

Latium in medieval Maps

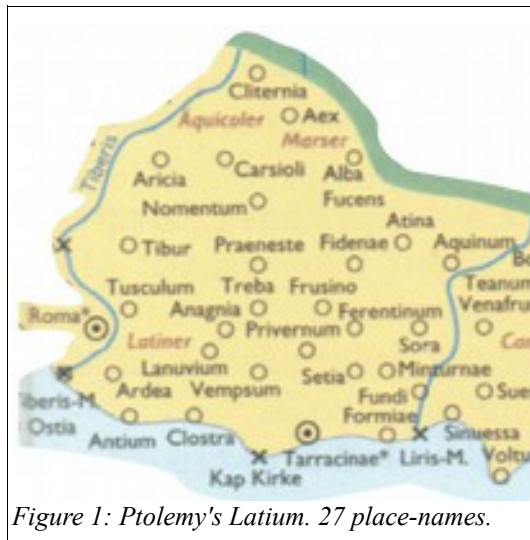
Kurt Guckelsberger

Surprisingly, Flavio Biondo's *Italia Illustrata* contains – despite its title – no illustration at all or map, only text. Still, it is generally assumed that Biondo consulted maps (he even says so) when compiling his *Italia Illustrata* in the 1450ies. (Martin Thiering, this invitation). However we do not have them. Or do we?

A census for Latium (mostly)

Here I compile chronologically their relative richness in information as sources for topo- and ethnonyms in Latium to be discussed in more detail below. Due to shifting definitions of Latium throughout time, numbers may be not completely comparable between sources. Generally, I take the rivers Tiber and Liri as boundaries. In the mountains, I take the region of the Fucine lake as a reasonable (inclusive) limit for the counts.

1. Foremost is Strabo (ca 2-25 CE depending on definition) with 69 *locations of interest*¹
2. Pomponius Mela (redaction ca 43-45 CE) has only 12 coastal place-names.
3. Pliny the Elder, NH III, 53-68 (redacted ca 69 CE) has the richest collection of 128 names. Among them, he mentions 67 ethnonyms, of which he calls some “lost tribes”. In classical times, their former territory corresponds to settled places such as Anagni, today's Anagnina etc. Beyond that, Pliny has 61 *locations of interest* including colonies, oppida, rivers and lakes.
4. Other literary sources, not explicitly written as descriptions of the lands also give geographical information (such as Titus Livius etc.), were not consulted.
5. Ptolemy's 2nd century *Geography* was available as of 1406 in the Latin West but seems not to



be reflected in Biondo's text. Its inventory of 27 toponyms/*locations of interest* for Latium is tiny. Most other ancient writers tacitly include the territory of the Aequi and Marsi into their description of Latium.

6. Still later in 5th century *Tabula Peutingeriana* (TP), the Peutinger map, we have to include other toponyms along the extensive road system. I count 44 entries between the rivers Tiber and Liri. Including Via Valeria beyond Carsioli to Corfinio increases the count to 52.

¹ *locations of interest* is a concept for locations which may contribute to a better knowledge of a region without necessarily being part of the territory. The inventory can only be established after discussion and decision.

7. It is generally conjectured that the *anonymous geographer of Ravenna* consulted maps while compiling his *Ravenna Cosmographia* (RC) in the 8th (or 9th ? Emily Abu?) century CE.

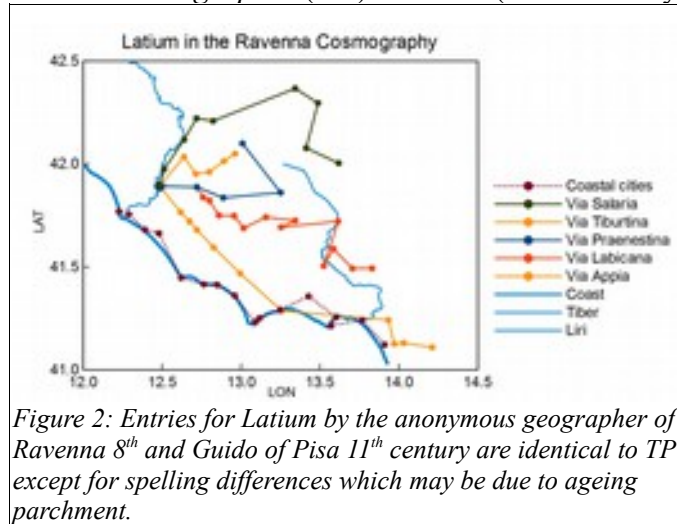


Figure 2: Entries for Latium by the anonymous geographer of Ravenna 8th and Guido of Pisa 11th century are identical to TP except for spelling differences which may be due to ageing parchment.

