

La Sfera Challenge

Team Vatican



Team Vatican will examine the version in the Vatican Library, Vat. Lat. 7612.

TEAM DOCUMENTS

Transcription Portal

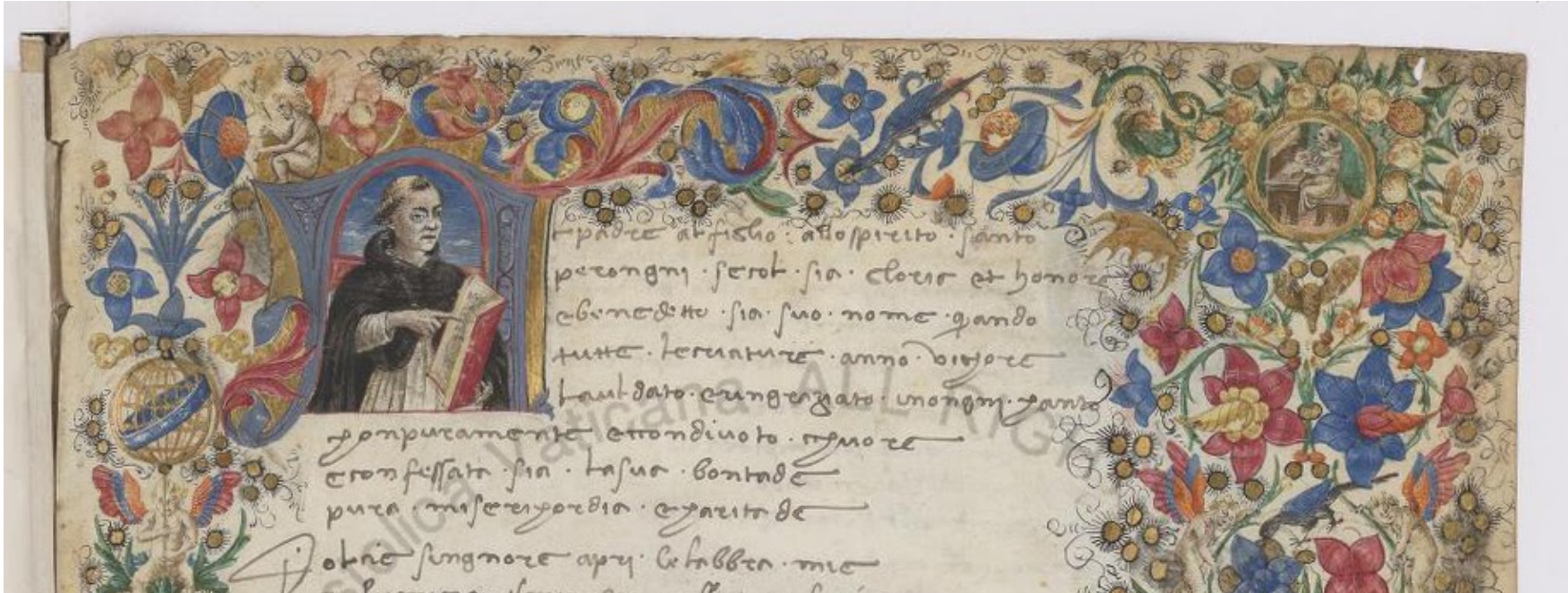
Project Log

Rules and Guidelines

TEAM UPDATES:

July 30: Epilogue: One final blog post from [@cebenes2](#) and [@qwesterby](#) because we *just can't let this problem go...*

Vat. Lat. 7612 has a Jekyll & Hyde personality. It's written in an extremely casual *mercantesca* script—the kind of script palaeographers associate with owner-produced books like diaries and accounts, and especially works written on paper—but its illuminated frontispiece (on parchment) ranks right up there with the best workshops of the later 15th century, particularly work by Lorenzo de' Medici's favorite illuminator Francesco di Antonio del Chierico. *Why would such a sloppily-written copy of La sfera be considered worth illuminating so extravagantly, an investment of substantial money and effort?*



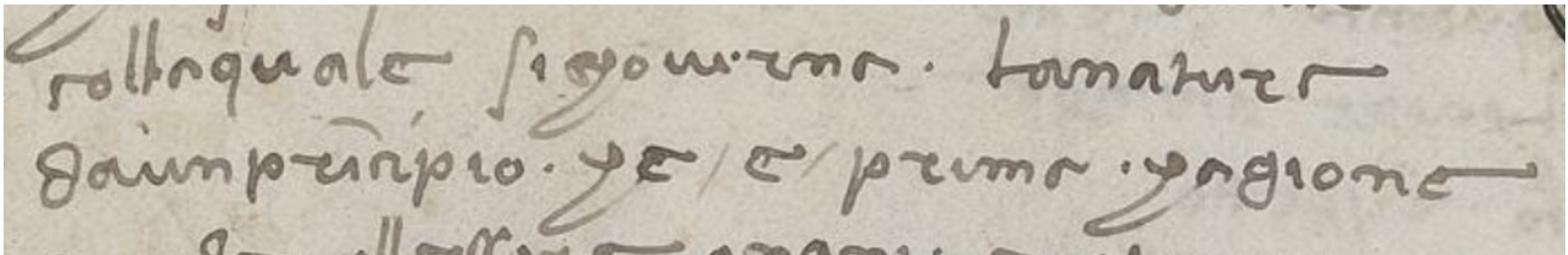




BAV Vat. Lat. 7612, f. 1r (with author portrait of Leonardo Dati)

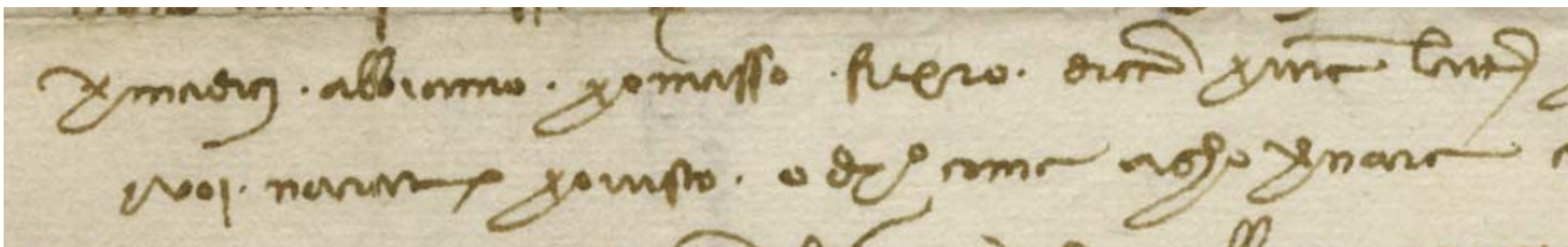
Herewith a few observations:

On the script: The *mercantesca* in which Vat. Lat. 7612's *La sfera* is copied is extremely current, with numerous ligatures, digraphs, omitted letters, and other evidence of having been written quickly and perfunctorily.



