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Graphic Record of a Lost Wall Map of the World (c. 1490) by Henricus Martellus

By Chet Van Duzer, Board Member of the Lazarus Project at the University of Mississippi

Henricus Martellus, a German cartographer active in Florence from about 1459 to 1496,¹ was one of the most important mapmakers of the late fifteenth century. There is strong evidence that his maps influenced the geographical thought of Christopher Columbus;² it has been very plausibly suggested that Martin Behaim relied on a map by Martellus in creating his famous terrestrial globe of 1492.³ In addition, Martin Waldseemüller relied heavily on a large world map

¹ Lorenz Böniger has argued that Henricus Martellus should be identified as Arrigo di Federico Martello, an employee of the Martelli family of Florence: see Lorenz Böniger, "Arrigho di Federigho 'Martello': Bürgerknecht, Übersetzer und Kartograph," in his *Die deutsche Einwanderung nach Florenz im Spätmittelalter* (Leiden and Boston: Brill, 2006), pp. 313-348; and Klaus Arnold, "ARIGO - Heinrich Schlüsselfelder aus Nürnberg? Arrigho di Federigho della Magna / Henricus Martellus in Florenz?" *Pirckheimer-Jahrbuch für Renaissance- und Humanismusforschung* 21 (2006), pp. 161-168. But Luisa Rubini Messerli has disproven this identification in *Boccaccio deutsch: Die Dekameron-Rezeption in der deutschen Literatur (15.-17. Jahrhundert)* (Amsterdam: Editions Rodopi, 2012), pp. 163-357, esp. 176-214, and so we are left without any knowledge of who Martellus was.

² See Roberto Almagià, "I mappamondi di Enrico Martello e alcuni concetti geografici di Cristoforo Colombo," *La Bibliofilia* 42 (1940), pp. 288-311, esp. 307. Martellus's wall map now at Yale, which came to light in the late 1950s after Almagià wrote, has been recognized as showing the world much as Columbus imagined it, and there are good reasons to think that this map or another very similar influenced Columbus: see R. A. Skelton, "World Map by Henricus Martellus Germanus, c. 1489, at Berne," January 10-17, 1960 (an unpublished study of the map now held by the Beinecke Library in its folder of documents associated with the map's acquisition), pp. 14-17; and Carlos Sanz, "Un mapa del mundo verdaderamente importante en la famosa Universidad de Yale," *Boletín de la Real Sociedad Geográfica* 102 (1966), pp. 7-46, esp. 11-18. Arthur Davies, "Behaim, Martellus and Columbus," *Geographical Journal* 143.3 (1977), pp. 451-459, went so far as to suggest that the map was made by Columbus's brother Bartholomew, and merely assembled by Martellus; this untenable view is refuted by Ilaria Luzzana Caraci, "Il Planisfero di Enrico Martello della Yale University Library e i Fratelli Colombo," *Rivista Geografica Italiana* 85 (1978), pp. 132-143, translated into English as "Henricus Martellus' Map in the Yale University Library and the Columbus Brothers," in the author's *The Puzzling Hero: Studies on Christopher Columbus and the Culture of his Age* (Rome: Carocci, 2002), pp. 281-291.

³ See Skelton, "World Map by Henricus Martellus Germanus, c. 1489, at Berne" (see note 2), pp. 10-12; George Kish, "Two Fifteenth-Century Maps of 'Zipangu': Notes on the Early Cartography of Japan," *The Yale University*



Figure 1 Attavante's image of St. Jerome in the Mosteiro dos Jerónimos in Belém, with a map by Martellus on the wall in the background. Lisbon, Arquivos Nacionais da Torre do Tombo, MS 161/7, f. 2r (1497). Photo: Arquivos Nacionais da Torre do Tombo.

by Martellus in creating his famous world map of 1507, which is the first to apply the name “America” to the New World.⁴ Martellus's surviving cartographic works are few, and fall into three groups: his two manuscripts of Ptolemy's *Geography*;⁵ manuscripts of his *Insularium*

Library Gazette 40.4 (1966), pp. 206-214; Sanz, “Un mapa del mundo verdaderamente importante” (see note 2), esp. 18-24 and 30; and Davies, “Behaim, Martellus and Columbus” (see note 2).

⁴ Waldseemüller's 1507 printed world map, whose unique surviving exemplar is at the Library of Congress, has been reproduced in facsimile with commentary in John Hessler and Chet Van Duzer, *Seeing the World Anew: The Radical Vision of Martin Waldseemüller's 1507 & 1516 World Maps* (Washington, DC: Library of Congress, and Del Ray Beach, FL: Levens Press, 2012). Waldseemüller used either Martellus's large world map now at the Beinecke Rare Book and Manuscript Library at Yale University (signature Art Store 1980.157), or another map by Martellus very similar to it, as a model for his 1507 map. I detail the correspondences between the two maps, particularly the descriptive texts on Waldseemüller's map that derive from Martellus's, in my forthcoming study *The World Map by Henricus Martellus at Yale, c. 1491: Sources and Influence*.

