and René’s grandson René II gave at least some support to the publishing projects of

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70Van Duzer, “A Northern Refuge” (see note 90 in Chap. 1 above), pp. 223–225 and 227.
75A low-resolution image of BnF, MS fr. 1378, f. 11v, is viewable through http://mandragore.bnf.fr.
Waldseemüller and his colleagues,\textsuperscript{77} so it seems quite possible that Waldseemüller had access to the manuscript and drew inspiration from the illustration on f. 41v.

3.22
Hic prope oceanum reperiuntur homines sive monstra habentes pedes bovinos caput humanum faciem caninam duo verba loquantur tercium latrant.

Here near the ocean are found men or monsters who have the feet of cattle, a human head, but the face of dogs, and who speak two words, but bark the third.

This race, like those described in the preceding two legends, comes from Plano Carpini.\textsuperscript{78} I do not know of any source for this image—I do not know of an illustrated manuscript of Plano Carpini or Vincent of Beauvais that contains such an illustration—so it may well have originated in Waldseemüller’s workshop.

3.23
KANGITARUM REGIO her [sic] caret aquis propter a paucis inhabitatur hominibus et periculosum est per eam agere iter

The Land of the Kangits. This [area] lacks water, and for that reason is thinly inhabited, and it is dangerous to cross the region.

The Kangits are the Kangli Turks. The legend comes from Plano Carpini\textsuperscript{79}; it is copied by Schöner on his manuscript globe of 1520 in the Germanisches Nationalmuseum in Nuremberg.

3.24
Tartari semper morantur in campis: vbi inuenitur meliora pascua domus coopertas filero tanquam tentoria. habent etiam carucas vbi portant suppellectilem et familiam debilem. non villas nec multas ciuitates sed stationes habent. Uiri non intromittunt se nisi de guerra, vxores faciunt omnia alia facta domus intra et extra. commedunt de omni genere carnium preter hominum bibuntque lac iumentorum hec terra est sterelis sed solis pecoribus alendis apta.

The Tartars always remain in the fields, where there is better pasture. Their houses are covered with felt like tents. For they have carts in which they carry their furnishings and family members who are weak. They have no villages nor many cities, but rather stopping places. The men do not busy themselves, except about war, and the women do all of the other chores both inside the home and out. They eat all types of meat except human flesh, and they drink the milk of beasts of burden. The land is sterile, and only good for pasturing cattle.

\textsuperscript{77}The account of Vespucci’s voyages in Waldseemüller’s Cosmographiae introductio is dedicated to René II, and in the letter to the reader in the 1513 edition of Ptolemy, Waldseemüller says that the edition was published ministerio Renati dam vixit, nunc pie mortui Duci illustriss. Lotharingiae, “through the assistance, while he lived, of Rene most illustrious Duke of Lorraine, now piously deceased.” This letter is reproduced and translated into English in Henry N. Stevens, The First Delineation of the New World and the First Use of the Name America on a Printed Map (London: H. Stevens, Son & Stiles, 1928), p. 40. In addition, Waldseemüller records René II’s enthusiastic reception of his 1507 map and other works in the dedicatory letter in Ringmann’s Instructio manuductionem prestans in Cartam itinerarium (Strasbourg: Grüninger, 1511), which implies an ongoing relationship between the scholars and the sovereign: for details see note 80 in Chap. 1 above.

\textsuperscript{78}The race of men with cow’s feet is described in Vincent of Beauvais, Speculum historiale, Book 32, Chap. 15; see Beazley, The Texts and Versions (see note 43 in Chap. 1 above), p. 88, and for Plano Carpini’s text, p. 61. Plano Carpini’s text is also supplied in Giovanni da Pian di Carpine, Storia dei Mongoli (see note 31), pp. 272 (Latin) and 361 (Italian). For an English translation of the passage in Plano Carpini see Dawson, The Mongol Mission (see note 31), pp. 30–31.

\textsuperscript{79}See Giovanni da Pian di Carpine, Storia dei Mongoli (see note 31), pp. 313–314 (Latin) and 387 (Italian); and Dawson, The Mongol Mission (see note 31), pp. 58–59.
The legend is assembled from passages in Plano Carpini. In the plain surrounding this legend three groups of tents are depicted, and one is labeled *statio tartrarorum*, and another simply *statio*, to indicate the Tartars’ nomadic lifestyle. The brief description of Tartaria in Fries’s *Uslung der mercarthen oder Charta marina*, Chap. 110, is quite similar to Waldesemüller’s legend here. In addition, an expanded version of the text accompanies the *Tabula Superioris Indiae et Tartariae Maioris* in the 1522 and 1525 editions of Ptolemy’s *Geography* that were published by Fries.

3.25

MARE ABACUC SIVE MARE DE SALA *Lacus iste aque dulcis et tocius orbis maximus est et ob sui magnitudinem mare appellatur. habet portus et patitur tempestates et reliqua maris accidentia et varij in locis varia nomina sortitur*

The Abacuc Sea or Sala Sea [the Caspian]. This lake is of fresh water and is the largest in the world, and because of its size is called a sea. It has ports and it suffers storms and the other accidents that befall seas. The sea is called by different names in different places.

The names that Waldesemüller uses for the Caspian sea are different than those he used on his 1507 map (*Mare hircanum sive Caspium*) or the modern world map in the 1513 Ptolemy (*mare hircanum*). Paul Pelliot, in discussing the names that Waldesemüller uses on the *Carta marina*, suggests that *Abacuc* is a copyist’s error for the name *Bachuc*, which is used for the Caspian by Odoric, while the “Sea of Sarai” is a name used by Marco Polo. However, this name for the sea is not used in the manuscript of Polo most similar to that Waldesemüller used in making his 1507 map, which was probably still available when he made the *Carta marina*, and there can be little doubt that Waldesemüller took the two names for the sea on the latter map from a nautical chart. On the Catalan Atlas of 1375 the sea is labeled “Aquesta mar és appellada mar del Sarra e de Bacú,” “This sea is called the Sea of Sarra and of Bacu,” and on the Catalan-Estense *mappamundi* of c. 1460 it is labeled MAR DE SALA E DE BACU. There are other large nautical charts that include the Caspian and indicate its names, such as the Pizzigani chart of 1367 and Mecia de Viladestes’s chart of 1413, but the spellings on the Catalan Atlas and the Catalan-Estense *mappamundi* are the most similar to what we find on Waldesemüller’s *Carta marina*. This confirms the evidence discussed in the introduction that Waldesemüller had a large, old, and elaborately decorated nautical chart in his workshop, in addition to the Caverio chart—which latter chart, we should mention, omits the Caspian Sea altogether. This is another example of Caverio’s disregard for geographical features in the hinterlands that emphasizes Waldesemüller’s detailed depictions of the hinterlands by contrast.

The rest of Waldesemüller’s legend about the Caspian, about its size and similarity to a sea, comes from Pierre d’Ailly, who writes:

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80 See Giovanni da Pian di Carpine, *Storia dei Mongoli* (see note 31), pp. 234–235 (Latin) and 341–342 (Italian) on the tents, pp. 230 and 339 on the lack of cities, pp. 248 and 349 on their eating all types of meat, pp. 249 and 350 on drinking milk of beasts of burden; and pp. 230 and 339 on the land being generally poor and only good for cattle. These passages are supplied in English by Dawson, *The Mongol Mission* (see note 31), p. 8 on the tents, p. 5 on the lack of cities, p. 16 on their eating all types of meat, p. 17 on drinking milk of beasts of burden; and p. 5 on the land being generally poor and only good for cattle. A significant difference between the text of Waldesemüller here and Plano Carpini (in Vincent of Beauvais) is that while Waldesemüller says that the Tartars eat all types except human, Plano Carpini says that they eat all types of flesh, including human (& in necessitate carnes humanas see Beazley, *Texts and Versions* [see note 43 in Chap. 1 above], p. 52). Since it is unlikely that Waldesemüller would want to change the text to make the image of the Tartars more positive, this difference in his text could be a good clue to which version of the text he was using.


82 The text of this chapter of the *Uslung* is translated into modern German by Petrzilka, *Die Karten des Laurent Fries* (see note 20 in Chap. 1 above), pp. 157–158.

83 The passage is in Chap. 2 of Odoric’s narrative; see Yule, *Cathay and the Way Thither* (see note 61), vol. 2, p. 280. According to the note there, the manuscript Venice, Biblioteca Marciana, MS 4326 (Lat. XIV.43), which is from the late fourteenth or early fifteenth century, reads Abacuc. There is a brief description of this manuscript in Yule’s *Cathay* (see note 61), vol. 2, pp. 56–57.


85 The manuscript most similar that I know to that Waldesemüller used in making his 1507 map is Naples, Biblioteca Nazionale Vittorio Emanuele III, Vind. lat. 50, and the text of this manuscript has been published in Marco Polo, *Marka Pavlova z Benátek, Milion* (see note 54).


Unde lacus et stagna describit Ysidorus nullam facit de mari Caspio mentionem licet tamen a quibusdam asseratur esse lacus aque dulcis, totius orbis maximus habens in circuitu portus et littora et nauigia uehit ingentia patiens insuper tempestates et maris accidentia reliqua. Propter quod et ob eius magnitudinem mare dicitur.

Where Isidore describes lakes and pools he makes no mention of the Caspian Sea, however, it is asserted by some to be a fresh water lake, the largest in the world, having ports and shores around it, and carrying huge ships, and, moreover, enduring storms and the other accidents of a sea. Because of this and because of its size it is called a sea.

This is one of the relatively few legends for which Waldseemüller uses d’Ailly, aside from for those about the monstrous races in India.

3.26
Baldac seu Ninie. In ciuit[a]te Baldac residet Calyphus qui est papa omnium Saracenorum soluit tributem imperatori Cham. hec ciuitas in circuitu longitudinis est .3. dietarum. sunt ibi magne mercationes.

Baldock [Baghdad] or Nineveh. In the city of Baldock resides the Caliph who is the pope of all of the Saracens; he pays tribute to the Great Khan. This city is a three day journey in circumference, and there are great markets there.

Most of this legend comes from Marco Polo, except for the part about the size of the city. It is possible that this detail was inspired by Jonah 3:3, which says that the city was three days across (rather than in circumference), but more likely this information comes from a nautical chart, rather than directly from the Bible, as the Borgia metal mappamundi has a legend that reads Ninive iij dierum longitudine, “Nineveh is three days wide.” The great power of the Caliph of Baghdad earned him a mention in Wolfram von Eschenbach’s Parzival. The words tributem imperatori in this legend have been corrected by hand in accordance with the list of corrections in Legend 9.2.

3.27
iste Caliphus perdues et potens est. condit Saracenis leges sicut papa noster precipit ab omnibus eas firmiter obseruari. Hic in die numquam egreditur sed de nocte; habet enim in thalamo suo multas virgines quibus commiscetur

This Caliph is very wealthy and powerful; he establishes laws for the Saracens just as our Pope [and] orders that they be strictly observed by everyone. He never goes out during the day, only at night; he has in his chamber many virgins with whom he consorts.

This legend gives additional description of the Caliph of Baghdad who was mentioned in the previous legend; in between these two legends and just above the image of the city (through which the Tigris River runs) there is an image of the Caliph. The source of this legend is somewhat surprising, as it is not a work that Waldseemüller lists among his sources in the long text block on sheet 9: it comes from a short, thirteenth-century account of a journey to the Holy Land by one Thetmar or Theitmar. Some sixteen manuscripts of the work are known, and the account was published a few times in the nineteenth century.

89See Marco Polo, Marka Pavlova z Benátek, Milion, pp. 19–20; and The Book of Ser Marco Polo, Book 1, Chap. 6, vol. 1, p. 63.
94The manuscripts are listed by Reinhold Röhrich, Bibliotheca geographica Palaestinae (Berlin: H. Reuther, 1890), p. 47, with editions and other bibliography listed on pp. 47–48. Röhrich includes indications of which manuscripts were used in the preparation of the various editions, with more accurate citations than the editors themselves sometimes supply.
century and also translated into French, but since then it has attracted very little scholarly attention until a very good edition was published in 2011. The relevant passage from that work runs:


To the east of that place, in the borderlands of Chaldea, Idumea and Persia, is a great and strong city, Baghdad, a metropolis. That is where the wealthy and powerful Pope of the Saracens, who is named Galiphel, both establishes the laws for Saracens, and (like our Pope) orders them under penalty to be strictly observed by all. He never goes out during the day, but only at night, when he pleases... But that pope has in his chambers and houses many virgins, with whom he consorts whenever he wants.

Waldseemüller’s use of this little-known work is another testament to the richness of his library.

3.28

CALDEA Caldei habent linguam proprietam peruetunt quidem ordinem nature nam maschili ornati incedunt mulieres vero turpes

Chaldea. The Chaldeans have their own language, and in fact they pervert the natural order, for the men go finely decked out, but the women are unsightly.

This legend comes from Odoric. Chaldea is in southern Babylonia; the kingdom had long since ceased to exist, but the name continued to be use becuse it was used in the Septuagint and other translations of the Bible. According to the system of borderlines on sheets 3 and 4 of the Carta marina, Chaldea is the southernmost region that is under the control of the Tartars.

3.29

in istis montibus colligitur de celo manna in magna copia

In these mountains manna from the heavens is collected in great quantity.

This legend comes from Odoric. The manna mentioned here and in various other texts, including the Bible, has been variously identified as the gum of a desert tree such as tamarisk, a lichen, or an excretion from an insect.

3.30

Crassan Hec fuit ciuitas regalis unde magi venerunt ad Christum.

Kashan. This was the royal city from which the Three Wise Men came to Christ.

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96From Koppitz’s edition (see previous note), Sect. 7, p. 142.

97See Yule, Cathay and the Way Thither (see note 61), vol. 2, pp. 110 (English), 282 (Latin), and 339 (Italian).

98See Yule, Cathay and the Way Thither (see note 61), vol. 2, pp. 109 (English) and 282 (Latin); I do not see the passage about manna in the Italian text that Yule edits.

Kashan is in what is now central Iran; the legend comes from Odoric. This is a case where Waldseemüller might have used Marco Polo, but he seems to have regarded Odoric as being more authoritative.

3.31
Sambragate ciuitas regalis Hec ciuitas non minor in quantitate et contractu est cheiro

The royal city of Samarkand. This city is no less in size and commerce than Cairo.

Samarkand, in modern Uzbekistan, was at various times in its history the greatest city of Central Asia. This legend comes from Varthema. Waldseemüller’s decision to show Samarkand runs counter to earlier humanist geography, in which the city was typically removed from the world picture.

3.32
TERRA NIGROR[UM] KITHAO Hic dominatur frater maximi principis de cassan

The land of the black Kythayans. Here rules the brother of the great prince of Casana.

This legend comes from Plano Carpini, who says that Siban, the brother of Bati (or Batu or Baatu, see Legend 3.9) is stationed among the Black Kitayans. The image of Siban, who is not named here, is large and imposing.

3.33
TERRA BISERMINORUM Hec terra est valde aspera et montuosa et longitudine .40. dietarum

The land of the Bisermini. This land is very rough and mountainous, and takes forty days to cross.

This legend comes from Plano Carpini, but Waldseemüller gives the region much less extension to the southwest than Carpini indicates. The figure of forty days is Waldseemüller’s calculation rather than something that Plano Carpini gives directly, and his calculation, at least according to the way the text runs in most versions, is not correct. Plano Carpini writes that they traveled through the land of the Bisermini from about the feast of the Ascension, i.e. May 17, until eight days before the feast of St. John the Baptist, i.e. eight days before June 24, or June 16—for a total of just under a month. It seems likely that Waldseemüller miscalculated by forgetting to subtract the eight days, for all of the versions of Plano Carpini that I know, including the excerpts in the printed edition of Vincent of Beauvais that was Waldseemüller’s most likely source for the text of Plano Carpini, are consistent in indicating that this land took a month to cross, rather than forty days.

3.34
Hic dominatur et ambulat contra persos Noy princeps tartarorum et imperator super sexingenta [milia added by hand] armatorum virorum qui omnes prouincias tam Cristianorum quam Saracenorum a capite persie usque ad Syriae sue ditioni subiungavat

Here rules and marches against the Persians Baiotnoy [Baiju], prince of the Tartars and commander of 60,000 soldiers who has brought under his control all of the countries, both Christian and Saracen, from the top of Persia to Syria.

This legend comes from Simon de Saint-Quentin, by way of Vincent de Beauvais. It is appropriate, of course, that Waldseemüller should site Simon here, as Simon’s mission was precisely to Baiju. Simon explains that “Noy” is a title, and that the king’s name is Baioth, but Waldseemüller chose not to explain this. It seems that Waldseemüller was working

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101See Yule, *Cathay and the Way Thither* (see note 61), vol. 2, pp. 106 (English), 281 (Latin), and 339 (Italian).
102See V. Williams Jackson, “The Magi in Marco Polo and the Cities in Persia from Which They Came to Worship the Infant Christ,” *Journal of the American Oriental Society* 26 (1905), pp. 79–83.
quickly when he read this passage: Vincent of Beauvais says that Baiju had 60,000 soldiers, but then goes on to say that he had 160,000 Tartar soldiers and 450,000 soldiers who were part Christians and part infidels, so the total should be 610,000. On the Carta marina, Baiju sits in a distinctive tent with his title, “Noy,” indicated above the entrance. Schöner copies part of this legend on his manuscript globe of 1520 in the Germanisches Nationalmuseum in Nuremberg.

3.35 persia prouincia nobilis destructa multum per tartaros sed nunc sub ditione victoriosssimi [sic] regis Sophi reparata est enim diuisa in octo regna sunt Macometani et homines fallaces

The noble country of Persia was largely destroyed by the Tartars, but now, under the control of the unstoppable king Sophi [i.e. the Shah], it has been restored and divided into eight realms. The people are followers of Mohammed and are deceitful.

This legend was briefly discussed earlier in the introduction: “Sophi” is Shah Isma’il es-Sufi (1487–1524), the founder of the Safavid dynasty, who gained control over Persia and Khorasan (now Iran and adjoining territories to the east) around the year 1500. The source of this legend is two-fold: the first part of the legend, including the part about the division of Persia into eight realms, comes from Marco Polo, while the details about Sophi and his activities come from Varthema. Waldseemüller’s image of Sophi is distinctive and energetic, but I have not found a source for it—it does not derive from the 1515 edition of Varthema from which Waldseemüller borrowed other images, for example. Johann Schöner has a much abbreviated version of this legend on his 1520 manuscript globe.

3.36 in montibus istis reperiu[n]tur adamantes corniol et Calcedonie

In these mountains are found diamonds, cornelian, and chalcedony.

This legend is from Varthema. Waldseemüller also mentions diamonds found in mountains in Legends 4.26 and 8.19.

3.37 GEDROSIA Guzerantes sunt ydolatre caffrani

gedrosia. The Guzerantes are Caffrani idolaters.

The “IA” of GEDROSIA are on sheet 4. Varthema gives a brief account of the Guzerati, but he says that they are neither moors nor heathens, so Waldseemüller’s attitude is somewhat less tolerant. The designation Caffrani idolaters is one that Waldseemüller uses frequently on the Carta marina, but which I do not find in his sources, so it is reasonable to think that he added the designation here. In fact I do not know where Waldseemüller found the designation, but as the word will be appearing with some frequency, I cite a post-Waldseemüller sixteenth-century definition of it here, from Thomas Cooper’s Thesaurus linguae Romanae et Britannicae (London, 1565), in the in the supplementary Dictionarium historicum and Poeticum propria locorum and Personarum vocabula breviter complectens, s.v.: Caffrani, Idololaturs dwelling in Indie the more, which worship Devils in most terrible figure, beleeving, that they are permitted of God, to punishe or spare men at their pleasure, wherefore unto them they sacrifice their children, and sometimes themselves. They have many wives, but they companye not with them, untill they be defloured by other hyred for that purpose. Also they suffer their priestes to have carnal companie with their wives in their absence. They have Bulles and Kine in greate reverence, but they never eate fleshe, their sustenaunce is rice, suger, & diverse sweet roots, they drynke the lycour that commeth of ripe dates.


110 See Marco Polo, Marka Pavlova z Benátek, Milion (see note 54), p. 22; for an English translation see The Book of Ser Marco Polo (see note 54), Book 1, Chap. 13, vol. 1, pp. 78–79.

111 See Varthema, The Travels of Ludovico di Varthema (see note 103), p. 103.


The borderline that demarcates the limits of the Tartar empire continues on this sheet, and here its main function is to separate India, which is depicted as a realm of monstrous races, from Tartaria, and on this sheet there are legends that make this function clear. There are few place names on this sheet, which is quite a change from Waldseemüller’s coverage of this same area on his 1507 map. It is tempting to take this difference as reflecting Waldseemüller’s realization that little is known about the geography of the region, and that one can really only guess about the relative positions of places mentioned by Marco Polo, Plano Carpini, etc. One symptom of Waldseemüller’s disinclination to offer many geographical details on this sheet is his gratuitous repetition of TERRA MONGAL ET QUE VERA TARTARIA DICITUR, which appears at the top of the sheet, in TERRA MONGAL NVNC TARTAIA VERA to the southwest.

4.1
Quod extra ambitur hac linea et mari clauditur hoc maximi imperateris Gog Chaam ditioni subiatur
The land between this line and the sea is under the power of the great emperor Gog Khan.

The title “Gog Khan” simply meant emperor, but to European ears the word “Gog” would inevitably recall the mythical Gog, an evil people who was supposed to break out of their confinement in the northeastern reaches of the world at the end of time and join the armies of Antichrist (see Legend 4.18). The second word of the legend originally read intra, but was corrected by hand to extra in accordance with the list of corrections in Legend 9.2

4.2
MAGNVM INDIE C DIETARVM IN QVO DIVERSARUM SPECIERVM HOMINVM MONSTRA
Greater India, 100 days [wide], in which there are various monstrous species of men.

Plate 2.4 Sheet 4 of the *Carta marina*: Northeastern Asia. Courtesy of the Library of Congress
I do not know the source of the statement that India is a hundred days wide. India had been the locus of monsters and wonders since classical times, but remarkably Waldseemüller’s map is the first to locate a full complement of the monstrous races in that region (see Fig. 2.3). As mentioned previously, I studied the monstrous races described in the following legends in an earlier article.

4.3
Sunt hic monstra Canina habent capita quibus vestis est pellis pecudum et vox latratus caninum.

There are monsters here who have dogs’ heads; their clothes are made of the skins of sheep, and their voice is a dog’s bark.

The text comes from Pierre d’Ailly’s *Ymago mundi*. The illustration of two cynocephali together is fairly frequent in other sources and probably alludes to the idea that they are communicating with each other by barking.

4.4
Hic reperiuntur monocoli qui et Carismaspi vocantur.

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115 Van Duzer, “A Northern Refuge” (see note 90 in Chap. 1 above).


117 See Wittkower, “Marvels of the East” (note 114), p. 175 and plate 43d. Other illustrations of two or more cynocephali together include that on the Hereford *mappamundi*, where the creatures are curiously labeled giants (see Westrem, *The Hereford Map* [see note 143 in Chap. 1 above], pp. 40–41, no. 80); a manuscript of the *Libro del conocimiento* (Munich, Bayerische Staatsbibliothek, Cod. hisp. 1378, f. 11v); a manuscript of Mandeville’s *Travels* (New York Public Library, Spencer MS 37, fol. 106v); two manuscripts of a Dutch translation of Thomas of Cantimpré (The Hague, KB 76 E 4, f. 4r, and KB KA 16, f. 41r); and the Piri Re’s map of 1513, illustrated in Nebenzahl, *Atlas of Columbus* (see note 217 in Chap. 1 above), p. 63.
Here are found men with one eye who are also called Carimaspians.

The text comes from d’Ailly, *Ymago mundi*, Chap. 16. The Carimaspians (usually known as the Arimaspians), a race of one-eyed men like the Cyclopes of Homer’s *Odyssey* and many other early myths. There are many medieval and early Renaissance images of Arimaspians, but I have not found an image closely similar to Waldseemüller’s in any manuscript or early printed text.

4.5
Hic reperiuntur hominum monstra sine capite quibus oculi sunt in humeris pro naso et ore duo foramina.

Here are found monstrous men who have no heads; their eyes are in their shoulders, and they have two holes which serve as nose and mouth.

Again the text comes from d’Ailly, *Ymago mundi*, Chap. 16. There are two variants of the headless race whose faces are on their chests: the *blemmyae* and the *epiphagi*.

Since Waldseemüller specified that their eyes were in their shoulders, he must have had in mind the *epiphagi*, although in his illustration the creature’s eyes are not located in its shoulders. The well-defined face high on the chest of Waldseemüller’s creature is unusual but not unprecedented.

4.6
Hic reperiuntur homines qui solo odore cuiusdam pomi vivunt.

Here are found men who live just on the odor of a certain apple.

Again the text comes from d’Ailly, *Ymago mundi*, Chap. 16. This race is often called the *astomoi* or “mouthless men,” and while Strabo 15.1.57 and Pliny 7.2.25 say that they do not have mouths, many other authors do not say that they lack mouths, only that they live just on the odor of apples. Usually they are represented with the trees that supply their apples, but one can imagine that Waldseemüller decided that he simply did not have room for trees with apples large enough to be visible. Pierre d’Ailly and other writers locate this race near the source of the Ganges, and although Waldseemüller does not mention the Ganges in his legend here, the river that he shows originating near these creatures is identified further to the south as the Ganges, indicating that he was following his source closely. This legend is repeated in a slightly longer version in Legend 4.10 below.

4.7
Hic sunt homines viri habentes capita canina mulieres autem sunt ut nostre.

Here are people where the men have dogs’ heads, but the women are like ours.

This legend comes not from d’Ailly, but rather from Plano Carpini. There is a perfectly logical explanation for the presence of this race in India, rather than in Tartaria (where the other races that derive from Plano Carpini appear)—and thus for the representation of cynocephali in India twice. Plano Carpini recounted a fierce battle between the Tartars and these cynocephali in which the Tartars were defeated. As a result, the Tartars did not incorporate the cynocephali into their empire,

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121 On the distinction between *blemmyae* and *epiphagi* see Friedman, *The Monstrous Races* (see note 74), p. 15 and the image on p. 10. The difference between the *blemmyae* and the *epiphagi* is illustrated among the monstrous races in southern Africa on the Hereford mappamundi, for example: see Westrem, *The Hereford Map* (see note 143 in Chap. 1 above), pp. 382–383, nos. 971 and 973.
123 The apple-smellers are represented with their trees, for example, in Paris, Bibliothèque nationale de France, MS fr. 2810, f. 219v, an illustrated manuscript of Mandeville; and in New York, Pierpont Morgan Library, MS 461, f. 41v, fifteenth century, reproduced in Friedman, *The Monstrous Races* (see note 302 in Chap. 1 above), p. 159.
and so Waldseemüller located them not in Tartaria, but just across the border in India. In this case we can identify the source of Waldseemüller’s illustration: his cynocephalus here is very similar to that in Hartmann Schedel’s *Liber chronicarum*, f. 12r (Fig. 2.4). We thus know another book that Waldseemüller had on his shelf, although he makes no mention of it in his list of sources.

4.8

Hic nascitur piper zinziber reobarbarum Spiconardi cassia fistula Cardimonuium et mira vol[umen] et varia genera specierum que abhinc portantur ad emporia maritima.

Here grows pepper, ginger, rhubarb, spikenard, cassia pods, cardamom, and a wonderful quantity and a great variety of spices which from here are carried to markets by the sea.