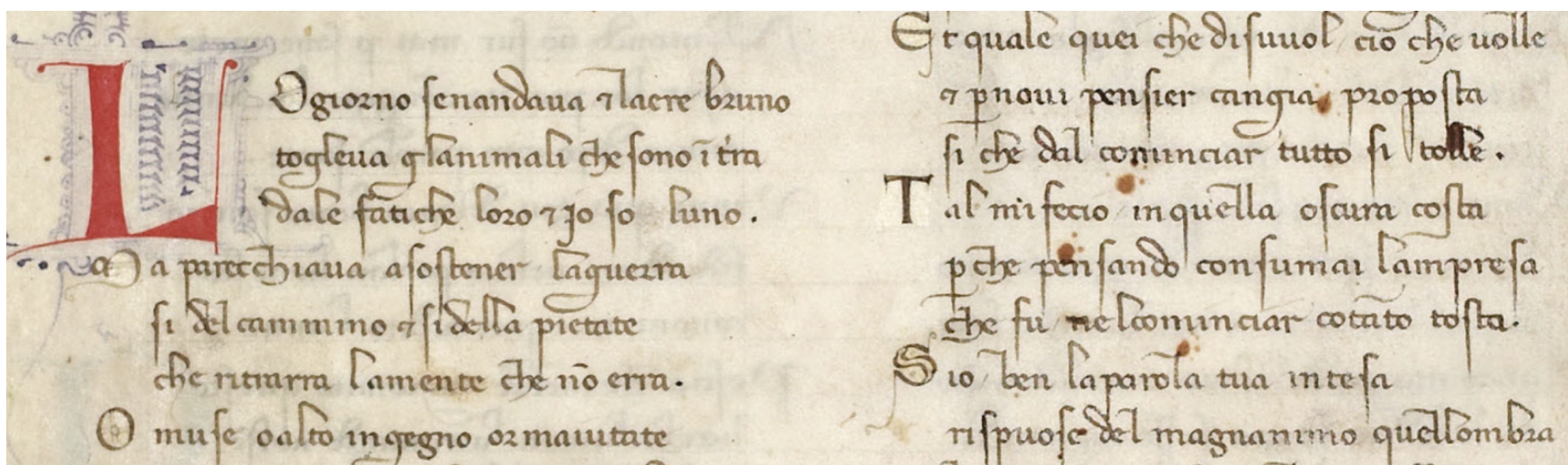
Vat. Lat. 7612, f. 1r; text: *colla quale si ghoverna la natura / da un principio che e prima chagione*

It's not too dissimilar to the hand used by members of the educated elite when writing personal letters, as in **this example**, written by Cardinal Bessarion to the duchess of Mantua. It's even closer to the hand of **this letter**, which is a note from Florentine bankers Francesco Baroncelli and Giovanni Rucellai in Mantua to their counterpart bankers in Venice, about dealings with the Medici bank in Florence in 1459.



Even the looped **ch** digraphs are the same as in our copy of *La sfera*. The “look” of 7612’s script, therefore, is what a contemporary would expect from a mundane business transaction or personal memorandum.

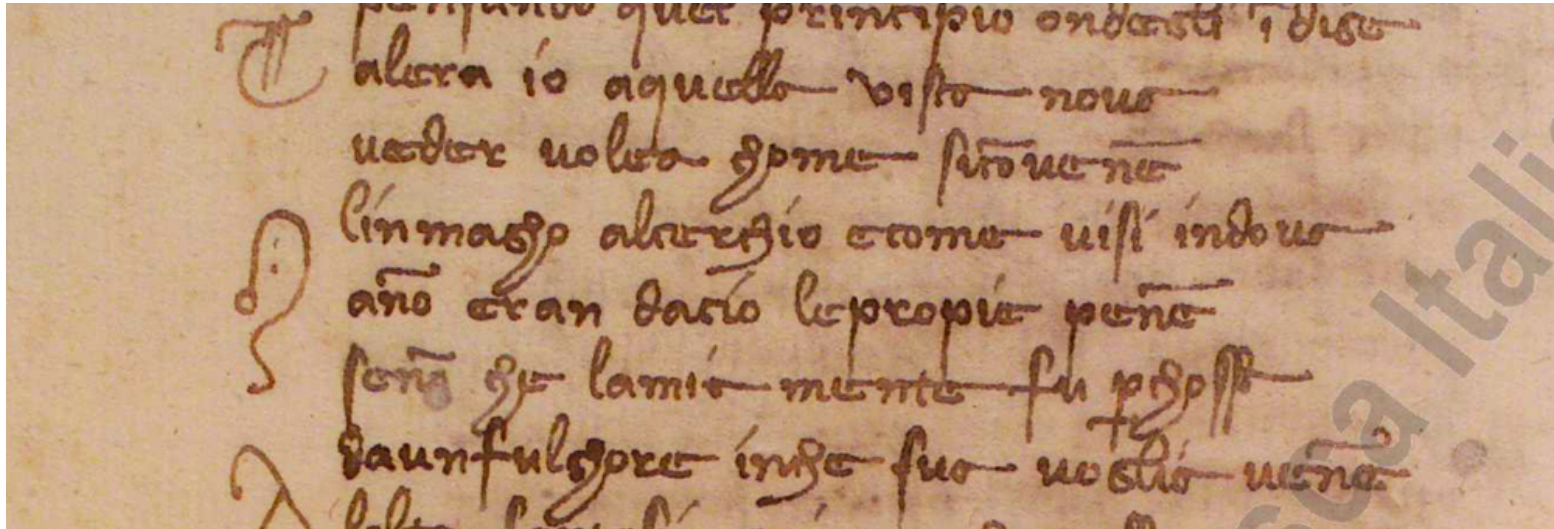
Mercantesca as a script certainly originated with the merchant elite of late medieval Italy, but as far back as Dante (the early 14th century, i.e. 150 years before Vat. Lat. 7612) there had been “formal” versions of it considered more suitable for book use, especially for works copied on expensive parchment. Consider this example of Dante’s *Commedia*, written in *mercantesca* by Francesco di Ser Nardo da Barberino in Florence in 1337 (Milan, Bib. Trivulziana MS 1080):



(Milan, Bib. Trivulziana MS 1080, f. 2r)

Even as the script incorporates the long ascenders, descenders, and loops of “business script”, the long flourishes are consistent and carefully formed, and the bodies of the letters are neatly shaped: in truth, Francesco di Ser Nardo’s “book” *mercantesca* bears little resemblance to Vat. Lat. 7612. Even Florence, Bib. **Riccardiana MS 1115**, a copy of Dante produced in some haste in 1448, is

much more cleanly written than Vat. Lat. 7612, although they share the same loopy **ch** and **gh** digraphs, and the same basic style of pen-flourished initials with harping and frogspawn (not shown):



(with thanks to Melissa Conway for drawing our attention to Ricc. 1115)

On the illumination: On the other end of the spectrum, the decoration of the first folio of Vat. Lat. 7612 is easily compared to the most ornate illuminated books from 15th-century Italy. The scrolling green vines with bouquets of lemons poking out from urns, colorful birds, and charmingly playful putti are all part of a Florentine decorative vocabulary practiced by the most desirable illuminators of the day. The putti alone, with multicolored wings and carefully modeled fleshy bodies, capped off with pointy tufts of yellow hair, seem to call out for closer examination. *Calling all art historians: have you seen these putti before?*