⁵ The manuscripts of Ptolemy's *Geography* made by Martellus are Vatican City, Biblioteca Apostolica Vaticana, Vat. lat. 7289; and Florence, Biblioteca Nazionale Centrale, Magliabechiano XII 16.

illustratum, an island-book illustrated with maps;⁶ and two separate world maps: one printed by Francesco Rosselli,⁷ and Martellus's large world map now at Yale. In 1940 Roberto Almagià described Martellus's cartographic works,⁸ and since that time, only one map has been added to this corpus, a wall map that measures 201 × 122 cm (6.6 × 4 feet). The map surfaced in the late 1950s, was sold, and then anonymously donated to Yale.⁹

In this article, I discuss a wall map depicted in a manuscript Bible made in 1497. The map no longer survives, and because we do not have the map itself, only a depiction of it in a work of art, it naturally raises questions about the accuracy of that depiction, and thus about the reliability of any deductions we may make about the map.¹⁰ But this difficulty will not prevent us from concluding that the miniature represents a wall map made by Martellus, from determining the place of that map among Martellus's other world maps, or from exploring the implications of this image for the diffusion and influence of Martellus's cartographic work.

⁶ The manuscripts of Martellus's *Insularium illustratum* are Florence, Biblioteca Medicea Laurenziana, Pluteo 29.25; Minneapolis, James Ford Bell Library, MS B 1475 fMA; Leiden, Universiteitsbibliotheek, MS Voss. Lat. F. 23; Chantilly, Bibliothèque du Musée Condé, MS 698 (483); and London, British Library, Add. MS 15760.

⁷ One exemplar of this map survives, as Florence, Biblioteca Nazionale Centrale, Landau Finaly, Carte Rosselli, planisfero. For discussion 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. 31-32; Tony Campbell, *The Earliest Printed Maps, 1472-1500* (London: British Library, 1987), pp. 70-78, esp. 72-74; Guglielmo Cavallo, ed., *Cristoforo Colombo e l'apertura degli spazi: Mostra storico-cartografica* (Rome: Istituto Poligrafico e Zecca dello Stato, 1992), vol. 1, pp. 521-524; and Rodney W. Shirley, *The Mapping of the World: Early Printed World Maps, 1472-1700* (London: Holland Press, 1983), #18, pp. 16-17.

⁸ Almagià, "I mappamondi di Enrico Martello" (see note 2).

⁹ On the Yale Martellus map see notes 2 and 4.

¹⁰ Earlier discussions of maps and globes in art include James A. Welu, "Vermeer: His Cartographic Sources," *Art Bulletin* 57.4 (1975), pp. 529-547; James A. Welu, "Vermeer and Cartography," Ph.D. Dissertation, Boston University, 1977; James A. Welu, "The Map in Vermeer's *Art of Painting*," *Imago Mundi* 30 (1978), pp. 2 and 9-30; Bärbel Hedinger, *Karten in Bildern: zur Ikonographie der Wandkarte in holländischen Interieurgemälden des siebzehnten Jahrhunderts* (Hildesheim and New York: Olms, 1986); Yojiro Utsunomiya, "Terrestrial Globes Depicted in Images: The Globe as a Communication Instrument of Information and Allegory," *Der Globusfreund* 47-48 (1999), pp. 19-37; Kristen Lippincott, "Globes in Art: Problems of Interpretation and Representation," in Elly Dekker, Kristen Lippincott, Pieter van der Merwe, and Maria Blyzinsky, eds., *Globes at Greenwich: A Catalogue of the Globes and Armillary Spheres in the National Maritime Museum, Greenwich* (Oxford and New York: Oxford University Press and the National Maritime Museum, 1999), pp. 75-86; Elly Dekker and Kristen Lippincott, "The Scientific Instruments in Holbein's *Ambassadors*: A Re-Examination," *Journal of the Warburg and Courtauld Institutes* 62 (1999), pp. 93-125, esp. 93-98; and James Sykes, "The Terrestrial Globe in Raphael's 'The School of Athens,'" *Globe Studies* 55-56 (2009), pp. 53-72.