I have not succeeded in finding the source of the list of spices that grow by the Indus River. Pepper is shown growing just to the east of this legend, and that pepper is mentioned in the following legend.
For discussion of the image of the king in the 1515 edition of Varthema see Stephanie Leitch,

See Varthema,


Fries’s text about Gujarat is translated into modern German by Petrzilka, *Die Karten des Laurent Fries* (see note 202 in Chap. 1 above), p. 139.


Fries’s text about Gujarat is translated into modern German by Petrzilka, *Die Karten des Laurent Fries* (see note 202 in Chap. 1 above), p. 139.


India multa regna et ciuitates sine numero cuius plerumque gentes et reges sunt ydolatre caffrani et Machometani nudi tectis pudendis incedunt Cristiani autem et iudei indici (quorum parus est numeros) degunt sub imperio eorumdem. Hanc primus portugallensis classis lustrauit anno domini 1495. cuius capitanus erat vascus de Gyman.

And if India is great in size, it is nonetheless no smaller in terms of variety of wonders, namely of men, beasts, and plants, for in its deserts are found various monsters of human form, and also elephants, lions, birds, and numerous other animals unlike those of Europe, and further, a variety of gems and spices. For this India has many kingdoms and cities without number, and most of its people and kings are Caffrani idolaters and followers of Mohammed. They go nude but do cover their private parts. However, Christians and some Indian Jews (who are very few) do live under their rule. A Portuguese fleet first sailed along the coast of India in 1495, and the captain of the fleet was Vasco da Gama.

The beginning of this legend draws from the beginning of Pierre d’Ailly’s chapter on the marvels of India (Imago mundi, Chap. 16), which was the source of Waldseemüller’s legends about the monstrous races: *Ex premisis manifestum est quam magna est India in quantitate. Se ex sequentibus patet que ipsa non est minor in mirabilium varietate*, “From what preceded it is clear how large India is, and from what follows it will be clear that it is not less in variety of wonders.” The other parts of the legend are general enough that it is difficult to assign a source; for example, Marco Polo, Varthema, and Springer all mention that there are animals in India very different from those in Europe. The legend thus seems to be Waldseemüller’s gathering of his impressions from various sources about India. The reference to there being few Indian Jews comes either from Caspar the Jew of India, also called Gaspar de Gama, one of Waldseemüller’s sources, or Joseph the Indian. Contrary to the date of 1495 mentioned in the legend, Vasco da Gama did not reach India until 1498. Just to the right of this legend is the image of *suttee* or *sati* discussed above in the introduction (see pp. 27–29). On the Caffrani idolaters see Legend 3.37 e.

4.14
iste fluvius habet cocodrillos magnos et Anguillas. xxx. podum

This river has big crocodiles and eels 30 feet long.

The river is the Ganges; the tradition of long eels in the Ganges goes back to Pliny 9.2.4, and was repeated by many authors, including Honorius Augustodunensis, *Imago mundi* 1.12, and Gervase of Tilbury, *Oitia imperialia* 2.3, but in all of these cases the eels are 300 feet long, rather than thirty. It seems most likely that Waldseemüller either mistakenly wrote “xxx” in place of “ccc,” or else made the change intentionally in order to make the creature’s length more believable.

4.15
Rex Banghelle cum tota sua gente Macometanus est et potentissimus gerit bellum contra regem Narsinga .200000. armatorum copia Terra est omnium fertillisima in Bladis carnibus zinziro sacaro et porcellana Est .11. hoc regnum longe extensum[?]

The King of Bengala, together with all his people, is a follower of Mohammed and is very powerful. He wages war against the king of Narsinga with an army of 200,000. The land is extremely fertile in grain, meat, ginger, sugar, and porcelain. This kingdom is eleven [days] wide.

This legend comes from Varthema; however, Varthema says that it was an eleven-day sea journey to reach this kingdom, not that it was eleven days wide, and he does not mention porcelain. So it seems that Waldseemüller took some liberties here.

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132For the remark by Caspar see the *Paeae or Itinerarium*, Chap. 60; translated into English in Ravenstein, *A Journal of the First Voyage* (see note 57 in Chap. 1 above), pp. 137–141, at 137. For the remark by Joseph see the *Paeae or Itinerarium*, Chap. 130, and for an English translation, Greenlee, “The Account of Priest Joseph” (see note 70 in Chap. 1 above), pp. 95–113, at 99.


Mongolia is the true Tartaria, which in some parts is extremely mountainous, while in others it is flat, but almost the whole of it is composed of very sandy gravel. Not one hundredth part of the land is fertile, nor can it bear fruit unless it is irrigated by running water, and streams are very rare there, so there are no towns and few cities found there. Although it is sterile it is nonetheless apt for raising cattle; in some districts there are small woods, but otherwise it is bare of trees. And so the Emperor as well as the nobles and everyone else sit and cook their food at a fire made of the dung of oxen and horses. The weather there is very irregular. No prince or general of the Great Khan dares to stay anywhere except in the place assigned to them. And they tell the generals where to stay, and the generals fix the positions of the captains of a thousand, the captains of a thousand those of the captains of a hundred, and the captains of a hundred those of the captains of ten. Moreover, whatever command is given to them, whatever the time, whatever the place, be it to battle or to death, they obey without a word of objection. Even if he asks for someone’s unmarried daughter or sister, they give her to him quickly. For all things belong to the Emperor, such that no one dares to say “This is mine” or “That is his,” but everything—property, beasts of burden and people—belong to him, and so among all of the emperors and kings of the world, none is more powerful than the Khan, who is also called the Great King of Cambalú [Khanbalig], and boasts that he is the son of god.

Most of this legend comes from Plano Carpini, 135 except for the last part about the Khan’s great power and his claim to be the son of god, which comes from Simon of Saint-Quentin, 136 so Waldseemüller has combined passages from Vincent of Beauvais’s extracts from those two authors. 137

4.17
magis Septentriomales equitant ceruos
In the far north they ride deer.

This legend and illustration were discussed in the introduction (see pp. 37–38): they come from the nautical chart tradition, and demonstrate that Waldseemüller had a large, elaborately decorated older nautical chart in his workshop.

4.18
Magnus Tartarum Gog Chaam Rex regum et dominus dominantium
The great Tartar Gog Khan, king of kings and lord of lords.

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135See Giovanni da Pian di Carpine, Storia dei Mongoli (see note 31), pp. 230 and 267–277 (Latin) and 339 and 358 (Italian); and Dawson, The Mongol Mission (see note 31), pp. 5 and 27.
137Incidentally Fries discusses the Great Khan in Chap. 112 of the Uslegung; this passage is translated into modern German by Petrzilka, Die Karten des Laurent Fries (see note 202 in Chap. 1 above), p. 158.
This legend is just above a large and imposing image of the Great Khan in his tent, an image discussed in the introduction (see pp. 17–18), where I suggest that it is to be compared with the large image of King Manuel of Portugal south of the southern tip of Africa, and also note that some details of the portrait, particularly his beard, are not consistent with Waldseemüller’s textual sources. The phrase “Rex regum et dominus dominantium” comes from 1 Timothy 6:15 and Revelation 19:16, and the use of this phrase to describe the Great Khan is certainly intended to indicate that he is Antichrist—and though the title “Gog Khan” meant “emperor,” the word Gog would inevitably suggest the apocalyptic peoples Gog and Magog to European ears. It is tempting to imagine that the application of this regal phrase to the Khan drew some inspiration from the Khan’s boasting description of his own power as recorded by Simon of Saint-Quentin, and retold by Vincent of Beauvais, Speculum historiale, 32.46.

4.19

Chingitalis Provincia

Hec provincia longa est .16. dierarum habens multas ciuitates et castra gentes sunt ydolatre et aliqi macomethani aliqi cristiani habente .3. ecclesias nestorianas. ibi eciam fit Salamandra

The province of Chingintalas. This province is a sixteen day journey in extent, having many cities and encampments. The people are idolaters and some are followers of Mahommed, while others are Christians. There are three Nestorian churches. And the salamander grows there.

The three Nestorian churches are depicted on Waldseemüller’s 1507 map, so this is one of the few elements from that map he retained on his Carta marina, and also one of the relatively few legends on the latter map that is based on Marco Polo. Although Polo is often associated with marvels, there are fewer outright marvels in his narrative than one might think—but the salamander is one of them.

4.20

Camul provincia habet multas ciuitates et castra. gentes sunt ydolatre [sub] dominio Tartarorum habent linguam propriam vacant omni voluptati et lascivie. terra est fertilis, adulterum non aduertunt

The province of Kamul has many cities and encampments. The people are idolaters under the power of the Tartars; they have their own language, and are unconcerned about all pleasure and lasciviousness. The soil is fertile. They do not pay attention to adultery.

Camul refers to a region in what is now eastern China, around the city now called Hami, whose Mongolian name was Qamul. The legend comes from Marco Polo. The necessity of adding the word sub is indicated by hand, in accordance with the instructions in Legend 9.2

4.21

In hoc deserto habitant homines silvestres non loquentes nec iuncturas habent in cruribus et si quis radunt per se ipsos surgere non possunt.

138The same phrase is used to describe the Great Khan in the map titled Tabula superioris Indiae et Tartariae maioris in the four editions of Ptolemy’s Geography that have maps by Lorenz Fries: the 1522 (Strasbourg), 1525 (Strasbourg), 1535 (Lyons), and 1541 (Vienna).


140A phrase that also conveys the Khan’s great power, but lacks the implication that he is Antichrist, opens a text about the Khan that was written in about 1330 for Pope John XXII: Rex iste magnificus et potens est inter omnes reges mundi. See Christine Gradat, “De statu, conditione ac regimine magni Canis: l’original latin du Livre de l’estat du grant Caan et la question de l’auteur,” Bibliothèque de l’École des Chartes 165.2 (2007), pp. 355–371, at 366.

141The province of Chingintalas is described in Marco Polo, Marka Pavlova z Benátek, Milion (see note 54), Book 1, Chap. 47, p. 48, with some mention of the Nestorians there, but the three churches are mentioned in another passage, namely Book 1, Chap. 64, p. 65. For the corresponding passages in Yule’s English translation see The Book of Ser Marco Polo (see note 54), Book 1, Chap. 42, vol. 1, pp. 212–213, and Book 1, Chap. 58, vol. 1, p. 281—though in the latter passage Yule chose to follow a manuscript that does not indicate that there are specifically three churches.


143See Marco Polo, Marka Pavlova z Benátek, Milion (see note 54), p. 46; and The Book of Ser Marco Polo (see note 54), Book 1, Chap. 41, vol. 1, pp. 209–211.
In this desert there live wild men who do not speak, and they have no joints in their knees, and if they fall they cannot get back up by themselves.

This kneeless race is another of the monstrous races described by Plano Carpini.144 The race may have derived from the classical and medieval belief that the elephant had no knees and that if it fell, other elephants had to help it to its feet again.145 I know of no earlier illustration of this race, and it is almost certain that Waldseemüller’s image was the creation of his workshop. The staff with which the cartographer has equipped the man to raise himself should he fall is not mentioned by Vincent of Beauvais. The race is also represented in the 1522 (Strasbourg), 1525 (Strasbourg), 1535 (Lyon), and 1541 (Vienna) editions of Ptolemy in the northwest corner of the Tabula Moderna of Indiae Superioris; in Lorenz Fries’s Carta marina of 1530 and 1531 (but here mistakenly depicted with knees); and on Pierre Desceliers’s map of 1550 (London, British Library Add. MS 24065), in northeastern Asia, just east of the text describing the Great Khan.146

4.22

Antropophagi sunt. in ista ciuitate residet metropolitanus ydolatrarum qui vocatur bathi et distribuit cuncta beneficia secundum ritum suum sicut papa noster.

They are cannibals. In this city lives the archbishop of the idolaters who is called Bathi and he distributes all benefits according to his rite just like our pope.

This legend comes from Odoric.147 The scene of the man being chopped up and fed to the birds illustrates the manner of disposing of the dead among this people, which Odoric describes in the same chapter:

Suppose such a one’s father to die, then the son will say, “I desire to pay respect to my father’s memory,” and so he calls together all the priests and monks and players in the country round, and likewise all the neighbors and kinsfolk. And they carry the body into the country with great rejoicings. And they have a great table in readiness, upon which the priests cut off the head, and then this is presented to the son. And the son and all the company raise a chant and make many prayers for the dead. Then the priests cut the whole of the body to pieces, and when they have done so they go up again to the city with the whole company, praying for him as they go. After this, the eagles and vultures come down from the mountains and everyone takes his morsel and carries it away. Then all the company shout aloud, saying, “Behold! The man is a saint! For the angels of God come and carry him to Paradise.”

I suspect that Waldseemüller took his iconographic inspiration for the scene from an illustration of the “birds summoned” episode in Revelation 19:17–21, but I have not found such an image that is particularly close to Waldseemüller’s. There is an illustration of essentially the same scene of Tibetans cutting up a cadaver and feeding it to birds in the 1501 Strasbourg edition of Mandeville’s Travels, but Waldseemüller’s scene is not particularly similar to that one.148 As far as the image of Bathi, it is interesting that he is shown without a scepter or weapon; his open-handed gesture is perhaps to be interpreted as alluding to the giving of benefits mentioned in the legend.

4.23

BVRITHABETH PROV. hec diuisa est in .8. regna est execrabilis eciam morus in propria ista nam filii machant patres suos egrotos senio. caput occisi datur filio illud enim manducat et ex ossibus adornatum facit cyphum alie autem corporis partes vulturibus avolantibus administratur. Corallus hic exponitur pro moneta.

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144The kneeless race is described in Vincent of Beauvais, Speculum historiale, Book 32, Chap. 8; see Beazley, The Texts and Versions (see note 43 in Chap. 1 above), p. 81, and for Plano Carpini’s text, p. 54. Plano Carpini’s text is also supplied in Menestò, Storia dei Mongoli (see note 31), pp. 254–255, 352, and 431–432. For an English translation of the passage in Pleno Carpini see Dawson, The Mongol Mission (see note 31), p. 20.


147See Yule, Cathay and the Way Thither (see note 61), vol. 2, pp. 250 (English), 327–328 (Latin), and 363–364 (Italian).

The province of Burithabeth [Tibet]. This is divided into eight kingdoms. There is an execrable custom in this very province: the sons kill their fathers when they are worn out with old age. The head of the slain man is given to his son, which he chews on and makes from the bones a very ornate cup, but the other parts of the body are offered to the vultures that fly to the spot. Coral is used as currency here.

This legend also comes from Odoric, and is a summary of the passage from Odoric cited in the commentary on the previous legend. There are illustrations of the son being given the father’s head in London, British Library, Harley MS 3954, f. 67v (which illustration includes birds carrying away pieces of flesh); Paris, Bibliothèque nationale de France, MS 2810, f. 223r; Vatican City, Biblioteca Apostolica Vaticana, MS Urb. lat. 1013, f. 26r; and in the 1481 Augsburg edition of Mandeville’s *Travels*.

4.24
CHANAN SIVE CHAIRAM PROVINCIA Hec prouincia diuisa est in septem regna subiecta magno Chaam in quibus duobus regnis regnant duo filii (si qui sunt) Chaam. Sunt ydolatre et adulteria vxorum non animaduertentes
The province of Chanan or Chairam. This province is divided into seven kingdoms which are subject to the Great Khan, in two of which kingdoms reign two sons (if there are two) of the Khan. The people are idolaters and pay no heed to their wives’ adultery.

This legend comes from Marco Polo, but for this legend Waldseemüller must have been using a version of Polo quite different from the Milan manuscript, as that manuscript does not include the parts about the second king and the adultery.

4.25
TERRA PIGMEORUM. Kakath ciuit[as] pigmeorum magna. Isti pigmei sunt longi tribus palmis qui operantur opera minona [for minora] de Sameto et meliora quam alii homines de mundo. Et si ibi magni homines filios generant tamen medietas assimilantur pigmeis
The land of the pygmies. Kaketie, the great city of the pygmies. These pygmies are three palms tall and make small works of samite, better than any other men in the world. And if large men there have sons, nonetheless half of them are the size of pygmies.

This legend comes from Odoric. On this sheet there are pygmies both in India (see Legend 4.9) and in Tartaria; the latter seem much more muscular than the former.

4.26
In his montibus reperiuntur adamantes et alii lapilli preciosi
In these mountains diamonds and other precious stones are found.

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149 See Marco Polo, *Marka Pavlova z Benátek, Milion* (see note 54) pp. 117–118; and The Book of Ser Marco Polo (see note 54) Book 2, Chaps. 48–49, vol. 2, pp. 64–84.
150 See Yule, *Cathay and the Way Thither* (see note 61), vol. 2, pp. 207 (English) and 316 (Latin); the Italian text he edits does not include the material about the pygmies.
This legend comes from Marco Polo, 152; this is an abbreviated version of a legend that appears on Waldseemüller’s 1507 map153 about the Valley of Diamonds, 154 so this represents one of the relatively few cases in which Waldseemüller retained information from that earlier map. The Valley of Diamonds is discussed in some detail in the chapter on Murfuî in Fries’s Uslegung, 155 and this chapter is accompanied by a curious image in which the Indians have decorated their bodies with the gems. In his manuscript globe of 1520, Johann Schöner drew many legends from Waldseemüller’s Carta marina, but in this case rather than borrowing the brief legend from the 1516 map, he copied the much longer legend from his 1507 map.

4.27
Hec terra est fertils in omnibus. rex huius contrate tributarius est regi de Cusch. habet enim multas vxores et concubinas etiam elephantes domesticos. Est quidem admirat[ionis dignum quod fit in huius littore maris. Ut furtum: cum enim in illo mari sint varia genera piscium quelibet manerie: seruat naturaliter suum tempus et cum piscis solent se terrae suo timore veniunt in magna quantitate et multitudine ad ripam et proiciunt se ad aridam et sic captura hominibus et hoc fit in aliquas dies singulis annis.

This land is fertile in all things. The king of this country pays tribute to the king of Cusch. He has many wives and concubines and even domesticated elephants. In fact something worthy of admiration happens in the shore of this sea. It is said that in that sea there are many different types of fish; they naturally keep their time, and as fish are wont to cast themselves ashore at the appropriate time, they come to the shore in great numbers and multitudes and throw themselves on dry land, and so they are caught by men, and this happens on specific days each year.

This legend comes from Odoric. 157 Yule cites some later references to this phenomenon, which certainly involves a beach-spawning species of fish, but it is not clear which species.

4.28
Cathay sunt homines pagani habentes literam spetialem et veteris ac noui testamenti scripturam [emended to scripturas]. Vnum deum cristum venerantur et credunt vitam eternam sed non baptisantur Christianos diligunt elimosinam faciunt homines benigni satis Barbam non habent sed dispositione faciei cum mongalis concordant. Meliores artifices in mundo non reperiuntur. Terra eorum opulenta nimis in bladis vino auro serico et aliis rebus.

Cathay. The men are pagans and have their own alphabet, and the scriptures of the Old and New Testament [in their language]. They worship one god, Christ, and believe in eternal life, but are not baptized. They love Christians and do works of charity, and are fairly gentle. They have no beards, but their faces are similar to those of Mongols. No better artificers can be found in the world. Their land is very rich in grain, wine, silk, and other things.

The name Cathay was used by early modern Europeans to refer to northern China, and Mangi to designate southern China. The legend is from Plano Carpini. 158 The emendation by hand of scripturam to scripturas is in accordance with the list of corrections in Legend 9.2.
CAMBALV METROPOLIS In hac ciuitate sedes est Imperialis magni Chaam de Chathayo Imperatoris omnium tartarorum generalis et maximi. habet enim hoc in circuitu miliaria 40. italie habet et 12. portas distantes abinuicem .2. miliaria. In medio est palatium Iustitie seu habitationis domini Chaam cuius murus circuit miliaria 4. sunt enim [for enim] in eo .4. columne de auro.

The great city of Cambalu. In this city is the imperial seat of the great Khan of China, the supreme overall Emperor of all the Tartars. This city is forty Italian miles in circumference and has twelve gates, spaced two miles apart. In the middle is the palace of justice or the residence of the lord Khan, the wall of which is four miles in circumference and inside there are four columns of gold.

Marco Polo describes both the palace and the city, but Waldseemüller chose to use the description of Odoric instead. Odoric says that there are twenty-four gold columns, while Waldseemüller says that there are four; this could be a mistake on Waldseemüller’s part, or it could be a clue regarding which version of the text he was using.

Magnus Gog Chaam diuisit prouinciam mangi in novem regna que habent ferme 2000. magnarum ciuitatum, non est dicior prouincia mundo. habundat omnibus necesariis humane vite sunt ydolatre et magni artifices et mercatores etiam astrologie multum intendentes. sunt in ea maximi serpentes quas auide commedunt in conuiuiis. sunt et hic multa monasteria religiosorum ydolatrarum rigorosissimam vitam ducentium.

The Great Gog Khan divided the province of Mangi into nine kingdoms which have about 2000 large cities, and there is not a richer province in the world. It abounds in everything necessary to human life. The people are idolaters and great artisans and merchants, and they are great students of astrology. In the province there are huge serpents, which they eagerly eat at feasts. And here there are many monasteries of devout idolaters who follow a very scrupulous life.

The title “Gog Khan” was understood to mean “Emperor.” Marco Polo describes the province of Mangi, roughly southern China, and Waldseemüller takes the detail about the division of the province into nine kingdoms from him, but Polo gives the number of cities in the province as 1200 rather than 2000, and Waldseemüller took most of his description of the province from Odoric. The detail about the people being great students of astrology comes from a different part of Odoric’s narrative about the Khan and his realm.

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159 See Marco Polo, *Marka Pavlova z Benátek, Milion* (see note 54), pp. 81–84; and *The Book of Ser Marco Polo* (see note 54), Book 2, Chaps. 10–11, vol. 1, pp. 362–366 and 374–375.

160 See Yule, *Cathay and the Way Thither* (see note 61), vol. 2, pp. 217–222 (English), 318–320 (Latin), and 356–357 (Italian).

161 See Marco Polo, *Marka Pavlova z Benátek, Milion* (see note 54), p. 144; and *The Book of Ser Marco Polo* (see note 54), Book 2, Chap. 76, vol. 2, pp. 185–193.

162 See Yule, *Cathay and the Way Thither* (see note 61), vol. 2, pp. 179–182 (English), 309–310 (Latin), and 351 (Italian).

163 See Yule, *Cathay and the Way Thither* (see note 61), vol. 2, pp. 238 (English), 325 (Latin), and 362 (Italian).
2.5 Sheet 5. Northern South America and the Caribbean (Plate 2.5)

The large crescent in the South American hinterland has been the subject of controversy: Waldseemüller copied it from Caverio’s chart of c. 1503, but its meaning is not entirely clear. On Caverio’s chart it is at the westernmost node of the network of rhumb lines, and was no doubt intended to indicate West, as the easternmost node of the rhumb lines marked by a sun, clearly indicating East. But on the Carta marina there is no connection between the crescent and the rhumb lines, and no sun in the eastern part of the map. In East Africa and Arabia (see sheet 7), Waldseemüller used a crescent to indicate Muslim control of a region, but it seems very unlikely indeed that Waldseemüller understood the symbol to indicate that the New World was Muslim. The image of the opossum is the earliest surviving European representation of the animal. The cannibals derive from the account of an early explorer, probably either Columbus or Vespucci, both of whom mention man-eaters in the lands they visited. Note the attempt at ethnographic verisimilitude in the representation of the cannibals’ clothing as being made of feathers.

5.1

Spagnolla que et Offira dicitur gignit aurum Masticem Aloen porcellanam etiam Canellam et zinzibrem. Latitudo Insule .440. miliaris longitudo .880. miliaris est: et inuenta per Cristoferum Columbium Januensem capitaneum regis Castile Anno domini .1492. Accole vescuntur serpentinibus maximis et radicibus dulcisbus saporem castaneorum preferentibus (quas agres vocant) loco panis: carent quorum ferro sed pro eo vtuntur lapidibus acutis.

Hispaniola, also called Ophir, produces gold, mastic, aloes, purslane [a kind of portulaca], in addition to cinnamon and ginger. The island is 440 miles wide, and 880 miles long; it was discovered in 1492 by the Genoese Christopher Columbus, Admiral of the King of Castile. Instead of bread, the natives eat large snakes and sweet roots that taste like chestnuts (which they call agres). They have no iron, but use sharp stones.

This legend is transcribed and translated in Columbian Iconography, but I supply a revised translation here; Maria Teresa di Palma in her discussion of the legend in that book says that the measurements of the island come from the Libretto de tutta la navigazione of 1504, rather than later books into which the text of the Libretto was incorporated (the Paesi novamente retrovati, Occeani decas, De orbe nove), but this is not the case: in Chap. 13 of the Libretto, the island is said to be 340 miles wide, rather than 440 (the figure Waldseemüller cites), and I do not see that it is possible to determine which book Waldseemüller was using here on the basis of these measurements, though we can be reasonably confident that he was not using the Occeani decas of 1511, which does not give a figure in miles for the width of the island, saying only that it is five degrees wide. In the Paesi novamente retrovati the details about Hispaniola listed here may be found in chapters 89 and 96. The dimensions of the island are in Italian miles, and thus agree with the scale of Italian miles at the bottom of sheet 9. As indicated in the introduction, the identification of Hispaniola with Ophir is part of the Columbian conception of the newly discovered lands adopted in the Carta marina, in contrast to the Vespuccian conception Waldseemüller had adopted in his 1507 map. As di Palma notes, this same legend appears in the 1522 (Strasbourg), 1525 (Strasbourg), 1535 (Lyon), and 1541 (Vienna) editions of Ptolemy’s Geography and on Lorenz Fries’s Carta marina; the identification of Hispaniola with Ophir continued to be discussed until the end of the sixteenth century.

5.2

Terra parias Hic Margaritarum et Auri copia vescuntur testudinibus et radicibus loco panis vinum palmarum bibunt capras boues et oues non habent

Land of Parias. Here there is an abundance of pearls and gold; the inhabitants eat turtles and roots instead of bread, and they drink palm wine. They have no goats, cows or sheep.

164See Gaetano Ferro et al., Columbian Iconography (see note 108 in Chap. 1 above), p. 527.
165See Thacher, Christopher Columbus (see note 64), vol. 2, pp. 467 (in the facsimile of the Libretto) and 496 (in Thacher’s English translation).
166Pietro Martire d’Anghiera, Opera: Legatio Babylonica; Occeani decas; Poemata; Epigrammata (Seville: I. Corumberger, 1511), in Book 3 of the Occeani decas.
167Hispaniola is identified with Ophir in the Libretto, Chap. 13, see Thacher, Christopher Columbus (see note 64 in Chap. 1 above), vol. 2, pp. 467 (in the facsimile of the Libretto) and 495–496 (in Thacher’s English translation). In the Paesi novamente retrovati the passage is in Chap. 96; in Pietro Martire d’Anghiera’s Occeani decas of 1511 it is in Book 3.
168Incidentally Fries discusses Spagnola in Chap. 96 of the Uslegung; this is translated into modern German by Petrzilka, Die Karten des Laurent Fries (see note 202 in Chap. 1 above), p. 154.
169On the identification of Hispaniola with Ophir see the references cited in notes 85 and 86 in Chap. 1 above.
This legend is transcribed and translated in *Columbian Iconography*, but I supply a slightly revised translation here. The name “Paria” comes from Columbus’s account of his Third Voyage (1498–1500), and the name is given in the *Paesi novamente retrovati*, Chap. 105. The wine of the Native Americans is mentioned in the same chapter, while the roots they eat are mentioned in Chap. 89, their eating of turtles (here called calandre) in Chap. 98, and their lack of goats, cows, or sheep is in Chap. 109. Johann Schöner has a legend very similar to this of Waldseemüller on his manuscript globe of 1520.