8. Three centuries later, *Guido of Pisa* (Guido) compiled similar material in 1119.² Two of the existing manuscripts of this work (those at Brussels and Florence) contain map-pictures, one being a T-O map of Isidorian type, and the other two works of a much higher value. *The latter maps are found in the Brussel's manuscript only, and are devoted to Italy and the world.* Between the traditional limit of Latium, the Tiber and Liri/Garigliano rivers and west of the Lake Fucinus, there are 53 entries in their list and all toponyms are identical (except spelling errors) in all sources, TP, RC and Guido. These 53 entries (out of 362 place-names in all of Italy, see Kurt Guckelsberger, Florian Mittenhuber, Überlegungen zur Kosmographie des anonymen Geographen von Ravenna. In: Vermessung der Oikumene, Klaus Geus, Michael Rathmann (Eds.) page 296 (2013) all strictly follow the *Viae Consulare* as shown in Fig. 7, albeit some with different continuations outside Latium by Guido. Very recently, I have carried out a detailed comparison of both descriptions and, established their congruence in Latium. Subtle differences in sequences and spelling suggest (to me) that perhaps the same source document(s) as in the 8-9th century were still available in the 12th century CE (in Pisa?). Hence, only partial plagiarism may be envisaged but more study is needed.
9. Riccobaldo da Ferrara (1246 – 1320) certainly saw the RC in Ravenna and excerpted it in his *De locis orbis* (see http://www.gabrielezanella.it/Pubblicati/Delocis/De_locis_1.html) However, all he quotes on Latium is Citation:
- IV. [2] *Italia quandoque Latium dicitur, verum fines antiqui Latii sunt inter Tiberim et Lirim amnes.*
10. Still later (ca. 1480-90) Pellegrino Prisciani saw a big map at the bishop's palace at Padua, which could already have been in place in the 1430ies; content unknown. His excerpt shows part of Ferrara territory in TP style.

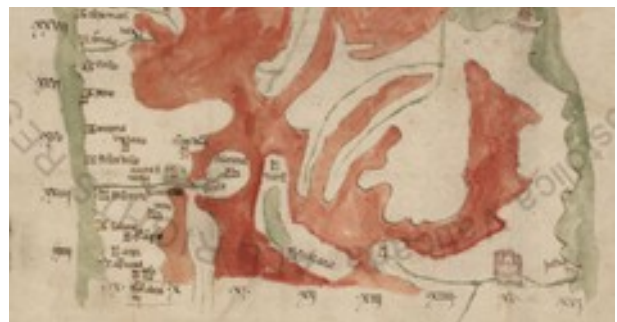
² Title[Chronica varia] = [ms. 3897-919]Phys. description(i) + 174 + (i) f. : late caroline minuscule; long lines; 12 miniatures and 14 other drawings (maps, buildings), sometimes in the margins; 1 historiated initial, decorated initials, red lombards; titles in rubric ; 25.9 x 17.6 cm Material: Parchmen t.Annotations: Donated by Johannes Lucus, canon and cantor in Karden, to the Sankt-Nikolausspital in Kues (inscriptions on f. 1v and 8r), afterwards in the library of the Bollandists at Antwerp, Brussels and Tongerlo (ancient shelf mark: + ms 101). Between 1794 and 1815 at the Bibliothèque nationale de France in Paris. This volume entered the Royal Library of Belgium either in 1777 or in 1815.15th-century binding (restored) of wood covered with brown leather decorated with stamps (vegetal motifs).Provenance [lucus Iohannes 15th century canon in Karden Germany: Mosel area: Trier, Karden](http://opac.kbr.be/index.php)

11. So-called Portolan Charts were available since the 13th century (Carte Pisane), but they carry no information on the interior. Only Christoforo Buondelmonti's *Liber Insularium* (Book of Islands, 1420 Florence) displays (sparingly) some interior cities with an obvious sailor's perspective (see copy³). The book was widely circulated. This suggests that the idea of such displays is a natural extension of the contour-maps. Much discussed is Sanudo's map of Palestine (1320 CE, not shown here) approaching sort of a "modern style" with coast-line and geographically distributed inland places (no scientific base at all).



Figure 3: The island of Samos is given with elaborate coastal utline and a rudimentary bird's-eye view description of the interior.

12. Friar Paolo di Venecia (fl 1325-44) published ms Vat. Lat. 1960 with an appendix of several maps of (parts of) Italy. However, his Latium is empty. So I leave this fascinating trecento cartography aside.