The miniature in question is found in volume seven of a manuscript Bible known as the *Bíblia dos Jerónimos*, one of the finest Bibles of the Italian Renaissance.¹¹ It was undertaken for the Duke of Beja, who became King Manuel of Portugal (r. 1495-1521), during the three-year process of the manuscript's creation. The contract for the painting of the manuscript, which is dated April 23, 1494, still survives.¹² The contract is between Attavante degli Attavanti (1452-c. 1525), a leading Florentine illuminator of manuscripts,¹³ and Cipriano di Sernigi, a Florentine merchant. It gives Sernigi the right to inspect Attavante's progress every day, and to assess stiff penalties if he falls behind in his work or if the quality of his work is not what it should be. Sernigi was leaving nothing to chance in the interest of pleasing his patron the Duke. Volume seven of the Bible is dated July, 1497, and the miniature in question is on f. 2r, at the beginning

¹¹ The shelfmark of this volume of the Bible is Lisbon, Arquivos Nacionais da Torre do Tombo, MS 161/7, the final "7" indicating volume 7. For discussion of the *Bíblia dos Jerónimos* see Paolo d'Ancona, "Nuove ricerche sulla Bibbia dos Jeronymos e dei suoi illustratori," *Bibliofilia* 15 (1913), pp. 205-212; Annarosa Garzelli, ed., *Miniatura fiorentina del Rinascimento 1440-1525: un primo censimento* (Florence: Giunta regionale toscana and La Nuova Italia, 1985), vol. 1, pp. 233-235, and vol. 2, figs. 821-834 and 917-919; Jonathan J. G. Alexander, ed., *The Painted Page: Italian Renaissance Book Illumination, 1450-1550* (Munich and New York: Prestel, 1994), pp. 49-51; Albinia C. de la Mare, "Notes on Portuguese Patrons of the Florentine Book Trade in the Fifteenth Century," in Katherine J. P. Lowe, ed., *Cultural Links between Portugal and Italy in the Renaissance* (Oxford: Oxford University Press, 2000), pp. 167-181; Martim de Albuquerque and Arnaldo Pinto Cardoso, *A Bíblia dos Jerónimos* (Lisbon: Bertrand Editora, 2004); and Arnaldo Pinto Cardoso, "The *Bíblia dos Jerónimos*: From Florence to Lisbon," photography by Massimo Listri, trans. Judith Landry, *FMR* 10 (Dec. 2005/Jan. 2006), pp. 43-72.

¹² The text of the contract is supplied by Gaetano Milanese, *Nuovi documenti per la storia dell'arte Toscana dal XII al XV secolo* (Florence: G. Dotti, 1901; Soest: Davaco Publishers, 1973), pp. 164-166; reprinted in Jonathan J. G. Alexander, *Medieval Illuminators and their Methods of Work* (New Haven and London: Yale University Press, 1992), pp. 181-182; and there is an English translation by Dario Tessicini in Carol M. Richardson, "The Contract Between Attavante and a Florentine Merchant for an Illuminated Manuscript," in Carol M. Richardson, Kim W. Woods and Michael W. Franklin, eds., *Renaissance Art Reconsidered: An Anthology of Primary Sources* (Oxford: Blackwell Publishing, 2007), pp. 329-332.

¹³ There is surprisingly little bibliography on Attavante, given the high quality of his work. See Mirella Levi d'Ancona, *Miniatura e miniatori a Firenze dal XIV al XVI secolo* (Florence: L. S. Olschki, 1962), pp. 254-259, 296, 350-352; Renata Cipriani, "Attavanti, Attavante," in *Dizionario biografico degli Italiani* (Rome: Istituto della Enciclopedia italiana, 1960-), vol. 4, pp. 526-530; and Csaba Csapodi, "Die berühmten Florentinischen Miniaturen: Attavante," in *Matthias Corvinus und die Renaissance in Ungarn 1458-1541. Katalog der Ausstellung, Schallaburg, 8. Mai - 1. November 1982* (Krems: Amt der Niederösterreichischen Landesregierung, 1982), pp. 414-419. The best list I know of manuscripts painted by Attavante is in "I codici per la biblioteca di Lorenzo e eredi," in Anna Lenzuni, ed., *All'ombra del lauro. Documenti librari della cultura in età laurenziana: Firenze, Biblioteca medicea laurenziana, 4 maggio-30 giugno 1992* (Florence: Silvana Editoriale, 1992), pp. 140-147.