5.3

The Spanish came to this point, and admiring the size of the land, judged that it must be a continent. There is no mention of this region by ancient authors. First the Castilians and then others, the Portuguese, frequented these...
coasts, and because of its size, they called it a New World. The race that lives here are very cruel man-eaters (whom they call cannibals) who attack the neighboring islands and with terrible pursuit capture people of both sexes. They castrate their male captives, just as we do with rams, roosters and bulls, so that they are fatter for slaying, but they kill the old men directly, and they eat the intestines together with the exterior parts of the body while their taste is fresh. They preserve the sides and other body parts in salt. They keep the female captives alive to bear children, as we keep hens for eggs, but the old women they set to toil and servitude.

The derivation of this legend is interesting. The first part is borrowed from a legend on Johann Ruysch’s world map of 1507–08, which appeared in some copies of the 1507 edition and in the 1508 edition of Ptolemy’s Geography published in Rome.172 On the Ruysch map there is a large banner covering the western coast of South America, and the text in it reads173:

Hucusque naute Hispani venerunt et hanc terram propter eius magnitudinem Mundum Novum appellantar quai vero eam totaliter non viderunt nec usque in tempore hoc longius quam ad hunc terminum pluerantar ideo hic imperfecta relinquitur presentim cum nesciatur quo vergitur.

Spanish sailors came as far as this and called this land the New World because of its size, since indeed they did not see it all, nor up to this time have they surveyed further than this limit. Therefore here it is left unfinished, especially since it is not known in which direction it tends.

As far as I know, Waldseemüller’s use of Ruysch here has not been pointed out before. The latter part of Waldseemüller’s legend comes from the Libretto, the Paesi novamente retravati, or the Itinerarium Portagallensium174—it does not seem possible to determine from which.175 Johann Schöner has a legend very similar to Waldseemüller in the northern part of South America on his manuscript globe of 1520 at the Germanisches Nationalmuseum in Nuremberg.

5.4
Reperitur hic animal hanc effigiem proferens huiusque sub ventre reservaculum quo Pullos genitos comortat nec illos nisi lactandi gratia emittere solet oblatum est tale regi Hispaniae in ciuitate Granata

An animal that looks like this is found here; it has a bag under its belly where it carries its offspring, and it only allows them out for nursing. One such animal was given to the King of Spain in Granada.

This legend is transcribed and translated in Columbian Iconography; I give a slightly different translation here.176 Waldseemüller could have taken this information from the Paesi, the Itinerarium Portagallensium, or the Occeani decas. Here is the passage in the Itinerarium, Chap. 113:


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174The relevant passages are the Libretto, Chap. 5 (see Thacher, Christopher Columbus (see note 64 in Chap. 1 above), vol. 2, pp. 458 and 487–488); and Chap. 88 in both the Paesi and the Itinerarium Portagallensium.

175Surekha Davies, Renaissance Ethnography and the Invention of the Human: New Worlds, Maps and Monsters (Cambridge and New York: Cambridge University Press, 2016), p. 91, seems to suggest that Waldseemüller’s legend is closest to that in Pietro Martire d’Anghiera’s Occeani decas, but Waldseemüller’s legend does not include any of the extra phrases from the Occeani decas that do not appear in the other texts, such as Mulieres comedere apud eos nefas est et obscenum.

176See Gaetano Ferro et al., Columbian Iconography (see note 108 in Chap. 1 above), p. 547.
For they saw there a bizarre quadruped animal: its front section it is like that of a fox, while its rear section is like that of a monkey, except that it has feet that look human; it has ears like those of an owl, and below the usual belly it has another like a purse, in which its young hide until they can safely emerge, and seek food without the protection of their parent, and they never leave this pouch, except to suckle. This monstrous beast with three of its young was brought to Seville, and from Seville to Illiberis, or Granada, as a gift for the kings, who always delight in new things.

Thus there are a few different sources from which Waldseemüller might have obtained his description of the creature, but the image is a different matter. As I mentioned in the introduction (see pp. 22–23), this is the earliest surviving European image of the opossum, which was of great interest to European explorers as it was the first marsupial they had ever seen. Waldseemüller’s image was very influential, and while generally not very accurate, seems a little too good in some details (such as the creature’s nipples) to have been created simply on the basis of the verbal description in the Itinerarium or other related sources. Thus it seems likely that Waldseemüller had access to an image of the creature, whether manuscript or printed, that no longer survives.

5.5
Terra cannibalorum qui hanc habitant Anthropophagi sunt

Land of cannibals. Those who inhabit this land are man-eaters.

This legend is transcribed and translated in Columbian Iconography; I give a slightly different translation here. A very similar legend appears on Johann Schöner’s manuscript globe of 1520, no doubt borrowed from the Carta marina. The images of cannibals near this legend on Waldseemüller’s map—with one cannibal roasting human body parts on a spit over a fire, and a cannibal couple by a tree from whose branches human body parts are suspended (see Fig. 2.5)—are clearly part of the European textual and iconographic tradition of alleged New World cannibalism, but it is not clear which precise iconographic source Waldseemüller was using. It seems likely that Waldseemüller was influenced by a woodcut of some New World natives, including cannibals, attributed to Johann Froschauer and made in about 1505, but it is not possible to be sure of this influence. The roasting of a man whole on a spit recalls the similar image on the Kunstmann II map of c. 1506, but as rich as Waldseemüller’s library was, it is difficult to believe that he had access to this map. Waldseemüller’s

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178See Gaetano Ferro et al., Columbian Iconography (see note 108 in Chap. 1 above), p. 547.


181Go Davies, Renaissance Ethnography (see note 175), pp. 88–91.

182The “Kunstmann II” map is Munich, Bayerische Staatsbibliothek, Cod. icon. 133; there is a tracing of the map in Konrad Kretschmer, Die historischen Karten zur Entdeckung Amerikas: Atlas nach Konrad Kretschmer (Frankfurt: Umschau, 1991), plate 8; it is reproduced at a large scale in black and white in Edward Luther Stevenson, Maps Illustrating Early Discovery and Exploration in America 1502–1530 (New Brunswick, NJ: 1903); and it is illustrated and discussed in Hans Wolff, ed., America: Early Maps of the New World (Munich: Prestel-Verlag, 1992), pp. 134–136; and Ivan Kupčík, Münchner Portolankarten: Kunstmann I-XIII and zehn weitere Portolankarten = Munich Portolan Charts: Kunstmann I-XIII and Ten Other Portolan Charts (Munich: Deutscher Kunstverlag, 2000), pp. 28–34. The scene with the roasting on the spit is discussed by Davies, Renaissance Ethnography (see note 175), pp. 84–86.
image is also reminiscent of a woodcut by Jan van Doesborch printed to illustrate Of the New Landes (Antwerp, c. 1520), but as the date of that woodcut is uncertain, it is possible that Waldseemüller’s image inspired it, rather than vice versa. The fact that Waldseemüller’s natives are wearing feathers accords not only with the print of c. 1505 attributed to Froschauer, but also early reports about New World natives.  

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184 Again, so concludes Davies, *Renaissance Ethnography* (see note 175), p. 91.

5.6
Nascitur apud hos prisilicum cassia fistula Canella silvestris et varia genera bestiarum
Among these peoples grow brazilwood, cassia pods, wild cinnamon, and various types of animals.

This legend is transcribed and translated in *Columbian Iconography*; I give a slightly different translation here.\textsuperscript{186} Waldseemüller took this information from one of the usual sources: the *Libretto*, the *Paesi*, or the *Itinerarium Portugallensium*.\textsuperscript{187}

\textsuperscript{186}See Gaetano Ferro et al., *Columbian Iconography* (see note 108 in Chap. 1 above), p. 547.
\textsuperscript{187}The passage is at the very end of the *Libretto*, that is, at the end of Chap. 30; see Thacher, *Christopher Columbus* (see note 64 in Chap. 1 above), vol. 2, pp. 484 and 512; in the *Paesi* and *Itinerarium* the passage is in Chap. 113. For discussion of representations of brazilwood on maps see Yuri T. Rocha, Andrea Presotto and Felisberto Cavalheiro, “The Representation of *Caesalpinia echinata* (Brazilwood) in Sixteenth-and Seventeenth-Century Maps,” *Anais da Academia Brasileira de Ciências* 79.4 (2007), pp. 751–765.
2.6 Sheet 6. Western Africa (Plate 2.6)

This sheet of the map is unusual: it is printed on a piece of paper that is smaller than the other eleven and has a different watermark, and also none of the corrections from the list of errata on sheet 9 have been entered on sheet 6, as they have been on the other sheets. Moreover, this sheet was merely laid into the Schöner Sammelband, rather than bound into it. The situation is made more interesting by the fact that Schöner made a manuscript copy of this sheet (see below on sheet 6A), which had been bound into the Sammelband. Schöner seems to have made this manuscript copy as part of a preliminary study for making his 1520 manuscript globe, which draws on Waldseemüller’s *Carta marina*, and also perhaps to replace the missing sheet of the map. The sequence of events was perhaps as follows. Schöner obtained a copy of the *Carta marina*, but sheet 6 was missing or damaged. He made a manuscript copy of that sheet, either from the damaged sheet in his possession, or from another copy to which he had access. Subsequently, another printed copy of the sheet was obtained and added to the Sammelband.

6.1

**CANARIE INSVLE X (QUE AB ANTIQVIS FORTUNATE DICEBANTVR QVARUM VII SVNT HABITATE SCILICET LANSOROTA FORTENENrura Grancanarina Teneriffa Gimera & ferra quarum quatuor a cristianis habitate scilicet lansarota Teneriffa Gimera et ferra que sunt sub dicione regis castilie oppida et ciuit[ates] non habent sed pagos reliquam a saracenis po**

The ten Canary Islands, which the ancients called the Fortunate Islands, of which seven are inhabited, namely Lanzarote, Forteventura, Grand Canary, Tenerife, La Gomera, and El Hierro, of which four are inhabited by Christians, namely Lanzarote, Tenerife, La Gomera and El Hierro, which are under the dominion of the King of Castile. They have neither towns nor cities, just villages. The rest by the Saracens…

There is no passage about the Canary Islands in the *Libretto*, but this legend comes from Chap. 7 of the *Paesi*, *The Itinerarium Portugallensium*, or *Newe unbekanthe landte*, the German translation of the *Paesi* of 1508—from part of the description of Cadamosto’s voyage. The names of the islands are a mess in the *Itinerarium*, and there is some temptation therefore to think that Waldseemüller must have used the Italian or German versions of the text, but certainly he knew the names of the islands well enough from other sources that he could have seen beyond the strange spellings in the *Itinerarium*, if indeed he was using that book. Waldseemüller follows one of these texts in saying that seven of the islands are inhabited, but only lists six, leaving out La Palma, and he also makes a mistake in indicating which of the islands are inhabited by Christians: the Italian, Latin, and German versions of the text all include Forteventura on this list, but Waldseemüller lists Tenerife in its place. Incidentally there is a surprisingly long discussion of the Canary Islands in Fries’ *Uslegung*, Chap. 60 bis.

6.2

**A septentrionali parte fluminis de Senega habitant gentes (qui vocantur Asenegi) de primo regno anterioris [for interioris] Ethiopie sunt fusci coloris fallaces et loquaces portantes penniculum in facie ad tegendum nares et os quod pudenda esse volunt. vivunt sine lege et rege temporali nec oppida pagos vel ciuitates habent sed degunt in desertis hinc inde vagantes et tuguria sua in locum transferentes [sic] iste fluvius de senega diuidit nigros Ethiopes (que zilofi dicuntur) a fulcis [for fuscis] scilicet senagis etiam segregat terram fertilem a sterilis predicti deserti scinditur in mulos riuulos facitque regnum Seneg (eoltm [for olim] Experias dictum) cuius gentes pecunie vsum non habent sed rem pro alia venundant. habent regem proprium non tamen ciuitates sed pagos. mulieres crasse et magnis vberibus laudantur. nude vulgus incedit.**

On the northern side of the Senegal River live people called the Asenegi of the first realm of Interior Ethiopia. They are dusky in color, deceitful, and talkative, wearing a little cloth on their faces to cover their nose and mouth, which they consider shameful to behold. They live without law or temporal king, and have no towns, villages, or cities, but live in the desert, wandering here and there, moving their huts from place to place. The Senegal River divides the black Ethiopians, who are called Zilofi, from the dusky people [i.e. the Asenegi], and it also divides the fertile land from the aforementioned barren desert. The river is divided into many streams and creates the kingdom of Seneg

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188 On Schöner’s hand-painted globe of 1520 see note 224 in Chap. 1 above.
190 The passage on the Canary Islands is translated into modern German by Petrzilka, *Die Karten des Laurent Fries* (see note 202 in Chap. 1 above), pp. 141–142.
(which was formerly called Experias), whose inhabitants do not use money, but trade one thing for another. They have their own king, but nonetheless do not have cities, only villages. Their women are fat, and are praised for their large breasts. The common people go naked.

This legend is assembled from several different passages in the *Paesi or Itinerarium*, all but one of which relate to the voyage of Cadamosto. The name Asenegi comes from the beginning of Chap. 14 (Crone p. 27); their dusky color is mentioned in chapters 9 and 14 (Crone pp. 17 and 28); the part about the people being deceitful and so on comes Chap. 17 (Crone pp. 32–33); the part about them covering their mouths is from the end of Chap. 9 (Crone p. 19); the part about them having no temporal king comes from the beginning of Chap. 13 (Crone p. 26); the fact that they wander in the desert is briefly mentioned in Chap. 9 (Crone p. 16); I do not see the lack of towns and villages mentioned in the *Paesi or Itinerarium*; the passage about the separation created by the Senegal river is from the beginning of Chap. 14 (Crone p. 27); the name Experias comes from the beginning of Chap. 125; the system of barter is described in Chap. 11 (Crone pp. 19–23) and also briefly in Chap. 12 (Crone p. 25); the part about the people having their own king, and having no cities, only villages, comes from Chap. 15 (Crone p. 29); the part about the women being praised for their large breasts is at the beginning of Chap. 11 (Crone p. 19); and the part about them going naked comes from Chap. 8 (Crone p. 13).

It certainly took some time to select and assemble the parts of this paragraph about these two peoples. In fact, although the paragraph seems to be about the area around the Senegal River, Waldseemüller has assembled sentences from chapters about several different areas, and if he had wanted to, he could have made a different assemblage of sentences from those same chapters that asserted the opposite characteristics: he could have supplied details about the natives’ clothes, their towns, etc. By modern standards, Waldseemüller’s mixing of sentences with insufficient regard for which precise area they applied to

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191 The references to Crone are to Gerald R. Crone, ed. and trans., *The Voyages of Cadamosto and Other Documents on Western Africa in the Second Half of the Fifteenth Century* (London: Printed for the Hakluyt Society, 1937).
would be considered cavalier, but it is not so unusual among Renaissance scholars. It is perhaps of greater interest to note, first, that Waldseemüller decided to create such a selection in the first place, rather than just supplying information about the region around the Senegal River: evidently the information just about the Senegal region was not interesting enough in his eyes. And second, that while he could have chosen details from this section of the Paesi or Itinerarium to convey a variety of impressions of the region, he chose details that tend to focus on the primitive and exotic.

It is remarkable that although Waldseemüller was content to make use of illustrations from the 1509 edition of Balthasar Springer’s account of his voyage from Lisbon to India, he made no use of the excellent ethnographical material about the native peoples of West Africa in compiling this legend. The system of barter that Waldseemüller briefly cites from Chap. 11 of the Paesi or Itinerarium is known as the silent trade, and there is an ample bibliography on the subject. Fries, incidentally, discusses the Senegal in Chap. 105 of the Uslegung. Schöner on his manuscript globe of 1520 borrowed just part of the first sentence of this legend, beginning with the word fallaces.

6.3
HINC PARS SEPTENTRIONALIS ALEMNE CONVERtitur virtute Magnetis versus austrum & e conuerso per-agrando equatorem.

From this point [south], the northern end of the compass needle is turned by magnetic force toward the south, and vice versa when crossing the equator [sailing north].

This legend, which is located right at the equator, says that when a ship crosses the equator sailing to the south, the northern tip of the compass needle swings around to point south, and vice versa when it crosses back to the north. The legend, then, is simply false, but it is not clear where Waldseemüller would have obtained such an idea—neither Cadamosto nor Springer says anything similar, for example, and I find no trace of the idea in other sources. I do not think it is possible to read the legend as referring to magnetic declination, particularly as there is no dramatic change in magnetic declination in the waters off equatorial West Africa. Logically the word “alemne” can only mean “of the compass needle”; it is tempting to think that it might be a corruption of the Italian word for magnet, calamita, but the matter is not clear.

6.4
Hic nascitur corallus mire magnitudinis.

Here there grows coral of great size.

I do not know the source of this legend; it does not come from Cadamosto or Springer. It may come from one of the nautical charts that Waldseemüller had. Any information about sources of coral would be of great interest, as in the list of commodities available in Calicut supplied on sheet 12, coral is the most expensive. This is one of the legends that Fries did not have room to copy onto his Carta marina.

6.5
Hic sunt magne solitudines et deserte in quibus sunt leones pardi tigrides et elephants

Here there are large deserts and wildernesses in which there are lions, leopards, tigers, and elephants.

Waldseemüller retained very few legends from his 1507 map on the Carta marina, but among those few legends are some in West Africa, including this one. The legends are in almost the same positions on the two maps, just a bit further north on the Carta marina: it is probably further south on the 1507 map just because Waldseemüller had to leave room for the Niger River. There is a short doublet of this legend just to the west on the Carta marina that reads Magne solitudines hic sunt, “Here there are large deserts.”

193 The passage on the Senegal is translated into modern German by Petrzilka, Die Karten des Laurent Fries (see note 202), p. 156.
194 Osvaldo Baldacci, Columbian Atlas of the Great Discovery, trans. Lucio Bertolazzi and Luciano Farina (Rome: Istituto poligrafico e Zecca dello Stato, Libreria dello Stato, 1997), p. 124, mistakenly translates the legend “Here north of La Mina the magnetized needle turns toward Auster, and viceversa when crossing the equator,” but the idea that “alemne” refers to La Mina is very difficult to accept, first because the legend is south of La Mina, and second because La Mina is not indicated on the map; further, this translation ignores the word “virtute,” takes “Magnetis” as nominative when it is genitive, and introduces the word “needle” into the translation from nowhere, if “Alemne” refers to La Mina. “Alemne” must refer to the compass needle, since otherwise it is not clear what the “pars septentrionalis” is part of.
6.6
Hic reperiuntur leones Teopardi [sic] elephantes gyraffae et strues etiamque papapagalli [sic] et mire magnitudinis
serpentes et formice.

Here there are lions, leopards, elephants, giraffes, ostriches, and also parrots, and huge serpents and ants.

This legend, which does not derive from the 1507 map, is another compilation from Cadamosto: the lions, leopards, and
ostiches come from Chap. 9 of the Paesi or Itinerarium (Crone, The Voyages of Cadamosto, p. 17); the elephants and
giraffes from Chap. 29 (Crone, pp. 46–47), the parrots from Chap. 30 (Crone, pp. 47–48), and the serpents and ants from
Chap. 28 (Crone, p. 44). The error “Teopardi” is included in the list of errors in Legend 9.2, but like the other errors listed
there for sheet 6, it is not corrected on the printed sheet 6 that has come down to us.

6.7
Hic videtur caballus piscis marinus.

Here is seen the aquatic horse-fish [hippopotamus].

This legend also comes from Cadamosto, from Chap. 44 in the Paesi or Itinerarium (Crone, The Voyages of Cadamosto,
p. 73). The legend is located right by the Gambra River, exactly where Cadamosto says that hippopotamuses are found.

6.8
Hic reperitur zibetum et varia genera simearum

Here is found the civet cat and various types of apes.

This legend also comes from Cadamosto, from Chap. 42 in the Paesi or Itinerarium (Crone, The Voyages of Cadamosto,
p. 69), where Cadamosto lists some items that natives brought to sell to the Europeans while they were staying with the Lord
Batimaussa some sixty miles up the Gambra River.

6.9
Gens ydolatra et carnifagi sunt

This race is idolatrous and they eat meat.

This legend also comes from Cadamosto, from Chap. 43 in the Paesi or Itinerarium (Crone, The Voyages of Cadamosto, p. 70).

6.10
iste fluvius totam ethiopiam interiorem sua inundatione irrigat et fecundat equali condicione sicut Nillos Egiptum
unde opinatur esse pars seu brach[u]m nilo fluvio.

This river irrigates all of Interior Ethiopia when it floods and makes it fertile, just as the Nile irrigates Egypt, whence
it is thought that this river is a part or branch of the Nile.

The legend describes the Senegal River, and comes from Cadamosto, from the end of Chap. 14 in the Paesi or Itinerarium (Crone, The Voyages of Cadamosto, p. 28). One can imagine that Waldseemüller was excited about being able to
include new information about a feature as important as the Nile. In the introduction I presented evidence that Wald-
seemüller had in his workshop a large nautical chart beside the Caverio chart, a chart similar to the Catalan Atlas of 1375,
Mecia de Viladestes’s chart of 1413, or the Catalan-Estense mappamundi of c. 1460, and on all of these maps, the Nile does
have a branch that flows west to the Atlantic.195 So this was a case where by using the most recent information available,
Waldseemüller was actually going back to an earlier and incorrect geographical idea. Schöner paraphrases this legend on his
manuscript globe of 1520.

6.11
in hoc regno fiunt magne mercationes cum sale quod a Tagaza portatur nauigio usque ciuitatem Melli deinde baiulatur et ab hominibus portatur ad terras equinoctiales ubi tantus est arbor solis quod animalia vivere non possunt. victualia huius regionis sunt dactili (quarum magna est copia) et hor[de]um milium et lac camelorum bibunt.

In this kingdom there is much commerce in salt, which is carried by ship from Taghaza to the city of Melli, from which it is borne and carried by men to the equatorial regions where the heat of the sun is so great that animals cannot live. The food stuffs of this region are dates (of which there is a great abundance), barley, millet, and they drink the milk of camels.

Taghaza, in what is now northern Mali, has salt mines that important through the end of the sixteenth century. This legend summaries the description of the salt trade given by Cadamosto, and related in Chap. 11 of the Paesi and Itinerarium. It is located just to the east of an image of the King of Melli and Guinea, and just southeast of the legend is the city of Cothia, which is mentioned by Cadamosto in Chap. 12 of the Paesi and Itinerarium (Crone p. 25) as a destination of part of the gold that is traded in Melli under the name Cochia, is now called Gao (in Mali). The part about the foods that the people eat comes from Chap. 9 of the Paesi or Itinerarium. Johann Schöner repeats much of this legend on his manuscript globe of 1520.

6.12
Hic reperiuntur Rinocerontes Tigrides et elephantes albi

Here are found rhinoceroses, tigers, and white elephants.

This legend is one of the few on the Carta marina that comes from Ptolemy, and also one of the few that Waldseemüller repeats from his 1507 map. In Book 4, Chap. 9 of the Geography, Ptolemy says that …regio magna ethyopum est in qua elephantes albi sunt et rinocerontes et tigrides, and a closely related legend appears on the fourth map of Africa in the 1482 Ulm Ptolemy. This legend is clearly the source of Waldseemüller’s legend. On the 1507 map this legend is further to the south than this iteration of it on the Carta marina, but there is also another iteration of it further southeast on the Carta marina, on sheet 7 (see Legend 7.4 below)—close to its original location on the 1507 map.

6.13
Hic monopedes sive scipodes

Here there are one-footed men or sciapods.

I have not been able to determine the source of this legend. It is logical that sciapods, who lie on their backs and use their oversized foot to shade themselves from the bright sun, should be near the equator, and they are located in Ethiopia by Isidore, Etymologiae 11.3.23, and there are two sciapods in southern Africa on Martin Behaim’s globe of 1492. But I do not know of any evidence that Waldseemüller saw Behaim’s globe.

6.14
Hic est multa habundantia aur[i]

Here there is great abundance of gold.

This legend is just above the toponym REGNVM MELLI, and thus the reference is no doubt to the gold used in Melli in the salt trade described by Cadamosto, and related in the Paesi and Itinerarium, Chap. 11.

6.15
Rinoceron seu Mononoceron [sic] animal

The animal rhinoceros or monoceros.

The image of the rhinoceros above the legend was discussed in the introduction (see pp. 26–27), where it was shown to be based on Burgkmair’s 1515 print of the rhino rather than on Dürer’s of the same year. Waldseemüller no doubt placed the
image in Africa because he knew that Ptolemy spoke of rhinos in Africa (see Legend 6.12); as he was using Burgkmair’s print, he may not have known that the rhino depicted by that artist was actually from India, but this information is included in the text on Dürer’s print.

6.16
cicloped[es] siue monoculi homines sunt grandi et nigri horribil[es]

Cyclopes or one-eyed men—they are big and black and horrible.

I have not found a text that talks about black Cyclopes in Africa. But this legend was quite influential: in Africa near the coast of the Gulf of Guinea in the Tabula Moderna Primae Partis Africae in the 1522 (Strasbourg), 1525 (Strasbourg), 1535 (Lyon), and 1541 (Vienna) editions of Ptolemy, there is a legend that reads Colopedes siue monoculi homines sunt grandes nigri et horribiles. The word colopedes is a misreading of “cicloped[es]”; beside the legend is an illustration of one of the race, in this case a one-eyed blemmyae. A cyclops or monoculus is also depicted in this same part of Africa on Sebastian Münster’s map of Africa (Africa XVIII) in his editions of Ptolemy (beginning in 1540), and in his Cosmographia (beginning in 1544), for example in the 1552 edition of the Cosmographia the map numbered 13, and is titled Totius Africae tabula and descriptio universae etiam ultra Ptolemaei limites extensa.¹⁹⁹ There is a one-eyed blemmyae in Africa on Pierre Desceiler’s world map of 1550,²⁰⁰ but somewhat further inland; and a monoculus in the much the same location as on the Ptolemaic maps in Guillaume Le Testu’s Cosmographie universelle of 1556, ff. 4v and 18v.²⁰¹

¹⁹⁹Christopher Slogar, “Polyphemus Africanus: Mapping Cannibals in the History of the Cross River Region of Nigeria, ca. 1500–1985,” Terrae Incognitae 37 (2005), pp. 16–27, discusses the monocolus on Müster’s maps, but does not address the fact the creature appeared on Waldseemüller’s Carta marina and in the 1522, 1525, 1535, and 1541 editions of Ptolemy.
²⁰⁰See Van Duzer, The World for a King (see note 146), pp. 112–113.
2.7 Sheet 6A. Western Africa (Plate 2.6A)

As I mentioned above in my general remarks on sheet 6, this hand-drawn copy of the printed sheet 6 of the *Carta marina* was made by Johann Schöner. Schöner made this copy of the sheet as some type of preparation for creating his hand-painted globe of 1520. There is clear evidence of this in the presence of a legend in the Gulf of Guinea on sheet 6A that does not appear on sheet 6, but does in the same position on Schöner’s 1520 globe, which I list just below. As the same time, the 1520 globe is not at all merely a copy of the *Carta marina*: for example, it does not include images of the West African sovereigns or the rhinoceros. Schöner may not have completely drawn these elements on the copy of sheet 6 simply because he considered these graphic elements less important, or he may have left them out because he knew that his globe would not include them.