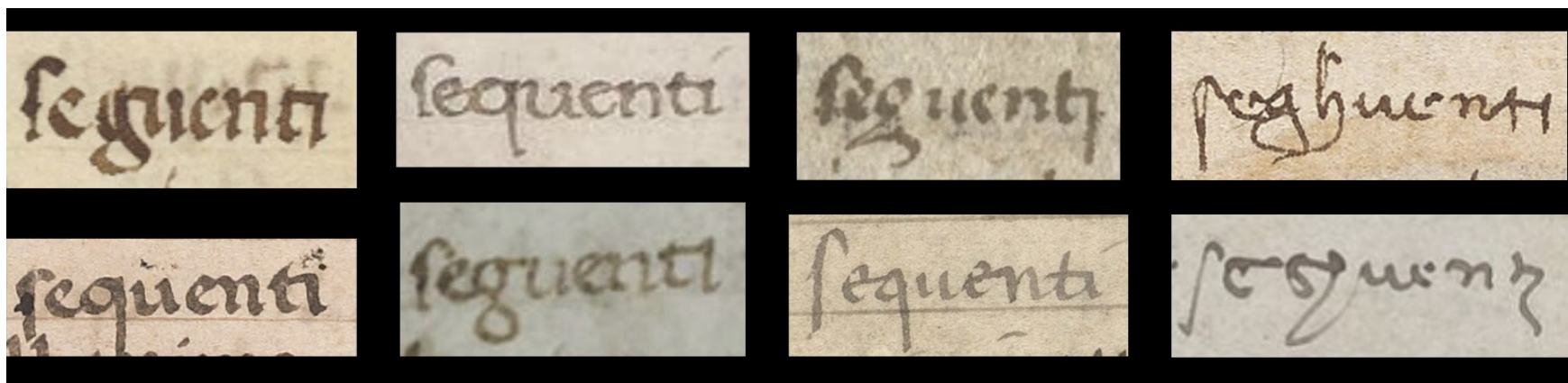


Vat. Lat. 7612, f. 1r (lower margin)

Beyond this, one shining case in point (pun intended) is the diamond ring with point-cut gemstone in the lower margin of the frontispiece. This diamond ring is typically considered to be a Medici device, and was often used by Lorenzo de' Medici (d. 1492). Sean Roberts, in his essay “Poet and ‘World Painter’: Francesco Berlinghieri’s *Geographia* (1482),” suggests (with reference to Toby Yuen, n59) that illuminators like Ser Ricciardo di Nanni had access to manuscripts in Lorenzo’s library, from which they might have copied the diamond ring device to other manuscripts—like our flashy frontispiece.

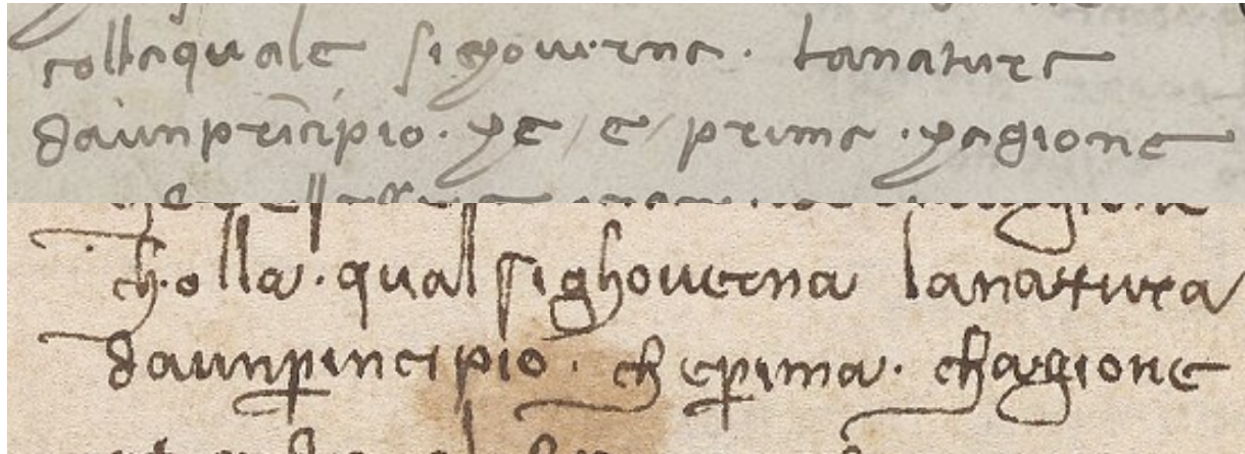
Virtually every manuscript with this level of decoration—for example, every similar plate in Jonathan Alexander’s recent opus ***The Painted Book in Renaissance Italy, 1450–1600***—**is written not in mercantesca but in either Gothic rotunda or humanist bookhand**, formal book scripts considered to possess more gravitas than *mercantesca*. Among the *La sfera* manuscripts transcribed so far, for example (and in order of decreasing formality):

- 1 (France) is in Gothic rotunda;
- 2 (Italia & Newberry) are in humanistic bookhand;
- 2 (Wellcome & Spencer) are in hands that combine Gothic and humanistic elements;
- 1 (Yale) is in a hand that combines Gothic and mercantesca elements;
- And 2 (USA, Vatican) are in *mercantesca*.



(*La sfera*, “seguenti” at end of line 23;
 first line: Equipe France, Squadra Italia, Team Spencer, Team USA;
 second line: Team Yale, Team Newberry, Team Wellcome, Team Vatican)

The *mercantesca* transcribed by Team USA in Beinecke 328 comes the closest to Team Vatican’s scrawl, and many of the letterforms are fundamentally the same (Team Vatican found Beinecke 328 a useful crutch when trying to puzzle out the text of Vat. Lat. 7612!).



(Vat. Lat. 7612 above; Beinecke 328 below, both f. 1r)

That said, Beinecke 328 is both neater in script and less elaborate in its illustration than Vat. Lat. 7612 (and it is written entirely on paper!), so its elements “suit each other” in a way that those of Vat. Lat. 7612 do not.



(Beinecke 328 at left; Vat. Lat. 7612 at right, both f. 1r)

The fact that its first page was written on parchment—even when the rest of the manuscript is on paper (and the hand consistent throughout)—suggests that the decorative program was intended from the very start, since parchment is a better support for paint

and illumination than paper is. To return to our initial question, then: **why would such a casually-written manuscript receive such elaborate decoration?** To be honest, we have no idea. But we can suggest a couple of possibilities:

1. Vat. Lat. 7612 may have been copied personally by some notable figure unknown to us, considered valuable for its association with that person, and decorated by others in his honor or memory—in the same way that a scrawled celebrity autograph might be framed and sold for enormous sums nowadays.
2. Alternatively, the manuscript may have been copied for his own use by some wealthy merchant, who enjoyed the text and didn't mind paying to have his personal copy extravagantly decorated.

One hint that #2 may be on the right track is Florence, Bib. Medicea-Laurenziana, **MS Plut. 30.25**, a notable exception to the “Alexander Rule” posited above (and not among the illuminations reproduced by JJGA). Like Vat. Lat. 7612, it is written in a comparable scrawl but has a highly technical full frontispiece attributed to the Master of the Hamilton Xenophon (who may in fact be Attavante degli Attavanti):

Florence, Bib. Medicea-Laurenziana, MS Plut. 30,25, f. 1r

Here's the intriguing part: both Vat. Lat. 7612 and Plut. 30.25 are practical works written in the Italian vernacular: in the case of Plut. 30,25, a handbook of mathematics by one "Master Luca", to parallel Dati's practical cosmology, navigation, and geography. Were these manuscripts intended for the instruction and personal use of young men of prominent Florentine families? Reference

tools intended for the personal libraries of the heads of those families? Further study of these “Jekyll/Hyde” manuscripts that combine informal script with top-of-the-line decoration is clearly warranted.