Figure 2 Detail of the map by Martellus in Attavante's miniature. Lisbon, Arquivos Nacionais da Torre do Tombo, MS 161/7, f. 2r (1497). Photo: Arquivos Nacionais da Torre do Tombo.

of the Prologue to the First Epistle of Paul to the Corinthians. The folio measures 410×278 mm (16.1×11.9 inches), and the miniature is 180×100 mm (7×3.9 inches). Like the opening folios of other volumes of the Bible,¹⁴ it shows St. Jerome with the Hieronymite monks for whom the Bible was intended in the royal Mosteiro dos Jerónimos in Belém, just outside of Lisbon.¹⁵ The depiction of Jerome, who lived *c.* 347–420, in a fifteenth-century monastery is, of course, anachronistic, but expresses the monks' closeness with the founder of their order. In this scene (**Figure 1**), Jerome, on the left, is writing at a lectern. Two monks are seated in front of him, reading; behind them seven monks stand and look towards Jerome, and one of them addresses him. On the wall behind Jerome there is a shelf of books, a piece of paper or parchment with writing on it, a clock, and a wall map in a gilded frame (**Figure 2**).¹⁶ This image is a striking

¹⁴ See for example vol. 4, f. 2r, which shows St. Jerome writing in a study with shelves full of books, and two monks waiting on him; there is a similar scene in vol. 5, f. 3r. For illustrations of these and other similar scenes from the Bible see Garzelli, *Miniatura fiorentina* (see note 11), vol. 2, figs. 826, 828, 832, and 834; and Alexander, *The Painted Page* (see note 11), p. 52 (the scene from vol. 4 of the Bible, in color).

¹⁵ I paraphrase de la Mare, "Notes on Portuguese Patrons of the Florentine Book Trade" (see note 11), p. 181.

¹⁶ For discussion of later maps in Bibles, see Catherine Delano Smith, "Maps as Art and Science: Maps in Sixteenth Century Bibles," *Imago Mundi* 42 (1990), pp. 65-83; and Catherine Delano-Smith and Elizabeth Morley Ingram, *Maps in Bibles, 1500-1600: An Illustrated Catalogue* (Geneva: Librairie Droz, 1991).

Figure 3 The world map in the London manuscript of Martellus's *Insularium illustratum*. London, British Library, Add. MS 15760, ff. 68v-69r (c. 1489). Photo: British Library.



example of the use of maps as decoration in rooms pertaining to scholars, which was becoming fashionable at the end of the fifteenth century, and became widespread in the sixteenth century.¹⁷

The map depicted is the work of Martellus: its similarity to the world maps in manuscripts of his *Insularium illustratum* (**Figures 3 and 5**) and to the world map designed by Martellus and printed by Francesco Rosselli (**Figure 6**) is overwhelming. The projection, a modification of

¹⁷ See Mark Rosen, "Maps as Decoration in the Fifteenth and Sixteenth Centuries" in his "The Cosmos in the Palace: The Palazzo Vecchio Guardaroba and the Culture of Cartography in Early Modern Florence, 1563-1589," Ph.D. dissertation, University of California at Berkeley, 2004, pp. 90-122; and on the increase in this fashion in sixteenth-century Venice, see Federica Ambrosini, "'Descrittioni del Mondo' nelle case venete dei secoli XVI e XVII," *Archivio Veneto* 152 (1981), pp. 67-79; Genevieve Carlton, "Worldly Consumers: The Demand for Maps in Renaissance Italy," Ph.D. Dissertation, Northwestern University, 2011; and Genevieve Carlton, "Making an Impression: The Display of Maps in Sixteenth-Century Venetian Homes," *Imago Mundi* 64.1 (2012), pp. 28-40. Also see Chet Van Duzer, "The Ptolemaic Wall Map: A Lost Tradition of Renaissance Cartography," *Viator* 45.1 (2014), pp. 361-389.

Ptolemy's Second Projection, is the same as that used by Martellus.¹⁸ The area of the world depicted—from the eastern Atlantic to the eastern coast of Asia—is the same as that which Martellus depicts in manuscripts of his *Insularium illustratum*, on his world map printed by Rosselli, and the large Asian peninsula jutting southwest into the Indian Ocean has the same shape that it does in all of Martellus's world maps.¹⁹ The only surviving late fifteenth- or early sixteenth-century maps that have this combination of characteristics are those by Martellus.

Moreover, the color scheme of the map depicted by Attavante, with its blue seas and yellow-brown mountains, is very similar to that on the world map in the British Library manuscript of Martellus's *Insularium illustratum* (**Figure 3**),²⁰ and also to that of the maps painted by Martellus in a manuscript of Ptolemy's *Geography* that is now in Florence.²¹

Attavante had experience with maps some years before he came to paint the miniature in the *Bíblia dos Jerónimos*, for he was involved in the production of two manuscripts of Francesco Berlinghieri's *Geographia* of 1482, an adaptation of Ptolemy's *Geography* in Italian verse that was illustrated with maps.²² Perhaps this very experience helped Attavante make a significant

¹⁸ On the projection Martellus used in these maps see Johannes Keuning, "The History of Geographical Map Projections until 1600," *Imago Mundi* 12 (1955), pp. 1-24, esp. 10-11.

