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Fra Mauro's View on the Boring Question of Continents

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The Venetian cartographer Fra Mauro (d. 1459) considered the question of the division of the world into continents to be *materia tediosa*, a boring topic to dwell on.¹ In a way, the Camaldolese Monk was right. There seems not to have been much discussion of the continents in the Middle Ages. Since the early Middle Ages, the question seemed to be settled, if there was a question at all. The vast majority of medieval texts agree without any variation that there were three parts, with Asia being twice the size of Africa or Europe. A note on terminology seems advisable here: although the term “continent” is probably not medieval, I use it as a synonym for the medieval construction, “part of the earth” (*pars mundi*), for reasons of convenience.²

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¹ *Circa la division de la terra, çoe de la affrica da l'asia e similiter de la europa da l'asia, ne trovo apresso cosmographi et istioriographi diverse opinion de le qual se poria parlar diffusamente, ma per esser materia tediosa a demorar in questa controversia farò qui un poco de nota de le opinion de questi e quello se de' tignir lasserò eleçer ai prudenti.* Piero Falchetta (ed.), *Fra Mauro's world map. With a commentary and translations of the inscriptions.* *Terrarum orbis* 5 (Turnhout: Brepols, 2006), 637–638 (no. 2489).

² Critical on this, see Patrick Gautier Dalché, “L'Héritage Antique de la Cartographie Médiévale. Les Problèmes et les Acquis” in Richard J. A. Talbert and Richard W. Unger (eds.), *Cartography in Antiquity and the Middle Ages. Fresh Perspectives, New Methods.* *Technology and Change in History* 10 (Leiden/Boston: Brill, 2008), 29–66, here 37.

This article analyzes Fra Mauro's interest in the question and his unique conclusion, namely that the Volga should be considered the boundary between Asia and Europe, not, as traditionally stated, the Don. He does so, on the one hand, by explaining his reasons in several legends and, on the other hand, by the choice of where he places these legends on the map—a fact that has been overlooked so far. I will argue that Fra Mauro's choice, resulting in enlarging "Europe," is based on geographical reasons, not cultural ones. To put the map of Fra Mauro into context, this essay will compare its description and depiction of the continents to a sample of seventeen medieval world maps.

Three Continents: A Medieval World Order

Building on Greek and Roman sources, early medieval authors developed a Christianized worldview. It was, for example, a new and specific Christian characteristic to consider the east to be the first of all cardinal directions and thus to orient maps towards the east or begin descriptions of the world in the east.³ The division of the earth into three parts, however, was a heritage of antiquity. According to this idea, which emerged and came to dominate from the fifth century BCE, onwards, the Mediterranean occupied a dominant position as a central sea surrounded by distinguishable landmasses.⁴ The question of how many different landmasses existed and where the boundaries between them had to be drawn, however, remained open to (at times controversial) discussion. By the end of Antiquity, the basic traits of these discussions, as

³ See for example Isidore of Seville, *Traité de la nature*, ed. Jacques Fontaine. Bibliothèque de l'École des Hautes Études Hispaniques 28 (Bordeaux: Féret, 1960), 207-208 (IX.3): *Nam partes eius quattuor sunt. Prima pars mundi est orientis; secunda meridiana; tertia occidentis; ultima uero atque extrema septentrionalis.*

⁴ Martin W. Lewis and Kären E. Wigen, *The Myth of Continents. A Critique of Metageography* (Berkeley/Los Angeles/ London: University of California Press, 1997), 21–22.

well as the most common solution, were transmitted to the Middle Ages by authors like Strabon (d. 24), Pomponius Mela (c. 43/44), and Pliny (d. 79).⁵

Some early medieval authors still reflected this tradition. For example, in his *History Against the Pagans* (c. 416/17), Paulus Orosius, a fifth-century historian and theologian, and student of Augustine of Hippo, wrote that “our elders made a threefold division of the world (...), its three parts they named Asia, Europe, and Africa.”⁶ He even mentioned an alternative that counted only two parts by considering Africa and Europe as one continent.⁷ Over a century later, Jordanes (d. 552) echoed this phrasing with direct reference to Orosius, skipping the sentence on the alternative division into just two parts.⁸ Isidore of Seville then took up this discussion and wrote that the earth was divided into three parts; he added that “the elders” did not divide those three parts equally.⁹ His recourse to elder authorities thus hinted at the difference in size of the continents, not in their number.