One further thought: does Vat. Lat. 7612’s attribution of *La sfera* to Fra Leonardo Dati have anything to contribute here? We’re intrigued by the associations swirling around Leonardo Dati (leader in the Observant Dominican movement and based at Santa Maria Novella), prominent Florentine painters and illuminators of the mid- and later 15c such as Fra Angelico and his pupil Francesco di Antonio del Chierico, and the Medici family (see e.g. Kanter/Palladino, *Fra Angelico*, p35).

We’ll keep looking.

July 29, update 4: Team Vatican has submitted its transcription.

Swiss Guard, at ease!



(But stay tuned for ONE more blog post, because we just can't resist.)

July 29, update 3: Team Vatican is SO CLOSE to submitting its materials! In honor of our manuscript, here's a reflection on its author (???) by team captain Carrie Beneš (@[cebeneš2](https://twitter.com/cebeneš2)):

One of the more curious aspects of Vat. Lat. 7612 is its author portrait, which in depicting a Dominican (a tonsured male in a white habit with a black mantle) is clearly advertising not the merchant Gregorio Dati but his brother **Leonardo Dati, Master General of the Dominican order from 1414 to 1425**, as the author of *La sfera*.

Scholars have debated this point for years: in 1984, Lucia Bertolini (“L’attribuzione della *Sfera* del Dati nella tradizione manoscritta”) concluded that *La sfera*’s clear mercantile interests pointed to Gregorio (Goro) as the author, a position supported by recent work by Raymond Clemens (e.g. “Medieval Maps in a Renaissance Context: Gregorio Dati and the Teaching of Geography in Fifteenth-century Florence,” 2008). Even so, the magisterial *Dizionario biografico degli italiani* (1987, to be sure) opines that “the multiple cultural references that make up the foundation of the work are more easily attributable to the scholar [Leonardo] than to his brother Goro, a merchant and politician” [trans. CEB].

My interest here is less in solving the problem of authorship than in exploring how the problem of authorship has filtered into modern library catalogues, since one of the basic problems of computers for humanists is their delight in binaries and clear-cut data. 0 or 1? Team Goro or Team Leonardo?

Here’s a breakdown of the *La Sfera* Challenge manuscripts and their metadata so far:

Manuscript	Manuscript ID	Catalogue ID
Beinecke 328 (R1, USA)	none	Digital catalogue gives only <u>Gregorio</u> but written catalogue gives <u>Gregorio (or Leonardo?) Dati</u>
Urb. Lat. 752 (R1, Italia)	none	<u>Gregorio</u>
Arsenal 8635 (R1, France)	<u>“Brunetto Latini”</u> (LOL)	<u>Title lists “poeme de Goro” but author fields list both Gregorio and Leonardo</u>
Beinecke 946 (R2, Yale)	none	<u>either Gregorio or Leonardo</u>
Ayer Map 1 (R2, Newberry)	none	<u>Gregorio</u>
Wellcome 231 (R2, Wellcome)	none	<u>Leonardo</u>
Pryce P4 (R2, Spencer)	none	<u>Gregorio</u>
Vat. Lat. 7612 (R2, Vatican)	<u>Leonardo</u> (portrait)	none

One observation made by previous scholars of this problem is that most of the manuscripts which attribute the work to Leonardo are later, which in fact we see here, in Vat. Lat. 7612. #TeamVatican member Matt Westerby wondered if there might be some correlation between attribution of the work to Leonardo and the more heavily illustrated manuscripts of the work, citing the (possibly legendary) tradition that Leonardo Dati convinced Fra Angelico to become a Dominican friar, and Fra Angelico may then have trained illuminators such as Francesco di Antonio del Chierico, possibly creating a state of affairs where Florentine illuminators may have associated this text with Leonardo, while notaries and scribes associated it with Gregorio.

Here’s what isn’t speculation: in our collection of eight, we have one manuscript that attributes it to Brunetto Latini (a nice case of “famous name” advertising) and one that supports Leonardo. None of the manuscripts actually names Gregorio as the author.

Among modern catalogues, however, Gregorio is the clear winner. Four catalogues give only Gregorio; one (Wellcome) gives only Leonardo; and two equivocate (“Goro or Leonardo”). Beinecke 328 has two different online descriptions (one Gregorio, one equivocating). If nothing else, one thing is absolutely clear: **if you’re searching for manuscripts of or scholarly material on *La sfera*, you won’t get a full picture until you use both names as search terms.**

July 29, update 2: Today’s blog post comes from medievalist-turned-preservationist Stacey Graham (@[StaceyRGraham](#)), reflecting on Vat. Lat. 7612’s fantastic semi-perspectival maps:

Every now and then my current job as a public historian with the Center for Historic Preservation at Middle Tennessee State will intersect with my former background as a medievalist. The last time I found myself transcribing a medieval manuscript was at least sixteen years ago during dissertation research, and never before had I been called on to transcribe a medieval manuscript in Italian. However, **once a Rouse student, always a Rouse student!** [*Editorial note:* No less than 3 members of #teamvatican are students of palaeographers Richard and Mary Rouse!] While I thoroughly enjoyed puzzling out the mercantesca letter forms in the Vat. Lat. 7612 version of *La Sfera*, I found myself even more fascinated by the map illustrations in the second half of the book.

How does this relate to my work as a public historian? Well, the last medieval manuscripts I spent time trying to explain to a public audience weren’t actually texts but early portolan maps, specifically from the collections of the Library of Congress. The map drawings in Vat. Lat. 7612 instantly reminded me of these portolan maps, and for good reason. From the way that place-names are written perpendicular to the coast (and inland), to the rotating orientation of the compass points as we follow the southern and eastern Mediterranean coastlines, the maps in this and other versions of *La Sfera* are clearly **“based on portolan charts.”** The obvious difference, of course, is in function. *La Sfera* is a literary text, maps or no. Portolan charts were **“graphic representation[s] of written sailing directions,”** with lines drawn on them to calculate how many degrees from a certain point to sail. Seen as a whole, as with **this example from the 14th century** or **this example from the 16th**, portolan charts are concerned with portraying port cities radiating inland from the Mediterranean coastline, all connected by lines of navigation based on several compass points (and not simply North, South, East, and West). They were meant to be carried on board and used, though many versions, such as **this one circa 1544**, were probably meant to be display copies only.