3 <http://digital.ub.uni-duesseldorf.de/ms/content/titleinfo/2311231>

13. Hence, the oldest known manuscript map (from Venice, not before 1410, see Appendix 3) of

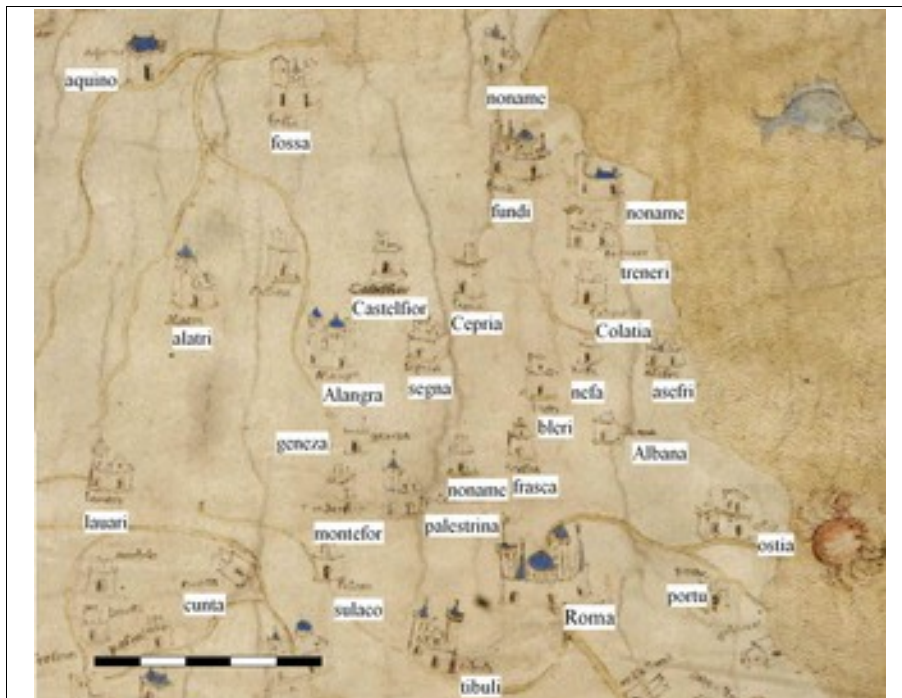


Fig. 4: Latium in C. XIII.44. The image covers ~19 x 15 cm. The average vignette covers 11±3 mm squared or ~10km x 10km, with various aspect ratios.

the whole of Italy appears to be BL Cotton Roll XIII.44, a ca 1.34m long and ca. 0.64m wide anonymous map. Following Marisca Milanesi⁴, it is one of only six surviving similar sized maps. Its outline is clearly derived from portolan charts, not based on Ptolemy's silhouette. The coverage from Domodossola/Mons Sancte Gotardi to Rhegium is (126cm for

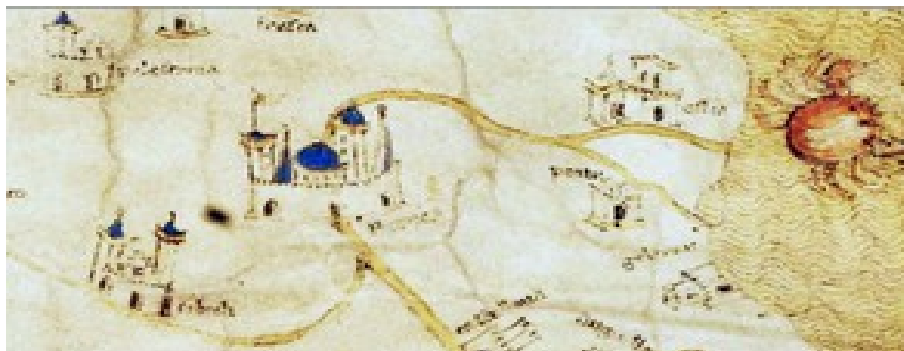


Figure 5: In this charming birds-eye view of the vicinity of Rome, one sees ostia, portus, tibuli, praeneste and fraasca (not Tusculum). In this rendering, the faded sepia ink markings are artificially enhanced.

1100km or ~1:870.000). The 28 cities depicted in Latium (oronyms and hydronyms are missing) use up nearly all the available space. Hence it cannot have served as an important source for Biondo; but perhaps as an inspiration. It is the best preserved of the group but nevertheless, the faded 2mm high (now) sepia coloured text-characters are very difficult to read. Presently I can identify up to 28 place-names/*locations of interest* in Latium. The vignettes – mostly crenellated strongholds – seem to be inspired by the *Tabula Peutingeriana*.

4 Milanesi, M., Antico e moderno nella cartografia umanistica. Le grandi carte d'Italia nel Quattrocento, in La cartografia degli antichi e dei moderni (Atti del IV Seminario di Geographia Antiqua), Perugia 2006, "Geographia antiqua" XVI XVII (2008) : 153-175

14. One of the earliest “Modern Map” of Italy is found in a ptolemaic *Geography* by Berlinghieri who worked in Florence. He started this project in 1464 but published it only in 1482. It was therefore not available to Biondo during redaction.



Figure 6: With sparse toponyms, an elaborate coastline, fairly accurate mountain ranges and intricate rivers/streams, the emphasis seems to rest with a more natural image. Note the frugal square for the *CAPUT MUNDI*! Florence 1482, print.