⁵ See for example Natalia Lozovsky, *The Earth is Our Book. Geographical Knowledge in the Latin West ca. 400–1000*. *Recentiores: Later Latin Texts and Contexts* (Ann Arbor: University of Michigan Press, 2000).

⁶ *Maiores nostri orbem totius terrae, oceani limbo circumseptum, triquadrum statuere eiusque tres partes Asiam Europam et Africam uocauerunt, quamuis aliqui duas hoc est Asiam ac deinde Africam in Europam accipiendam putarint*. Paulus Orosius, *Histoires (contre les Païens). Historiae adversus paganos*, ed. Marie-Pierre Arnaud-Lindet, 3 vols. Collection des universités de France, Série latine (Paris: Les Belles Lettres, 1990–1991), vol. I, 13 (I,2,1).

⁷ *Ibid.*

⁸ *Maiores nostri, ut refert Orosius, totius terrae circulum Oceani limbo circumseptum triquadrum statuerunt eiusque tres partes Asiam, Eoropam et Africam vocaverunt*. Iordanis, “[Getica] De origine actibusque Getarum” in Theodor Mommsen (ed.), *MGH Auct. ant.* 5.1 (Berlin: Weidmann, 1882), 53–136, here 54.

⁹ *Divisus est autem trifarie: e quibus una pars Asia, altera Europa, tertia Africa nuncupatur. 2 Quas tres partes orbis veteres non aequaliter diviserunt*. Isidore of Seville, *Etymologiae sive origines libri XX*, ed. Wallace Martin Lindsay, 2 vols. *Scriptorum classicorum bibliotheca Oxoniensis* (Oxford: Clarendon Press, 1911), XIV.2,1–3. Taken up in the *Liber de mundi institucione* (first half of the tenth century), see Michael Zimmerman, “Le monde d’un Catalan au X^e siècle. Analyse d’une compilation isidorienne” in Bernard Guenée (ed.), *Le Métier d’Historien au Moyen Âge. Études sur l’Historiographie médiévale*. Publications de la Sorbonne, Études 13 (Paris: Publications de la Sorbonne, 1977), 45–79, here 74.

Whereas the Venerable Bede (c. 703) simplified the matter by leaving out any references to ancient authorities, the Irish monk Dicuil attributed the threefold division to emperor Augustus, who was said to have commissioned a detailed report of the extent of the Roman Empire.¹⁰ In the early twelfth century, Honorius of Autun again omitted any reference to older sources, as would later encyclopedias.¹¹

The knowledge of the parts of the world, of their number and the location of their boundaries, had become a received truth that no longer had to be supported by the authority of ancient authors. There were three continents, divided by the Mediterranean (between Africa and Europe), the Don (between Asia and Europe), and the Nile (between Africa and Asia) – this is the basic geographical knowledge shown in hundreds of T-O maps and presented by countless encyclopaedias and other texts.¹² The continental division seemed to have been considered a natural fact; it had become essentialized.

The degree to which this knowledge was widespread as well as undiscussed is astonishing. One of the rare texts that deviate from the established mode of description is the *Image of the World* (*Image du monde*) of the French priest Gossouin of Metz, written in 1245. In his encyclopedia, Gossouin describes the Alps as the southern border of

¹⁰ *Terrarum orbis uniuersus, Oceano cinctus, in tres diuiditur partes: Europam, Asiam, Africam*. Beda Venerabilis, “De natura rerum liber” in Charles W. Jones (ed.), *Beda Venerabilis, De orthographia, De arte metrica et de schematibus et tropis, De natura rerum*. Corpus Christianorum, Series Latina 123^a (Turnhout: Brepols, 1975), 173–234, here 233–234 (LI). *Terrarum orbis tribus diuiditur nominibus, Europa Asia Libia. Quem diuus Augustus primus omnium per Chorografiam ostendit*. Dicuil, *Liber de mensura orbis terrae*, eds. James J. Tierney and Ludwig Bieler. *Scriptores Latini Hiberniae* 6 (Dublin: Dublin Institute for Advanced Studies, 1967), 45 (I.2). See Claude Nicolet and Patrick Gautier Dalché, “Les ‘quatre sages’ de Jules César et la ‘mesure du monde’ selon Julius Honorius. Réalité antique et tradition médiévale,” *Journal des savants* 4 (1986), 157–218.