6A.1

*Insule hec inuente sunt Anno 1484. per portugalenses & per eos inhabitate fuerunt enim ante deserte*

These islands were discovered in 1484 by the Portuguese, and were inhabited by them—before they had been uninhabited.
This legend is one that was added to the manuscript sheet by Schöner, that is, it does not appear on the printed sheet. Very similar information appears in Schöner’s *Luculentissima quaedam terrae totius descriptio* (Nürnberg: Ioannis Stuchssen, 1515), which he wrote to accompany his globe of the same year, on f. 40r:


These three islands are to the south of us, and were discovered in 1484. Nothing was found in them except a desert of woods and dense forests: there was no animal, no human, no quadruped, just birds of various types. Now, however, it is continuously inhabited by Portuguese people, both men and women.

The discovery of the islands is usually dated to 1470, but Schöner is perhaps following a legend on Martin Behaim’s globe of 1492, which ascribes the discovery to 1484, on a voyage in which Behaim claimed to have participated.

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204 Behaim’s legend, translated, runs: “These islands were found with the ships which the King of Portugal sent out to these parts of the country of the Moors in 1484. There was a perfect wilderness then, and we found no men there, only forests and birds. But at present the king sends there people who have been condemned to death, men as well as women, and he affords them the means of cultivating the land and of multiplying, so that this country may be inhabited by Portuguese.” See E. G. Ravenstein, *Martin Behaim, His Life and His Globe* (London: G. Philip & Son, Ltd., 1908), p. 101, and for discussion of his claims, see (in the same book) “Behaim’s African Voyage, 1484–85,” pp. 20–30, esp. 24.
2.8  Sheet 7. East Africa, the Red Sea, Arabia, and the Western Indian Ocean (Plate 2.7)

The shape of this part of Africa is much different on the *Carta marina* than on Waldseemüller’s 1507 map, particularly the orientation of the Red Sea. On the 1507 map the sea runs close to north and south, while here it is closer to running east and west—in accordance with the Caverio chart. The large king near the center of the sheet is Prester John, the essentially mythical Christian monarch of great power and wealth. On his 1507 map, Waldseemüller had placed Prester John in Asia, but the location of this mythical king had long been uncertain. The longest legend on this sheet, at the right edge in the Indian Ocean, describes the important trading center of Calicut (Kozhikode, India), which is represented on sheet 8. The three Portuguese flags from the Horn of Africa northward mark recent conquests by navigators of that country.

7.1

Hic omnes sunt Cristiani iacobini scismatici Circumcisionem observant more saracenorum, cremantur ferro in faciem quo originali peccato mundari credunt nec mutuo confitentur peccata sed deo, profitentur quod unicam naturam in christo tantum

Here all of the people are Jacobite Christian schismatics who practice circumcision according to the custom of the Saracens. They are burned with iron in the face, which they believe is the way to be cleansed of original sin, nor do they confess their sins to other men, but to god, and they profess that in Christ there is only a single nature.

On the Jacobite Christians see above on Legend 3.14. Much of the information here comes from Bernhard von Breydenbach, *Peregrinatio in terram sanctam* (Mainz: Peter Schöffer the Elder, 1486), f. [82v], “De Abbasinis sive Indianis et eorum cerimonis,” who writes205:

Nam circumcisionem carnalem servant more sarenorum et jacobitarum pavulos suos circumcidentes… Adurunt quoque infantes suos in frontibus ferreo calamo in modum crucis… credentes eos per huiusmodi adustionem ab originali peccato mundari.

For they practice physical circumcision according to the custom of the Saracens and Jacobites, circumcising their baby boys… They also burn their infants on the forehead with an iron rod in the form of a cross… believing that though this type of burning they are cleansed of original sin.

Thus we can be confident that Waldseemüller had a copy of Breydenbach’s *Peregrinatio* as part of his extensive library—or at least had access to the book. Schöner copied this legend on his 1520 globe, and much of the information also appears in his *Opusculum geographicum* ([Nuremberg]: [Johann Petrejus], [1533]), part 2, Chap. 12.

7.2

Hic absorbitur per tria miliaria

Here [the river] is absorbed [and flows underground] for three miles.

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205 See Jaynes, *Christianity beyond Christendom* (see note 58), p. 287.
Both Honorius Augustodunensis and Gervase of Tilbury speak of the Nile being absorbed and flowing underground, but the reference to a distance of three miles indicates the real source of the legend: a map of the Egyptus novo family, a *tabula moderna* of Africa that survives in three manuscripts of Ptolemy’s *Geography* painted between 1469 and about 1480 by Pietro del Massaio in Florence. These maps combine a Ptolemaic depiction of Egypt and the northern Nile system with a

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206 Honorius Augustodunensis, *Imago mundi*, ed. Valerie Flint in *Archives d’histoire doctrinale du Moyen Age* 57 (1982), pp. 48–93, at 52, (Sect. 1.9): *Geon qui et Nilus iuxta montem Athlantem surgens, mox a terra absorbetur, per quam occulto meatu currens, in littore rubri maris denuo funditur, Aethiopiam circumiens per Aegyptum labitur, in septem ostia divisus, magnum mare iuxta Alexandriam ingreditur*; Gervase of Tilbury, *Otia imperialia: Recreation for an Emperor*, ed. and trans. S. E. Banks and J. W. Binns (Oxford: Clarendon Press, 2002), 2.3, pp. 182–183: *Gion, qui et Nilus, iuxta montem Athlantem fluentes, mox a terra absorbetur, per quam occulto meatu currens in littore Rubri maris denuo refunditur, et versus orientem surgens et Ethiopiam circumiens, et sic per Egyiptum labitur, ac in septem ostia divisus, Magnum mare iuxta Alexandriam ingreditur*, that is, “The Gihon, also called the Nile, rises near Atlas, but is soon absorbed back into the earth, and runs through a hidden channel underground until it re-emerges again on the shore of the Red Sea; it then heads eastwards and flows round Ethiopia, and so it comes to glide through Egypt until, dividing into seven channels, it enters the Great Sea near Alexandria.” On the fact that the river is absorbed into the earth and reappears again see 1.12, pp. 72–73.
map of Ethiopia (i.e. Africa south of Egypt) that was based on a new, post-Ptolemaic description of the regions. The three manuscripts of Ptolemy’s Geography that include this tabula moderna or modern map are:

1. Vatican City, Biblioteca Apostolica Vaticana, MS Vat. lat. 5699, f. 125r, dated 1469, where it the map is titled Aegyptus cum Ethipia moderna;
2. Vatican City, Biblioteca Apostolica Vaticana, MS Urb. lat. 277, ff. 128v–129r, dated 1472, where the map is titled Descriptio Egypti Nova; and
3. Paris, Bibliothèque nationale de France, MS lat. 4802, ff. 130v–131r, made c. 1475–80, where the map is titled Egyptus Novelo.

The influence of an Egyptus novelo map on Waldseemüller’s depiction of southern Africa in the Carta marina is visible mainly in the toponyms and hydrography, rather than in the long legends, but nonetheless the map was an important source—probably indirectly by way of a world map by Henricus Martellus—for the Carta marina. On Vat. lat. 5699, f. 125r, the legend in question reads Absorbitur hic fluvius per tria miliaria; on Urb. lat. 277, ff. 128v–129r, it reads Labitur occulte per 3 milia passus; and on BnF MS 4802, ff. 130v–131r, Per 3 milia sub terra labitur hic fluvius. Thus we see that Waldseemüller’s legend is closest to that on Vat. lat. 5699, f. 125r. Recent multispectral images of the world map by Henricus Martellus at Yale, which shows many signs of the influence of Egyptus novelo cartography, and of which Waldseemüller made abundant use in creating his 1507 map, reveal that it has a closely related legend that runs hic absorbetur per tres leucas, “Here the river is absorbed for three leagues.”

7.3 Chersidras sive Cilidras hic nascitur et est serpens qui terram fumare facit.

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209 In earlier literature a date of 1456 was often assigned to BnF MS lat. 4802, but this dating is corrected by Bertrand Hirsch, “Cartographie et itinéraires: Figures occidentales du nord de l’Éthiopie aux XVe et XVIe siècles,” Abbay 13 (1986) pp. 91–122, at 98; Aujac, “Le peintre florentin Piero del Massaio” (see note 208), and Duval-Arnould, “Les manuscrits de la Géographie de Ptolémée” (see note 208). The maps in BnF MS lat. 4802 have been reproduced in facsimile in Géographie de Ptolémée: traduction latine de Jacopo d’Angiolo di Florence; reproduction réduite des cartes et plans du manuscrit latin 4802 de la Bibliothèque nationale, ed. Henri Auguste Omont (Paris: Catala frères, 1926), where the Egyptus novelo map is on plates 64–65.


211 See Van Duzer, Henricus Martellus’s World Map at Yale (see note 14), pp. 116–117.
Chersydras or Cilidras is born here, and it is a serpent that causes the ground to smoke.

This is another of the few legends that Waldseemüller retained from his 1507 map. This serpent is described by Isidore, Albertus Magnus in his De animalibus, in the Experimentator, and also in the Hortus sanitatis, an illustrated encyclopedia first published in 1491. In this case, however, we do know Waldseemüller’s immediate source, which was the Yale Martellus map (or one very similar to it), which has an almost identical legend in the same location, and this text, like many other texts about animals on the Yale Martellus map, came from the Hortus sanitatis.

7.4
Regio magna ethiopum in qua elephantes albi omnes sunt et rinocerontes et tigrides

The great land of the Ethiopians in which all of the elephants are white, and there are rhinoceroses and tigers.

This legend is another of the few that Waldseemüller retained from his 1507 map; for discussion see above on Legend 6.12.

7.5
Mamonetum animal de genere simiarum hic nascitur – Hic carbunc[u]li inveniuntur.

The marmoset, an animal from the race of apes, is born here. Here precious stones are found.

The texts are on opposite sides of a mountain. The text about the marmoset is also from Waldseemüller’s 1507 map, but there it is somewhat longer: Mamonetum est animal de genere simiarum quod ligatur in ventre propter colli grossiciei huius caudam pilosam. This animal is described by Albertus Magnus, De animalibus 22.76. Thomas of Cantimpré, Liber de natura rerum 4.74, and in the Hortus sanitatis, De animalibus, Chap. 94. Waldseemüller borrowed many of the descriptive texts about animals on his 1507 map from a map by Henricus Martellus similar to his world map at Yale, and Martellus used the Hortus sanitatis for many of his texts about animals, but I have not found a legend about the marmoset on the Yale Martellus map. I have not found the source of the text about the precious stones.

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213The legend on the 1507 map is almost identical: Cheridis sive cilidras hic nascitur et est serpens qui terram fumare facit.

214Isidore 12.4.24, translated into English in Isidore of Seville, The Etymologies of Isidore of Seville, trans. Stephen A. Barney et al. (Cambridge, UK and New York: Cambridge University Press, 2006), p. 256: “The chelydros is a snake that is also known as the cherydros, as if it were cerim, because it dwells both in the water and on land; for the Greeks call land γέρις; and water ὀδος. These make the earth on which they move smoke, as Macer thus describes it (fr. 8): ‘Whether their backs froth out poison, or it smokes on the earth, where the hideous snake crawls.’ And Lucan (Civil War 9.711): ‘And the chelydri drawn along with their smoking trails.’ But it always proceeds in a straight line, for if it turns when it moves, it immediately makes a sharp noise.’


217The relevant chapter is number 36 in the section “De animalibus” of the Hortus sanitatis.

218The Hortus sanitatis “major,” which is the work that interests us here, is to be distinguished from the Hortus sanitatis “minor,” which is a Latin translation of the German herbal often titled Gart der Gesundheit, first published by P. Schoeffter, Mainz, 1485. The herbal published in 1485 has 435 chapters, while the Hortus sanitatis “major” of 1491 has 1066 chapters. For discussion of the early editions of the Hortus sanitatis see Arnold C. Klebs, “Herbals of 15th Century,” Papers of the Bibliographical Society of America 11 (1917), pp. 75–92, and 12 (1918), pp. 41–57, esp. 48–51 and 54–57. There is a more detailed discussion in Joseph Frank Payne, “On the ‘Herbarius’ and ‘Hortus sanitatis’,” Transactions of the Bibliographical Society 6.1 (1901), pp. 63–126, esp. 105–124. The first edition of the work was published in Mainz by Jacob Meydenbach, June 23 1491.

219See Van Duzer, Henricus Martellus’s World Map at Yale (see note 14), p. 114.


222Both Thomas of Cantimpré and the anonymous author of the Hortus sanitatis indicate that their information comes from Isidore, but in fact it comes from Albertus Magnus.
7.6
Regio hec penitus sterilis et arenosa inuia et inaquosa tota est subiecta Magno Soldano Chauri et Babilonie Item
paucas habet villas rarissime autem ciuitat[es]. victualia portantur ad hanc de Egipto Arabia felice et de Ethiopia.
This region is totally sterile and sandy, impassable and without water. All of it is subject to the great Sultan of Cairo
and Babylon [i.e. Cairo]. It has few villages and extremely few cities; food stuffs are brought here from Egypt,
Arabia Felix, and Ethiopia.
This legend is at the top of the sheet, in Arabia. The source is Varthema’s chapter on Jeddah, the port of Mecca.223

7.7
Hic mare terrestre et arenosum in quo reperitur mumia peragratur hoc directione Magnetis et instrumentorum sicut
pelages
Here there is a terrestrial and sandy sea in which mummy is found; it is crossed with the aid of a compass and
instruments, just like seas.
This legend comes from Varthema,224 who says of crossing the sea of sand, “and the pilots go in advance with their
compasses as they do at sea.” For discussion of mummy see the commentary on Legend 3.18 above.

7.8
Medina ciuitas distat a portu Jubo .3. dietarum itineris in ea sepultus est Macomet cum sua filia fatonia et pseudosius
[for pseudosius] appostolis et complicibus scilicet Buhichar Aumar Halii et Otmam in templo sunt .45. codices quibus
lex et historia eorumdem est commendata hec Medina habet .300. lares
The city of Medina is a three days’ journey from the port of Jubo. In the city Mahommed is buried with his daughter
Fatonia and his false apostles and accomplices, namely Babicher, Aumar, Haly, and Othman. In the temple there are
forty-five codices in which the law and history of the Muslims are recorded. This Medina has three hundred houses.
This legend also comes from Varthema.225 As mentioned in the introduction (see p. 29), Waldseemüller used the image
of Medina in the 1515 edition of Varthema to illustrate Mecca on his map; for Medina he used a somewhat elaborated
version of his standard image for a large and important city, with no attempt to follow the description of the mosque of Medina in
Varthema. The moon symbol to the right of the city indicates that the area is under Muslim control. Incidentally Fries
discusses Medina in Chap. 71 bis of the Uslegung.226 Johann Schöner has a very heavily abbreviated version of this legend
on his manuscript globe of 1520.

7.9
Mecha ciuitas et Emporium celeberr[ima] in sterili Arabia sita distat a medina talnabi plus quam .100. et a portu Zida
.40. miliariis Rex tributarius est Soldano de Chayro. Hec a mercatoribus et Saracenis omnibus frequentatur sicut
Roma a cristianis gratia indulgenciarum et mercature in ea sumnum est templum Machometi
The very famous city and trading center of Mecca is located in the desert of Arabia, and is more than a hundred
miles distant from Medina of the Prophet, and forty miles from the port of Jeddah. The king is a tributary of the
Sultan of Cairo. The city is frequented by merchants and by all Saracens, just as Rome is by Christians, because of
the indulgences and trade. In the city is the highest temple of Mohammed.
This legend is assembled from a few different passages in Varthema,227 except for the part about Mecca and Medina
being more than a hundred miles apart, whose source I do not know. It should be mentioned that according to Waldseemüller’s scale of German miles, the cities are close to 150 miles apart. Fries discusses Mecca in Chap. 72 bis of the
Uslegung.228 Schöner borrows the latter part of this legend on his 1520 globe.

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223Varthema, The Travels of Ludovico di Varthema (see note 103), p. 53.
224Varthema, The Travels of Ludovico di Varthema (see note 103), p. 33.
226The passage on Medina is translated into modern German by Petrzilka, Die Karten des Laurent Fries (see note 202 in Chap. 1 above), p. 146.
227The material on the trade and pardons available in Mecca come from Varthema, The Travels of Ludovico di Varthema (see note 103), pp. 38–41; the
fact that the city is subject to the Sultan of Cairo is on p. 36; the fact that the port is forty miles from the city is on pp. 37 and 51.
228The passage on Mecca is translated into modern German by Petrzilka, Die Karten des Laurent Fries (see note 202 in Chap. 1 above), pp. 146–147.
7.10
In Zidam ciuitatem non intromittuntur Cristiani neque iudei
Neither Christians nor Jews are allowed to enter the city of Jeddah.

Jeddah is the port city of Mecca; the legend comes from Varthema.\textsuperscript{229}

7.11
nascuntur hic serpentes\[?\] minores Medicinal[es] estque habunda[n]cia omnium victualium gentes sunt Macometani
annum .150. etatis atingentes
There are born small serpents which are used in medicine, and there is an abundance of all food stuffs. The people
are followers of Mohammed and live to be 150 years old.

This legend is near the port of Gezan. The parts about the abundance of food stuffs and the people being followers of
Mohammad comes from Varthema’s chapter on that port.\textsuperscript{230} I have not found the source of the claim that serpents are used in
medicine or that the people live to be 150 years old.

7.12
Adem metropolis et regia fortis habens 6000 lares
Aden, a metropolis and a mighty royal city with 6000 houses.

This legend comes from Varthema,\textsuperscript{231} and it offers a good object lesson in Waldseemüller’s preferences for more recent
sources. Marco Polo has a detailed and interesting account of Aden,\textsuperscript{232} but the cartographer chose to use Varthema
instead.\textsuperscript{233}

7.13
REGNUM HABESCH ET HABACCI PRESBITERI JOH. SIVE INDIA MAIOR ETHIOPIE. Hic dominatur ille
potentissumus rex quem nos vocamus presbiterem johannem dominum indie maioris cuius dominiam Egypto mari
rubro et regno melindarum clauditur. Suntque omnes cristiani abasini Con
fi
ciunt sub utraque specie circumci-
sionemque obseruant. Baptisantur aqua et igne eciam infantibus sacramenta administrant.

The Kingdom of Abyssinia of Prester John, or Greater India in Ethiopia. Here rules that most powerful king whom
we call Prester John, lord of Greater India, whose dominion is bounded by Egypt, the Red Sea, and the kingdom of
Melinde. They are all Abyssinian Christians. They take communion under both forms [i.e. bread and wine] and
practice circumcision. They are baptized by water and fire and even administer the sacraments to infants.

Part of this legend seems to come from or have been inspired by Giolamo Sernigi’s “Second Letter to a Gentleman of
Florence,” specifically a passage published in Chap. 60 of the Paesi and Itinerarium, which in English runs\textsuperscript{234}:

I do not understand that there are any Christians there [i.e. in Calicut] to be taken into account, excepting those of
Prester John, whose country is far from Calicut, on this [i.e., the western] side of the Gulf of Arabia, and borders upon
the country of the King of Melinde, and, far in the interior, upon the Ethiopians, that is the black people of Guinea, as
also upon Egypt, that is the country of the Sultan of Babylon [Cairo]. This Prester John has priests who offer sacrifices,
and respect the Gospels and the Laws of the Church, much as is done by other Christians.

\textsuperscript{229}See Varthema, The Travels of Ludovico di Varthema (see note 103), p. 52.
\textsuperscript{230}See Varthema, The Travels of Ludovico di Varthema (see note 103), pp. 55–56.
\textsuperscript{231}See Varthema, The Travels of Ludovico di Varthema (see note 103), p. 59.
\textsuperscript{232}See Marco Polo, Marka Pavlova z Benátek, Milion (see note 55), pp. 192–194; for an English translation see The Book of Ser Marco Polo (see
pp. 207–224 = Les grandes escales: colloque organisé en collaboration avec la Commission internationale d’histoire maritime (10e Colloque
d’histoire maritime), vol. 1.
\textsuperscript{234}The translation is from Ravenstein, A Journal of the First Voyage (see note 57 in Chap. 1 above), pp. 137–141, at 138. On Sernigi see
Ravenstein’s introduction to the two letters, pp. 119–123; and Carmen M. Radulet, “Girolamo Sernigi e a importância económica do Oriente,”
This letter contains material from Caspar the Jew of India, also called Gaspar de Gama, whom Waldseemüller cites as a source in the text block on sheet 9 of the *Carta marina* (see Legend 9.3). As I indicated in the introduction, Waldseemüller says that he had access to a travel narrative by Caspar that was sent to the King of Portugal, which we may imagine was more detailed than the account published as Sermigi’s second letter in the *Paesi* and *Itinerarium*, and it seems likely that this legend derives from that more detailed version of Caspar’s account, which unfortunately is lost. Incidentally Fries discusses Prester John in Chap. 90 of the *Uslegung*.235

The use that Johann Schönner made of this legend on his manuscript globe of 1520 is quite interesting. Schönner repeats much of Waldseemüller’s legend in the same spot in Africa, except that speaks of an anonymous king, omitting Waldseemüller’s two identifications of the king as Prester John in the beginning of the legend. At the same time, in Asia he copies the legend about Prester John in that region on Waldseemüller’s 1507 map, but adds a more sonorous beginning. Thus while Waldseemüller transferred Prester John from Asia on his 1507 map to Africa on his 1516 map, Schönner opted to keep him in Asia, copying Waldseemüller’s 1507 legend about him in Asia, and also his 1516 legend about him in Africa, but omitting the name of the monarch. Other sources, including Waldseemüller, reflect a shift of Prester John from Asia to Africa,236 but Schönner elects to keep him in Asia on his 1520 globe.

7.14
In ciuitate Amaharic olim Auxuma residiex rex de Habesch sive de India Ethiopie quem nos vocamus presbyterum iohannes habens multos reges Saracenos tributarios in cuius palacio sunt due porte in quibus Leones et maximi canes catenis ligati ne quis ignotus alienus sine ductore nigrediat [for ingrediat] et habet eciam semper in qualibet porta .1000. armatos pro custodia. Suldanus Chari ei desoluit tributum annuale de nili fluminis admissione ne in catharactis restrictione diuertatur

In the city of Amaharic, formerly Axum, resides the king of Abyssinia or of India in Ethiopia, whom we call Prester John. He has many Saracen kings who pay him tribute, and in his palace there are two gates at which lions and huge dogs are tied up with chains, lest some unknown stranger should enter without a guide, and further, he always has a thousand armed guards at each gate. The Sultan of Cairo pays him an annual tribute for permitting the flow of the Nile, lest it be diverted by restriction at the cataracts.

I have not been able to find the source of much of this legend, and am inclined to suspect that it comes from the narrative that Caspar sent to the King of Portugal, as did the previous legend. It should be noted that the description of Prester John’s palace here is entirely different from that in the (spurious) letter of Prester John, through which he was known in Europe237; in the description of his palace in that letter (Sects. 56–63), the emphasis is on precious construction materials. The illustration of Prester John in the 1525 edition of Fries’s *Uslegung* (f. 24r) includes the lions and dogs mentioned in this legend.

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235 The passage on Prester John is translated into modern German by Petrizlka, *Die Karten des Laurent Fries* (see note 202 in Chap. 1 above), pp. 153.


Perhaps the most interesting and distinctive part of the legend is the indication that the Sultan of Cairo pays Prester John an annual tribute not to divert the Nile, that is, to allow the water to come to Cairo. The myth that the emperor of Ethiopia exacted this tribute from the Sultan of Cairo has a rich history that goes back to the thirteenth century,\textsuperscript{238} and moreover, there are authors who say that it was Prester John who had the power to control the river and exacted the tribute.\textsuperscript{239} So the myth about Prester John controlling the Nile should not be entirely unexpected. It seems quite possible that Caspar recounted this myth in his narrative. There is another source that Waldseemüller consulted that contains a reference to the myth, though not enough details (it omits mention of the tribute) to have been Waldseemüller’s only source on this subject, namely a letter from King Manuel to Pope Leo X dated June 1513 regarding the conquest of Malacca.\textsuperscript{240} In a passage about Prester John, King Manuel writes\textsuperscript{241}:

Haud exiguum adorandae & verae Crucis lignum ad nos mitit, viros vafros et industrios poscens, quorum ingenio & artificio a Sulcani territorio et Regione, Nilum deflecti aliqua [for atque] diverti posse existimat.

He sent us a sizeable piece of the wood of the true and worshipful Cross, and asked for clever and industrious men, by whose ingenuity and skill he thinks that the Nile can be turned away and diverted from the territory and country of the Sultan.

It would be interesting to know the basis for this part of King Manuel’s letter.

7.15
CAMBEIA Regnum Gentes sunt ydolatre et ciuitas emporial magna et ditissima

The kingdom of Cambay [Kambhat]; the people are idolaters and the city is a center of trade, large and very rich.

Possible sources for this legend include Marco Polo, Varthema, and Joseph the Indian (the last from the Paesi and Itinerarium). The account in the Naples manuscript of Polo is very brief and does not include even the few details in this legend.\textsuperscript{242} But it would have been possible to assemble these details from Varthema,\textsuperscript{243} and easy to do so from the account of Joseph the Indian.\textsuperscript{244}

7.16
Ormus insula emporialis ditissima apud hanc piscantur perle habet regem Macometanum terra est sterilis

The island of Hormuz is a very rich center of trade. They fish for pearls here; the king follows Mohammed, and the land is barren.


\textsuperscript{240} The letter was published in several editions, the first being Epistola potentissimi ac inuictissimi Emanuelis Regis Portugalliae & Algarbiorum &c. De victoriis habitis in India & Malacha: ad S. in Christo Patrem & D[omi]n[us] nostrum D[omi]n[us] Leonem X. Pont. Maximum (Rome: Impressa per Iacobum Mazochium, 1513). For evidence that Waldseemüller used the letter and also for additional references on it see the commentary on Legend 12.5.

\textsuperscript{241} The passage is on signature Aiii’ of the pamphlet, and is transcribed by William Roscoe, The Life and Pontificate of Leo the Tenth, revised by Thomas Roscoe (London: Chatto and Windus, 1876), vol. 1, p. 523.

\textsuperscript{242} See Marco Polo, Marka Pavlova z Benátek, Milion (see note 54), p. 182; for Yule’s translation see The Book of Ser Marco Polo (see note 54), Book 3, Chap. 28, vol. 2, pp. 397–398.

\textsuperscript{243} See Varthema, The Travels of Ludovico di Varthema (see note 103), pp. 105–110.

\textsuperscript{244} The relevant chapter in the Paesi or Itinerarium is 141. For an English translation of this chapter see Greenlee, “The Account of Priest Joseph” (see note 70 in Chap. 1 above), pp. 111–112.
This legend comes from Varthema;\textsuperscript{245} Waldseemüller might have used the account of the island given by Joseph the Indian (Priest Joseph) in the \textit{Paisi or Itinerarium}, specifically Chap. 140,\textsuperscript{246} but he did not, for this chapter does not include the detail about the island being barren. The presence of a Portuguese flag by Hormuz on the \textit{Carta marina} is interesting. Varthema was in Hormuz in 1504, before the Portuguese conquered it, which took them two attempts, in 1507 and 1515.\textsuperscript{247} So in addition to Varthema, Waldseemüller had another source later than 1507, perhaps a nautical chart with a Portuguese flag on Hormuz.\textsuperscript{248} Incidentally Fries discusses Hormuz in Chap. 81 of the \textit{Uslegung}.\textsuperscript{249}

7.17
Cacotora siue Scutora insula cristiana Anno domini .1507. erepta de Saracenorum imperio et regi portugalie subacta. diues populous et fecunda. Habet cuitates preclaras et emporiales optimum Aloen securitunum [for \textit{socotirunum} or \textit{socotranum}] profert incole sunt cismatici.