15. Other early modern maps conceivably available to Biondo in a conceptual/unpublished stage were made from 1460 on by Nicolaus Germanus in Florence. One of these is dedicated to



Figure 7: A near-contemporary manuscript modern map of Latium, made 1467 in Rome by Nicolaus Germanus showing 42 toponyms.

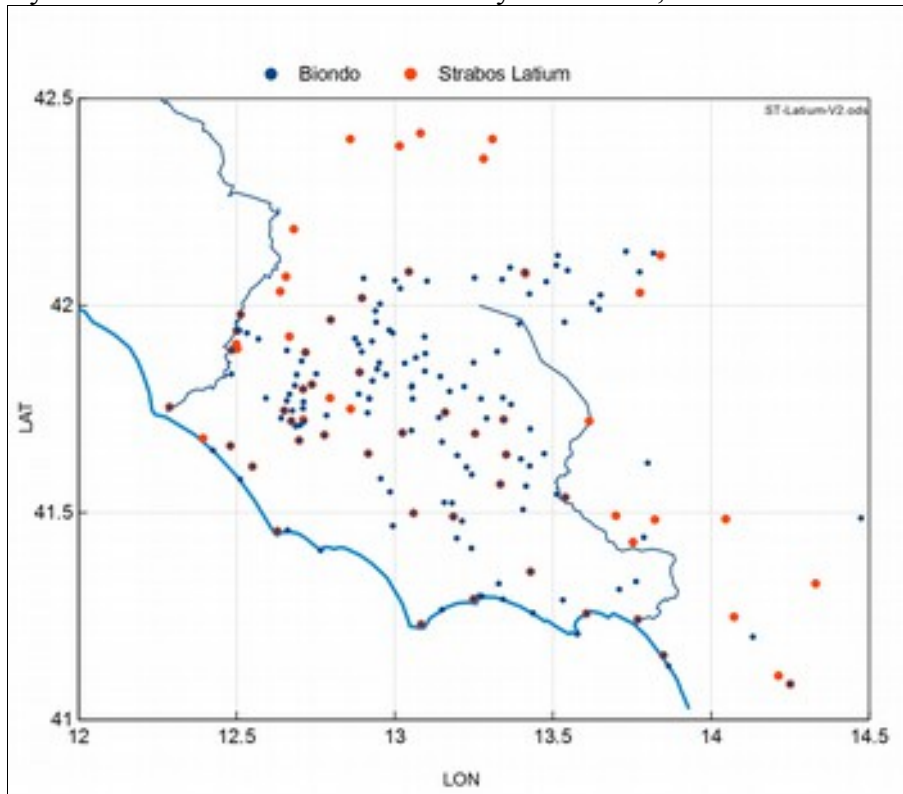
pope Pius II, the last patron of Biondo⁵. It is now in *Polonia*, the Polish National Library and available in stunning detail in the Internet and known as Nr 72: Fischer L21, Marshall140.

5 *Cosmographia Claudii Ptolomaei Alexandrini Mathematicorum Principis, Seculo secundo, scilicet circa Annum Nativitate Domini Nostri Iesu Christi Centesimum Trigesimum octavum, sub Antonio Pio, Imperatore Romano florentis manu Donni Nicolai Germani Presbyteri secularis descripta, Tabulisque egregie pietatis adornata, ac Paulo secundo Summo Pontifici, ab eodem circa Anna 1467 dedicata. T. 2, Tabula ad Cosmographiam Claudii Ptolomaei Alexandrini.*

(See Klaus Geus 5.3. Der lateinische Ptolemaios. In: Die Geographie des Ptolemaios ,
Ergänzungsband , Basel 2009. Seite 364).

16. Miscellany: There is indirect evidence that at quattrocento, maps existed somewhere in northern Italy (Gautier Dalché (22003) In: F. Prontera (Ed.) *Tabula Peutingeriana* Le antiche vie del mondo, Firenze 2003). in fact, we have indeed a single copy of part of a map of northern Italy, similar to the *Tabula Peutingeriana* in the *Historie Ferrarienses* by Pellegrino Prisciani (ca 1480-1490).

Strabos inventory is also much smaller and differently distributed, as seen here.



Present state of research

In Biondo's account of Latium, I have found 182 different toponyms of which 4 cannot be given a coordinate pair (forest) and could not locate 21 of them. This number is vastly superior to all toponyms available from (known) contemporary maps. Therefore, other source material must be invoked.

We will of course never know how detailed other maps were, because they are lost but could have been available for redaction. The examples we do have are state of the art of his time, which reflects favourably on Biondo's achievement.

Appendix 1

A short introduction to manuscript maps in 14th and 15th century Italy.

In the 1460ies, Nicolaus Germanus prepared a number of manuscript versions of Ptolemy's *Geography* for various patrons. Now, according to Peter Meurer 2007⁶

In all, about fifteen manuscripts of the Geography exist that were either personally drawn by Nicolaus Germanus or immediately copied from him. They can be subdivided into three recensions: recension A (ca. 1460 to 1466), with twenty-seven ptolemaic tabulae antiquae only; recension B (1466 to 1468), with twenty-seven tabulae antiquae and three tabulae modernae (for northern Europe, Spain, and France); and recension C (1468 to 1482), with twenty-seven tabulae antiquae and five tabulae modernae (for northern Europe, Spain, France, Italy, and Palestine).