¹¹ *Habitabilis zona quæ a nobis incolitur in tres partes Mediterraneo mari dirimitur, quarum una Asia, altera Europa, tertia Affrica dicitur. Asia a septentrione per orientem usque ad meridiem, Europa ab occidente usque ad septentrionem, Affrica a meridie usque ad occidentem extenditur*. Honorius Augustodunensis, “Imago Mundi,” ed. Valerie I.J. Flint in *Archives d’histoire doctrinale et littéraire du Moyen Âge* 27 (1982), 7–151, here 52 (I,7).

¹² On T-O maps, see as an introduction, David Woodward, “Medieval Mappaemundi” in John B. Harley and David Woodward (eds.), *Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean* (The History of Cartography 1) (Chicago/London: University of Chicago Press, 1987), 286–370, esp. 294–304.

Europe. Coherently, Greece, Italy, Gascony, and Spain were therefore considered parts of Africa.¹³ The reasons why Goussin chose this decisively particular approach are not yet clear.¹⁴ However, he is one of the very few medieval authors who did not just accept the established pattern.

Fra Mauro and His World Map

Considering the largely consistent and maybe even repetitive way in which the division of the world and the boundaries of its three parts were described, Fra Mauro's verdict of a "boring matter" seems understandable. The heated discussions of the Greek geographers had long since passed and the relevant passages of different medieval authors could indeed be qualified as interchangeable. Still, Fra Mauro showed a decided interest in this topic, as he took it up in several longer inscriptions of his map.¹⁵ As shown in this article, alongside Gossouin of Metz, Fra Mauro is probably the second most significant medieval author to break with the established way of describing the boundaries of the continents.

Fra Mauro was born around 1400 and seems to have traveled a lot in his youth.¹⁶ By 1409, he is recorded to have been in the Camaldolese Monastery of St. Michael in

¹³ Olivier H. Prior (ed.), *L'image du monde de maître Gossouin. Rédaction en prose* (Lausanne/Paris : Payot, 1913), 129–130 (II 4).

¹⁴ For possible theories on the reasons, see Georg Jostkleigrew, "L'espace entre tradition et innovation. La géographie symbolique du monde et son adaptation par Gossouin de Metz" in *Construction de l'espace au Moyen Age: Pratiques et représentations*. XXXVII^e Congrès de la SHMES. Mulhouse, 2–4 juin 2006. (Paris: Publications de la Sorbonne, 2007), 369–378; Id., "Zwischen symbolischer Weltdeutung und erfahrungsbasierter Raumdarstellung. Die Geographie des europäischen Raumes bei Gossuin von Metz, Rudolf von Ems, Brunetto Latini und anderen volkssprachlichen Autoren," *Archiv für Kulturgeschichte* 91 (2009), 259–295; Klaus Oschema, *Bilder von Europa im Mittelalter*. Mittelalter-Forschungen 43 (Ostfildern: Thorbecke, 2013), 211–212.

¹⁵ Nikolaus Andreas Egel, *Die Welt im Übergang. Der diskursive, subjektive und skeptische Charakter der Mappamondo des Fra Mauro* (Heidelberg: Winter, 2014), 236–237.



Figure 1 Fra Mauro Map (1459), Venice, Biblioteca Nazionale Marciana. Photo: Wikipedia.

Murano, Venice.¹⁷ There, he gained a reputation as a mapmaker, using every opportunity to gather new information and insights from merchants and travelers. Proof of his widely-respected skills (as well as the close Portuguese-Venetian relations) can be seen

¹⁶ For a biographical sketch and information on the map see Angelo Cattaneo, *Fra Mauro's Mappa Mundi and fifteenth-century Venice*. *Terrarum orbis* 8 (Turnhout: Brepols, 2011), 33–74 and Egel, *Welt* (n. 15), 33–51.

¹⁷ On this see Egel, *Welt* (n. 15), 33.

in the map that the Portuguese king, Alfonso V, commissioned in the late 1450s.¹⁸ The map surviving today in the Biblioteca Marciana, however, was presumably drawn for the Venetian Signoria (**Fig. 1**). It must have fostered the reputation of Fra Mauro, who was celebrated on a contemporary medal as an “incomparable cosmographer.”¹⁹ Indeed, his map was already in the fifteenth century a must-see for visitors to Venice.²⁰ Fra Mauro died around 1459.