¹⁹ For discussion of the cartographic history of this peninsula see George E. Nunn, *The Columbus and Magellan Concepts of South American Geography* (Glenside, PA: Privately printed, 1932), pp. 44-45; and Benjamin Olshin, "India Meridionalis: The Dragon's Tail," in his "A Sea Discovered: Pre-Columbian Conceptions and Depictions of the Atlantic Ocean," Ph.D. Dissertation, University of Toronto, 1994, pp. 319-377.

²⁰ Martellus uses this same color scheme in the world map in the Leiden manuscript of his *Insularium illustratum*, which is in the Universiteitsbibliotheek, MS Voss. Lat. F. 23, with the world map on ff. 65v-66r. The manuscript is described by Almagià, "I mappamondi" (see note 2), pp. 291-292, and the map is discussed by K. A. Kalkwiek, "Three Mappae Mundi from the University Library in Leyden," *Janus* 62.1-3, (1975), pp. 17-41, esp. 34-39.

²¹ The manuscript in question is Florence, Biblioteca Nazionale Centrale, Magliabechiano XII 16. For discussion see Joseph Fischer, *Claudii Ptolemaei Geographiae, Codex Vrbinas Graecvs* 82 (Leiden: Brill, and Leipzig: Harrassowitz, 1932), vol. 1.1, pp. 219 and 398-404, and two maps from the manuscript are reproduced in vol. 1.2, plate L36; 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; Cavallo, *Cristoforo Colombo e l'apertura degli spazi* (see note 7), 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.

²² For the attribution to Attavante of some parts of the Biblioteca Braidense manuscript of Berlinghieri (Milan, Biblioteca Nazionale Braidense, MS AC. XIV. 44), see Francesco Carta, *Codici, corali e libri a stampa miniati della Biblioteca nazionale di Milano* (Rome: Presso i principali librai, 1891-1895), pp. 93-100; for the attribution of

adjustment to the map in the miniature so that viewers would be able to more easily recognize it as a map. If we compare **Figures 2 and 3**, we see that Attavante has made Europe and the Mediterranean, the geographic features most readily recognizable for European viewers, much larger than they are on Martellus's maps. In **Figure 3**, the world map in the British Library manuscript of Martellus's *Insularium illustratum*,²³ the Mediterranean extends about halfway from the western edge of Europe towards the centerline of the map, while in Attavante's image it extends all the way to the map's centerline, and thus is about twice as large as it should be. This change naturally caused other distortions in Attavante's image of the map: the Caspian Sea is much too far to the east, having been pushed eastward by the expansion of the Mediterranean, and a good part of the distension of Africa in Attavante's image may be attributed to the same cause. Thus, the cartographical errors in the artist's reproduction of Martellus's map may be ascribed, not to Attavante's carelessness, but rather to his desire to make the nature of the object he was depicting clear to its viewers. The artist's emphasis on Europe makes that continent almost as large as Africa—a strikingly Eurocentric view of the world.

Given the adjustments that Attavante made to his model map, the question arises as to whether he made other adjustments as well, and whether the map that inspired him was not a wall map, but rather the world map in a manuscript of Martellus's *Insularium*, which he re-imagined as a wall map. However, as Martellus is known to have made the wall map now at Yale, Occam's razor would favor the conclusion that the artist was inspired by a Martellus wall

Biblioteca Apostolica Vaticana Urb. lat. 273 to Attavante, see Ada Labriola, "Berlinghieri, *Geography* (Urb. lat. 273)," in Marcello Simonetta, ed., *Federico da Montefeltro and his Library* (Milan: Y. Press; and Vatican City: Biblioteca Apostolica Vaticana, 2007), pp. 136-144.

²³ The shelfmark of the map is London, British Library, Add. MS 15760, ff. 68v-69r. For discussion of the map see Almagià, "I mappamondi" (see note 2), pp. 292, 299, and 304-306. The best reproductions of the map are those in Kenneth Nebenzahl, *Atlas of Columbus and the Great Discoveries* (Chicago: Rand McNally, 1990), pp. 15-17; and Cavallo, *Cristoforo Colombo e l'apertura degli spazi* (see note 7), vol. 1, pp. 420-421.

map over the suggestion that Attavante happened to re-imagine one of Martellus's maps in a format that Martellus himself by coincidence came to use.

And there is additional evidence that the map that served as Attavante's model was indeed a wall map. There would be little point in trying to estimate the dimensions of the map in Attavante's miniature by comparing them with those of nearby objects such as the books on the shelf above or the clock: it is likely that Attavante adjusted the size of the map to fit the scene he had envisioned, just as he adjusted the size of the Mediterranean on the map. But the map's proportions are closer to those of Martellus's one surviving wall map than to those of the world maps in manuscripts of his *Insularium illustratum*. The ratio of width to height in the map in the *Bíblia dos Jerónimos* is about 1.9 to 1, much higher than the ratio in the world map in the British Library manuscript of his *Insularium*, which measures 30 × 46.5 cm (11.8 × 18.3 inches), so about 1.55 to 1. It is also higher than the ratio in the world map in the Florence manuscript of his *Insularium*, which measures 29 × 43 cm (11.4 × 17 inches), so 1.48 to 1.²⁴ The corresponding ratio for Martellus's one surviving wall map, his world map at Yale, is 1.64 to 1, closer to the ratio in Attavante's image. This tends to confirm that the map shown in the Bible was originally designed as a wall map, rather than being a bifolium from a manuscript of the *Insularium illustratum* that was framed and thus adapted to separate display.