The problem is, that Pius II died in 1464 and a dedication in 1467 seems awkward. Of course, it is always possible that sketches were available long before publication (traceability is yet another problem). Nevertheless, the 30-odd entries for Latium (the count is always depending on where to stop in the East) can only figure as an inspiration but not really as a source.

According to *German Biographies*⁷, Nicolaus Germanus came (probably) before 1460 to Florence from Kloster Reichenbach in Bavaria/Upper Palatinate. This Benedictine abbey is – together with other south German abbeys – renowned as a centre of astronomical-geographical studies. In his seminal thesis in the 1930ies, Dana Bennet Durand called these efforts (and probably misnamed it?) the Klosterneuburg Map Corpus. This important study was published in 1951 but never translated into German and (thus?) remained largely outside the mainstream of scholarly research on 15th century cartography. In the 1430es in Reichenbach, a certain Magister Reinhardus compiled and enlarged considerably Ptolemy's set of geographical coordinates for central Europe. No maps survive but large sets of coordinates were compiled by Durand, still waiting for closer scrutiny.

Nicolaus Germanus' modern maps reflect the (apparent) technique of Magister Reinhardus: retaining basically the outlines of Ptolemy's maps, modern cities/place-names are interpolated/interwoven into the ancient fabric. The real revolution had to wait another 40 years or so.

6 History of Cartography, VOLUME3_Part2_chapter42, p1183.

7 <https://www.deutsche-biographie.de/sfz72061.html> Wegen möglicher, aber in keinem Fall gesicherter Identität mit namensgleichen Personen ist die Biographie N.s schwierig zu ermitteln. Bereits vor 1442 war er Mönch des Benediktinerklosters Reichenbach (Oberpfalz), einem Zentrum der damaligen astronomisch-geographischen Arbeit in Deutschland. [...] Wohl erst kurz vor 1460 ging N. nach Italien. Tätig in Florenz und Rom,

Appendix 2

In HOC III, 45 George Tolbias writes:

The chapter examines the role of maps as visual memory aids in the light of the available evidence;

and

there is not one surviving work on the art of maps from earlier than the middle of the sixteenth century, with the exception of manuals of surveying or navigation.

and

from the early fifteenth century onward: at the dawn of the Renaissance, antiquarian scholars were studying and displaying maps together with antiquities and other collectanea.¹⁰ For example, the case of Niccolo Niccolini

Borso and Ercole d'Este in Ferrara had some fine works of cartography and became important patrons of the mapmaker Nicolaus Germanus.⁴⁰ Certain maps were already considered historical relics. So much is evident from Palla Strozzi's will (1462): the copy of Claudius Ptolemy's *Geography* given to him by Manuel Chrysoloras in 1398 was left to Palla Strozzi's heirs with explicit instructions that it was to be preserved as a family heirloom.

Seite 657

Antiquarian studies were revitalized in Florence by Petrarch, Giovanni Boccaccio, and members of their circle. The first steps in this revival, taken by Giovanni Dondi dall'Orologio, were followed by the systematic work of Flavio Biondo, which set the pattern for antiquarian studies during the Renaissance.¹⁷⁹ One of Biondo's first books was a study of Roman institutions, another dealt with the topography of Rome, and a third was a topographical and archaeological description of Italy.¹⁸⁰ Following in the footsteps of Marcus Terentius Varro, Biondo set out to answer the question "Who did what, where and when?"¹⁸¹ In the matter of methodology, his approach rested on three main planks: monumental topography, geographical description, and analytical presentation of the civilization in question.¹⁸² On the fringes of history and geography, a new humanistic art had been born.

In *Pictura latens. La dispersa carta geografica d'Italia di Petrarca e Roberto d'Angio*, Paolo Pontari collects painstakingly all scriptural references to the inexistent hypothesized map of Petrarca, referred to by Tolbias. This brings to a total of three the number of lost maps of Italy of the trecento.

The manuscript map of the whole of Italy Cotton Roll XIII.44 now at the British Library.

In this paragraph, I quote exclusively from Marisca Milanese's text:

Milanese, M., 'Antico e moderno nella cartografia umanistica: le grandi carte d'Italia nel Quattrocento' in *Geographia Antiqua*, 20 (2007-08), 153-76.⁸

Marcia Melanesi first introduces a new 'genre' of maps: They depict the whole of Italy in the manner of portolan charts but filled with several hundred locations inside the coastal outline. They have in common a large size of ca 110 x 60 cm. This rather special set of (only 7) manuscript maps of the 15th century was scarcely studied at that time and not much has been added since. They were (almost certainly) displayed in 'princely chambers'/ prominent places and it is therefore likely, that no further specimen will be found. Some of these parchments are in a sorry state but one (the Cotton hereafter) is amenable to study in detail: *una magnifica carta d'apparato*.