Fra Mauro approached the topic of continents in several inscriptions, the longest of which shows his sceptical attitude. As has been shown, since the early Middle Ages it had become quite uncommon to reflect on the discussion of ancient authors concerning the number of the continents or their boundaries. Fra Mauro’s sceptical approach is deeply linked to his repeated reference to ancient sources, as the first lines of this inscription demonstrate:

Regarding the divisions of the world – that is, of Asia from Africa and of Europe from Asia – cosmographers and historiographers give various opinions. Of these one could discuss at length, but because it is boring to dwell on this controversy, I will make a brief note of their opinions and leave the prudent to decide which one they should hold as best. Some follow the Ancients – for example, Messala, the orator who wrote of the family of Octavian Augustus, and Pomponius Mela and those who followed him.²¹

¹⁸ Ibid., 36–37.

¹⁹ The inscription reads *Frater Maurus S. Michaelis Muranensis de Venetiis ordinis Camaldolensis cosmographus incomparabilis*. One medal is today preserved in the Museo Correr in Venice. It may have been coined even during the lifetime of the monk or shortly after his death. See *ibid.*, 34.

²⁰ Ibid., 38–39.

²¹ *Circa la division de la terra, çoe de la affrica da l’asia e similiter de la europa da l’asia, ne trovo apresso cosmographi et istioriographi diverse opinion de le qual se poria parlar diffusamente, ma per esser materia tediosa a demorar in questa controversia farò qui un poco de nota de le opinion de questi e quello se de’ tignir lasserò eleçer ai prudenti. Alcuni che siegue li antichi, di quali son Messala orator che scrive la progenie de Otavian Augusto e Pomponio Mela e quelli che l’ siegue (...).* Falchetta (ed.), *Fra Mauro’s world map* (n. 1), 637–638 (no. 2489).

On several occasions, Fra Mauro contrasts the opinion of these ancient authorities (*li antichi*) with those of modern writers (*autori moderni*) and thus invokes a time-transcending debate with Antiquity, which on the one hand is typical for the Renaissance, but on the other hand seldom reaches such a critical tone as is in Fra Mauro's comments.²²

The Parts of the Earth and their Boundaries according to Fra Mauro

Concerning the continents, the point of interest for the monk was their boundaries. In the inscription cited above, he went on to write that the ancient authorities considered the Nile as the boundary between Asia and Africa and the Don as the boundary between Asia and Europe. Modern writers, in contrast, argued, according to Fra Mauro, that such a division made Africa far too small and that the Red Sea or the Arabian Gulf would be a better choice.²³ Concerning Europe, the moderns argued "that the river Edil [i.e. the Volga], which flows into the Caspian Sea, runs from further northwards than the river Thanai, [i.e. the Don] [and] they say that it is this river Edil which better divides Europe from Asia."²⁴ Fra Mauro then presents his own opinion on the matter, favouring the latter variant, which "seems clearer and more evident; and there is less need for the sort of

²² On the sceptical character of the map's inscriptions see Egel, *Welt*, 189–226 (n. 15). See also Cattaneo, *Fra Mauro's Mappa Mundi* (n. 16), 249–257, and Ingrid Baumgärtner, "Kartographie, Reisebereich und Humanismus. Die Erfahrung in der Weltkarte des venezianischen Kamaldulensermonchs Fra Mauro († 1459)," *Das Mittelalter* 3, (1998), 161–197.

²³ [Continuation from n. 21] *vuol che'l nilo divida l'asia da l'affrica, et thanai la europa. Alcuni dice che Tolomeo vuol che quela costa de monti de arabia, che sono da ladi de nubia e tirano per abassia e oltra quela ethyopia austral, faça la division de l'affrica. Alcuni coe i autori moderni vedando che questa division de l'affrica o per el fiume nilo o per quei monti fa l'affrica tropo piccola, fa altra division e dice che'l mar rosso over sino arabico divide questa affrica.* Falchetta (ed.), *Fra Mauro's world map* (n. 1), 637–638 (no. 2489).