The maps of *La Sfera* resemble portolan charts in their use of both red and black ink to indicate port cities (with the red ones presumably more important), and their attention to the detailed outlines of the coasts and islands. Furthermore, **the Red Sea is colored red**, as was common in many portolan charts, though Sinai is not understood as a peninsula, as was also seemingly common at the time. **Surely, however, no one was sailing the Mediterranean with Vat. Lat. 7612 opened to folios 19v-**

20r: our *La Sfera* manuscript did not need to be accurate, and it shows. One inaccuracy that caused me great confusion at first can be found on f. 16r, which depicts an overview of the Levant from more of an aerial than a coastal perspective. The inaccuracy involves the city of Babylon and the Nile River, both of which appear in Mesopotamia AND Egypt. “Babylon” is an ancient name for the city that later became Cairo, and is depicted as “Babbillonia” in its fortified glory on f. 21r:



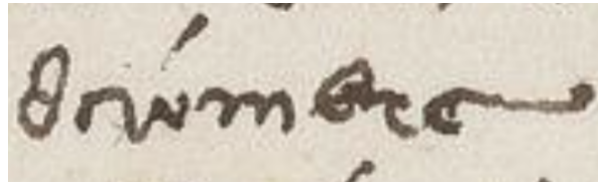
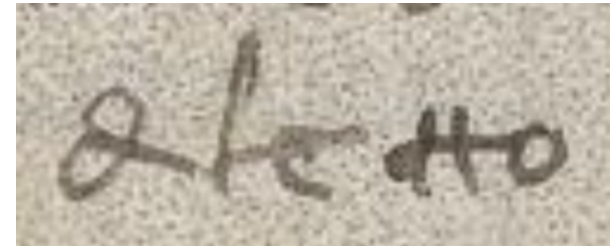
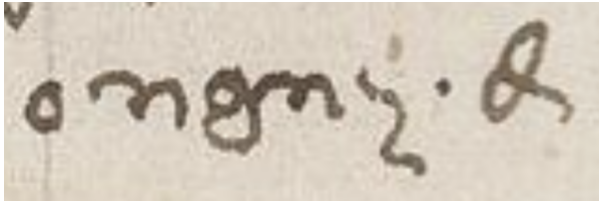
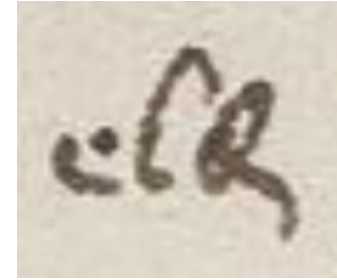
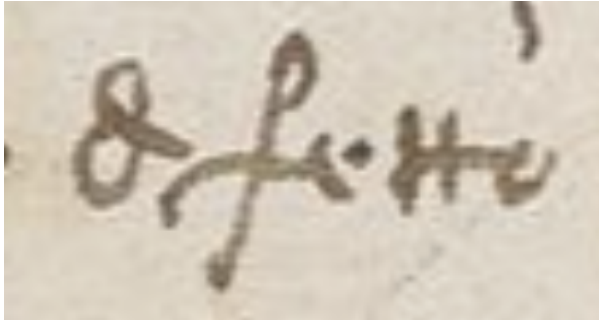
However, when the illustrator locates it in Mesopotamia, too, he mistakenly calls the Tigris the Nile River, even though it's right next to the Euphrates. Other versions of *La sfera*, as well as many portolan charts, simply label the Egyptian city as Cairo (though **some** use both names). If it wasn't the two Babylons that threw off our illustrator, perhaps it was the loop in the River Nile, which shows up also in the Tigris. Could this be a mistake more in copying than in knowledge?



July 29: A quick palaeographical interlude by team captain Carrie Beneš (@[cebenes2](#)): One of the hardest decisions we've had to make in our transcription is about missing letters in our scribe's casual *mercantesca*, which it's probably safe to characterize as a scrawl: Are they 1) present in truncated or casual form? 2) intended and should therefore count as an abbreviation? 3) actually missing? The **di** ligature is a good case study. Sometimes our scribe writes out **di** as two letters:

Sometimes he writes them as a ligature, providing a dot for the **i** so you know it's there:

But he's not consistent about the use of dots on i's, so a lot of the time we've just had to eyeball it and assume the presence of the **i**:



BAV Vat. Lat. 7612, fols. 15r, 10r, 9r, 5r, and 10v: **difetto**, **eldi**, **ogni di**, **diletto**, & **dicembre** (no, really)

As when dealing with any professional scrawl—doctors? lawyers? academics? you know who you are—our general assumption has been that both our scribe and his audience would have known what the illegible or missing letters *should have been* in our text, so we've transcribed all of these cases as **di**—but the simplicity of those two simple printed letters conceal a bountiful world of palaeographical variety.

July 28, update 2: From language, we move our magnifying glass over to art, with reflections on architecture from art historian Christine Kralik:

Since Dati's *La sfera* survives in a number of illustrated copies in both manuscript and print, the work was likely intended for consumption by a range of audiences, including merchant sailors. BAV Vat. Lat. 7612 is intriguing for a variety of reasons, including the architectural drawings that appear in the section of the manuscript focused on cartography. A few drawings from this manuscript in particular have piqued my interest. **On fol. 17r, an isolated structure labeled *Torre di Babel* (the Tower of Babel) appears in a state of severe disrepair** (fig. 1). The tower is in the Romanesque style, antiquated at the time of the production of the manuscript. This depiction of the tower in the Vatican manuscript is in stark contrast to representations in other manuscript copies of *La sfera*: for example, in the 15th century Paris, Bibl. De l'Arsenal MS 8536, the tower is shown intact with a wyvern in residence on fol. 71r (fig. 2). The tower is not discussed at length in the text, offering some flexibility on how to approach the illustrations.





Figs. 1 & 2: A comparison of the Towers of Babel and Mabel in BAV Vat. Lat. 7612, fol. 17r, and Paris, Bib. Arsenal MS 8536, f. 71r (Equipe France's MS from *La sfera* Round I)

But the disrepair might not be due solely to the antiquity of the structure; it might also bear allegorical meaning, commenting on **the moral corruption of contemporary society**. Representations of civic architecture in disrepair were previously used in Italian art to communicate a moralizing message. For example, in Ambrogio Lorenzetti's *Allegory of Good and Bad Government* of 1338 in the Palazzo Pubblico in Siena, the urban fabric of a city governed effectively was well maintained, while buildings of the poorly governed city fell into disrepair (fig. 3). To the left of the allegorical figures representing bad government, one can see towers falling into ruins.