The Cotton map is made of two skins glued together to form a roll. It has two main elements: the map with south-east on top and two textual side-boards consisting of 372 short lines telling about the *origine urbium italiae* in a (hodgepodge) collection/confabulation of biblical (from Adam and Eve), classical texts and myths the peopling of the peninsula; a very popular topos of the time. The title *Italiae provincie modernus situs* is written in gothic librarian script of the first half of the 15th century. According to Milanese, this is probably a venetian fad of the time. [to suggest an ancient venerable origin...(my words)]

The map came (probably in late 15th century? Pete Barber former Head of Map Collections, British Library is working on that. Private communication to Milanese in 2006 and to me on 2017-02-01) as a gift by a (Venetian?) ambassador to the court of England and was displayed in Whitehall Palace in the 16th century. Peter Barber, is preparing a forthcoming study.

On stylistic grounds, place of origin and time is Venice, not before 1410. The text «*De origine urbium Italiae*» that frames the Cotton map, composed of 372 short lines, begins almost verbatim following the beginning of the book III of Ptolemy's Geography. The elegant images of sailing vessels, dolphins and other embellishments support this view. As usual, toponyms' absences or presences of newly founded or destroyed cities do not yield a date. It appears as a near-prototype copy (for

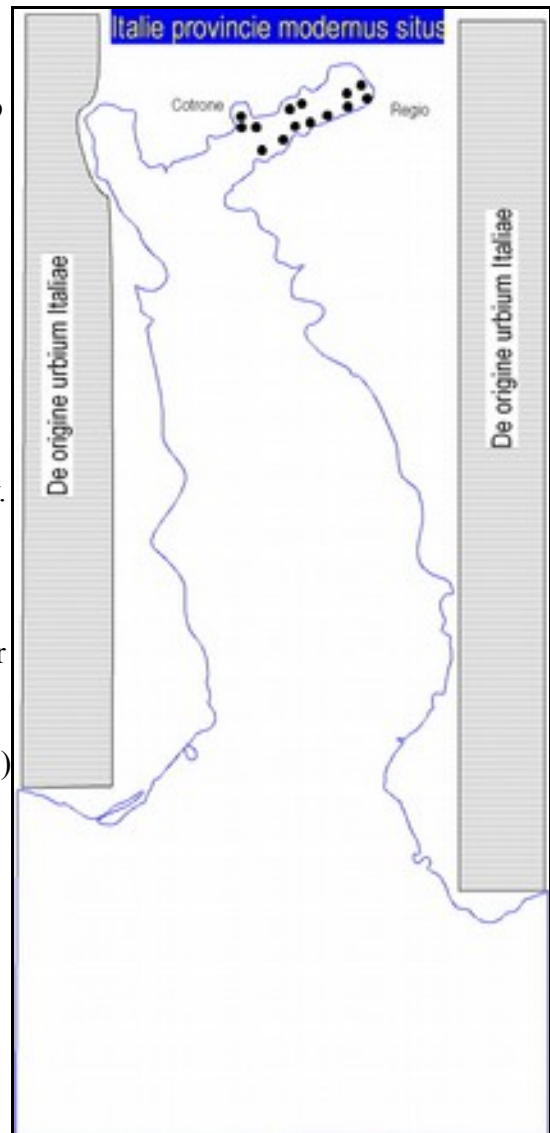


Figure 8: A preliminary sketch because most available reproductions are nearly illisible.

⁸ 19000 words total; Intro is 2000 words, Map 3000, Text on the map 5000, conclusions 1400 and 7000 Notes. For convenience, I have prepared an English translation of the part pertaining to the map.

impressing foreign dignitaries) of a map combined from smaller subsets of changing scale (still awkwardly joined): Northern Italy (Lombardy) is realistically and abundantly represented and all rivers are named whereas Central Italy has lost its river names and misspellings creep in. The South is even worse where unnamed symbols, mutilated place-names/misspelling and generally lower density of places prevails.

Here are my own observations as of 2018-03-12:

On the physical appearance.