Moreover, one geographical feature of the map depicted by Attavante connects it closely with the more detailed depiction of the world on Martellus's wall map at Yale, rather than with the smaller and less-detailed world maps in his *Insularium illustratum*, or his map printed by

²⁴ The world map is missing from the Chantilly manuscript of Martellus's *Insularium*—which is in Chantilly, Bibliothèque du Musée Condé, MS 698 (483)—but that manuscript measures 28.5 × 37.8 cm, so the world map would have measured about 37.8 × 57 cm (14.8 × 22.4 inches), for a ratio of about 1.51 to 1. Descriptions of this manuscript include Almagià, “I mappamondi” (see note 2), pp. 294-295 and 299; and Jacques Meurgey de Tupigny, *Les principaux manuscrits à peintures du Musée Condé à Chantilly* (Paris: Pour les membres de la Société française de reproductions de manuscrits à peintures, 1930), pp. 192-194 and plate 129.

Rosselli. In the northern ocean on the map depicted by Attavante, there is a large gulf north east of Scandinavia, and this same gulf appears on all of Martellus's other world maps. On Martellus's other world maps, the eastern reach of this gulf is defined by land that juts northward and then westward, while on Attavante's miniature, this westward-jutting peninsula is missing, but nonetheless it is clearly the same gulf on all of his maps. On the map depicted by Attavante, there is an island in this gulf, and this island does not appear on any of Martellus's other world



Figure 4 Detail of the northern ocean on the large world map by Martellus now at Yale (compare fig. 7), showing an island in that ocean that also appears on the map in Attavante's miniature (compare fig. 2), but not on Martellus's other world maps. New Haven, Beinecke Rare Book and Manuscript Library, Art Store 1980.157 (c. 1491). Photo: Beinecke Rare Book and Manuscript Library.

maps, except one: his wall map of the world at Yale (**Figure 4**). On the Yale map there is a large cartouche above the island and a small one below it, and the island itself bears the inscription *bannona insula septentrionalis*, “Bannona, a northern island,” a reference to the northern island of Bauonia mentioned by Pliny (*Naturalis historia* 4.13.94).²⁵ That this island appears only on the map in Attavante’s miniature and on Martellus’s wall map now at Yale, but not on any of his other surviving world maps, is strong confirmation that the map depicted in Attavante’s miniature was indeed a wall map.

Regarding the date of the map depicted in Attavante’s miniature, the world map in the Florence manuscript of Martellus’s *Insularium* (**Figure 5**) is generally thought to be his earliest.²⁶ It shows several signs of revision, suggesting that Martellus was still working out how he wanted to depict the world. The text is borrowed from Cristoforo Buondelmonti’s earlier *isolario* (a book of islands),²⁷ so this manuscript is one of Martellus’s first tentative essays at the genre. The evidence of toponyms shows that the world map in the Florence manuscript was made after 1488, so it is reasonable to think that Martellus also made the map depicted by Attavante after that date. Volume seven of the *Bíblia dos Jerónimos* was completed in July of 1497, and thus we have a reasonably tight date range for the map, c. 1488-1497.

²⁵ The full inscription *bannona insula septentrionalis* is legible only in the multispectral images of the Yale Martellus map that I made in August of 2014 with Michael Phelps, Gregory Heyworth, Roger Easton, and Ken Boydston, with financial support from the National Endowment for the Humanities. My study *The World Map by Henricus Martellus at Yale, c. 1491: Sources and Influence*, will contain a full transcription, translation, and study of all of the text on the map that these images reveal.

²⁶ For descriptions of the Florence manuscript see Almagià, “I mappamondi” (see note 2), esp. 295-298; and Gentile, *Firenze e la scoperta dell’America* (see note 21), pp. 237-240.

²⁷ For discussion of Buondelmonti’s *Liber insularum Arcipelagi* see Hilary Turner, “Christopher Buondelmonti and the Rise of the Isolario,” *Terrae Incognitae* 19 (1988), pp. 11-28; and Giuseppe Ragone, “Il *Liber insularum Arcipelagi* di Cristoforo dei Buondelmonti: filologia del testo, filologia dell’immagine,” in Didier Marcotte, ed., *Humanisme et culture géographique à l’époque du Concile de Constance. Autour de Guillaume Fillastre. Actes du Colloque de l’Université de Reims, 18-19 novembre 1999* (Turnhout: Brepols, 2002), pp. 177-217.