Sacotora or Socotra, a Christian island, was torn from the control of the Saracens in 1507 and brought under the power of the King of Portugal. It is rich and populous and fertile. It has cities that are famous trading centers. It grows excellent Socotran aloe. The inhabitants are schismatic.

All of the printed sources that Waldseemüller cites in the long text block on sheet 9 (Legend 9.3) were published in at least one edition in 1507 or before, so at least some of this legend comes from a more recent source that he does not cite there. The parts about Socotra being a Christian island, rich, and involved in trade could be from Marco Polo,\textsuperscript{250} but Polo does not mention any cities, so this seems doubtful. Varthema was in Socotra before 1507, and in any case does not describe the island. So the source of most of this legend is not clear, though I searched in accounts of the island’s history for sources that might have been available in Europe by 1516.\textsuperscript{251} The aloe of Socotra was famous for centuries.\textsuperscript{252} On Waldseemüller’s 1507 map he depicts two islands, Discordis and Scoyra, which in fact are both to be identified with Socotra, but on the \textit{Carta marina} he has remedied this error. However, his depiction of the island on the \textit{Carta marina} has a unique feature: it is depicted as two islands joined by a bridge. I have not seen any text that mentions such a division of the island or such a bridge, and there is no similar representation of the island on any other map, not even Fries’s re-edition of the \textit{Carta marina}. It is tempting to speculate that this feature is a visual acknowledgement by Waldseemüller that what he had thought were two islands were in fact one. But there is no way to confirm this hypothesis.

7.18
Calicu ciuitas regalis magna tociusque Indie maioris celebratissimus famosissimusque emporium. Hic ex diuersis mundi partibus varie confluent res mercandarie, maxime de India, Arabia, Syria, Egipto, Persia, Ethiopia, Seylam, Samotra, Guzerath, Cathaio, Cini, Macini etc. ea que aportantur sunt Musecum Ambra Thus lignum Aloes

\textsuperscript{245}See Varthema, \textit{The Travels of Ludovico of Varthema} (see note 103), pp. 94–95.
\textsuperscript{246}For an English translation of this chapter see Greenlee, “The Account of Priest Joseph” (see note 70 in Chap. 1 above), pp. 110–111.
\textsuperscript{249}The passage on Hormuz is translated into modern German by Petržilka, \textit{Die Karten des Laurent Fries} (see note 202 in Chap. 1 above), pp. 150.
\textsuperscript{250}See Marco Polo, \textit{Marco Poloova z Benáteck, Million} (see note 54), pp. 183–184; for Yule’s translation see \textit{The Book of Ser Marco Polo} (see note 54), Book 3, Chap. 32, vol. 2, pp. 406–410.
Reubbarbarum Bombex Garionanum Canella Brasilicum Sandalum Ganphatum Muscatum Macis Benzui Lacca et alia aromata minarum specierum. Nec non gemarum et pannorum varie sortes. Que vero penes calicutum et Canonar nascentur sunt Zinziber Piper Lamarindi Cardimomum Mirabolanum Cusia Fistula Zibetum storax etc. Rex diues et prepotens nulli tributarius qui cum sua gente ydolatra caffranus est religiosissimus habensque duas vxores quorum quelibet habet. x. sacerdotes qui cum ipsis absente rege concubuent habere solent. hic virgines cum octavum annum etatis superauerint prosequuntur mares rogando vt flos virginitatis ab eis capiant, quod tameu [for tamen] maxime viri abhorrent; adulteria[m]que non animaduertunt.

Idolatres sunt gentes barbarae nec cum Chrisianis nec cum Judeis neque cum Saracenis in religione conueniunt, seruant enim execrabiles abominabilesque ritus et ceremonias, suntque in multiplici differentia. nam alii id quod primus mane vident, aliul simulachra adorant quibus etiam deuovent filios vel filias victimandas, neconon seispous iremerunt amore illorum et isti ydolatre barbari dicuntur. habentque monasteria religiosisorum ydolatrarum asperius mam vitam ducentium. Alii vero demonem adorant credentes illum diuini iudicii executorem cui parcere et affligere bene aut male facere hominibus a deo concessum et isti ydolatre caffrani dicuntur et boues maxime venerantur quos animalia sancta credunt vxores magnatorum apud hos solemniter cremantur igne vna cum maritorum funeribus sperantes fieri coniuges in alia vita. non vestuer carnibus nec alius victualibus que vitam conceperunt, sed Butiro, saccaro, Orisa, et fructibus arborum, pauci vero piscibus. vinum bibunt de genere palmarum; antequam manducant. lauant se in baptisteriis, raro quis suam de sacco, Orisa, et fructibus arborum, pauci vero piscibus. vinum bibunt de genere palmarum; antequam manducant. lauant se in baptisteriis, raro quis suam de sacco, Orisa, et fructibus arborum, pauci vero piscibus. vinum bibunt de genere palmarum; antequam manducant. lauant se in baptisteriis, raro quis suam de sacco, Orisa, et fructibus arborum, pauci vero piscibus. vinum bibunt de genere palmarum; antequam manducant. lauant se in baptisteriis, raro quis suam de sacco, Orisa, et fructibus arborum, pauci vero piscibus. vinum bibunt de genere palmarum; antequam manducant. lauant se in baptisteriis, raro quis suam de sacco. They do not wash themselves in bathtubs. It is rare

The great regal city of Calicut is the most busy and famous trading center of all of Greater India. Here from different parts of the world various goods flow, particularly from India, Arabia, Syria, Egypt, Persia, Ethiopia, Ceylon, Sumatra, Gujarat, Cathay, China, Macini [i.e. India Beyond the Ganges], etc. The goods which are brought there are musk, amber, frankincense, aloewood, rhubarb, silk, clove, cinnamon, brazil wood, sandalwood, camphor, nutmeg, mace, benzoin, gum lacca, and other minor spices, as well as various types of gems and cloths. Those that grow near Calicut and Cannonore are ginger, pepper, tamarind, cardamom, myrobalan, cashew fistula, civet, storax, etc. The king is rich and powerful, paying tribute to no one, and together with his people is a highly devout Caffranus idolater. He has two wives, each of whom has ten priests who when the king is absent lie with them. Here when virgins turn nine years old they pursue the men, asking them to take the flower of their virginity, but the men are very averse to doing so. They do not punish adultery.

Idolaters are barbarous people who do not agree with Christians, Jews, or Saracens in their religion, for they practice execrable and abominable rites and ceremonies, and they are greatly diverse. For some of them worship whatever they see first in the morning, while others worship idols to whom they even offer up their own sons and daughters for sacrifice, and even kill themselves for love of the idols, and are known as barbarous idolaters. They have monasteries of idolatrous monks who lead a very harsh life. Others worship a demon, believing him to be the minister of divine justice, to whom god gave the right to spare or punish men who do good or evil. They are known as Caffran idolaters, and principally worship cattle, which they believe are sacred animals. Among these people, the wives of nobles are solemnly cremated at the funerals of their husbands, hoping to become their wives in another life. They do not eat meat or other foods which were alive, but butter, sugar, rice[?], and fruit from trees, but a few of them eat fish. They drink wine from a species of palm. Before they eat they wash themselves in bathtubs. It is rare that a man deflowers his own wife, but rather he has this done by another man. It is thought good for the king, who is a Caffranus, to have rival priests who lie with his own wives, and because of this, sons do not succeed their fathers as rulers.

This long legend is a complex compilation, a couple of whose sources I have not been able to identify. Certainly Waldseemüller was faced with a difficult task in assembling this text, as he had material about Calicut from Varthema, the so-called Anonymous Narrative, Joseph the Indian, and Caspar the Jew, some parts of which were contradictory. The early

part of the legend, which describes the sources of the spices available at Calicut, lists both some of the spices and other goods available, and also indicates which ones grow near Calicut, are summarized from the longer lists in the *Paesi or Itinerarium*, Chaps. 82 and 83.264 I do not know of a source that says that the king of Calicut pays tribute to no one. The author of the Anonymous Narrative says that the king has two wives, each of whom has ten priests who lie with her; see the *Paesi or Itinerarium*, Chap. 75.258 The behavior of the young virgins is described earlier in the same chapter.256

The first sentence of the second paragraph about the Caffrani idolaters seems to be Waldseemüller’s composition; on the Caffrani see Legend 3.37 above. Later in Chap. 75 of the *Paesi and Itinerarium* the idolatry of the Guzerates, who trade in Calicut, is mentioned (they are said to worship the sun, moon, and cattle), but this is certainly not the source of the material about idolatry, which comes rather from Varthema’s chapter on Java, in the context of a comparison of Java and Calicut.267 I do not know the source of the material about the sacrifices of sons and daughters and the suicides, which is puzzling since Joseph the Indian said that he knew little of the sacrifices of the people of Caranganor (end of Chap. 131 of the *Paesi and Itinerarium*258)—and the customs in Caranganor and Calicut are compared at the beginning of Chap. 139 of the *Paesi and Itinerarium*.259 The monasteries of idolatrous monks come from Joseph the Indian in the *Paesi or Itinerarium*, Chap. 134.260 The alleged demon-worship in Calicut comes from Varthema,261 while the worship of cattle is mentioned both by Varthema and in the so-called first letter of Girolamo Sernigi.262 The burning of wives upon the death of their husbands, that is, the practice of *suttee* or *sati*, is mentioned by Joseph the Indian and also by Varthema (as discussed in the introduction above, and as illustrated on sheet 4 of the *Carta marina*).263 Their avoidance of meat is mentioned in the so-called first letter of Girolamo Sernigi, in a passage that appears in the *Paesi and Itinerarium*, Chap. 57.264 The palm wine is briefly mentioned in the same passage in the first Sernigi letter (*Paesi and Itinerarium* Chap. 57),265 and in more detail by Joseph the Indian (*Paesi and Itinerarium* Chap. 138).266 The frequent bathing of the inhabitants of Calicut is mentioned by both Joseph the Indian (Chap. 132 of the *Paesi or Itinerarium*)267 and Varthema.268 The passage about having another man deflower one’s wife is somewhat similar to the passage about the behavior of the young virgins at the end of the first paragraph, but seems in fact to derive from Varthema’s account of the king of Calicut,269 even though Varthema says that this practice was only that of the king, while Waldseemüller says that it was a general usage. With regard to the priests who lie with the king’s wives, the author of the Anonymous Narrative says that the king has two wives, each of whom has ten priests who lie with her: see

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254For an English translation of these chapters see Greenlee, “The Anonymous Narrative” (see note 67 in Chap. 1 above), pp. 91–94. There is also a chapter on the spices that grow near Calicut in Varthema, The Travels of Ludovico di Varthema (see note 103), pp. 157–158.

255See Greenlee, “The Anonymous Narrative” (see note 67 in Chap. 1 above), p. 80. Incidentally Joseph the Indian says that he has many wives in Chap. 132 of the *Paesi or Itinerarium*; for a translation see Greenlee, p. 101. There is a similar passage in a letter sent from the King of Portugal to the King of Castile, and published in Rome in 1505: see Copy of a Letter of the King of Portugal Sent to the King of Castile Concerning the Voyage and Success of India, trans. Sergio J. Pacífico (Minneapolis: University of Minnesota Press, 1955), p. 18, but in this case the number of priests per wife is not specified.

256See Greenlee, “The Anonymous Narrative” (see note 67 in Chap. 1 above), p. 79.

257See Varthema, The Travels of Ludovico di Varthema (see note 103), pp. 251–252: “Their faith is this: some adore idols as they do in Calicut, and there are some who worship the sun, others the moon; many worship the ox; a great many the first thing they meet in the morning; and others worship the devil in the manner I have already told you.”


261On the alleged worship of demons in Calicut see The Travels of Ludovico di Varthema (see note 103), pp. 136–138; for discussion of this misinterpretation of Hindu religion see note 128.

262For the passage in Varthema see note 485; for the passage in the first Sernigi letter see the *Paesi or Itinerarium*, Chap. 57, and Ravenstein, A Journal of the First Voyage (see note 57 in Chap. 1 above), p. 132.


264For an English translation see Ravenstein, A Journal of the First Voyage (see note 57 in Chap. 1 above), p. 132.

265See Ravenstein, A Journal of the First Voyage (see note 57 in Chap. 1 above), p. 133.


268See Varthema, The Travels of Ludovico di Varthema (see note 103), p. 149. Curiously in Sernigi’s first letter it is said that the people of Calicut bathe very infrequently, specifically three times a year: see the *Paesi or Itinerarium*, Chap. 53, and for an English translation, Ravenstein, A Journal of the First Voyage (see note 57 in Chap. 1 above), p. 126.

269See Varthema, The Travels of Ludovico di Varthema (see note 103), p. 141.
the *Paesi* or the *Itinerarium*, Chap. 75.⁷²⁰ The detail about the sons not inheriting the throne comes from a different source, however, namely Joseph the Indian in Chap. 132 of the *Paesi* or *Itinerarium*.⁷²¹

The increase in the attention given to Calicut ⁷²² on the *Carta marina* versus Waldseemüller’s 1507 map is remarkable: on the 1507 map there is just one brief legend,⁷²³ and in the 1513 Ptolemy the legend on the modern map of India is very similar to that on the 1507 map. On the 1516 map, in addition to the long legend just studied, there is a long legend about the sources and prices of the spices available in Calicut on sheet 12⁷²⁴; clearly the city was regarded as one of the most important in the world. But this eminence did not last long: the fortunes of Calicut as a trading center were already in decline in the early seventeenth century.⁷²⁵

On Johann Schöner’s globe of 1520, much of the geography of Asia comes from Waldseemüller’s 1507 map, but his treatment of Calicut is of interest as it seems to involve material from the *Carta marina*. On his 1507 map Waldseemüller has a brief legend about Calicut to the east of Taprobana (just mentioned, and transcribed in a footnote). On Schöner’s 1520 globe the place name Calicut is on the small, westward jutting peninsula just south of the delta of the Indus River, and there is a very faded and all-but-illegible legend about Calicut in the Indian Ocean on the other side of Taprobana, west of the island. This legend is much longer than that on Waldseemüller’s 1507 map, so it seems likely that Schöner borrowed from the *Carta marina*, as he did in various other places on his 1520 globe, but a determination of Schöner’s source here will have to await multispectral imaging of the globe.

7.19

CORUPTELE LITERARUM ET SILLABARUM (SI SINT) NEGLIGENTIA SCULPTORIS ac impressoris com-
misse discrezione lectoris emendetur non sic exemplar ad manus eorum venisse intellegitur

Mistakes (if there are any) in letters or words that were made through the negligence of the engraver or printer may be corrected at the reader’s discretion. Let it be understood that the original did not reach their hands with such errors.

This legend is transcribed and translated by Baldacci, and also translated by Harris; the translation here is my own.⁷²⁶ The legend does not explicitly refer to the list of corrections printed on sheet 9 of the map,⁷²⁷ and thus seems best taken as a piece of general advice that was on the map from the beginning, rather than a response to problems in the printing of this map—though it certainly may be a response to problems that had occurred in other projects in which Waldseemüller had been involved. Waldseemüller’s expression of concern here is the first such to appear on a map, and was followed a few years later (as Baldacci notes) by Giovanni Vespucci’s curt *Errata si quid excussoris culpa*, “If there are errors, they are the

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²⁷²For references on Calicut in the sixteenth century see note 94.
²⁷³The legend on Waldseemüller’s 1507 map: Calicut provinciae nobilis in ea sunt multa genera minerarum pimenta et alia genera mercatorum que veniunt de multis partibus canella cinamonum zinziber gariofolus sandalum et de omnibus specibus: hec est inventa per regem portugallie, that is, “The noble province of Calicut; in it there are many types of minerals and other types of merchandise which come from many parts: cinnamon, ginger, clove, sandalwood, and a bit of every spice: the region was discovered by the King of Portugal.” Waldseemüller’s legend depends on that on the Caverio chart, which is translated by Stevenson, *Marine World Chart* (see note 32), p. 112.
²⁷⁴Incidentally Calicut is described in Chap. 26 of Fries’ *Uslegung*, and this passage is translated into modern German by Petrzilka, *Die Karten des Laurent Fries* (see note 202 in Chap. 1 above), pp. 132–133. Accompanying the text in the 1525 edition of the *Uslegung* is a large two-page illustration of the city; the image is briefly discussed by Johnson, *Carta marina* (see note 21 in Chap. 1 above), pp. 111–112.
²⁷⁵On the decline in Calicut’s fortunes see Lewes Roberts, *The Merchants Mappe of Commerce* (London: Printed by R. O., 1638), Chap. 92, p. 188.
²⁷⁷For references on the list of corrections on the *Carta marina* see note 226.
engraver’s fault,” on his world map of c. 1524. Vespucci’s indication of where the blame for errors should go was evidently well warranted, as the map has a large number of mis-spellings. Hildegard Binder Johnson points to Martin Luther’s *Admonition to Printers* of September 1525 as another early sixteenth-century expression of frustration with printing errors.


2.9 Sheet 8. Southern India and Southeast Asia (Plate 2.8)

The two large peninsulas that dominate this sheet are copied from Caverio’s chart of c. 1503, but Waldseemüller provides much more detail about the hinterlands, and the density of information in the left peninsula, which is southern India, clearly indicates that this was an area of great interest. While northern India on sheet 4 is the abode of the monstrous races of men, southern India is a realm of Eastern potentates and exotic goods of trade. In the other, larger peninsula, which is labeled MACINI REGIO (India Beyond the Ganges), Waldseemüller shows the most interest in Pegu (in modern Burma, or Myanmar), which was a rich trading city. The lesser density of information near the eastern edge of Asia is interesting, and contrasts with the fairly dense Marco Polo-derived information in this area on the 1507 map. This difference must be interpreted as a decrease in Waldseemüller’s confidence in Polo, as must his decision not to include Japan on the Carta marina, and indeed to show less of the eastern Indian Ocean and the eastern coast of Asia than the map he was using as a model, the Caverio chart, did.

8.1
Rex Cambaie tributarius est regi de Guzerat

The king of Cambay pays tribute to the king of Gujarat.

I have not been able to determine the source of this legend. It does not come from Varthema’s discussion of Cambay, nor from that of Joseph the Indian.281 The manuscript of Marco Polo that seemed to be closest to what Waldseemüller was using does not mention the king of Cambay, and Yule’s more inclusive synthetic text actually says that the people of Cambay pay tribute to no one.282

8.2
REGNUM ORIZA Sunt ydolatre caffrani. Rex huius regni nulli est tributarius inuadit hostes .100. elephantibus et .100000. pensionariis equitum et peditum. Hic est habundancia in prisilto [for brasiliço] serico porcelana et bladis

The kingdom of Orissa. They are Caffrani idolaters. The king of this realm pays tribute to no one. He attacks his enemies with a hundred elephants and a hundred thousand mercenary horsemen and foot soldiers. There is an abundance of brasil wood, silk, porcelain, and grain.

I have not found the source of this legend. Franz Hümmerich has suggested that this legend comes from the lost work of Gaspar of India that had been sent to the king of Portugal, to which Waldseemüller says that he had access in the long text block on sheet 9.283 This is a plausible suggestion. On the Caffrani idolaters see Legend 3.37 above.

8.3

The city of Narsinga. Here rules the king of Narsinga, the most powerful of all of the kings of India, the bounds of whose power extend more than 3000 miles. Together with his people he is a Caffranus idolater, but nonetheless he has many Christians under their control and is a particular friend of the Portuguese. He has kings who pay him tribute, and he attacks his enemies with six hundred elephants and cavalry and foot soldiers without number. The king has two hundred wives who will all be burned when the king dies.

281Varthema discusses Cambay in The Travels of Ludovico di Varthema (see note 103), pp. 105–111; for Joseph the Indian’s discussion see the Paeisi or Itinerarium, Chap. 141, and for an English translation of this chapter see Greenlee, “The Account of Priest Joseph” (see note 70 in Chap. 1 above), pp. 111–112.
282For the text of the manuscript of Marco Polo that generally seems close to what Waldseemüller was using see Marco Polo, Marka Pavlova z Benátek, Milion (see note 54), p. 182; for Yule’s translation which includes the indication that the people of Cambay pay tribute to no one see The Book of Ser Marco Polo (see note 54), Book 3, Chap. 28, vol. 2, pp. 397–398.
Varthema describes Narsinga and says that the king has 40,000 horses, but no details match between Waldseemüller’s description and Varthema’s. Some of the details Waldseemüller supplies come from Joseph the Indian, who says that the King of Narsinga is very powerful, that his kingdom is 3000 miles around, and that when he attacks his enemies, “he takes with him eight hundred elephants, four thousand horses, and innumerable foot soldiers.” The number of elephants cited is different, but clearly Waldseemüller was using Joseph the Indian as a source. Other details come from a passage in the Anonymous Narrative about a king named Naremega who lives in the mountains near Calicut—which Waldseemüller correctly understood as a reference to Narsinga. In that passage we are told that the king “has two or three hundred wives.

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285 See the *Paesi or Itinerarium*, Chap. 142, and for an English translation of this chapter see Greenlee, “The Account of Priest Joseph” (see note 70 in Chap. 1 above), p. 113.
The day he dies they burn him and all of his wives with him.\(^{286}\) But Waldseemüller was also using a very recent source. The details about the many Christians under the king’s control and the fact that he is a particular friend of the Portuguese do not appear in any of the sources that Waldseemüller cites in the long text block on sheet 9.

There were intermittent negotiations between different kings of Narsinga and the Portuguese in 1505, 1510, and 1514. The negotiations were motivated by the interest of both parties in having an ally against local enemies, but as the strategic situation in India was in constant flux, the negotiations never amounted to much.\(^{287}\) An optimistic pronouncement that the king of Narsinga was a special friend of the king of Portugal might have been made at several points during this period, but it is perhaps more likely the pronouncement was made in 1514 or 1515, as an agreement between the king of Narsinga and Afonso de Albuquerque was reached in 1514. In a letter of December 4, 1513, Albuquerque wrote to King Manuel of Portugal assuring him that the kings of both Narsinga and Deccan would want to conclude a treaty with Manuel as a way to gain victory over the other;\(^{288}\) in a letter of October, 25, 1514, Albuquerque wrote to King Manuel of Portugal, “In India there are several things to be done. The first is to conclude a treaty with the King of Narsinga, which cannot fail to be of great benefit to your Majesty.”\(^{289}\) In a letter sent from Cananor about a month later, on November 27, 1514, Albuquerque mentions that the treaty with the King of Narsinga had been concluded\(^{290}\):

On the 8th day of November, as I was on the point of starting from Goa to Cochin, the ambassadors from the King of Narsinga arrived, bringing me some bracelets and jewels, which I now send to your Majesty. Their instructions were to conclude, on behalf of the King of Narsinga, a treaty of peace and friendship with your Majesty; to wage war against the Turks in the kingdom of the Deccan, and arrange about the free importation of horses into their ports from Arabia and Persia. The first thing we talked about was the war with the Turks, in which I agreed to help the King of Narsinga; and as the King of Oran was a tributary of Narsinga, and was at war against Melique Az (captain of the Adil Khan) then at Cintacora, I wrote to the Adil Khan requesting him to instruct his captains to cease hostilities, which he did at once. As regards the question of horses, I could not agree to their proposals, and they at last returned to the King laden with presents from us.

This treaty did not last long, but this period seems the most likely time when the source of Waldseemüller’s report that the king of Narsinga is a particular friend of the king of Portugal originated. Thus this is a source that would have reached Waldseemüller rather close to the 1516 completion date of the map, like the 1515 Burgkmair print of the rhinoceros discussed in the introduction. Fries discusses Narsinga in Chap. 79 of the Uslegung,\(^{291}\) and there is an illustration of the city on f. 21v of the 1525 edition.\(^{292}\) By the end of the sixteenth century a war of succession had left the city in ruins.\(^{293}\)

The density of legends and coastal cities in southern India from Narsinga southward is impressive when compared with that of the large peninsula (Macini regio) just to its east.

8.4

BISINGAR CIVIT. Hec ciuitas maxima et omnium delicamentorum et voluptatum humanarum alitrix est, et locus magne mercature.

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\(^{286}\) The passage is in the Paesi and Itinerarium, Chap. 76; for an English translation see Greenlee, “The Anonymous Narrative” (see note 67 in Chap. 1 above), p. 82.


\(^{288}\) Afonso de Albuquerque, Cartas de Afonso de Albuquerque, seguidas de documentos que as elucidam, ed. Raymundo Antonia de Bullhão Pato (Lisbon: Academia real das sciencias de Lisboa, 1884–1935), vol. 1, letter 41, p. 199.


\(^{290}\) Albuquerque, Cartas de Afonso de Albuquerque (see note 288), vol. 1, letter 87, p. 340; the translation here is from Danvers, The Portuguese in India (see note 289), vol. 1, pp. 307–308.

\(^{291}\) The chapter on Narsinga is translated into modern German by Petzilka, Die Karten des Laurent Fries (see note 202 in Chap. 1 above), pp. 149–150.

\(^{292}\) The illustration of Narsinga in the Uslegung is briefly described by Johnson, Carta marina (see note 21 in Chap. 1 above), p. 110.

The city of Vijayanagar. This city is the greatest nourisher of all human delicacies and pleasures, and a center of much trade.

This legend comes from Varthema. 294

8.5
Zaylon siue Seylan insula nobilis diuisa in .4. regna. qui eam habitant ydolatre caffrani dicuntur. nascitur in ea Cinamomum sive Canella lapis Carbunculus rubinus hiacinctus Topiasius Saphirus et Granatus eciam gignit ele-
phantes maximos. in ea mons est super quem adam penitentiam egisse ab incolis superstitiose creditur.

The noble island of Ceylon which is divided into four kingdoms. Those who inhabit the island are Caffrani idolaters.

In it grows cinnamon or canella, carbuncle, ruby, hyacinth, topaz, sapphire, and garnet; it even bears huge elephants. On the island there is a mountain on the peak of which the locals superstitiously believe Adam did penance.

Marco Polo, Odoric, and Varthema all discuss Ceylon, 295 but most of the legend comes from Varthema. The one detail in Waldseemüller’s legend that is not in Varthema is the carbuncles on the island, and the cartographer may have added these to the list of precious stones from Odoric. Of course Waldseemüller’s use of Varthema represents a change and updating from his 1507 map, where his legend on Ceylon comes from Marco Polo. 296 The words diuisa in near the beginning of the legend are the result of a correction by hand of diuisam in accordance with the list of corrections in Legend 9.2. On the Caffrani idolaters see Legend 3.37 above.

8.6
Hic sepultus est S. Thomas

Here St. Thomas is buried.

This may have come from Marco Polo, Odoric, Varthema, or Priest Joseph. 297 Interestingly, there is a closely related legend on the 1507 map, his occissus est s. thomas, “Here St. Thomas was killed,” but Waldseemüller seems to have used one of his textual sources for this legend rather than copying from his own earlier map.