²⁴ [Continuation from n. 23] *Item vedando che'l fiume edil el qual intra nel mar chaspio e vien de più al dreto de verso tramontana cha'l fiume thanai, dicono che questo fiume divide meglio la europa da l'asia.* Ibid., 637–638 (no. 2489). Fra Mauro seemingly argued the same way in a Portolan chart, see Heinrich Winter, "The Fra Mauro Portolan Chart in the Vatican," *Imago Mundi* 16, (1963), 17–28, here 21 (no. 6).

imaginary line that seems to be required by those who adopt the other divisions.” Then again, he back-pedals:

However, I advise those who are looking at this work not to worry themselves too much about discussing this division, given that it is not very important. Let them opt for that which seems to them most reasonable and probable, both to the eye and to the intellect. None the less, I remind them that it is a praiseworthy thing to follow the authority of the most veracious.²⁵

The discussion of the continents’ boundaries is as old as the idea of the concept itself. By the fifth century BCE, Herodotus made much the same arguments as Fra Mauro would in the fifteenth century: The Nile as a boundary was a bad choice, as it would divide Egypt, which clearly was a unit.²⁶ For Asia and Europe, Herodotus presented two alternatives to the Don as boundary, the rivers Rioni (in modern day Georgia) or Aras (Caucasus).²⁷

As has already been stated, such discussions had ceased in late Antiquity and were hardly ever revived in the Middle Ages. William of Rubruck, for example, a Franciscan who undertook one of the first voyages to the Mongol court in the mid-thirteenth century, casually named the Don as the boundary between Europa and Asia, while at the same

²⁵ [Continuation from n. 24] *E questa ultima opinion par che sia aperta et più manifesta et habi men bisogno de linea imaginaria, chome par che voiano quelli che fano le prime division. unde conforto quele che vedeno questa opera che non volgi tropo occuparse in desputar questa division non essendo molto necessaria ma tegna quello li par più rasonevole e approbabile e quanto a l’ochio e quanto a l’intelleto, non de men io ricordo esser laudevele acostarse a la autorità deli più auten[ti]ci. Fra Mauro’s world map* (n. 1), 637-638 (no. 2489), 637-638 (no. 2489). See Egel, *Welt* (n. 15), 237-242.

²⁶ James S. Romm, “Continents, Climates, and Cultures. Greek Theories of Global Structure” in Kurt A. Raaflaub and Richard J. A. Talbert (eds.), *Geography and Ethnography. Perceptions of the World in Pre-modern Societies. The Ancient World Comparative Histories* (Malden, MA: Wiley-Blackwell, 2010), 215-235, here 217-218.

²⁷ Holger Sonnabend, *Die Grenzen der Welt. Geographische Vorstellungen der Antike* (Darmstadt: WBG, 2007), 63; Piotr Kochanek, *Die Vorstellung vom Norden und der Eurozentrismus. Eine Auswertung der patristischen und mittelalterlichen Literatur. Veröffentlichungen des Instituts für Europäische Geschichte Mainz* 205 (Mainz: Philipp von Zabern, 2004), 84-85.

time asserting that the Volga was far bigger.²⁸ This observation, however, did not make him question the traditional geographical division. It seems rather that William intended to show his erudition by this short geographical digression. Alexander of Roes, a German canon based in Cologne, seemed more sceptical. In his *Noticia seculi* (written before 1288), he refused to name the boundaries of the continents, because this would have no practical use and just served curiosity.²⁹ In any case, he did not question the traditional boundaries as such, but rather the usefulness of the whole topic. These few and necessarily cursory statements may show how unusually and at the same time (with regard to ancient sources) well-informed the reflections of Fra Mauro were. Almost every other author (including, as cited above, Orosius, Isidore, Bede, and Honorius of Autun) as well as many high medieval encyclopedias agreed on the canonical boundaries of the continents.³⁰

Contradicting his own qualification of it as a “boring topic,” Fra Mauro came back to this question in several other inscriptions. One discusses the opinion of Ptolemy concerning the Nile, as the boundary of Africa.³¹ Two other inscriptions refer to the boundary between Asia and Europe, one focuses on the river Don, the other on the

²⁸ Guglielmo di Rubruk, *Viaggio in Mongolia. (Itinerarium)*, ed. Paolo Chiesa. Scrittori greci e latini (Rome; Mondadori, 2011), 60–62 (XII.6) and 64 (XIII.7). On the river Volga see *ibid.*, 70 (XIV.2), 80 (XVI.5), 88 (XVIII.4) and 102–103 (XXI.1). See Oschema, *Bilder* (n. 14), 216.