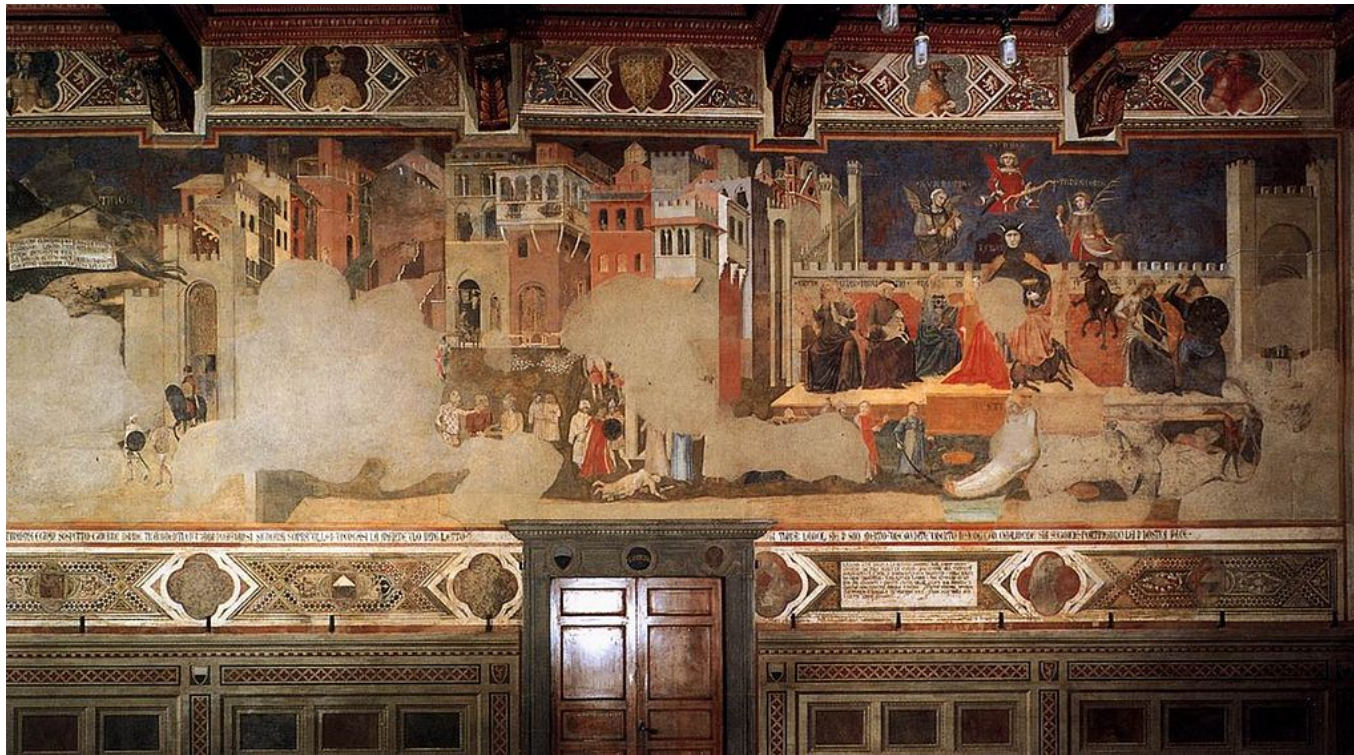


Fig. 3: Ambrogio Lorenzetti, *Allegory of Bad Government*, Palazzo Pubblico, Siena, ca. 1338–40

In the cartographical second half of the text, Vat. Lat. 7612 contains coastal maps of different parts of the world. These present a number of cityscapes with a distinctly Italian look in far-flung locales, but one in particular stands out for its Italianate features. On

fol. 20v, in a map of the coast of north Africa, **Capo Bona (modern day Cape Bon, near Tunis) bears a striking resemblance to Florence**. Depictions of Brunelleschi's dome for the Duomo of ca. 1420-1438, and the Baptistery of ca. 1059 are discernible to the left (fig. 4). The featured tower at the centre of the city also bears resemblance to medieval Florentine architecture (photo of Florence, fig. 5).



Fig. 4: the city of Capo Bona (Cape Bon), north Africa, BAV Vat. Lat. 7612, fol. 20v

A modern view of Florence, Italy, showing the city's architecture and landscape.

Fig. 5: Modern view of Florence

Why would this city in Tunisia be drawn to deliberately evoke Florence? The answer might be found in mercantile history. In 1445, the Florentine banker Cosimo de' Medici signed a trade treaty with the Hafsid rulers of Ifriqiya (north Africa). The artist or patron might have been inspired to illustrate this mercantile relationship by grafting architectural features of Florence onto the cityscape of *Capo Bona*. Different manuscript copies of this work highlight different locations and represent them differently, however—possibly due to differing expectations of patrons. For example, on fol. 74v in the Arsenal MS, it is Tunis, not Cape Bon, that is given architectural representation, and the domed towers give the impression of an Islamic city. Tunis was an important port city and the major African port closest to Italy, a significant detail that would have been appreciated by merchants who consulted this manuscript.

Paris, Bib. Arsenal MS 8536, f. 74v

July 28, update 1: Today in #TeamVatican excitement, observations on scribal linguistics from [@ElenaBrizio](#)—if our scribe’s *mercantesca* is idiosyncratic, so is his orthography! Our manuscript very clearly reflects that “Italian” as a language was not standardized until the 19th century, so our scribe—like everyone else writing Italian vernaculars in the fifteenth century—spells words to reflect the way they sound to him. We should not therefore condemn his spelling choices as “bad Italian” or conclude that he was poorly educated. Rather, we can gather intriguing evidence of his Tuscan roots in his choices...

Thanks to the fantastic work of every member of Team Vatican, we now have a clearer understanding of the “Tuscanity” of the writer of BAV MS Vat. Lat. 7612. All through the text (ff. 1r-24v) our writer has disseminated clues that highlight his origin (in all cases below, **MI** refers to modern Italian):

- the doubling of some consonants—in particular dental consonants (**t, d, l, r**), labial consonants (**b, m, p**) and labio-dental consonants (**f, v**)—which can be read as graphic evidence of their emphasized pronunciation, a feature which is still today a characteristic of spoken Tuscan: see, for instance **eddi** for MI **e di** or **ellamia** for MI **e la mia**;
- the doubling of particular vowel pairs, like **ie** (**ciento, dolcie** for MI **cento, dolce**) and **uo** (**truovi** for MI **trovi**);

BAV Vat. Lat. 7612, f. 19v: **nechessitruovi** (MI **nè che si trovi**)

- the mixed use of **m** and **n**, like **chemsenpre** (MI **che sempre**), and the use of an extra **n** preceding **gn** (**montangna, ongni** for MI **montagna, ogni**);
- the mixed alternation of **i** and **e** (**criatura** for MI **creatura**);
- occasional Latinisms such as **circhusferenza** for MI **circonferenza**;
- the “incorrect” correspondence between a feminine noun and a masculine possessive pronoun attached to it (**suo velocita** instead of MI **sua velocità**);
- the insertion of **p** to strengthen **t**, usually in **ciptta** or **cipta** for MI **città**;
- the reinforcement of hard **c** and **g** in digraphs with **h** (**richolghono** for MI **ricolgono**; **chichuolchuore** for MI **chi con il cuore**); at the same time, soft **c** is sometimes doubled, as in **pescchie** for MI **pesce**;

BAV Vat. Lat. 7612, f. 1v: **chichuolchuore**

- the replacement of terminal **n** by **m** (**gram** for MI **gran**) or is totally omitted when the following word starts with an **n** (**unnumero** for MI **un numero**; **imare** for MI **in mare**),
- the substitution of **y** for initial **i** (**yluoghi** for MI **i luoghi**; **ymagine** for MI **immagine**) or terminal **i** (**poy** for **poi**; **ongny** for **ogni**).

BAV Vat. Lat. 7612, f. 4v: **Poy seghita // lucente**

Other features of our scribe's spelling that aren't particularly Tuscan, but rather quirks common to Italian scribes of this period, are minor "mistakes" in the flow of the writing, for example:

- **salare** instead of **solare**;
- the use of the graphic sign for the abbreviation **di** for **du**, preceded by a missing consonant: **echonu[n]dustria** (MI **e con industria**) is our proposed reading of a "word" hastily written **echonudstria**;

BAV Vat. Lat. 7612, f. 4v: **echonudstria**

- the replacement of **p** for **f** (**spera** instead of **sfera**)
- and the use of both **z** and **ç** (**frigida çona** for MI **frigida zona**).