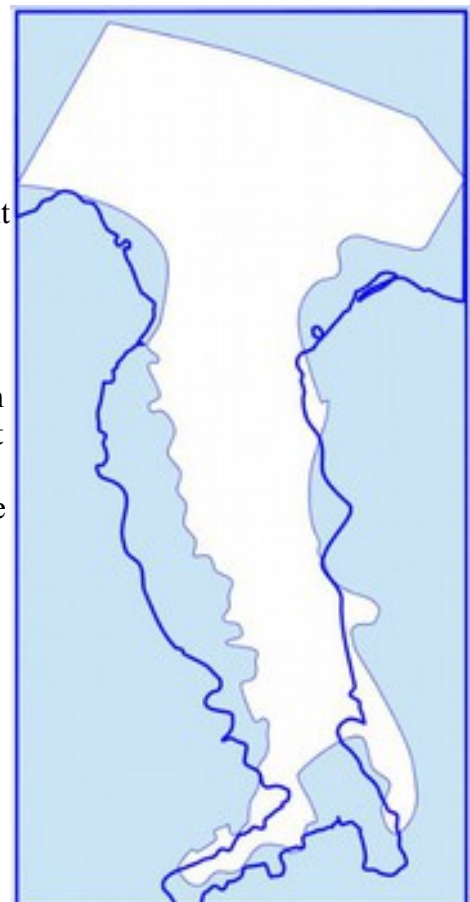
I have counted a stunning 1402+ vignettes, not all named. This is without precedent in early mapmaking; even the contemporary renowned Gough map of Britain, similar in scope and size, brings “only” 600 plus locations to the balance. The total size of the Cotton map is 64x137cm ~8800 cm² of which an estimated 4400 cm² is occupied by the image of the landmass. The average size of the vignettes is 1.4x1.4 cm with Rome the largest at 3x3cm but tiny anonymous towers barely cover 0.6x0.3 cm, so that together, they cover an estimated area ~2700 cm². This means, that approximately one half of the map is covered by vignettes. I have shown that across the ages, in highly readable (and aesthetically pleasing) maps such as the Tabula Peutingeriana (Guckelsberger, Eichstätt 2014), vignettes and symbols should occupy only about 1/6th of the available space. So perhaps, we see a learning process: the sheer number of entries is indeed impressive, (maybe intended?) the visual impression somewhat chaotic.

Some of this impression is due to the abundance of river signatures. Alone from the foothills of the Alps 31 rivers and streamlets – many named – feed into a broadly meandering river Po; further south they become less dominant.

Lettering is a tiny 2-3 mm high Gothic cabinet script. In Lombardy vignettes and text tend to be oriented in all directions, mostly perpendicular to the river to which they are generally attached.

South of the Marches vignettes and text tend to get more upright – orderly – orientations. All the way around the peninsula from Pescara to Portu on the Tiber mouth, coastal vignettes and text are upright. From Etruria to Nitza/Nice on the French border, portulan-type orientation resumes with place-names often parallel to the images. This may be due to the source maps from which the Cotton map is compiled. However, I feel that it might also indicate a learning process during filling in the interior from the bottom up. In fact, the designing artist's aesthetic sense manifests itself in the lovingly executed parerga (ships, frutti di mare = we see tuna, eel, swordfish, ten-footed octopus, enormous crabs and a fisherman leisurely purse-fishing and even fish eating smaller fish). And frankly, Lombardy is (looks a like) a graphical mess.

Clearly, the regional maps appear to be clumsily stuck together. Whatever one tries to adjust, total height, width or orientation, the message is a locally variable scale. This is best demonstrated by an overlay of the coastline with a properly oriented outline of the landmass (It looks unfamiliar but is a orthonormal projection centred on 43°N, 13°E⁹. Here, the distance from Genoa to Reggio Calabria



9 The borders to France, Switzerland and Austria are summarily sketched in. As a proxy, one may center on (43N;13E) in Google Earth, choose an altitude of 2000km and rotate appropriately.

is adjusted; similar misfits result when Venice-Otranto or other landmarks are used.). A similar diagnosis is reached in the investigation of medieval itineraries: Each pilgrimage path to Rome retains (over centuries) individual lengths of the common name 'mile'. This (exciting) discovery merits further study.

Note also, that numerous recent cartometric studies of the seemingly “modern” portolan marine charts share this property: Lots of local maps with local scales cobbled together more or less expertly by practitioners of the trade, all basically aiming at a smooth pleasing ensemble.

It appears (to me) that the sheer number of entries excludes a reliance on classical sources alone. The underlying regional maps (I do not find them) have to have been compiled by local clerks, tax collectors, military resources managers, administrative organizers and so on.

This view is supported by obvious clusterings in certain spaces. Of course, some of such concentrations are dictated by orography which is totally absent from the Cotton map. To witness, the Alpine valleys of the upper Padana/Po above Turin has a concentration of place-names, as those above Bozen/Bolzano or the Isonzo. But what about the concentrations around Pescara-Urbino and Ancona?

