

A Miniaturist's Gaze on the Atlantic World: The Nautical Chart of BnF Latin 4801

Šima Krtalić (MA Archaeological Materials Science, Doctoral Candidate in the History of Sciences, University of Lisbon)

In the closing years of the fifteenth century, an anonymous Florentine miniaturist was given an unusual commission.¹ The first part of his work would be straightforward: a copy of Ptolemy's *Geography* in the Italian translation by Jacopus Angelus needed a bit of embellishment before being offered as a gift. But the patron had a further request to his client: to update the codex's graphical content with new information being gathered aboard the Portuguese ships inching south along the coast of West Africa. Only a few charts produced by Portuguese cartographers survive from the fifteenth century: an anonymous Atlantic chart kept at the Biblioteca Estense Universitaria, made after 1471 (C.G.A.5.C); a chart by Pedro Reinel made between 1484 and 1492 (Archives Départementales de la Gironde, 2 Fi 1582-2); the 1492 chart of Jorge de Aguiar (Beinecke Rare Book and Manuscript Library, Art Storage 30cea 1492); and a fragment showing the western Mediterranean kept at the Torre do Tombo in Lisbon (Fragmentos, cx. 20, n.º 7). In light of this circumstance, much of what is known about Portuguese cartography in this transformative period must be gleaned indirectly, through copies made abroad. The present chart supplements this corpus (fig. 1).

Measuring 550 x 720 mm, it is found near the back (folios 123v-124) of codex Latin 4801, kept in the Bibliothèque nationale de France. The book's ownership and production history are recorded in a conservation note written in 2004 by Emmanuelle Vagnon and Marie-Pierre Laffitte.² According to the authors, this copy of the *Geography* was made by Florentine illuminator Francesco di Antonio del Chierico between the years 1450 and 1460, then reworked around 1470-1471 by a second anonymous miniaturist to include a new frontispiece, gold lettering, painted frames, and a chart. It was intended as a present either to Borso d'Este from his friend Marco Pio da Carpi or the opposite, and in the early 1500s was in the possession of Geoffroy Carles. It was listed in the catalogues of the Royal Library in Paris by the end of the same century.

In Vagnon and Laffitte's assessment, the chart was based on an Italian or Majorcan exemplar. Its coverage and the toponymy undermine this interpretation, however. The chart is clearly concerned with Atlantic navigation, and its layout is analogous to the anonymous Portuguese chart made sometime after 1471 referenced above (fig. 2). Likewise, the language used for placenames has an unambiguously Lusitanian flavor (e.g. *rio do b[is]po*, *cauo dasbarbas*, *insula bra[n]ca*, *aruoredo*).

Although drawn up around the same time, the anonymous Portuguese chart and the present work make differing geographical assertions. Take, for example, the Cape Verde islands (fig. 3). Not only is the configuration of the archipelago wholly disparate, but the toponymy between the two varies. Had the miniaturist worked from a model akin to the anonymous Portuguese chart, he would certainly have recognized, even reproducing his exemplar by eye, the overall layout of the islands, with a group running roughly NE-SW, and another orientated NWN-ESE. Had he possessed a chart similar to Reinel's, we would

¹ The choice has been made to call this practitioner a miniaturist, rather than illuminator, because most of his labor on the codex was in that capacity.

² Vagnon, Emmanuelle and Marie-Pierre Laffitte. "Latin 4801." <https://archivesetmanuscrits.bnf.fr/ark:/12148/cc636763>. November 1, 2022.

expect an even more obvious division of the archipelago into two strings of islands.³ It is unlikely that this unorthodox arrangement is a mere product of carelessness – throughout the chart, one can detect the faint gray lines of the miniaturist's preliminary drawing (fig. 4), suggesting an earnest effort at faithful replication. Although the colonization of the Cape Verde group had begun in earnest with the 1462 founding of Ribeiro Grande on Santiago, other islands in the group were only gradually settled – this chart may, therefore, preserve an inchoate geography for the archipelago that was ultimately discarded. The same is suggested by the outsized islands and gaping inlet drawn to the south of the archipelago and labeled *Rio defancasa*, probably meant to depict the Bissagos islands and coast of Guinea-Bissau. While it may be tempting to ascribe this distortion to a desire to fill the page, the coastlines and placenames already spill into the frame; if anything, the miniaturist was at pains to compress the shores. Unsurprisingly, the chart also bears several mythical islands, such as *Antilia* and *Insula de Beato Brandom*. In the vastness of the Atlantic, their hypothesized existence would endure well into the sixteenth century.⁴