July 25: Today in our continuing adventures in BAV Vat. Lat. 7612, co-captain Winston Black ([@WinstonEBlack](https://twitter.com/WinstonEBlack)) looks at the deeper history and context of *La Sfera*, as suggested by the images on the first folio:

Team Vatican has now finished the initial transcription of Vat. Lat. 7612 for the International La Sfera Challenge II and we're busy reviewing, editing, and creating a coherent paleographical statement. It's a good time to step back and ask: Just what exactly are the

50 of us *sferisti* actually working on? What is this work and why did the author (whichever of the Dati brothers it may have been) give it this particular shape? What does it mean to write *La Sfera*, “The Sphere”?

In some ways, *La Sfera* is a new work, very much a product of fifteenth-century northern Italy: it’s written in the vernacular, describing (in its second half) the Mediterranean coastlines and cities known to later medieval Italian merchant sailors, and most of the manuscripts are written in the distinctive *scrittura mercantesca* associated with those merchants. But by calling this work *La Sfera* (our manuscript doesn’t actually name the work), Dati was tapping into a much older tradition of spherical cosmology.

Author portrait from BAV Vat. Lat. 7612, f. 1r

A clue to that cosmology is given on f. 1r of our manuscript, where the author (here shown as Leonardo Dati, who was a Dominican friar), is depicted inside the initial “A”. He is pointing to a copy of his book, where you can just make out one of the circular cosmological diagrams which illustrate most copies of *La Sfera*. And to his left, in the lavishly decorated margin, is an armillary

sphere, a model of the spherical universe encircled by the ecliptic (the path followed by the Sun, Moon, planets, and zodiac around the earth) as a thick blue band.

The diagram Dati is pointing to and the armillary sphere are, respectively, two- and three-dimensional representations of the medieval cosmos. The “sphere” of Dati’s title refers to the universe itself, its shape, and the physical rules governing the movement of celestial bodies. This cosmological model had been accepted for nearly two thousand years by Dati’s time. It was devised by Greek natural philosophers (such as Eudoxus, Aristotle, and most influentially, Ptolemy). All the heirs of Greek thought across Europe, the Middle East, and North Africa (Christians, Muslims, and Jews alike) agreed on this model. The cosmos is a rationally comprehensible sphere, composed of a series of nested, smaller spheres, from the firmament of unmoving stars forming the outer edge of the sphere, down through the seven moving planets (Saturn, Venus, Jupiter, Mercury, Mars, and yes, also the moon and sun). Below the sphere of the moon were the most chaotic and mobile spheres of all: those of the four primal elements, earth, air, fire, and water, which composed *Terra*. The Earth was not considered a planet, but rather the unmoving point at the center of *La Sfera*, as seen in this diagram from f. 2v of our manuscript:

Cosmological diagram in BAV Vat. Lat. 7612, f. 2v

But by calling his work *La Sfera*, or *Spera Mundi* (its name in the sixteenth-century printing), Dati was also referencing a more recent cosmological tradition. One of the most popular textbooks of the later medieval Europe, surviving in hundreds of manuscript copies, was *De Sphaera Mundi*, written in Latin by the Parisian scholar Johannes de Sacrobosco (“John Hollywood”, ca.1195-1256). An English translation of this work can be found [**here**](#).

As a university textbook, Sacrobosco's *De Sphaera* is a more technical work than *La Sfera* in terms of its geometry and astronomy, but the two works cover the same cosmological turf: the order of the spheres, the twelve signs of the zodiac, the nature of the meridian and horizon, the five climatic zones of the earth, the tropics and equator, and so on. Both of the works are usually illustrated, in manuscript and in print, and share similar diagrams, such as the representations of eclipses in a fourteenth-century copy of Sacrobosco's *De Sphaera* or the five climatic zones on f. 2r of Vat. Lat. 7612 (in the two images below).

Astronomical diagrams from a 14th-century German compilation of three works by Johannes de Sacrobosco and the *Quadrans Vetus* of Robertus Anglicus or Johannes de Monte Pessulano, sold in 2016 at Christie's.

Detail of BAV Vat. Lat. 7612, f. 2r

A good indication of how Dati's *La Sfera* was received and read is the title and title page of the first printed edition of the work (below): the editor or printer called it *Spera Mundi*, almost certainly echoing Sacrobosco's famous work, and included an image of Ptolemy and Pythagoras teaching with an armillary sphere, a model of the spherical cosmos. In Vat. Lat. 7612, Leonardo Dati is placed in this ancient tradition of cosmological knowledge and teaching, guiding readers or students through an introduction on the spheres of the universe.

Title page of a sixteenth-century edition of Dati's *La Sfera*.

July 24: Today in BAV Vat. Lat. 7612, a meditation on our star map from historian **Michael Ryan** ([@ProfMikeRyanUNM](#))...

BAV Vat. Lat. 7612, f. 1v

In **#TeamVatican**'s copy of *La sfera*, the bottom of folio 1v sees a beautiful and simple illuminated night sky. A sun with a face is at the top and a waxing crescent moon is at the bottom. Between them and what appears to be Polaris, there are visible constellations. Or, rather, PARTS of constellations. What looks to be Andromeda appears in the lower left of the globe, whereas the Pleiades, mayhaps, are to the right? And is that Orion's Belt I see? But if so, where is the rest of that mighty hunter?

Are these mere decorations? I don't think so, but it's hard to say. The constellations certainly appear in the early modern printed text of *La sfera*. If Andromeda is, indeed, that constellation, then the constellations next to it could be Aries and part of Cassiopeia—AND if so, that could potentially suggest an early winter date for the painting of the illumination, such as November or December. With **this tool**, for example, you can actually confirm that Aries, Andromeda, Cassiopeia, and Orion would have been visible in the night sky over Florence toward the end of November, 1470. (Our MS isn't dated, but that's a reasonable guess.)

On the other hand, the star map on fol. 1v could also be a “suggestion” of the the zodiac to illustrate the introductory cosmology stanzas (illuminated zodiac manuscripts tend to have a lot more stars for each constellation). These could just be decorative stars, meant to allude to constellations, but not depict the constellations themselves—for example, you see here the three stars that make up Orion’s belt, but you don’t see the rest of the hunter.

No conclusions yet, but we’ve been having a lot of fun speculating!

July 23: TEAM VATICAN has been plugging away at our transcription—challenging since our scribe’s *mercantesca* can best be described as “casual” and “idiosyncratic”—but the Team Slackspace has been filling up with observational chatter, some of which is starting to come to fruition. First up, some observations about pigments and the illustration process from art historian **Matt Westerby (@qwesterby)**:

The four books that make up *La Sphera* are often illustrated, giving a sweeping overview from cosmography and astronomy (eclipses, moon phases) to navigation (compasses, winds) and cartography (*mappaemundi*– and portolan-inspired maps). These might appear in the margins of the page but they are in no way marginal, and these complicated images have their own (often opaque) histories as to how they were drafted and colored. Not surprisingly, clues are pretty rare, but illuminators certainly left their marks.