8.7
COLON REGNUM Hic habitant multi cristiani sub mandato ydolatrarum

The kingdom of Quilon. Here live many Christians under the control of idolaters.

This is one of the few cases on the Carta marina where information was available from Varthema, but Waldseemüller followed Marco Polo instead, 298 and also stayed with a legend very similar to that on his 1507 map. 299

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294See Varthema, The Travels of Ludovico di Varthema (see note 103), p. 126: “It is a place of great merchandise, is extremely fertile, and is endowed with all possible kinds of delicacies. It occupies the most beautiful site, and possesses the best air that were ever seen: with certain very beautiful places for hunting and the same for fowling, so that it appears to me to be a second paradise.”

295See Marco Polo, Marka Pavlova z Benátek, Milion (see note 54), pp. 165–166; for an English translation see The Book of Ser Marco Polo (see note 54), Book 3, Chap. 14, vol. 2, pp. 314–330; Yule, Cathay and the Way Thither (see note 61), vol. 2, pp. 170–173 (English), 305–307 (Latin), and 347–348 (Italian); and Varthema, The Travels of Ludovico di Varthema (see note 103), pp. 188–191.

296The legend on the 1507 map reads: SEYLAM Hec insula est vna de maioribus et melioribus mundi habens In circuitu miliaria duo milia et .xl. insula hec habet regem ditissimum qui nulli tributarius est homines insulae ha[ius] ydolatre sunt omnes nudi ambulant nullam bladum habent excepto riso habent lapides preci[osi], that is, “Ceylon: this island is one of the largest and best of the world, having a circumference of 2040 miles. This island has a very rich king who is tributary to no one. The men of this island are idolaters; they have no grain except rice, and they have precious stones.”

297See Marco Polo, Marka Pavlova z Benátek, Milion (see note 54), p. 189; for an English translation see The Book of Ser Marco Polo (see note 54), Book 3, Chap. 18, vol. 2, pp. 353–359; Yule, Cathay and the Way Thither (see note 61), vol. 2, pp. 141–143 (English), 297–298 (Latin), and 343–344 (Italian); Varthema, The Travels of Ludovico di Varthema (Italian) (see note 103), p. 187; the Pueoit or Itinerarium, Chap. 142, with an English translation in Greenlee, “The Account of Priest Joseph” (see note 70), p. 113.


299The legend on the 1507 map runs: Coilm ciuitas. Hic habitant christiani et Judei et idolatri[?] habent linguam propria rex nulli tributarius habent omnium genera specierum, “The city of Quilon. Here live Christians and Jews and idolaters; they have their own language. Their king pays tribute to no one, and they have all types of spicess.”
8.8
Hic crescit piper in magna copia

Here pepper grows in great abundance.

This legend comes from the same passage in Marco Polo as the previous one. 300

8.9
Hic piscantur perle.

Here they gather pearls.

This legend comes from Varthema. 301

8.10
Quam Taprobana insulam Dixere plinious ceterique vetustiores modo alii recenciores Sailon, alii Samotram volunt appelatam, quare eorum controversiam et dubium soluere non mihi animus est, cum id vix possent nisi perdifficile. Nam ambe ille insule nobilitate fructuum, gemmarum auri argenti aerisque disposicionem affluant equaliter. Samotra tamen meopte indicio (si dicere permittatur) esse Taprobana.

The island that Ptolemy, Pliny, and all of the other ancient authors called Taprobana, other more recent authors call Ceylon, and others Sumatra. I have no interest in resolving their controversy and doubt, as it would be very difficult or impossible. For those two islands are famed for their products and are equally endowed with supplies of gems, gold, silver, and copper. Nonetheless Sumatra, according to my opinion (if it is permitted to say so) is to be identified with Taprobana.

There was considerable confusion in the Renaissance about whether the island of Taprobana described by classical authors should be identified with Ceylon or with Sumatra. 302 In identifying it with Sumatra, Waldseemüller is following both Varthema and Joseph the Indian. 303 This legend seems to be one that Waldseemüller composed, rather than copying most of it from a specific source. A look at the island of Taprobana in Waldseemüller’s world maps offers a good overview of the evolution of his cartographic thought. The image of the island in the 1507 map is purely Ptolemaic; in the modern map of India in the 1513 Ptolemy it retains its Ptolemaic name (Taprobana Insula), but has lost its Ptolemaic shape and location, and Waldseemüller instead uses the shape of the island from Caverio’s chart, and the legend describing the island is adapted from Caverio’s; 304 while on the Carta marina he retains Caverio’s shape for the island, but calls it Samotra insula, and places between it and Seylan insula (Ceylon) this legend about the identity of Taprobana that derives from Varthema and/or Joseph the Indian. In the legend he says that he has no interest in resolving the controversy, and is hesitant to express his own opinion.


302 On the confusion about the identification of Taprobana see Ananda Abeydeera, “Taprobane, Ceylan ou Sumatra? Une confusion fécondée,” Archipel 47 (1994), pp. 87–123; and the same author’s “Giovanni Battista Ramusio y voit Sumatra et Immanuel Kant Madagascar,” Archipel 56 (1998), pp. 199–230. For another complaint that Ptolemy had located Taprobana incorrectly see Donald William Ferguson, “The Discovery of Ceylon by the Portuguese in 1506,” Journal of the Ceylon Asiatic Society 19.59 (1907), pp. 284–400, at 376, who quotes a letter from Andrea Corsali to Juliano de Medici dated January 6, 1515: “This island was not located by Ptolemy, whom I find deficient in many particulars. He placed Traprobana wrongly, as can be judged by Y. H. from the sailing chart that Don Michele the king’s orator brought to Rome.” Don Michele is Dom Miguel da Silva, and Ferguson speculates that the chart in question was a tracing sent by Albuquerque to King Manuel of a large Javanese chart which was lost in the wreck of the Flor de la mar in 1511.


304 The legend on the modern map of India in the 1513 Ptolemy runs: In hac insula que satis magna est reperitur auri suntque ibi berilli zinciber et ciaulusibet alterius generius aromata. Est autem gens ydolatrie dedita et sum quibusdam alis negotiatia ita ut pro eis que effertentur alie res in ipsorum insulas reportant. For the legend on the Caverio chart with an English translation see Stevenson, Marine World Chart (see note 32), pp. 114–115.
which is borrowed from Varthema and Joseph the Indian), but he does express his opinion very clearly by giving the name *Samotra insula* to the island that on Caverio’s map represented Taprobana. Of course this legend is part of Waldseemüller’s broader rejection of Ptolemy and other ancient authorities on the *Carta marina* in favor of more recent sources.

8.11

Samotra insula mag. diues et nobilis habens in circuitu plus quam 3000 miliaria in ea nascuntur piper longus lacca Bentzui sericum lapides preciosi elephantes maximum ubertate[m] habet in hec 4 reges coronatos tributarios Magno imperatori Chaam habitatores sunt ydolatre caffrani homines satis benigni bonam iusticiam ministrantes sunt magni mercatores habent monetam cusam de auro Argento et stangno.

The large island of Sumatra is rich and noble, having more than 3000 miles in circumference. Here are found long pepper, lacca, benzoin, silk, precious stones, and elephants. The land is very fertile. In the island there are four crowned kings who pay tribute to the Great Khan. The people are Caffrani idolaters and are reasonably kind, administer good justice, and are great merchants. They have stamped coins of gold, silver, and tin.

Some of this legend comes from Varthema, but there is also influence from another source that I have not been able to identify. Varthema says that Sumatra is 4500 miles in circumference rather than 3000, and also that there are three crowned kings rather than four, and says nothing about them being tributary to the Khan. Varthema does talk about the careful administration of justice on Sumatra, about the coins of different metals, and about the elephants, but his list of the exotic goods available on the island is different: he mentions long pepper, benzoin, and silk, but not lacca or precious stones. On the Caffrani idolaters see Legend 3.37 above. Fries discusses Sumatra in Chap. 102 of the *Uslegung*.

8.12

in istis insulis multum crescit de sacaro

In these islands much sugar grows.

I have not been able to locate the source of this legend.

8.13

BAGNELA REGALIS Rex bagnelle tributarius est magno regi de Cambalu

The royal city of Bengal. The king of Bengal pays tribute to the great king of Cambalu.

This is another of the relatively few cases in which Waldseemüller chose to follow Marco Polo rather than Varthema. Varthema describes the city of Bengal, but this legend does not derive from his description: he speaks of the king of Bengal having a huge army and being at war with the king of Narsinga, but not a word about him paying tribute to the king of Cambalu. Marco Polo says that when he was at the court of the Great Khan, the Khan’s armies had gone to conquer Bengal, but had not yet done so. Thus it seems that Waldseemüller assumed that they must have succeeded. But it is not clear why he chose to use Marco Polo e.

8.14

PEGO REGNVM Rex et gentes de pego ydolatre caffrani sunt. nascitur enim apud hos lighum Sandali prisilia eciam habundat in Bladis pectoris aliisque bestiis zibeto et muscio Elephantes paucos habent. Rex diues et potens tenet semper mille cristianos stipendiatos pro custodia sue persone. Rex tributarius est magno Chaam de Cambalu.

The kingdom of Pego. The king and people of Pego are Caffrani idolaters. Among these people grows sandalwood and brasil wood, and the region abounds in grain, cattle and other beasts, civet, and musk. They have few elephants.

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305 See Varthema, *The Travels of Ludovico di Varthema* (see note 103), pp. 228–234, and he discusses other aspects of the island through p. 243.

306 Fries’s chapter on Sumatra is translated into modern German by Petrzilka, *Die Karten des Laurent Fries* (see note 202 in Chap. 1 above), pp. 155–156. For a description of trade on Sumatra a bit more than a hundred years later see Roberts, *The Merchants Mappe* (see note 275), Chap. 105, pp. 213–215.


The king is rich and powerful, and always has a thousand Christian mercenaries to protect his person. He pays tribute to the great Khan of Cambalu.

Most of this legend comes from Varthema, but Varthema does not mention the sandalwood or brasil wood, or the idea that the king of Pego pays tribute to the great Khan—indeed Varthema says that the king is very powerful. I have not been able to determine the source of these additions: the suggestion that the king pays tribute to the Great Khan makes one think of Marco Polo, but Polo does not discuss Pego. On the Caffrani idolaters see Legend 3.37 above. Fries discusses Pego in Chap. 92 of the Uslegung.  

8.15  
PEGO CIVITAS REG in pego ciuitate maior contractus est in gemmis et mustio  
The royal city of Pego. In the city of Pego there is a great market in gems and musk.

This legend comes from the same passage in Varthema cited in the discussion of the previous legend: Varthema does not say that there is a market of musk in Pego, but he does give the price of civet cats. Also Pego is mentioned as a source of benzoin in the list of the sources of spices and other exotic goods in the Paesi and Itinerarium, Chap. 83.

8.16  
ZANA CIVITAS ET REGNUM Rex tributarius Magno Chaam nascitur hic Bentziu in habundancia  
The city and kingdom of Siam. The king pays tribute to the Great Khan; here benzoin grows in abundance.

I do not know where the idea that the king of Siam pays tribute to the Great Khan comes from, but Zana (Siam) is mentioned as a source of benzoin in the list of the sources of spices and other exotic goods in the Paesi and Itinerarium, Chap. 83.

8.17  
MACINI REGIO Ea pars que a Gange fluvio vsque ad cyambaru prouinciam per mare extenditur Macini regio ab incolis modo vocatur a latinis autem India exgra Gangem siue india minor  
The Macini region. The part that extends from the Ganges River to the province of Cyambaru along the sea is called the Macini region by its inhabitants, but by the Latins it is called India Beyond the Ganges or Lesser India.

It has been suggested that the name Macini is another form of Mangi, but this seems questionable; etymologically it is related to Machin, i.e. Burma, but was applied to China and Indo-China, as Waldseemüller does. The spelling Macini is used by Varthema once, but he does not define it, and it is not used on the Caverio map. The definition in Waldseemüller’s legend is the most precise I know, and is perhaps his own.

8.18  
Hic sunt galli et galline magni non habentes plumos seu pennas sed lanam sicut oues et oua bona producentes  
Here there are big roosters and hens that do not have plumes or feathers, but wool like sheep, and they produce good eggs.

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310Fries’s chapter on Pego is translated into modern German by Petrzilka, *Die Karten des Laurent Fries* (see note 202 in Chap. 1 above), p. 153.
311For an English translation see Greenlee, “The Anonymous Narrative” (see note 67 in Chap. 1 above), p. 93.
312For an English translation see Greenlee, “The Anonymous Narrative” (see note 67 in Chap. 1 above), p. 93.
Material about these chickens appears in both Marco Polo and Odoric, and in this case Waldseemüller made use of Polo, for Odoric does not mention the birds’ eggs. This legend is copied by Johann Schöner on his manuscript globe of 1520.

8.19
in istis montibus reperiuntur adamantes Smaragdi et alii lapides preciosi

In these mountains are found diamonds, emeralds and other precious stones.

This legend seems to be a duplicate of Legend 4.26 on the Valley of Diamonds mentioned by Marco Polo.

8.20
CVM GRATIA ET PRIVILEGIO IMPERIALI AD QUATUOR ANNOS Exartum [for Exactum] in vigilia Pentecostes Anno domini Millesimo quingentesimo sedecimo

By imperial favor and privilege [protected] for four years; published at the Pentecost Vigil [May 11], 1516.

It is unfortunate that the printer’s name is not indicated. The elaborate decorations around the cartouche help fill what would otherwise be a large area of empty ocean. Waldseemüller’s uneasiness about leaving a large empty space here is palpable, particularly when the Carta marina is contrasted with Caverio’s chart.

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315 See Marco Polo, Marka Pavlova z Benátek, Milion (see note 54), p. 149; for an English translation see The Book of Ser Marco Polo (see note 54), Book 2, Chap. 80, vol. 2, p. 229; and Yule, Cathay and the Way Thither (see note 61), vol. 2, p. 186 (English), 311 (Latin), and 352 (Italian).
2.10 Sheet 9. Cartouches in the Map’s Southwest Corner (Plate 2.9)

The cartouche in the upper left, which is in the shape of a shield, is surrounded by text that says the chart is dedicated to Hugo de Hassard (Hugues des Hazards), Bishop of Toul, a town in what is now eastern France about 60 miles northwest of Saint-Dié. The cartouche in the lower left is covered with a glued-on sheet of paper, but beneath that sheet is a list of printing errors, all of which Johann Schöner had corrected by hand on the surviving copy of the map, except for those on sheet 6. The large cartouche on the right contains Waldseemüller’s introduction to the map: he describes his 1507 map as representing the world as it was known to the ancients, while his new map, the Carta marina, aims to show the world as it is known in his time. He also lists his most important sources in making the map.

9.1

The most worthy gift of Hugues des Hazards, bishop of the church of Toul.

This text surrounds the shield-shaped cartouche in the upper left part of the sheet, and indicates that Hugues des Hazards had contributed financially to the production of the map, presumably by helping to defray the costs of its printing. Hugues was Bishop of Toul from 1506 to 1517.316 Gautier (or Walter) Lud inscribed the dedicatory letter in Matthias Ringmann’s Grammatica figurata of 1509 to the bishop, so there had been some previous association between Waldseemüller’s circle and Hugues.317 Waldseemüller’s intention was certainly not that Hugues’s coat of arms be printed in the cartouche,318 but rather that the coat of arms of the purchaser of the map be added in the cartouche by hand.

9.2
Errata emendentur


Please Correct These Errors.

In the entrance of the part of Norway near the ocean [sheet 2] please add the name “Groneland”; in the German Ocean add the name of the island “Islanda,” for it belongs to another island further to the north. Beneath the Senegal River read “seu brachium” for “seu brachi” [in Legend 6.10]. Near the western ocean read “leopardi” for “Teopardi” [Legend 6.6]. Near Baghdad read “soluit tributem imperatori Chaam” [Legend 3.26]. On the big sheet near Brazil read “portogalenses” for “portogalensis” [Legend 10.2], and on the same sheet “Januensis” for “tanuensis” [same legend]. In Arabia deserta read “que charoanam mercatorum inuadunt” [Legend 3.18]; also “Braua insula” for “brana” [off the tip of East Africa]; near Bismagar read “rege mortuo comburentur” for “comburetur” [Legend 8.3]; on the sheet for Ceylon read “diuisa in .4.” for “diuisam .4.” [Legend 8.5]; near Camul read “sunt ydolatre sub


dominio tartarorum” [Legend 4.20]. Near the Ganges River read “contra regem Narsinge” for “contra rege” [Legend 4.15]; near the line that circumscribes Tartaria read “Quod extra ambitur” for “quod intra ambitur” [Legend 4.1]. On the sheet of Mongol Tartaria read “alendis pecoribus apta” for “alendis pedoribus” [Legend 4.16]; on the sheet of the province of Cathay read “veteris ac noui testameti scripturas” for “scripturaram” [sic] [Legend 4.28]; on the same sheet read “sed dispositione faciei” for “dispositioni” [Legend 4.28]; on this sheet beneath the city of Cambalu read “Imperatoris” for “imperatorum” [Legend 4.29], and on the same sheet “habitatoni [sic] domini Chaam” for “habitatoni” [same legend], and on the same sheet read “sunt in eo .4. columna de auro” [same legend]. Near the emperor Noy read “imperator super .600000. armatorum” [Legend 3.8]. On the sheet of Mangi read “diuisit prouinciam Mangi” for “prouinciam magui” [Legend 4.30], and everywhere that “prisilicum” appears read “brasilicum.” All other errors are entrusted to the reader’s discretion.

This list of corrections was printed on the map but is covered by a pasted-on piece of paper that was on the map when it was discovered, and thus the printed text is not visible without using special methods to see through the pastedown. It is tempting to think that the piece was added after the corrections were entered by hand on the map, but there is no way to be certain. All of the corrections are entered on the map except the first one about the name “Groneland” and the one for sheet 6 (see the introductory paragraph for that sheet). The corrections have been transcribed twice before, in the first case by Fischer and von Wieser by shining a bright light through the map, and in the second by John Hessler and colleagues at the Library of Congress through hyperspectral imaging. Both transcriptions contain errors, the abbreviations were not expanded, and no

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The possibility that there would be printing errors on the map is mentioned in Legend 7.19. The beginning of the list does not make good sense. Evidently no effort was made to put the corrections in any particular order. The possibility that there would be printing errors on the map is mentioned in Legend 7.19.

9.3 MARTINVS WALDSEEMULLER ILACOMILVS LECTORI FELICITATEM OPTAT INCOLVMEM NE TIBI LECTOR ingenue videremur confusionis admirationem ingessisse, vel cuiusvis dubitationis sive erroris praebere spetiem, que credamus a nobis ipse dissentire, aut certe discordiarum sementaria in hac nostra terre marisque descriptione praebuisse, paucis placuit (& his quidem nullo retherico fuco depictis) mentem nostram hoc proloquito declarare. Namque non solent veritatis inquisitores ornati sermonis stilo colorare verba, dicendic maiestatem exornare lepore, sed veneranda quedam simplicitatis affectuaria, auream veritatem humili tectam orationis palliolo prouestigare. Generalem igitur totius orbis typum, quem ante annos paucos absolutum, non sine grandi labore, ex Ptolomei traditione, autore profecto praie nimia vetustate vix nostris temporibus cognito, in lucem edideramus, & in mille exemplaria exprimi curauimus multo studio sic elicuimus vt illos dumtaxat terrarum et regionum situs mortaliumque ritus ac conditiones, Civitatum, gentium, montium eas solum continere at in se haberet consuetudines & naturas quas sub Ptolomei temporibus et etatate [for etate] constat floruisse, ac vguisse. Additis non paucis quae per marcum civem venetum tempore Clementis .4. & Gregorii.x. maximorum pontificum et Cristoforum Columbii & Americum vesputium capitaneos Portugallenses lustrata fuere simul et experimenta testificante adinventa. Verum enim quia vt solet temporum interlapsus et malitia inuertere singula atque mutare vnuer[s], sic totius orbis machina constat a Ptolomei temporibus immutata vt de viginti vix vnam reperire licet ciuitatem vel regionem que prime retineretur vetustatis nuncupationem, cuius non sit vel inuersum vocabulum aut nouis extractis opidis noua illis post hec Ptolomei tempora indita nominacioni, quod in nostris regionibus perspicere claret, nulla inde difficultas exoriri potest id quidem in remotissimis equo modo aut magis se habere. Nec difficilis hac in re nobis tam in propinquis quam in remotissimis regionibus et ciuitatibus adesse potest exemplificatio. Vbi sunt inquam iuxta Rhenum flumen nuncupata aut quis ostendere potest Gannodorum Augustam Rauricum Elcebum Berbetomagum aut apud exteros maritimas ciuitates has Bizantium Aphrodisium Chartaginem Niiuum quarum nobis a Ptolomeo nomina tradita sunt quam exactissime. Qvis populos Sequanos, Heduos, Helueticos, Leucos, Vangiones, Hagones, Mediomatices sic quondam nominatos hac nostra potest tempestate disocere, & his nominibus habunde notificare. Non est certissimo fator e quae gelliam Celticam et Belgicam Austrasiam Noricium, Pannoniam, Sarmatiam, scythiam, Thauricam et auream chersonesos, sinum, Canticolphum, sinum Geneticum, & insulam nominatissimam Tapirobanam vetustis queat neminibus atque vocabulis prouestigare, cognoscere, inuenire, tantum valet in his mortalium rebus innouare vetustas et temporibus permutura decursus. Id expertum habuit recensiorum [for recentiorum] iustratorum experimenta, id longa perquisuit mortualium hominum terrarum laboriosa peragration, que non solum in terrarum ac regionum appellatione sic immutata, sed & in celesti quoque plaga ad equatoris considerationem neglienter sint obseruata, quod tamen in oris Ethipiae gue in insulis quidem fortunatis nunc canariis appellatis liquet que magis Septentrionales, et oris indie sicut Cumari promontorium quod magis Meridionale esse perhibetur quam a Ptolomeo traditur est. Quod tamen non audeamus Ptolomeo tan diligentius rerum indagatoru adscribere nec absurde crediderim id iustratorum potius negligentie tribuendum esse quam met ipse lamentetur contingens plura sibi minus diligenter tradita puisse ob idque irrefragibiliter suadeat nouos potius quam antiquos imitandos esse cosmographos, ne tanta rudus permutatio in incerto & incognita permaneat. Quibus ipse permutos communi eruditorum utilitati studens hunc secundarium totius orbis typum primo adieci, vt sicut illic veterum constetit auctorum totius orbis terra marique descriptio, sic relueat hic non noua solum ac presens totius orbis facies, sed cum hoc medioerum temporum indita rebus mortalibus consueta & naturalis permutatio pateat vt vnicum habeat (si ita dici iubet) contiuui quid, quales, quomodo res caduce nunc & consequentia prisci futurum temporibus et quales aliquon future a nobis nullatenus dubitari possint. Hanc igitur iuxta Neotericorum traditionem totius orbis spetiem & descriptionem Chartam placuit appellare marinam, eo que in maris descriptionibus vulgarem fuerimus & approbatissimam nautarum tabularum notificationes insequuti, sumus insuper in mediterranea Asie atque Aproxice descriptione Ne[o]tericorum itinerarios, particaules tabulas, chorographias, & quorundum recensiorum [read recentiorum] iustratorum relationes plerumque imitati, fratris videlicet Ascelini qui sub Innocento pontiifice maximino in humanis rebus non paucu prelustravit, fratris Odorici de foro Iulii de parca Leonis, Petri de Aliaco, Fratris Iovanni de Plano Carpio, Maffii et Marci Civium venetorum Casparis iudei indici cuius itinerarii liber regi Portugalissie mandatus est atque descripsit, Francisci de Albiecheta Iosephi de India Aloysi de Cadamosco, Petri aliaris, Christophori Colubmi Iauensusis Ludo[v]ici
Martin Waldseemüller (Ilacomilus) wishes the reader unblemished happiness.

Lest I should seem, noble reader, to be trying to dazzle you with confusion, or to give the appearance of any kind of doubt or error, in which I might seem to disagree with myself, or to supply the grounds for disagreements in this map of the land and sea, it seemed a good idea to declare my mind in this introduction, in a few words free of rhetorical coloring. For those who seek the truth do not adorn their words with stylistic flourishes, or embellish the dignity of their speech with a superficial charm, but use a venerable abundance of simplicity to cover the golden truth with a little cloak of speech. And so: a few years ago I finished a general map of the whole world, not without great labor, according to the tradition of Ptolemy, an author barely known today because of his great antiquity. I published it, and had a thousand copies printed with great care. I made it so that it would contain only those lands and regions, those religions and conditions of people, and those customs and natures of cities, peoples, and mountains—that it would only have in it those customs and characteristics that are known to have been extant or in use in Ptolemy’s time. Many things were added that were discovered and confirmed through the testimony of experience by the Venetian citizen Marco during the papacies of Clement IV and Gregory X, and by the Portuguese captains Christopher Columbus and Amerigo Vespucci. For indeed, as the passage of time is accustomed to overturn a specific bad thing and to change wickedness as a whole, so it is well known that the whole machine of the world has changed since Ptolemy’s time, so that out of twenty cities or regions hardly one can be found that retains its old name—whose name has not been changed, or new names given to new cities built after Ptolemy’s time. This can even be seen in our own regions, but any difficulty in this regard would certainly be equal or greater in distant regions. And it is not difficult for me to provide examples of this, both in nearby cities and regions and in very distant ones. Where are those cities that were said to be by the Rhine, or who can point out Gannodurum [Konstanz], Augusta Rauricum [Augst, Aargau, Switzerland], Elcebus [Ell, near Strasbourg], and Berbetomagum [Worms], or among foreign maritime cities, Byzantium, Aphrodisias, Carthage, Ninive, whose names have been handed down to us by Ptolemy with great precision? The people once known as the Sequani, the Hedui, the Helvetians, the Leuci, the Vangioni, the Hagoni, the Mediaticraces—who can recognize them today, and who can easily make them known to us by these names? I acknowledge that one might not be able to locate, find, or recognize according to their ancient names Celtic Gaul and Belgian Gaul, Austrasia, Noricum, Pannonia, Sarmatia, Scythia, Thaurica, the Golden Chersonese, the Bay of Canticolphus, the Bay of the Ganges, and the very well-known island of Taprobane: so much does it prevail in these human things to alter ancient practices and to change course with the times. This is confirmed by the experience of recent explorers, and was found out by the long and laborious reconnaissance of the world: not only those things which in the naming of lands and regions have been thus altered, but even those which in the celestial regions and the study of the equatorial regions have been inaccurately recorded, so that it is clear that the shores of Ethiopia and the Fortunate Islands, now called the Canaries, should be more to the north, and in the shores of India, the Promontory of Cumari [Cape Comorin] is held to be further to the south than Ptolemy said. Which errors however I would not dare to ascribe to Ptolemy, so diligent an investigator, nor would I absurdly believe that the errors are to be attributed instead to the negligence of explorers, when he himself complains, asserting that many things were inaccurately passed down to him, and because of this, indubitably persuades us to follow the recent rather than the ancient cosmographers, lest so great a change in things remain uncertain or unknown. Moved by these considerations, and in the interest of the common utility of scholars, I have added this second image of the world to my first, so that just as in the first the image of the whole world, land and sea, agreed with that of the ancient authors, so in this one, not only may the new and present face of the world shine forth, but together with that, the customary and natural change introduced into worldly affairs in the intervening times, so that you can see (if I may say so) at a single glance why, of what kind, and how transitory things have come to be now, what they were like in former times, and how they will be in the future, without a doubt. Therefore, it seemed good to call this image and description of the whole world, made in accordance with the tradition of modern authors, a Carta marina, and for that reason, as far as the depiction of the oceans, I have followed the commonly used and the most approved nautical charts and their indications, while in the depiction of the Mediterranean, Asia and Africa I have made ample use of recent authors’ travel narratives, regional maps, descriptions of countries, and the accounts of some recent explorers, such as that of Ascelinus the monk, who during the papacy of Innocent made extensive explorations in human affairs; of friar Odorico of Pordenone in Friuli, Pierre d’Ailly, friar John of Plano Carpini; Matteo and Marco [Polo],
citizens of Venice; Caspar the Jew of India, whose travel narrative was inscribed and sent to the King of Portugal; those by Francesco [de Almeida], Joseph the Indian, Alvise de Cadamosto; Pedro Alves [Cabral]; the Genoese Christopher Columbus, and the Bolognese Ludovico de Varthema. All of whose voyages, experiences, and descriptions (or maps) of the world, which were sent to me by many who promote and love this type of work, I have reduced into the form of the marine chart that you now see. I was not concerned with embellishing each word of my description with ornate style or placing them in a striking order, for I prefer a plain style to express the truth. For that reason I beg you to follow me with a well-disposed spirit. Farewell.