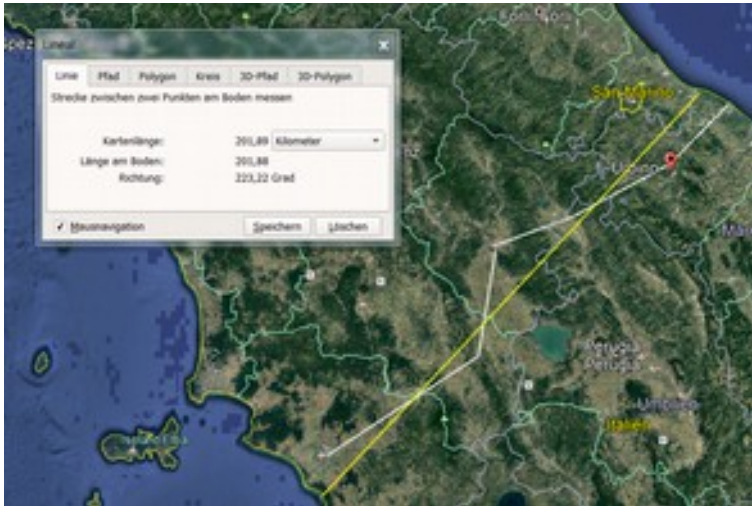
For instance, in the cluster Marches of Ancona, a number of single buildings – not even monasteries – are represented which can only be found (today) in Topomaps (1:15000!) One wonders what the English king was supposed to do with such an information.....

The layout is intriguing. The central axis

Im working on it....

Geometry and Geodesy of the Cotton Map

According to Milanese, scale is variable, depending on source-map(s)- Nevertheless, the outline of the peninsula is – more or less – geodesic true within a margin of error (to be expected or surprising?) of several percent.



In ground-truth numbers:

As an example, I inspect a transect across the peninsula along a line joining Pesaro-Urbino-San Sepulchre-Arezzo-Montepulciano-Grosseto which the Cotton displays horizontally. The distance from coast to coast is 30 cm; with 203km from Google Earth we see a scale of 6.8 km/cm. Hence, the typical symbol size or geodetic resolution is of order 14x14km. The north-west vs. south-east orientation of the map corresponds to an Azimuth of $\sim 130^\circ$ for the axis of the peninsula.

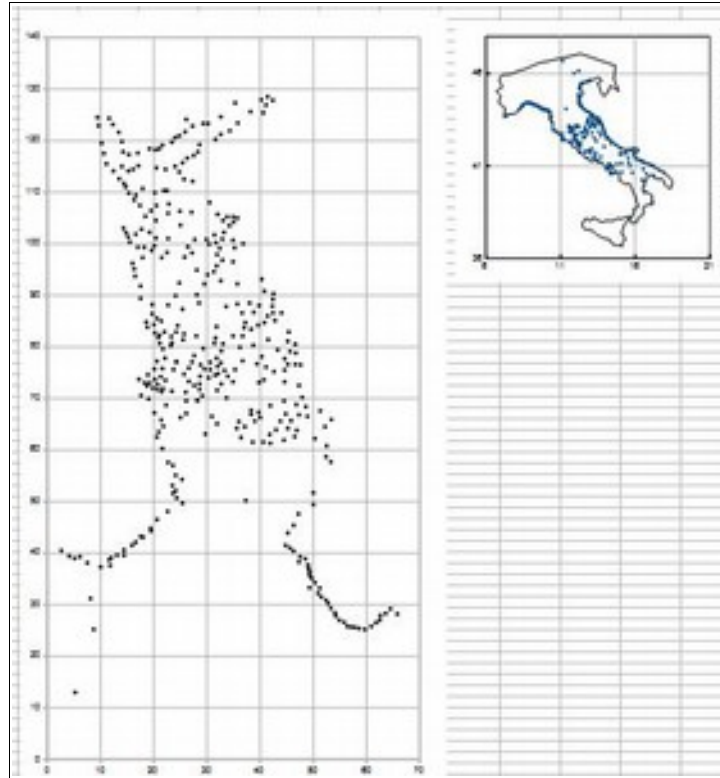
On the Google-Earth map, the coast to coast distance is 75mm, hence a (local) scale of 8/3 km/mm. The deviations of the 5 locations from this geodesic are – on average – 4mm or $\sim \pm 11$ km which is about the size of the vignettes. The Azimuth is 223° or $130^\circ + 93^\circ$. That is essentially perpendicular to the Cotton maps orientation.

On balance, we have a realistic cross-section with locational ground-truth for major landmarks from coast to coast across the Apennines. The alignment is good to within 5% (11km out of 203km) albeit with shifting scale (6.7 vs 8.9 km/cm perpendicular to it). Other transects from the mouth of

the river Tronto to the mouth of the Tiber and from Venice to Genoa passing near Este and Pavia Barletta – Salerno 145km and 241° etc yield very similar results, a testimony to the remarkable craftsmanship of its creator(s).

Basically it says that maintaining direction and distance across mountain ranges was somehow accomplished in late 14th century in (northern) Italy. It is a feat supposed to be only possible with geodetic surveys and triangulation, such as documented by Philipp Appian with the Bayrische Landtafeln of 1554-63.

How did they do that?



A preliminary view of the first 380 identified entries shows linear features, reminiscent of itinerary-based (= hodographic) cartography.

If this line of inquiry is of interest, more stringent numbers can be obtained; the general impression would (probably) not change.