Figure 5 The world map in the Florence manuscript of Martellus's *Insularium*. It shows considerable signs of revision, indicating that it was one of his earliest world maps, and shows some affinity with the map in Attavante's image, in that southern Africa does not extend beyond the map's frame (contrast figs. 2, 5, and 6). Florence, Biblioteca Medicea Laurenziana, Pluteo 29.25, ff. 66v-67r (c. 1489). Photo: Biblioteca Medicea Laurenziana.

Additional evidence suggests that the map was made in the early part of this range.

On most of Martellus's world maps, the southern tip of Africa projects beyond the southern border of the map (see **Figures 3, 6, and 7**). However, it does not do so on Attavante's image (**Figure 2**), nor on one of Martellus's earliest world maps, that in the Florence manuscript of his *Insularium* (**Figure 5**). This feature of the map in Attavante's miniature associates it with Martellus's early cartographic work, and thus demonstrates that Martellus was making wall maps from early in his career as a cartographer. No doubt he made additional wall maps that do not survive.

In addition, the map in Attavante's miniature depicts less of the earth's surface than the Yale Martellus map. The map in Attavante's miniature—like the world maps in manuscripts of Martellus's *Insularium*—shows about 240° of longitude, from the eastern Atlantic to the eastern



Figure 6 The Martellus-Rosselli map, designed by Martellus and printed by Francesco Rosselli. Florence, Biblioteca Nazionale Centrale, Landau Finaly, Carte Rosselli, planisfero (c. 1489). Photo: Biblioteca Nazionale Centrale di Firenze.

shore of Asia. The Yale Martellus map shows 270° of longitude, including a more detailed rendering of the eastern coast of Asia, and the proto-Pacific out to and including Japan (**Figure 7**).²⁸ As the Yale Martellus map incorporates additional geographical information with respect to the map in Attavante's miniature, it is very likely that the map in the miniature was made earlier.

²⁸ A high-resolution image of the Yale Martellus map may be consulted at http://brbl-dl.library.yale.edu/vufind/Record/3435243?image_id=1040211.

The Yale Martellus map does not bear a date, but it contains information from an illustrated encyclopedia titled the *Hortus sanitatis*, which was first published in 1491,²⁹ and as the geography on that map seems to have influenced Martin Behaim in making his terrestrial globe



Figure 7 The large world map (201 x 122 cm) by Martellus at Yale. It was a more elaborate map like this one, with a fully rendered eastern coast of Asia, and including Japan, that served as an inspiration to Columbus and as a cartographic model for Behaim and Waldseemüller. New Haven, Beinecke Rare Book and Manuscript Library, Art Store 1980.157 (c. 1491). Photo: Beinecke Rare Book and Manuscript Library.

of 1492, a date of c. 1491 for the map is very likely. So the map in the miniature was probably made between 1488 and 1491.

²⁹ The *Hortus sanitatis* “major,” which is the work that I refer to here, was first published in Mainz by Jacob Meydenbach, June 23, 1491, and 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. 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): 75-92; and 12 (1918): 41-57, esp. 48-51 and 54-57. I will detail Martellus’s use of the *Hortus sanitatis* in my forthcoming study *The World Map by Henricus Martellus at Yale, c. 1491: Sources and Influence*.

As indicated above, a map by Martellus influenced Christopher Columbus's geographic thought and also influenced Martin Behaim in the creation of his globe of 1492. One of the great problems in the history of cartography is when and where Columbus and Behaim saw a map by Martellus. Behaim spent considerable time in Lisbon, and for that reason Attavante's image of this map by Martellus in a monastery just outside of Lisbon makes one's heart skip a beat at first viewing. But the matter is not so simple. First, the Martellus map that Columbus saw and that influenced Behaim must have been much more similar to the Yale Martellus map (**Figure 7**) with regard to the configuration of eastern Asia (including Japan) and southern Africa (including a peninsula jutting eastward at the southern end of the continent) than the Attavante image is. For example, Columbus's son Ferdinand in chapter 20 of his biography of his father said that Columbus certainly would have found Japan if he had not believed that the island extended from north to south.³⁰ I know of no early text or map that describes or portrays Japan that way, except for Martellus, so it seems certain that it was from a map like the Yale Martellus map that Columbus got this idea (and others).

Second, we have no evidence that Attavante was ever in Lisbon, and, in fact, the contract for the creation of the *Bíblia dos Jerónimos* cited above demonstrates that he was in Florence during the years 1494-1497, being closely watched by the Florentine merchant Cipriano di Sernigi. Rather than Attavante having seen a map by Martellus in the monastery in Belém, it is much more likely that the artist was placing a map that he had seen in Florence in a Portuguese setting.