The first and last thirds of this legend were transcribed and translated by M. T. di Palma, the latter part where Waldseemüller discusses his sources has been translated by Baldacci, and the whole legend was translated by John Hessler. The transcription and translation here are my own. It has been questioned whether Waldseemüller’s reference to an earlier world map in the early part of the legend is in fact about his 1507 map, but it is not at all clear to what other map Waldseemüller might be referring. Doubt has also been cast on the cartographer’s claim that 1000 copies of the 1507 map were printed, particularly as only one copy of the map survives. While there is no way to be certain in this matter, it is worth keeping in mind that the 1507 map was a very ambitious project, and thus an ample print-run would be expected. Although there is little data regarding print runs for books in the early sixteenth century, and none for maps, there are some indications that a print run of 1000 books would not have been unusual. With regard to the fact that only one copy of the 1507 map (and of the Carta marina for that matter) survives, that is not at all unusual: in the Incunabula Short-Title Catalogue (ISTC), there are thousands of editions of books for which only one copy survives. Maps printed on large sheets are prima facie much more perishable than books, as they lack the built-in protection of a book’s covers, and it is very easy to find examples of sixteenth-century maps that survive in only one or two exemplars.

As mentioned briefly in the introduction above, the section of this legend on the Carta marina that addresses changes in place names is very similar to a passage in the introduction to the second part of Waldseemüller’s 1513 edition of Ptolemy, and in fact some of the place names he uses as examples are the same in the two passages. Here is the passage from the 1513 Ptolemy:


But since the course of time changes many things from day to day as it passes, it has become generally evident that the author deviates notably from those more modern, as may be seen in the two Pannonias, which are now called Hungary and Austria; and the region which was called while it flourished, by the sole appellation of Sarmatia or Sauromata, we now name in its divisions, Poland, Russia, Prussia, Muscovy and Lithuania. Change in the names of nations has also come into use. For those whom the ancients called Helvetii and Seguani, we now commonly call Burgundians and Swiss. Certain cities, too, have lost their primitive names, for who with his finger will point out on the River Rhine the cities Canodorum, Augusta Rauricum, Elcebus and Berthomagus mentioned by Ptolemy?
Waldseemüller mentions using some local maps (particulares tabulas, chorographias) in the composition of the Carta marina, and though we do not have any direct evidence about which local maps they might have been, R. A. Skelton has listed some of the works, including maps, that Waldseemüller used in making his 1513 Ptolemy. It is worth pointing out that Waldseemüller’s list of the sources he used is certainly not complete, though we would not really expect it to be so. Just to mention two examples, in the introduction above it was shown that Waldseemüller was using as a source for his depictions of the lands a large and elaborately decorated nautical chart, similar in nature to the Catalan Atlas of 1375, Mecia de Viladestés’s chart of 1413, or the Catalan-Estense map of c. 1460, but he only mentions using nautical charts for his depiction of the ocean; and in the commentary on Legend 3.27 we saw that Waldseemüller was using the brief thirteenth-century account of a journey to the Holy Land by one Thetmar or Theitmar.

2.11 Sheet 10. Southern South America and the South Atlantic (Plate 2.10)

The coastal place names in South America come from Caverio’s nautical chart of c. 1503; Caverio has a Portuguese flag at the southern end of the continent, but Waldseemüller replaced this with a Spanish flag. The name “America,” which Waldseemüller so famously debuted in South America on his 1507 map, does not appear on the Carta marina. At the bottom of this sheet is a scale of Italian miles for measuring distances on the map: compare this with the scale of German miles on sheet 2. As Waldseemüller specifies in the Cosmographiae introductio, the German mile was four times as long as the Italian mile.328

10.1
BRASILLA SIVE TERRA PAPAGALLI Antropophagogorum genus hic est

Brazil or the Land of Parrots. The people here are man-eaters.

The name Brazil (in one of its many variant spellings) seems first to have been applied to the New World in print in 1504; a “R. de Brasil” appears on the Ruysch map of 1508, and there is a “rio de brazil” and an “y de brasill” on the Tabula Terre Nove in the 1513 Ptolemy, but the first map on which the name is used for a region in South America is Gregor Reisch’s world map in the 1513 edition of his Margarita philosophica.329 It is interesting that Reisch’s map is largely based on those in the 1513 Ptolemy: he evidently took the idea that the name Brazil applied to the whole region from another source. Incidentally Fries discusses Brazil in Chap. 82 of the Uslegung.330

The first cartographic appearance of New World parrots is on the Cantino chart of c. 1502; they also appear on the Caverio chart, and one of the few artistic decorations on Waldseemüller’s 1507 map is a parrot in South America that is perched on a banner that reads Rubei psitaci, i.e., red parrots.331 Given that the Carta marina is iconographically richer than both the Caverio chart and his own 1507 map, it is interesting that Waldseemüller chose to use the name Terra Papagalli, but not to represent the birds. This choice seems to reflect the cartographer’s greater interest in Asia than in the New World: both legends and decorations in the New World are quite sparse compared to those in Asia. We cannot be certain where Waldseemüller obtained the name Terra Papagalli, but it does appear in the Paesi, Chap. 125, in a letter from Giovanni Matteo Cretico dated June 27, 1501.332

For discussion of the long tradition of reports of cannibals in the New World, see the commentary on Legend 5.5 above.

10.2
PASSIM INCOLITVR HEC REGIO QVE PLERISQVE ALTER TERRARVM ORBIS EXISTIMATVR. FEMINE AC MARES VEL NVDI PRORSVS VEL INTEXTIS RADICIBVS AVIVM PENNIS VARIII COLORIS ORNATI LABIIISQVE PERFORATIS INCEDVNT. APVD MVLTOS VIVITVR IN COMMVNI. NVLLA RELIGIONE. BELLA FREQUENTISSIME GERVNT, HVMANA CAPTIVORVM CARNE VESCVTNR. AERE ADEO CLEMENTI VTVNTVR VT SVPRA ANNVM 150. PLVRES VIVANT. RARO ERGOTANT ET SI SE PERTVRBATVROS SENSERINT RADICIBVS HERBARVM CITO CVRANTVR.

328 See Fischer and von Wieser, The ‘Cosmographiae introductio’ of Martin Waldseemüller (see note 7 in Chap. 1 above), pp. xxxvi (Latin, towards the end of Chap. 9) and 77 (English).
330 Fries’ passage on Brazil is translated into modern German by Petrzilka, Die Karten des Laurent Fries (see note 202 in Chap. 1 above), p. 150.
332 The passage in the Paesi, Chap. 125, that includes the name “Land of the Parrots” runs: di sopra dal capo di Bonasperanza verso garbin hanno scoperto una terra nova. la chiamano de li Papaga per esserene di longeza di brazio 1. & mezo di varii colori: de li quali ne hauemo uisto doui: indicando questa terra esser terra ferma perche scorsero per costa piu di do.M. miglia ne mai trouono fine . . . “Above the Cape of Good Hope to the west they have discovered a new land. They call it that of the parrots, because some are found there which are an arm and a half in length, of various colours. We saw two of these. They judged that this was mainland because they ran along the coast more than two thousand miles but did not find the end.” The letter of Cretico is translated into English by Greenlee, The Voyage of Pedro Álvares Cabral (see note 70 in Chap. 1 above), pp. 119–123, with this passage on p. 120.
This land, which many believe to be a whole other world, is inhabited throughout. The women and men walk around either completely naked or decorated with roots interwoven with feathers of various colors, and they have their lips perforated. Many of them live communally, and have no religion. They wage war very frequently, and they eat the flesh of their prisoners. The climate is so mild that many of them live beyond 150 years of age. They seldom fall ill, and if they perceive they are about to become unwell, they are quickly cured by the roots of herbs. Lions, snakes and other wild beasts live here, and there are very dense forests of odiferous trees, such as cassia, cedar, brazilwood, and pines of various types. There are great quantities of pearls and gold. This was discovered in about 1492 through numerous voyages by the Spaniards and Portuguese, under the following captains: first Christopher Columbus, then Pedro Álvares [Cabral], and third, Alberico [Amerigo] Vespucci. So far no one has explored the hinterland, but the inhabitants of the coasts say that it is enormous and full of people.
This legend has been translated by Baldacci, but the translation here is mine. More than half of the legend seems to have been inspired (like Legend 5.3 above) by a legend on Ruysch’s world map of 1507–08:


This region is everywhere inhabited; it is considered another world by most people. Women and men go either completely naked or dressed in woven fibres and birds’ feathers of various colors. Many live together with no religion and no king. They constantly wage war amongst themselves. They feed on the human flesh of captives. They have such a mild climate that they live beyond their 150th year. They are rarely ill, and when they are, they are healed simply by the roots of herbs. Lions live here and snakes and other dreadful beasts of the forest. There are mountains and rivers. There is a great quantity of pearls and gold. Timber of brasil [used for red dye], also called “verzin,” and cassia are exported from here by the Portuguese.

As with Legend 5.3 I do not think that Waldseemüller’s reliance on Ruysch here has been noted previously. The substances of both Ruysch’s and Waldseemüller’s legends come from the account of Vespucci’s third voyage in the Paesi or Itinerarium: the idea that the newly discovered lands are a new world, from Chap. 114; the fact that the people are nude, live communally, have no king, eat the flesh of their prisoners, live to be 150, heal themselves with roots, and that there are lions and serpents, from Chap. 117; and the reference to dense forests, gold, and pearls from Chap. 118. I do not find the list of trees in the Paesi or Itinerarium, but a couple of them come from Ruysch. It is worth remarking that while the latter part of the legend proclaims Columbus’s precedence as discoverer over Vespucci, and in general the Carta marina recognizes Columbus’s precedence (in contrast to the 1507 map), most of the legend in fact comes from Vespucci.

The phrase at the beginning of the legend to the effect that most people consider it another world recalls a phrase in Pomponius Mela 3.70 about the island of Taprobana: Taprobane aut grandis admodum insula, aut prima pars orbis alterius... dicitur, “Taprobana is said to be either a very large island, or the first part of another world.” This similarity shows that the difficulty of determining the nature of distant lands was a problem that explorers had faced for centuries.

Johann Schöner copies this legend almost verbatim on his manuscript globe of 1520, where it straddles the Tropic of Capricorn in the interior of the South American continent. However, Schöner takes the last sentence of the legend and places it north of the equator at an angle, even though he had room to write it at the end of the legend. This change was perhaps motivated by a desire to have the sentence about the interior of the continent closer to its center.

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2.12 Sheet 11. Southern Africa and the Southwestern Indian Ocean (Plate 2.11)

At the top of the sheet in Africa are the Montes Lune or Mountains of the Moon, the source of the Nile according to Ptolemy, whose tributaries we see flowing northward. The southern part of the continent is labeled NOVE COGNITE AFRICE PARTIS EXTENSIO—“extension of the newly discovered part of Africa”—meaning the part that was unknown to Ptolemy. South of the southern tip of the continent is a large image of King Manuel of Portugal riding a sea monster to express his nation’s mastery of the oceans, particularly of the sea route around the southern tip of Africa to Asia. Curiously, the alternative name given for the island of Madagascar is the Island of St. George, rather than the Island of St. Laurence, as it usually is.

11.1
Sub istis montibus sunt basilisci Merguli [for et reguli] serpentes ita ut totum istud latus sit quasi desertum propter eos.

Beneath these mountains are basilisks and serpents called reguli, so that this whole area is all but deserted because of them.

As indicated in the transcription, “Merguli” must be an error for “et reguli”: the mergulus is the bird called the diver in English, which does not live under mountains and would not cause an area to be deserted, but the regulus and basilicus do make sense together, as Isidore, Etymologiae 12.4.6–9 and Bartholomaeus Anglicus, De proprietatibus rerum 18.15 say that they are the same creature.336 I am not familiar with a text that says that these serpents live under mountains; nor have I found a convincing source for Waldseemüller’s illustrations of the serpents.

11.2
CRISTIANISSIMI EMANUELI REGIS PORTOGALIE VICTORIA

The victory of Emanuel, the very Christian King of Portugal

The victory of King Manuel is Portugal’s mastery of the sea route to India around the Cape of Good Hope, pioneered by Vasco da Gama, which is symbolized here by an image of Manuel riding a sea monster near the southern tip of Africa: his control of the sea monster expresses Portugal’s confidence in navigating the ocean. In the introduction I discussed this image of Manuel as an expression of the title Senhor da conquista e da navegação e comércio de Etiópia, Arábia, Pérsia e da Índia, “Lord of the conquest, and navigation, and commerce of Ethiopia, Arabia, Persia and India”—the adoption of which title is reported in the Paesi and Itinerarium, Chap. 62.337 I also suggested that the image was inspired by that of Neptune riding a sea monster near Jacopo de’ Barbari’s view of Venice. Waldseemüller’s image should be considered in relation to Portuguese imagery of Manuel: the armillary sphere and a grouping of spheres around the earth, both expressing world control, were one of his most common symbols.338 Also, the image of Manuel riding a sea monster may be compared with that of Manuel at the beginning of Book 2 of the Ordenações Manuelinas, that is, Liuerdo primeiro [-quinto] das Ordenações, Nouame[n]te corrigido na segu[n]da e[m]pressam (Lisbon: Joham Pedro Bonhomin, 1514): in the foreground, the image shows Manuel’s power through his close relationship with the clergy, and in the background there is a chorographic image of the world showing the economic activities and trade over which Manuel presides, and which support his power.339

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337 The passage about Manuel’s title appears in the so-called Second Letter of Girolamo Sernigi, and is translated into English in Ravenstein, A Journal of the First Voyage (see note 57 in Chap. 1 above), p. 141.


11.3
INS. S. GEORII SIVE MADAGAS

Hec insula habet in circuitu ferme .4. milia miliarium dives est multum habet
eciam copiam leonum elephantum camelorum Leopardorum et ceterorum animalium incole huius sunt
Machometiste

The island of St. George or Madagascar. This island is about 4000 miles in circumference, and is very rich. It has an
abundance of lions, elephants, camels, leopards and all other animals. The inhabitants of this island are followers of
Mohammed.

Madagascar was described by Marco Polo, and curiously although the legends on both the 1507 map and the Carta
marina derive from Marco Polo, they are different: the legend on the 1507, which falls into two parts, is longer and follows
Polo a bit more closely, except in the matter of the circumference of the island, where the 1507 map indicates 2000 miles,
while Polo and the 1516 map give 4000 miles. Evidently Waldseemüller could not find a more recent source that gave a

340 The two legends on Madagascar on the 1507 map run: Silua sandali Hec est maior Et ditoir insula totius mundi continet.n. ambitus eius in
circuitu miliaria 2000 habitatores sunt Saracen[ni] macometiste non habentes regem, “Forests of sandalwood. This is the largest and richest island
in the whole world. Its circumference is 2000 miles, and its inhabitants are Islamic Saracens who do not have a king”; and Habet haec insula
nemora sandalorum & omnia genera specierum etiam elephantes leones linceos leopardos cerner[os] [sic, for ceruos] damos et aves multarum
specierum. “This island has groves of sandalwood and all types of spices, as well as elephants, lions, lynxes, leopards, deer, bucks, and many
species of birds.”
341 See Marco Polo, Marka Pavlova z Benátek, Milion (see note 54), pp. 184–185; and The Book of Ser Marco Polo (see note 54), Book 3,
detailed description of the island; Varthema, for example, just mentions it briefly. It is puzzling that Waldseemüller refers to Madagascar as the island of St. George, which is a mistake for St. Laurence, the name by which it was known following its rediscovery, if we may use that term, by the Portuguese early in the sixteenth century. For a description of trade on Madagascar a bit more than a hundred years after the making of the Carta marina see Roberts, The Merchants Mappe (1638), Chap. 35, p. 111: he says that the inhabitants would not let traders land on the island.

11.4

HIC TRAMONTANA VIDERI NON POTEST

Here the North Star cannot be seen.

A few of the authors that Waldseemüller consulted mention not being able to see the North Star from areas of the Indian Ocean: Marco Polo says this of Java Minor, Odoric says it of Sumatra, and Varthema of the island of Monoch, probably the Moluccas, and also of the sea near Java, but I do not know of any source that Waldseemüller used that mentions this near Madagascar. The legend is at almost the same latitude (just above the Tropic of Capricorn) as Legend 12.1, which talks about the northern stars not being visible near Taprobana, whose southern tip is just to the north of that legend. So perhaps this legend (11.4) is simply the result of Waldseemüller copying information westward from that legend (12.1)—westward to a point that would be relevant to ships journeying between Europe and Asia by way of the Cape of Good Hope. Another possibility is that the legend is to be connected with Legend 6.3 about the compass needle turning south: both legends may come from a source describing a voyage around Africa, but if so, I do not know which voyage.

11.5

INDICUM HOC PELAGUS OMNE CUM SUIS SINUBUS PTHOLOMEUS UNDIQUE A TERRA CLAUDI RETULIT. PORTOGALENSIUM NAVIGATIO SECUS OSTENDIT NOSTRA TEMPESTATE

Ptolemy said that this Indian sea with all its bays was totally enclosed by land, but recent Portuguese voyages demonstrate otherwise.

This legend is transcribed and translated by Baldacci, but I give a somewhat different translation here. Waldseemüller’s legend is very similar to one on Ruysch’s map:

Indicum hoc pelagus quod omne cum suis sinubus undique claudi a terra ptolomeus retulit: partem oceani esse lusitanorum navigationes ostenderunt hoc tempore.

Ptolemy said that this Indian sea with all its bays was totally enclosed by land, but recent Portuguese voyages have demonstrated that it is part of the ocean.

It is clear that Waldseemüller took his legend from Ruysch (as he did with Legends 5.3 and 10.2), or else the two cartographers were working from the same source. As in the cases of Legends 5.3 and 10.2, to my knowledge the connection here between Waldseemüller’s legend and Ruysch’s has not been pointed out before.

342 See Varthema, The Travels of Ludovico di Varthema (see note 103), p. 296.
344 See Marco Polo, Marka Pavlova z Benátek, Million (see note 54), pp. 160 and 162; and The Book of Ser Marco Polo (see note 54), Book 3, Chap. 9, vol. 2, p. 284; and Book 3, Chap. 10, vol. 2, p. 292.
345 Yule, Cathay and the Way Thither (see note 61), vol. 2, pp. 146–147 (English), 299 (Latin), and 344 (Italian).
346 See Varthema, The Travels of Ludovico di Varthema (see note 103), pp. 246 and 249.
348 Unfortunately this legend is not discussed by John Boyd Thacher, The Continent of America (see note 172), in his chapter on the legends on the Ruysch map, pp. 212–215. For references on the Ruysch map see note 172.
Fra Mauro on his mappamundi of c. 1455 has a legend pointing out that Ptolemy was incorrect about the Indian Ocean being enclosed by land, \(^{349}\) and in Gregor Reisch’s *Margarita philosophica*, first published in 1503, there is a Ptolemaic world map with the usual Ptolemaic land bridge joining southern Africa to southern Asia, but across that land bridge is written *Hic non terra sed mare est; in quo mire magnitudinis Insulae sed Ptolomeo fuerunt incognite*, “Here is not land but sea, in which there are islands of remarkable size unknown to Ptolemy.”

11.6

*Java. In this island are found silk cloth and porcelain.*

This is one of the relatively few legends on the *Carta marina* that is similar to one on the 1507 map, where the legend reads *Iona In ista insula reperiuntur panni de serico texti et porcellana vel bombex*, “Java. In this island are found silk cloth and porcelain or shells.” These legends on both of Waldseemüller’s maps derive from that on Caverio’s map: *Y. Iana. Em ista insulla a multo benioim et seda et porcelanas*, “The island of Java. In this island there is much benzoin resin and silk and porcelain.”

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\(^{349}\)See Falchetta, *Fra Mauro’s World Map* (see note 143 in Chap. 1 above), pp. 192–193, *53*: “Some authors write that the Sea of India is enclosed like a pond and does not communicate with the ocean. However, Solinus claims that it is itself part of the ocean and that it is navigable in the southern and south-western parts. And I myself say that some ships have sailed it along that route. This is confirmed by Pliny when he says that in his day two ships loaded with spices coming from the Sea of Arabia sailed around these regions to Spain and unloaded their cargo at Gibraltar (he gives the reason for this choice of route, but I omit it here). Fazio [degli Uberti] says the same; and those who have taken this route, men of great prudence, agree with these writers.”


\(^{351}\)The legend on the Caverio chart is transcribed, but with some errors, by Armando Cortesão, *Cartografia e cartógrafos portugueses dos séculos XV e XVI* (Lisbon: Seara Nova, 1935), vol. 1, p. 155.
2.13 Sheet 12. The Southern Indian Ocean (Plate 2.12)

This is one of the parts of the *Carta marina* that is the most different with respect to the 1507 map. Gone are the islands that come from Ptolemy; instead, Waldseemüller offers descriptions of the islands’ inhabitants and natural riches based on the latest sources available to him, such as the travel narrative of Ludovico di Varthema, who journeyed in the East from 1502 to 1508. This sheet is dominated by a long legend on the spice trade in Calicut (now Kozhikode), India: the legend indicates the system of weights and the currency used in Calicut, and lists the sources and prices of many different spices, woods, and precious stones in that market.

12.1
Taprobanam insulam sub equatoris circulo constitutam Ptolomeus directe retulit. Solinus autem secus ostendit, ubi septentriones nequaquam conspici et virgilie nunquam apparere illic posse. Lunamque ab octava in sextam decimam tantum supra terram videri, quod ac etiam Portugaliensium navigatio hac positione clarissime aprobat.

Ptolemy unambiguously indicates that Taprobana is located on the equator. But Solinus shows otherwise, as the northern stars cannot be seen there, and the Pleiades can never appear there. The moon is only above the horizon there from the eighth to the sixteenth day of the month, and the Portuguese voyages in this area unambiguously confirm this.

Ptolemy locates Taprobana on the equator in his *Geography* 7.4, and the passage from Solinus is in *Polyhistor* 53. As discussed in the introduction, on the *Carta marina* Waldseemüller uses many fewer ancient authorities generally, and much less of Ptolemy in particular, whom he had so eagerly embraced on the 1507 map, and this legend is a good example of his turn against Ptolemy—though on the other hand he is citing another ancient authority, Strabo. This legend seems to have been composed by Waldseemüller rather than being a summary of something in one of his sources. For more on Waldseemüller’s thoughts about Taprobana see Legend 8.10.

We can get a good idea of the difficulty cartographers faced in trying to assimilate conflicting sources in a statement by Robert Hues in his *Tractatus de globis et eorum usu* of 1594, who contradicts the statement by Solinus referred to by Waldseemüller, and implicitly the confirmatory Portuguese sources that Waldseemüller mentioned: “These Stars are reported by Pliny and Solinus to be never seen at all in the Isle Taprobana; but this is ridiculous, and fit to bee reported by none but such as Pliny and Solinus. For those that inhabit that Isle have them almost over their heads.”

12.2
Juxta samotram et iauam sunt insularum (uti furtur) numero .8000. quorum aliqua habitate et aliquae desertae

Near Sumatra and Java it is said that there are 8,000 islands, some inhabited and others not.

This legend comes from Varthema: “The captain of the ship said that around the island of Giava, and around the island of Sumattra, there were more than eight thousand islands.” This legend on the *Carta marina* in effect replaces a legend from Ptolemy 7.4 on the 1507 map that runs: *Ante taprobanam chartes sunt insularum quas dicunt esse .1378. numero quorum tamen traduntur haec sunt.* “Near Taprobana there are many islands—they say there are 1.378; these are the ones whose names are known.” Thus, this legend about the 8,000 islands is another part of Waldseemüller’s effort to replace information from Ptolemy with more recent data. At the same time, it is interesting to note some of the more modern sources that

352Solinus, *Polyhistor* 53: *nulla in navigando siderum observatio: utpote ubi septentriones nequaquam videntur Vergiliaeque nunquam apparent. Lunam ab octava in sextam decimam tantum supra terram vident.* “Observations are not taken of the stars in navigating: for the northern stars cannot be seen, and the Pleiades never appear. They see the moon above the earth only from the eighth day to the sixteenth day.”

353Robert Hues, *Tractatus de globis et eorum usu: A Treatise Descriptive of the Globes Constructed by Emery Molyneux and Published in 1592 (i.e. 1594)* (London: Printed for the Hakluyt Society, 1889), Chap. 4, p. 56.

Waldseemüller did not use for the number of islands in the Indian Ocean. In particular, he did not use Marco Polo’s figure of 12,700, with which he was probably familiar, or the figure of 7,743 on Ruysch’s map, which he also certainly knew. His decision not to follow Polo should be taken as additional evidence of his lack of confidence in that author.

12.3

Hic Antropophagorum genus

Here is a race of man-eaters.

The anthropophagy on Java is mentioned by Varthema, and it is worth noting that Marco Polo does not mention anthropophagy on Java Major. As I remarked in the introduction, the scene of cannibalistic butchery here is copied by the maker of the Vallard Atlas of c. 1547: the scene on Fries’s edition of the Carta marina is different, and it is clear that the maker of the Vallard Atlas was copying from Waldseemüller’s map rather than Fries’s in this instance, so this is good evidence for the diffusion of Waldseemüller’s Carta marina.

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355 For Marco Polo’s indication that there are 12,700 islands in the Indian Ocean see Marco Polo, *Marka Pavlova z Benátek, Milion* (see note 54), p. 188; and *The Book of Ser Marco Polo* (see note 54), Book 3, Chap. 34, vol. 2, p. 424. Fra Mauro on his mappamundi of c. 1455 indicates that there are 12,600, no doubt a slip for Marco Polo’s number: see Falchetta, *Fra Mauro’s World Map* (see note 143 in Chap. 1 above), pp. 190–191.