Having considered the miniaturist's approach to drawing the coasts, we may now turn to his treatment of the rest of his model's components (most contracts for such work left a degree of discretion to artisans once costlier desiderata had been specified).⁵ In the late medieval period, these elements consisted of a network of compass lines (color-coded, arranged about a hidden circle); a distance scale bar; and placenames running perpendicular to the shores (in black and red ink). Although these conventions were well-established as early as the fourteenth century, a naïve viewer of a nautical chart could easily see them as optional or flexible. As Ernst Banxandall stressed in his influential study of quattrocento Italian painting, the experiences a spectator brings to an image shapes their understanding of both its content, and its salient features.⁶ In the case of this chart, the copyist seems to have judged three aspects of his model to be crucial: dichromatic placenames, the compass line network, and the inscription of toponyms perpendicular to the shore. He nonetheless identifies areas for improvement, swapping the typical tints of the placenames for a flashier combination of red and blue, and perhaps only availing himself of black and red for the (notably imperfect) compass lines. The scale bar, surely present in the model, has been either overlooked, or taken to be unnecessary. The Florentine miniaturist was not alone in attempting to distinguish between convention and locus for creativity when copying a nautical chart. Celebrated cartographer Henricus Martellus would confront the same issue, but arrive at different selection criteria, having perhaps greater familiarity with nautical charts. In the "working copy" of his *Insularium Illustratum* kept at the Biblioteca Medicea Laurenziana (call number Plut.29.25), folios 60v-61r, 62v-63r, and 64v-65r show the Mediterranean and Black Seas, together with the northeastern Atlantic Ocean, and are unmistakably modeled after portolan charts.⁷ In contrast with the anonymous miniaturist, Martellus has carried over his exemplar's scale bar and black and red toponymy, but has omitted the compass lines. Once removed from pragmatic purposes of mariners, what was vital in a chart was in the eyes of the beholder.

³ On the psychological strategies employed when copying by eye, see Mao, Xiaoyang, Omar Galil, Quintcey Parrish, and Chiradeep Sen. "Evidence of cognitive chunking in freehand sketching during design ideation." *Design Studies* 67 (2020): 1-26.

⁴ Babcock, William H. "The so-called mythical Islands of the Atlantic in Mediæval maps." *Scottish Geographical Magazine* 31, no. 8 (1915): 411-422.

⁵ For transcriptions and translations of such contracts, see Alexander, Jonathan James Graham. *Medieval illuminators and their methods of work* (Yale University Press, 1992), 179-183.

⁶ Baxandall, Michael. *Painting and experience in fifteenth century Italy: a primer in the social history of pictorial style* (Oxford Paperbacks, 1988), 29-36.

⁷ The codex has been digitized and is accessible through the online repository of the Biblioteca Medicea Laurenziana.

A final question, answered not textually but graphically, is the degree to which the miniaturist perceived this nautical representation as separate from Ptolemaic maps.⁸ Conceptually, the two genres are both distinct and incompatible: the Ptolemaic “prescription” called for a mathematical projection and the plotting of geographical coordinates, whereas pre-modern nautical charts were constructed with estimated distances, courses steered, and eventually latitude measurements.⁹ While the miniaturist went so far as to apply the same gilt lettering and illusionistic border to this chart as the Ptolemaic maps, he by no means effaced the peculiarly nautical aspects of his model when producing this copy. The troublesome compass lines (hardly essential in a work made more for curiosity than for navigational ends) are retained, and a ring of compass roses (of a design not seen in contemporary charts) is set off in gold. Unversed in the techniques used by professional nautical cartographers and shaky in his conception of the chart’s conventions, even this anonymous Italian miniaturist felt that he was in the presence of a different sort of map – and one whose pedigree should not be concealed, but boldly asserted.

⁸ For an excellent treatment of humanists’ and readers’ reaction to Ptolemy’s *Geography* in the fifteenth century, see Gautier Dalché, Patrick, “The Reception of Ptolemy’s *Geography* (End of the Fourteenth to Beginning of the Sixteenth Century), in *The History of Cartography*, vol. 3, part 1, ed. David Woodward (Chicago: University of Chicago Press, 2007).

⁹ On the tensions between these genres, see Gaspar, Joaquim Alves, and Henrique Leitão. “Early Modern Nautical Charts and Maps: Working Through Different Cartographic Paradigms.” *Journal of Early Modern History* 23, no. 1 (2019): 1-28.