²⁹ *Loca etiam, id est partes mundi, in tres partes principales diuiduntur, videlicet in Asiam, Africam et Eurpam, quarum terminos describere ubi incipiant et desinant maioris credo curiositatis quam utilitatis.* Alexander von Roes, “Noticia Seculi” in *Id., Schriften*, eds. Herbert Grundmann and Hermann Heimpel. MGH Staatsschriften, 1/1 (Stuttgart: Hiersemann, 1958), 149–171, here 150 (c. 4). See Oschema, *Bilder* (n. 14), 211–212.

³⁰ See for example Bartholomaeus Anglicus, *De rerum Proprietatibus. Liber de genuinis rerum coelestium, terrestrium et inferarum proprietatibus lib. 18* (Frankfurt: Wolfgang Richter, 1601 [Repr. 1964]), 624 (XV,1), 628 (XV,11) and 647 (XV,50); Vincent of Beauvais, *Speculum naturale* (Douais: Balthazar Belleri, 1624 [Repr. Graz, 1964]), col. 380 (citing Isidore and William of Conches); Brunetto Latini, *Tresor*, ed. Pietro G. Beltrami *et al.* (Turin; Einaudi, 2007), 186 (I,121,2–4).

³¹ *Perché io no ho habuto loco in europa de dir la vera sententia de Tolomeo circa la division de l'affrica da la asia, perhò qui dico che lui fa quasi do' division: la prima el commença da la ponta de ethiopia e vien zoso per la costiera del colfo de arabia, poi el dice che per non divider l'egypto el mete el fin de l'affrica nel nilo e cum el modo suo io me acordo.*