357 See Varthema, *The Travels of Ludovico di Varthema* (see note 103), pp. 255–256; for the account of Java in Marco Polo see Marco Polo, *Marka Pavlova z Benátek, Milion* (see note 54), p. 159; and *The Book of Ser Marco Polo* (see note 54), Book 3, Chap. 6, vol. 2, pp. 272–275.
12.4

Giava seu iaua insula maxima habet multas gentes varie religionis et ritus nam aliqui sunt ydolatre caffrani, aliqui ydolatre antropophagi crudelissimi tali modo cum ipsi aliquos infirmitate perturbatos senserint mox incantatores accedunt inquiriendo gratia vtrum infirmus pristine sanitati restituat vel non. si ipsum moriturum dictauerit mox illum interemunt ut commensioni saporosior evadat, pari modo filii cum parentes senio grauatos ad operationes humanas non valere viderint, tunc illos in publico venundant et mactationi tradunt. Gignit enim hec [insula] Smaragdos Cuprum et Aurum.

Giava or Java is a very large island that has many different races of different religions and rites. For some are Caffrani idolaters, while others are man-eating idolaters, extremely cruel, so that when one of them feels himself falling ill, the enchanters come and ask whether or not the sick person can be restored to good health. If he says that he is going to die, they quickly kill him so that he will be tastier when he is eaten, and similarly when sons see that their parents are so weakened with age that they cannot perform basic tasks, they sell them in public, and give them over to slaughter. This island produces emeralds, copper, and gold.

This legend comes from Varthema. The legends on the island on the 1507 map are less sensationalistic, focusing on the spices the island produces and the religion of the people. The legends on the island on the 1507 map come from Marco Polo, so this legend on the Carta marina is another case where Waldseemüller preferred the more recent information in Varthema to that in Marco Polo.

12.5

Auream Chersonesum Malacham acole nunc appellant urbs mire magnitudinis utque. XXV. milia larium acque tocius Indie aut potius mundi maximum et celebrantisimum est emporium ubi non modo varia aromata sed auri argentique margaritarum ac pretiosorum lapidum sericique copia affuit. Rex tributarius est regi de Cini, nunc subactus dictioni portugallensium, Anno domini 1512. Gentes sunt Macometani, habentque mineralia stagni

The Golden Chersonese, which the inhabitants now call Malacca. The city is very large, with 25,000 houses, and it is the largest and most famous emporium in India or indeed the world, where not only various spices but also gold, silver, pearls, precious stones, and silk flow in abundance. The king pays tribute to the king of China, but now, in the year 1512, has been brought under the dominion of the Portuguese. The people are followers of Mohammed, and they mine tin.

Much of this legend comes from a source that Waldseemüller does not name in the long text block on sheet 9, namely a letter from King Manuel to Pope Leo X dated June 1513, in which the king informs the pontiff about Afonso de Albuquerque’s conquest of Malacca in July of 1511. The passage in the letter from which Waldseemüller was drawing runs as follows:

358See Varthema, The Travels of Ludovico di Varthema (see note 103), p. 251 on the various religions on Java, p. 252 on the emeralds; p. 253 on the gold and copper; and pp. 255–256 on the killing and eating of people.
359The legends on Java on Waldseemüller’s 1507 map, which derive from Marco Polo (see note 357) read: Silua nucum muscatum: Omnes habitatorrer[s] sunt ydolatre istius insule: Hec inueniuntur hic piperis nucem muscatorum spici galange gariofali ceterorum aromarum copia; silua piper, Hec insula in circuituo suo habet mensuram miliariorum trium milium; rex insule nemini tributarius: “Forest of nutmeg: All of the inhabitants of this island are idolaters; These things are found here: pepper, nutmeg, spikenard, galingale, cloves, and an abundance of other kinds of spices; Forest of pepper; This island is three thousand miles in circumference; The king of the island pays tribute to no one.”
360Incidentally there is discussion of Java in Fries’s Uelegung, Chap. 64, which is translated into modern German by Petrzilka, Die Karten des Laurent Fries (see note 202 in Chap. 1 above), p. 143. For a description of trade at Java about a bit more than a century later see Roberts, The Merchants Mappe (see note 275), Chap. 104, pp. 203–204.
362This passage is on signatures Ai”-Ai” of the pamphlet, and is transcribed by Roscoe, The Life and Pontificate of Leo the Tenth, pp. 521–522.
Alphonsus de Albicherque protho-capitaneus noster, ut jacturam, quam superioribus annis nostri fecerent, injuriamque ulcisceretur, auream Chersonesum, Malacham accolae appellant, contendit, ea est inter Sinum magnum et Gangeticum sita, Urbs mirae magnitudinis, utque vigintiquinquies millium et amplius larium censeatur, terra ipsa fecundissima, ac nobilissimarum quas fert India mertium feracissima, celebratissimum ob id Emporium, ubi non modo varia aromata et omnigeni odores, sed Auri quoque, argenti, margaritarum ac preciosorum lapillorum magna copia affluit. Hanc Rex Maurus gubernabat, eatenus vires suas Maumetica Secta protendente caetera Gentiles tenent.

Afonso de Albuquerque, our high captain, in order to avenge the loss and injury that our men sustained in the previous years, set his sights on the Golden Chersonesus, which the inhabitants call Malacca. This is located between the Great Bay and the Ganges Bay, a city of remarkable size, with 25,000 or more houses, and very fertile soil, that abundantly produces the excellent goods that India generates. Because of this, the city is a famous emporium, where not only various spices and all sorts of scents, but also gold, silver, pearls and precious stones flow in great abundance. The city was governed by a Moorish King, the Muslim sect extending its strength thus far, while pagans hold the rest.

Waldseemüller gives the year of the conquest of Malacca as 1512 rather than 1511, but the pamphlet is not very clear about the date. Two of the details in Waldseemüller’s legend, namely the indication that the king of Malacca used to pay tribute to the king of China, and the reference to the production of tin, come from Varthema. Although Waldseemüller says in his legend that Malacca was the largest and most famous emporium in India, other texts on his map, particularly Legends 7.18 and 12.11, point to Calicut.

12.6
In regno jamay sunt argenti minere, fert etiam hec regio Aurum Sericum et mustum, que quidem super terram ad Malacham hins [for hinc] portantur

In the kingdom of Jamay there are mines of silver, and in fact this region produces gold, silk, and musk, which are carried from here overland to Malacca.

Jamay is a province in Laos, but the place name does not appear in any of the sources that Waldseemüller lists on sheet 9 of the Carta marina. I have not been able to determine the source of this legend. It probably comes from the same source as the following legend about the island of Timor.

12.7
TIMOR Hic nascitur Sandalum utriusque

Timor. Here there grows sandalwood of both [types].

I have not been able to determine the source of this legend, though it is tempting to think that it comes from the same source as Legend 12.6 on Jamay. Thomas Suárez suggests that it comes from some excerpts from Tomé Pires’s Suma Oriental of 1515 that somehow reached Waldseemüller. Pires describes the Timor islands in this work, but

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365Thomas Suárez, Early Mapping of Southeast Asia (Singapore: Periplus, 1999), p. 113.

Waldseemüller’s depiction does not agree well with Pires’s text, which says that there are two islands called Timor from which sandalwood comes.\(^{366}\) Another remotely possible source is a map from the atlas of Francisco Rodrigues, who traveled in the Indian Ocean in 1511–1512, and made his atlas of maps of the region c. 1513.\(^{367}\) The map on f. 37 of this atlas shows Timor, with the legend *A Ilha de timor homde naço o ssamdollo,* “The Island of Timor where the sandalwood grows,” which is quite similar to Waldseemüller’s legend.\(^{368}\) It is not at all clear, though, how Waldseemüller could have obtained a map from Rodrigues’s atlas. Duarte Barbosa mentions that sandalwood comes from Timor, but as his book was not completed until 1516, it seems very unlikely that Waldseemüller could have used it.\(^{369}\) The idea that Waldseemüller might somehow have used Barbosa’s book is perhaps rendered still less likely by the fact that Barbosa says nothing about Jamay. None of the literature on Timor, its sandalwood trade, or the Portuguese presence there sheds light on Waldseemüller’s likely source.\(^{370}\)

12.8

Bandam insula girans in circitu. c. miliaria. Sola hec nucis muscati et macis ferax. Incole sunt indomiti inculti et rurales. nulla sub lege ac rege viuentes. omnia preter domos exiles sunt apud eos quoniam induti camisiis suntque ydolatre cafrauni Arbor muscati non plantatur sed campestris est

The island of Banda, which has a circumference of 100 miles. Only this island produces nutmeg and mace. The inhabitants are ungoverned, wild, and rustic; they have no law and no king. Everything among them, except their
houses, is very poor, for they are clad in [nothing but] shirts. They are Caffrani idolaters. The nutmeg tree is not cultivated but grows wild.

This legend comes from Varthema.\(^{371}\) If Waldseemüller took his information about Timor and Jamay from a map by Rodrigues, it is strange that this map seems not to have influenced other nearby parts of the *Carta marina* as well.

12.9

*Monoch insula hec sola cum adiacentibus insulis Gariofanum arborem profert.* Habitatores sunt homines grossi simplices rurales sine lege bestialiter viuentes. Arbor gariofanus non plantatur sed campestris est. Et hinc portatur ad Malacham deinde ad partes occidentales transsertur.

The Moluccas. This island, together with those nearby, are the only ones that produce the clove tree. The inhabitants are fat, simple, and rustic, living like beasts without any law. The clove tree is not cultivated, but grows wild. From here it is carried to Malacca and from there to the West.

Some of this legend comes from Varthema, but not all of it: Varthema does not say that cloves grow only on these islands, nor does he say that the clove tree grows wild, nor that cloves are taken from the Moluccas to Malacca.\(^{372}\) The chapters about the spices in Calicut in the *Paesi* and *Itinerarium* (chapters 82 and 83, see Legend 12.11) say that cloves come from Meluza (the Moluccas) to Calicut, not to Malacca. I have not been able to determine Waldseemüller’s source for these pieces of information. Duarte Barbosa says that cloves were brought from the Moluccas to Malacca, and also that the clove trees grow wild, but Barbosa did not finish writing his book until 1516, which would mean it would not have been possible for Waldseemüller to have used his book for the *Carta marina*.\(^{373}\) None of the literature on the Moluccas or the Portuguese presence there sheds light on Waldseemüller’s likely source.\(^{374}\)

12.10

*Incole Borney insule sunt discreti et honesti racione et lege viuentes. Nascitur apud eos Camphora. Hic stella tramontana videre non potest.*

The inhabitants of Borneo are prudent and honest, living according to laws and reason. Camphor grows there. Here the North Star cannot be seen.

This legend comes from Varthema\(^{375}\), the detail about the North Star not being visible is from the chapter on Monoch, i.e. the Moluccas, which immediately precedes his chapter on Borney (Borneo).\(^{376}\) Waldseemüller also mentions the North Star being invisible in Legends 11.4 and 12.1.

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12.11
Loca insigniora de quibus portantur aromata ad Calicitum emporium omnium celebratissimum. hec sunt Piper licet penes Calicitum nascatur, attamen magna copia de Caycolon et Coruncol377 illuc aportatur distans a Calicitu .50. miliar. Germanicus austrum versus.378
Canella siue Cinamomun de insula Zayloni mittitur distans a Callicituo .260. miliar.
Gariofanum de Melachas distans a Callicitu. 740. miliaris Theutonicis.
Zinciber de Cananor distans .12. miliaris.
Muscatum et Macia de Malacha.379
Muscus de pego prouincia furtur distans .50. miliar.380
Margarite veniunt de insula Ormus distans .700. miliar.
Spicanardi et Mirabolanum de Cambelia distans a Callicit .600. miliarium.381
Thus portatur de Seer distans .800. miliaris.
Mirra nascitur in farico distans .700. miliar. a Cali.382
Lignum Aloes Ruibarbarum Camphora portantur de regione Cini distans a Calli .2000. miliaris versus ortum.383
Cardimomum maius de Cananor.384
Piper longus de insula Samotra distans .400. mili.385
Benzui de Zana distans .700. miliaris a Callicitio386
Lacca de Samotra.
Brasilicum de Tarnaseri distans .700. miliaris a Callicitio.388
Opium portatur de Aden distans .700. miliar. a Callicitio.
Hec et alia quam plura de diuersis mundi partibus ad hanc nominatissimam ciuitatem empirialem confluunt.
De pondere obseruato in callicutio.
Maius pondus Baccara vocatur equiualens quintallo veneto, continet enim Baccara .4. Cantharas et Canthara .5.
Item i. quintallus Tamarindi valet .xxx. fauos.
Item i. quintallus Canelle valet. 390. fauos.
Item i. quintal. Tamarindi valet .xxx. fauos.
Item i. quintal. Tamarindi valet .xxx. fauos.
Item i. quintal. Tamarindi valet .xxx. fauos.

377 Caycolon is perhaps to be understood as an alternative for Coruncol. The Paesi novamente ritrovati gives Chorunchel, which Greenlee suggests represents Cranganore: see Greenlee, “The Anonymous Narrative” (see note 67 in Chap. 1 above), p. 93. The Itinerarium does not give either of these place names, and this is excellent evidence that Waldseemüller was not using the Itinerarium here.
378 The Paesi indicates the unit of measure for all of the distances in this list as leghe, or leagues.
379 The Paesi indicates that nutmeg and mace come from Malacca. Waldseemüller interprets it as Malacca, but Waldseemüller interprets it as Malacca. Waldseemüller omits the distance of “Malach” (i.e. melucha) from Calicut, which is supplied in the Paesi.
380 The Paesi gives 500, and the Trevisan manuscript gives 600—for the latter number see Eric Dursteler, “Reverberations of the Voyages of Discovery” (see note 54 in Chap. 1 above), p. 60.
381 Waldseemüller omits what is the next line in the Paesi, which says that cassia-fistula grows in Calicut.
383 Waldseemüller omits the next line in the Paesi, which says that tamarind and zedoary grow in Calicut.
384 Waldseemüller omits the next line in the Paesi, which says that tamarind and zedoary grow in Calicut.
385 Waldseemüller omits the next two lines in the Paesi, which say that tamarind and zedoary grow in Calicut.
386 Waldseemüller omits the Paesi’s indication that Sumatra is 400 leagues beyond Calicut, no doubt because he included this information two lines above.
387 Waldseemüller omits the next line of the Paesi, which says that zerombra or zerumbet grows in Calicut.
388 Waldseemüller omits the Paesi’s indication that Cananor is twelve leagues beyond Calicut.
389 Waldseemüller has added the detail that Sumatra is 400 miles beyond Calicut from a few lines lower down in the Paesi.
390 Waldseemüller omits the next two lines in the Paesi, which say that tamarind and zedoary grow in Calicut.
391 Waldseemüller omits the Paesi’s indication that Sumatra is 400 leagues beyond Calicut, no doubt because he included this information two lines above.
392 Waldseemüller’s explanation of the system of weights is very different than it is in the Paesi and the Itinerarium. The Paesi has baar, or bacar, or bacaro where Waldseemüller has baccara, and the Itinerarium gives bacar. Also, neither of the two printed texts says that the bacar or bacar is equivalent to the Venetian quintal, as Waldseemüller does, and Waldseemüller fails to indicate that the aratola is a Portuguese weight, which is specified in the Paesi and the Itinerarium, but the Trevisan manuscript does indicate that “A baar is 640 lb according to Venetian usage”—see Dursteler, “Reverberations of the Voyages of Discovery in Venice” (see note 54 in Chap. 1 above), p. 61.
Item i. quintallus Zerombe valet .40. fauos.
Item i. quintallus Macis valet .430. fauos.
Item i. quintal Lacca valet .240. fauos.
Item i. quintallus. Piperis valet .360. fauos.
Item i. quintallus. Piperis longi valet .400. fauos.
Item i. quintallus. Mirabolanorum conditorum Rebuli valet .560. fauos.
Item i. quintal. Sandali rubei valet .80. fauos.
Item i. quintal. Brasilici valet .160. fauos.
Item i. quintal. Gariofani valet .600. fauos.
Item i. quintal. Sandali albi valet .700. fauos.
Item i. faracola Canphori valet .160. fauos.
Item i. faracola Thuris valet .5. fauos.
Item i. faracola Bentzui valet .vi. fauos.
Item i. faracola Cassie fistule valet .2. fauos.
Item i. faracola ligni Aloe valet .400. fauos.
Item i. faracola Opii valet .400. fauos.
Item i. faracola Reubarbari valet .400. fauos.
Item i. farac. de Spica valet .820. fauos.
Item i. mitricale Ambre valet .ii. fauos.
Item i. farac. Cupri valet .45. fauos.
Item i. farac. Plumbi valet .18. fauos.
Item i. farac. Argenti valet .54. fauos.
Item i. farac. aluminis valet .20. fauos.
Item i. farac. Corali albi valet .1000. fauos.
Item i. farac. Coralli rubei valet .700. fauos.

The more important places from which spices are brought to Calicut, the most famous market city of all. These include pepper, which grows at Calicut, but nonetheless a great quantity is brought from Caycolon and Coruncol [Cranganeore] to Calicut, a distance of 50 German miles to the south [from Calicut]. Canella or cinnamon is sent from the island of Ceylon, which is 260 miles distant from Calicut.

Cloves come from Molucca, 740 German miles from Calicut.

Ginger comes from Cananor, which is 12 miles from Calicut.

Nutmeg and mace come from Molucca.

Musk comes from a province called Pegu, 50 miles from Calicut.

Pearls come from Hormuz, 700 miles from Calicut.

Spikenard and myrobalans come from Combaia, 600 miles from Calicut.

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390 The Paesi gives 260, as does the Trevisan manuscript—see Dursteler, “Reverberations of the Voyages of Discovery” (see note 54 in Chap. 1 above), p. 59. Also, Waldseemüller omits the next line in the Paesi, Itinerarium, and Trevisan manuscript; in the Paesi, it reads “Item uno bacar di macis ual.ccccxxx. fauos,” “A bacar of mace is worth 430 favos.”.

391 The order of the items now differs somewhat from the order in the Paesi and the Itinerarium.

392 The Paesi gives 800, as does the Trevisan manuscript—for the latter see Dursteler, “Reverberations of the Voyages of Discovery” (see note 54 in Chap. 1 above), p. 60.

393 The Paesi, Itinerarium, and Trevisan manuscript give the same price for a mitricale of amber, so it seems that Waldseemüller’s pen slipped here.

394 In the Paesi, Itinerarium, and Trevisan manuscript, these last items in Waldseemüller’s list are in a separate list that indicates the prices of various goods that are carried from Lisbon to Calicut, but Waldseemüller does not distinguish between the two groups, and omits the so-called bastard coral from the latter list.

395 Caycolon is perhaps to be understood as an alternative for Coruncol. The Paesi gives Chorunchel, which Greenlee suggests represents Cranganore: see Greenlee, “The Anonymous Narrative,” in The Voyage of Pedro Álvares Cabral (see note 67 in Chap. 1 above), pp. 53–94, at 93. The Itinerarium does not give either of these place names, and this is excellent evidence that Waldseemüller was not using the Itinerarium here.

396 The Paesi indicates the unit of measure for all of the distances in this list as leghe, or leagues.

397 The Paesi indicates that nutmeg and mace come from melucha, which Greenlee, “The Anonymous Narrative” (see note 67 in Chap. 1 above), p. 93, correctly interprets as Molucca, but Waldseemüller interprets it as Malacca. Waldseemüller omits the distance of “Malacha” (i.e. melucha) from Calicut, which is supplied in the Paesi.

398 The Paesi gives 500, and the Trevisan manuscript gives 600—for the latter number see Dursteler, “Reverberations of the Voyages of Discovery” (see note 54 in Chap. 1 above), p. 60.

399 Waldseemüller omits what is the next line in the Paesi, which says that cassia-fistula grows in Calicut.
Incense is brought from Seer, which is 800 miles from Calicut. Myrrh grows in Fartak, which is 700 miles from Calicut.  
Aloe-wood and rhubarb and camphor come from China, which is 2000 miles to the east from Calicut. Very large cardamons come from Cananore. Long pepper grows in Sumatra, which is 400 miles away. Benzoin comes from Siam, 700 miles from Calicut. Lac comes from Sumatra. Brazil-wood comes from Tenasserim, which is 700 miles from Calicut. Opium comes from Aden, which is 700 miles from Calicut. These and many other spices come to the famous market-city from various parts of the world.

Of the system of weights used in Calicut. The largest weight is the baccara, which is equal to a Venetian quintal. A baccara contains 4 cantharas, and a canthara 5 faracolas. A faracola contains 24 aratolas. The coins used in Calicut are the favos, of which 20 equal one ducat. There are also others which are called parane and chare.

The prices of spices in Calicut:
A quintal or bacara of nutmeg is worth 450 favos.
A quintal of cinnamon is worth 390 favos.
A faracola of ginger is worth 6 favos.
A faracola of ginger preserved in sugar is worth 28 favos.
A quintal of tamarind is worth 30 favos.
A quintal of zerumbet is worth 40 favos.
A quintal of mace is worth 430 favos.
A quintal of zedoary is worth 30 favos.
A quintal of lac is worth 240 favos.
A quintal of pepper is worth 360 favos.
A quintal of long pepper is worth 400 favos.
A quintal of preserved sebuli myrobalans is worth 560 favos.
A quintal of red sandalwood is worth 80 favos.
A quintal of brazil-wood is worth 160 favos.
A quintal of cloves is worth 600 favos.
A quintal of white sandalwood is worth 700 favos.
A faracola of camphor is worth 160 favos.
A faracola of incense is worth 5 favos.
A faracola of benzoin is worth 6 favos.
A faracola of cassia-fistula is worth 2 favos.
A faracola of aloe-wood is worth 400 favos.
A faracola of opium is worth 400 favos.
A faracola of rhubarb is worth 400 favos.

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401Waldseemüller omits the next line of the Paesi, which says that zeromba or zerumbet grows in Calicut.
402Waldseemüller omits the Paesi’s indication that Cananor is 12 leagues beyond Calicut.
403Waldseemüller has added the detail that Sumatra is 400 miles beyond Calicut from a few lines lower down in the Paesi.
404Waldseemüller omits the next two lines in the Paesi, which say that tamarind and zedoary grow in Calicut.
405Waldseemüller omits the Paesi’s indication that Sumatra is 400 leagues beyond Calicut, no doubt because he included this information two lines above.
406The Paesi indicates the distance as 500 leagues (which would be 500 miles according to the conversion factor Waldseemüller is using).
407Waldseemüller’s explanation of the system of weights is very different than it is in the Paesi and the Itinerarium. The Paesi has baar, or baccar, or bacaro where Waldseemüller has baccara, and the Itinerarium gives bacar. Also, neither of the two printed texts says that the baar or bacar is equivalent to the Venetian quintal, as Waldseemüller does, and Waldseemüller fails to indicate that the aratola is a Portuguese weight, which is specified in the Paesi and the Itinerarium, but the Trevisan manuscript does indicate that “A baar is 640 lb according to Venetian usage”—see Dursteler, “Reverberations of the Voyages of Discovery” (see note 54 in Chap. 1 above), p. 61.
408The Paesi gives 260, as does the Trevisan manuscript—see Dursteler, “Reverberations of the Voyages of Discovery” (see note 54 in Chap. 1 above), p. 59. Also, Waldseemüller omits the next line in the Paesi, Itinerarium, and Trevisan manuscript; in the Paesi, it reads “Item uno bacar di macis ual.ccccxxx. favos,” “A bacar of mace is worth 430 favos.”
409The order of the items now differs somewhat from the order in the Paesi and the Itinerarium.
A faracola of spikenard is worth 820 favos.\textsuperscript{410}
A mitricale of amber is worth 2 favos.\textsuperscript{411}
A faracola of copper is worth 45 favos.\textsuperscript{412}
A faracola of lead is worth 18 favos.
A faracola of silver is worth 54 favos.
A faracola of alum is worth 20 favos.
A faracola of white coral is worth 1000 favos.
A faracola of red coral is worth 700 favos.

This long legend about the sources and prices of spices in Calicut comes from chapters 82 and 83 of the Paesi nouamente ritrovati, which are part of the so-called Anonymous Narrative of Cabral’s voyage.\textsuperscript{413} As the legend is quite long and detailed, it offers a much better opportunity than Waldseemüller’s other legends to determine which version of the Paesi he was using, and it is immediately clear that he was not using the Itinerarium Portugallenum, the Latin translation of the Paesi novamente ritrovati, for the Itinerarium does not include some of the place names that Waldseemüller gives at the beginning of the legend (see the notes above), which do appear in the Paesi. And the German translation of the Paesi, the Neve unbekanthe landte of 1508, does not include these chapters, so we may be quite confident that Waldseemüller was using one of the Italian editions of the work.

Waldseemüller has changed various aspects of the way this information is presented in the Paesi. The Paesi lists the prices of the items first (in Chap. 82), and then the sources (Chap. 83), but Waldseemüller reverses this order. Also, at the end of the Paesi’s list of prices of spices in Calicut, there is a separate list of the prices that some European goods fetch in Calicut, but Waldseemüller has simply combined the two lists into one. Also, after the first paragraph of the list of sources, Waldseemüller omits the indications of spices that grow in the Calicut area, perhaps because he already mentioned those in Legend 7.18. There are other differences between Waldseemüller’s presentation of this data and that in the Paesi, particularly in his presentation of the system of weights used in Calicut (see the notes above), but these differences are not great enough to support a hypothesis that Waldseemüller was using a manuscript of the Paesi rather than the printed edition.

It seems likely, as I suggested in the introduction (see p. 18), that Waldseemüller drew inspiration for using this material from the Paesi from the long legend about the route that spices took from the Indian Ocean to Europe on Martin Behaim’s globe of 1492.\textsuperscript{414} Waldseemüller’s inclusion of the prices of spices on his map is a significant innovation, and raises interesting questions about the purpose of the Carta marina: this information might be useful to a ship captain sailing for the Indian Ocean, and the map is based on a nautical chart model, that is, on the type of map used by ship captains. Yet it seems unlikely that Waldseemüller intended the map to be taken to sea, particularly given the distance of Saint-Dié (or Strasbourg,
where the map was probably printed) from the sea. It seems likely that Waldseemüller intended merely to satisfy the curiosity of the viewers of his map about the price of these expensive commodities at their source.

Information similar to that in the Paesi and on the Carta marina was compiled by Duarte Barbosa, a Portuguese officer and writer, in about 1516, but his work was not published until 1550, in volume 1 of Ramusio’s Navigationi e viaggi.415

The prices of spices in the sixteenth century is an active area of research, but to my knowledge neither the data from the Paesi nor that on Waldseemüller’s Carta marina has been incorporated into those discussions.416 Similarly, this material has not been used in discussions of the systems of weights in the Indian Ocean area.417 Incidentally the indication of a price for opium in the Paesi and on the Carta marina are some of the earliest indications of Renaissance European involvement in the opium trade.418

The importance of Calicut on the Carta marina is abundantly clear: two long legends (7.18 and 12.11) are devoted to the city, and it is thus effectively the most important city in the world. Adding to this prominence more subtly is the image of King Manuel riding the sea monster off the southern tip of Africa, proclaiming Portugal’s dominance of the route to India: this accomplishment would not be so important if it were not for the spices (no insignificant part of them from Calicut) flowing along that route back to Portugal.419

12.12
CONSUMATUM EST IN OPPIDO DEODATI COMPOSITIONE ET DIGESTIONE MARTINI WALDSEE-MULLER ILACOMILI

This map] was completed in the town of Saint-Dié through the composition and arrangement of Martin Waldseemüller, Ilacomylus.

Waldseemüller’s indicates that the Carta marina is his creation; there is no such indication on his 1507 world map or in the 1513 edition of Ptolemy’s Geography. “Ilacomylus” is the Latinized version of his last name, meaning “Miller of the lake in the woods.”