Figures

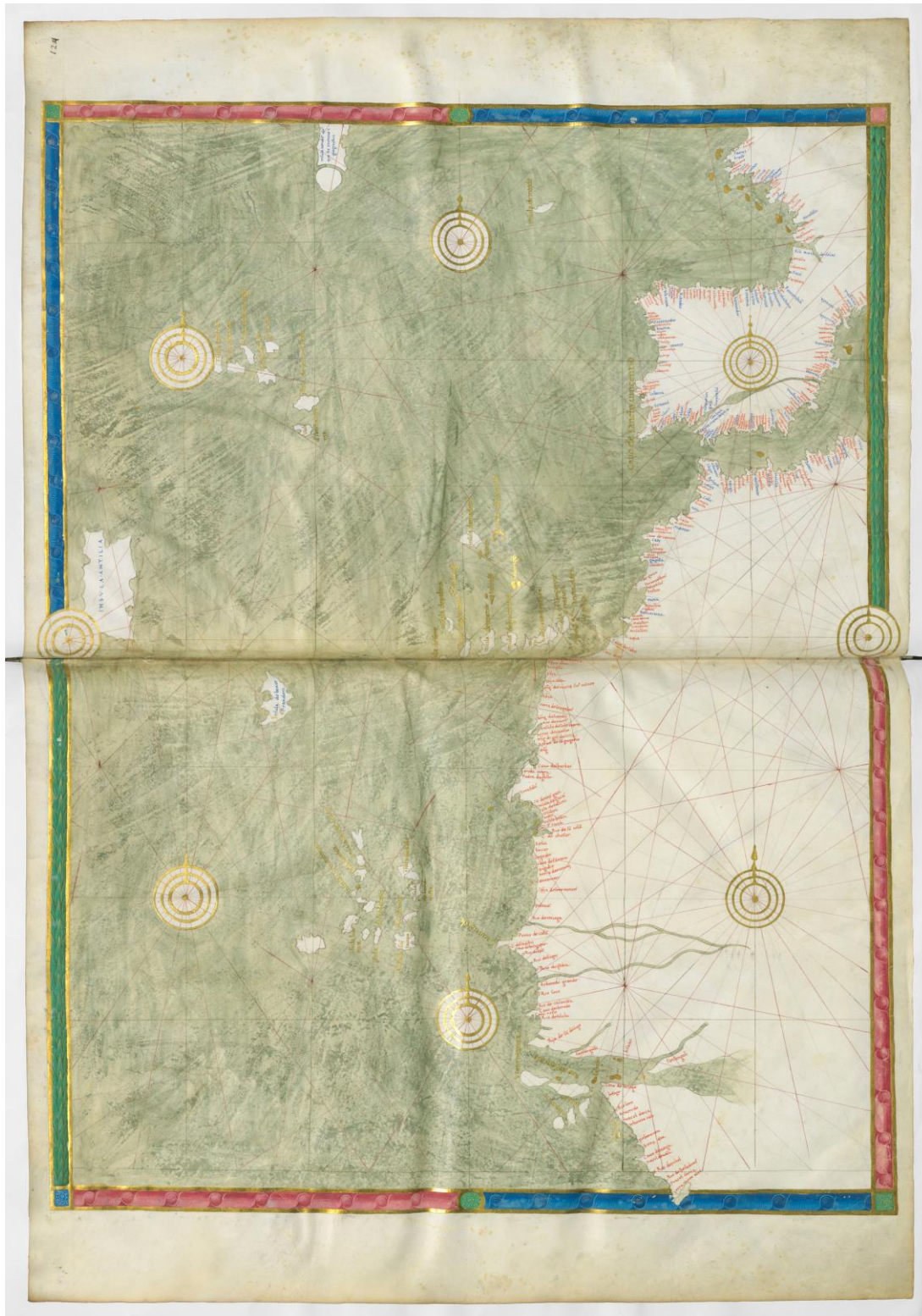


Figure 1: The nautical chart of BnF Latin 4801. North is up. Ink, color, and gold on parchment. Image courtesy of Gallica.bnf.fr.



Figure 2: Digital tracing of the coasts of the chart in Latin 4801 overlaid on the anonymous Portuguese chart of the Biblioteca Estense Universitaria (>1471, C.G.A.5.C).

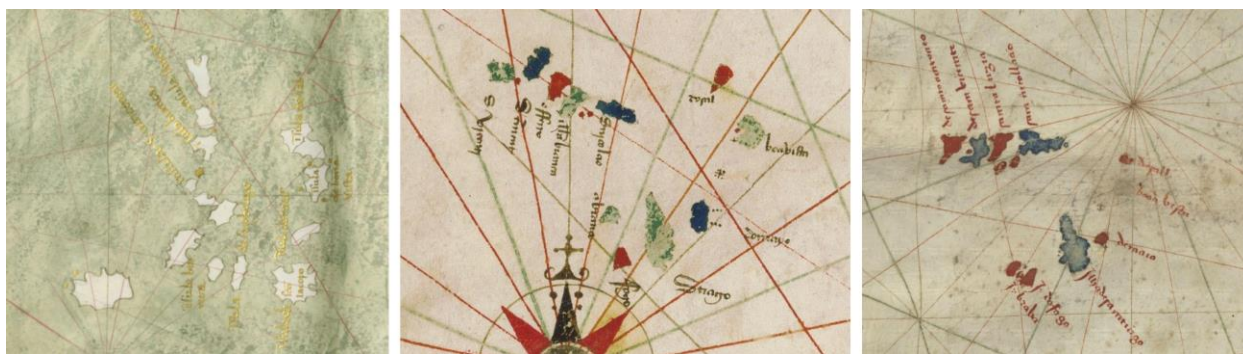


Figure 3: Details of three fifteenth-century charts showing the Cape Verde islands. Left to right: anonymous, BnF Latin 4801; anonymous, Biblioteca Estense Universitaria (C.G.A.5.C); Pedro Reinel, Archives Départementales de la Gironde (2 Fi 1582-2).



Figure 4: Details of the chart in BnF Latin 4801 with contrast increased to better visualize the preliminary drawing (indicated with white arrows).