Looking at the diagrams and maps illustrating the text in Vat. lat. 7612, it is surprising to see notes indicating where the blues and reds should go (**Azo** for Azzurro and **Ro** or **Ros** for Rosso):

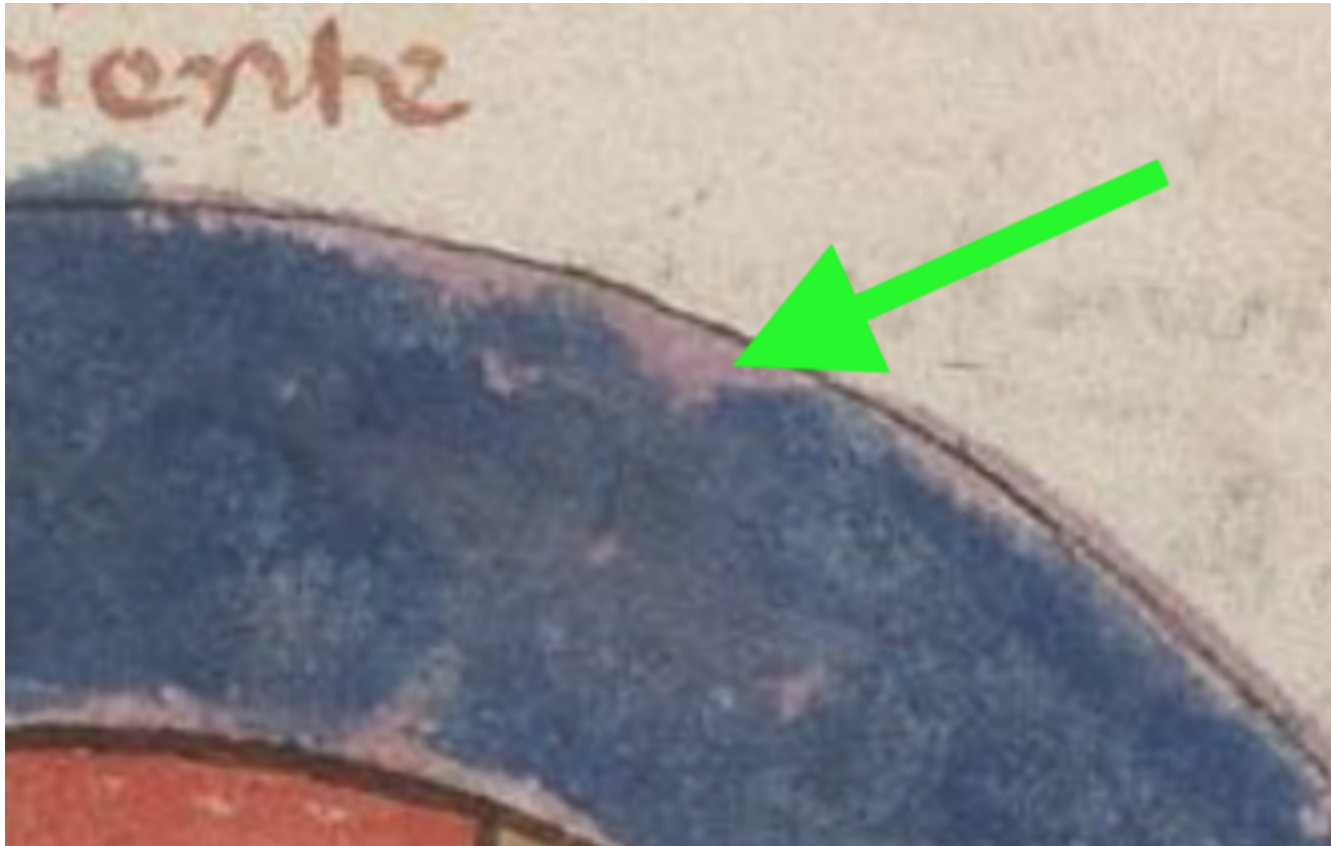
Fig. 1: BAV Vat. lat. 7612, f. 13r (detail of fig. 2, below)

There's also a mystery here, since the pink color doesn't seem to match up with the **Azo** notes calling for blue. But there are some clues for these blues. First, a quick comparison to other copies shows that the "blue" colors in Vat. lat. 7612 are a bit off. The cold winds are usually wavy blue lines, where we have a pinkish color.



(Fig. 2, left: BAV Vat. lat. 7612, f. 13r // Fig. 3, right: BAV Urb. lat. 752, f. 15r)

It seems someone really didn't like the pink color in the first three celestial diagrams and painted over with a *better* blue, perhaps a bit hastily. Who made this intervention? The illuminator of the elaborate frontispiece? **More mystery!**



When it comes to the disconnect between the **Azo** notes and color we see, one possibility is that the “blue” applied was a pigment or dye called *turnsole*—also known as *katasol* or *folium*. Obtained from the *Chrozophora tinctoria* plant, the pigment may have looked blue or purple in the bottle but could have shifted to pink as it reacted to the pH of the paper. **FUN FACT:** *Tornasole* is also the modern Italian name for the colorant used for pH testing.

July 18: TEAM VATICAN’s kickoff meeting (mid-afternoon EDT, to accommodate team members in 6 different time zones!) introduced the Challenge to its newbies by reviewing the co-captains’ experience on Team USA and Equipe France in Round 1. We divided up transcription and description work: 5 pages each for most team members, but only two for our two art historians, who will have a lot of other work to do with our MS’s cosmological diagrams (Matt) and coastline maps (Christine). Italian questions go to our two native speakers Alexandra and Elena.

The Challenge started out strong on Friday with a flurry of transcription questions and palaeography notes, and discussion of donuts (doughnuts?) flying around the team Slack space, but transcription slowed to a steady trickle on Friday evening and has continued through Saturday. (As many of our members have small children, weekends may be fallow periods for us.) **But watch this space for more discussion of image colors, scribal spelling quirks, cartographic oddities, and team transcription choices—coming soon!**

Meanwhile, since travel is something we are all just dreaming of at the moment, here are two great vintage travel posters:



July 14: TEAM VATICAN will have their first team meeting on Tuesday, July 14, to discuss logistics, transcription methods, page assignments. How many will come in the required Swiss Guard dress? Only time will tell...

If you would like to Tweet about the competition, please do so with the hashtags #lasferachallenge2 and #teamvatican

July 9: TEAM VATICAN has spent the last couple of days recruiting and is now ready to go, Swiss Guard memes and all!



We have a Slack workspace set up (since that worked really well for Equipe France in Round 1), and a Doodle poll running for our intro team meeting via Zoom next week. The latter is logistically challenging since we have team members in 6 different time zones! Still, that fact demonstrates the value of 1) projects like these in bringing together scholars who are widely dispersed, and also 2) platforms like Slack and FromthePage in enabling asynchronous collaboration.

Buono studio a tutti!

#teamvatican members include:

- Carrie Beneš, Sarasota, FL (Co-Captain) ([@cebenes2](#))
 - Winston Black, Halifax, NS (Co-Captain) ([@WinstonEBlack](#))
 - Alexandra Amati, San Francisco, CA
 - Alison Walker, Seattle, WA ([@allthealisons](#))
 - Christine Kralik, Toronto, ON, Canada
 - Elena Brizio, Siena, Italy ([@elenabrizio](#))
 - Emily Graham, Stillwater, OK ([@grahamemilye](#))
 - Matt Westerby, Washington, DC ([@qwesterby](#))
 - Michael Ryan, Albuquerque, NM ([@ProfMikeRyanUNM](#))
 - Stacey Graham, Murfreesboro, TN ([@StaceyRGraham](#))
-

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