³⁰ Fernando Colón, *The History of the Life and Deeds of the Admiral Christopher Columbus: Attributed to His Son Fernando Colón*, ed. Ilaria Luzzana Caraci, trans. Geoffrey Symcox and Blair Sullivan (Turnhout: Brepols, 2004), pp. 69-70 (English) and 271 (Italian). This material is cited by Skelton, "World Map by Henricus Martellus Germanus, c. 1489, at Berne" (see note 2), p. 16.

Nonetheless, the miniature in the *Bíblia dos Jerónimos* provides some evidence bearing on the important question that Gaetano Ferro asks regarding Christopher Columbus, which must also be asked regarding Martin Behaim: “When did he see and obtain his world map of the Martellus type?”³¹ First, the miniature confirms that there were cultural contacts between the Portuguese court and Florence, specifically with a Florentine circle familiar with Martellus’s work.³² It is not difficult to imagine that these contacts had been in place since 1490 or so, and had resulted in the purchase of some of Martellus’s maps for clients in Portugal. Then, Attavante’s image suggests that Martellus’s work was well-regarded in Florence: it was thought of highly enough to be chosen as a decoration of an imaginary elite cultural space. We know that the Yale Martellus map, or one very similar to it, was in Martin Waldseemüller’s workshop before 1507, and Attavante’s image makes it more plausible that a map of Martellus’s similar to the one at Yale reached Lisbon before Columbus sailed on his first voyage and before Behaim made his globe.

Attavante’s image is also valuable for the light it sheds on Martellus’s work, particularly on his creation of wall maps early in his cartographic career. We now know that he had experience making wall maps when he came to design his large and influential world map now at Yale, and that he had experience with the market for wall maps. Moreover, Attavante’s miniature is important for the information it gives us about the reception and use of cartography in the late fifteenth century. Much of the evidence we have about the use of maps to decorate cultural

³¹ Gaetano Ferro, “Christopher and Bartolomeo Columbus, Cartographers,” in *The Genoese Cartographic Tradition and Christopher Columbus*, trans. Hann Heck and Luciano F. Farina (Rome: Istituto poligrafico e Zecca dello Stato, Libreria dello Stato, 1997), pp. 93-129, at 126-127.

³² K. J. P. Lowe, *Cultural Links between Portugal and Italy in the Renaissance* (New York: Oxford University Press, 2000).

spaces, and thus to indicate the owner's educational attainments or ambitions, is textual,³³ but Attavante's miniature provides visual evidence of that use.

In particular, we have little evidence regarding the use of maps to decorate ecclesiastical settings in this period. Attavante's miniature serves as an iconographic complement to a passage in Paolo Cortesi's *De cardinalatu*, a treatise on the conduct appropriate to cardinals that was published in 1510. In describing the proper decoration of a cardinal's palace, Cortesi says that the well-educated Cardinal will delight in an image of the world that shows the latest geographical discoveries:

And likewise there is no less delight to the learned in a painted picture of the world or the description of its parts which have recently become known through the daring circumnavigations accomplished by our people, such as the explorations of Manuel King of the Portuguese around India.³⁴

It is surprising that Cortesi would recommend a map for an ecclesiastical officer not in order to illustrate sacred history, but rather to show his knowledge of geography,³⁵ but that is exactly the type of map we see in Attavante's miniature: Martellus took considerable pride in displaying the latest Portuguese discoveries. Thus the context of Martellus's map in Attavante's image, perhaps unexpected to twenty-first century eyes, is in fact consistent with contemporary practice. 🐼

³³ See note 17.

³⁴ Paolo Cortesi, *De cardinalatu* (San Gimignano: Simeon Nicolai Nardi senensis, alias Rufus Calchographus, 1510), ff. 54r-54v; the English is from Kathleen Weil-Garris and John D'Amico, "The Renaissance Cardinal's Ideal Palace: A Chapter from Cortesi's *De Cardinalatu*," in Henry A. Millon ed., *Studies in Italian Art and Architecture, 15th through 18th Centuries* (Cambridge, MA: MIT Press; Rome: Edizioni dell'Elefante, 1980), pp. 45-119 (= *Memoirs of the American Academy in Rome*, 35), p. 97. Also see Juergen Schulz, "Maps as Metaphors: Mural Map Cycles of the Italian Renaissance," in David Woodward, ed., *Art and Cartography: Six Historical Essays* (Chicago and London: University of Chicago Press, 1987), pp. 97-122, at 117.

³⁵ Rosen, "The Cosmos in the Palace" (see note 17), p. 93.