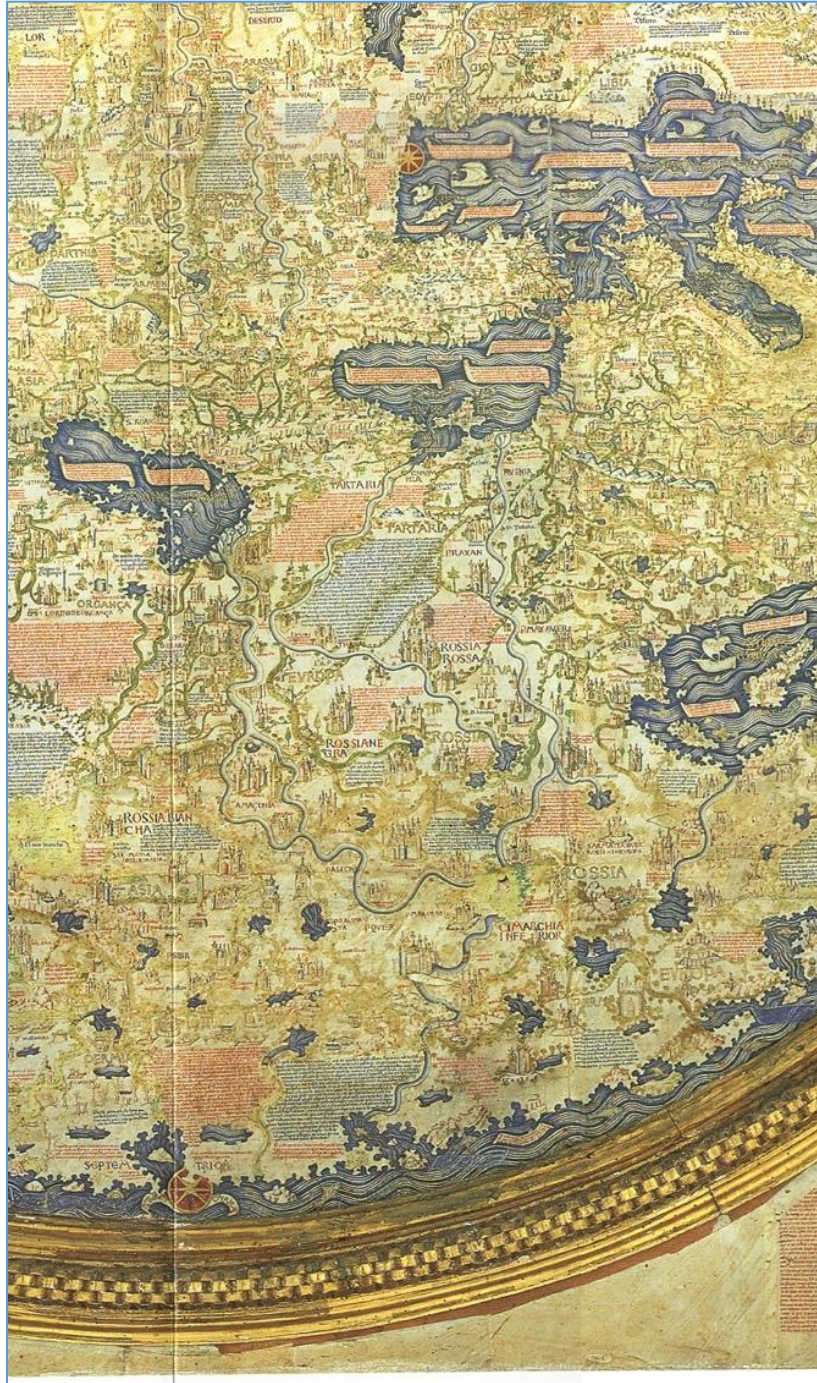


Figure 2a Detail of Map of Fra Mauro (1459), Venice, Biblioteca Nazionale Marciana. Photo: Wikipedia.

Falchetta (ed.), *Fra Mauro's world map* (n. 1), 395 (no. 1077). Translation: *ibid.* 396: Because there was not space in Europe to give the full verdict of Ptolemy with regard to the division of Africa and Asia, I will observe here that he practically makes two divisions: the first begins at the tip of Ethiopia and runs down the coasts of the Gulf of Arabia. [But then] he says that, in order not to divide Egypt, he places the limit of Africa at the Nile—and I agree with him here.

Volga.³² Both take up the former argument of the cartographer that the Volga would be a better choice as the boundary. Concerning the Don, he stated that

one could say that this river does not mark a very good division between Europe and Asia. Firstly, because it would cut off a large part of Europe; secondly, because of its twisting form, which is like a series of five Vs; and thirdly, because it does not arise where it is written that it does.³³

The inscription is placed directly east of the river Don and just next to the longer inscription cited above, elaborating on the question in more general terms (no. 2489) (**Figs. 2a & 2b**). In short, Fra Mauro rejected the Don as a boundary on the basis of three arguments: it cut off a part of Europe, it had a meandering course, and its source was disputed.

Indeed, Fra Mauro seems to address the two latter points diligently – I will return to the first below. As for the two remaining arguments: the course of the Don on his map indeed has the form of a sideways V (<) with several other meanders. With an additional note, Fra Mauro marked the source of the river Don.³⁴ With this, he showed that it did indeed not arise in the Ripheian Mountains (which he located far more north) as tradition

³² See Evelyn Edson, *The World Map, 1300–1492. The Persistence of Tradition and Transformation* (Baltimore, MD: Johns Hopkins University Press, 2007), 146–147.

³³ *El fiume thanai nasce in rossia e non da i monti riphei, ma molto distante da quelli, e tira per siroco strençandosse al fiume edil lutan per circa 20 mia e poi dal luogo de belciman se volta e va quasi per garbin nel mar de çabache over palude meotida. E chi volesse contradir sapia che questo ho da persone dignissime che hano veduto ad ochio. Unde se poria dir che questo fiume non faça bona division de l'europa da l'asia, prima perché el tuol gran parte de l'europa, seconda per la sua storta forma ch'è come uno cinque V, terça perché el suo nascimento non è ove se scrive. Ibid., 641 (no. 2506). See also *ibid.*, 711 (no. 2884): *De sopra ho notado che'l thanay non nasce da j monti ryphey, voglio intender per questo che'l non nasce tanto lutan come edil, çoè da questi monti, i qual per proprio vocabulo sono diti buletul e anchora ryphey per el continuo impeto di venti che regnano.* See Egel, *Welt* (n. 15), 240–241. For the reception of Ptolemy see Cattaneo, *Fra Mauro's Mappa Mundi* (n. 16), 159–184.*

³⁴ *Qui in rossia nasce thanay e va per siroco e po' se volta quasi per garbin.* Falchetta (ed.), *Fra Mauro's world map* (n. 1), 701 (no. 2836). See also *ibid.*, 711 (no. 2884) (citation in n. 33).

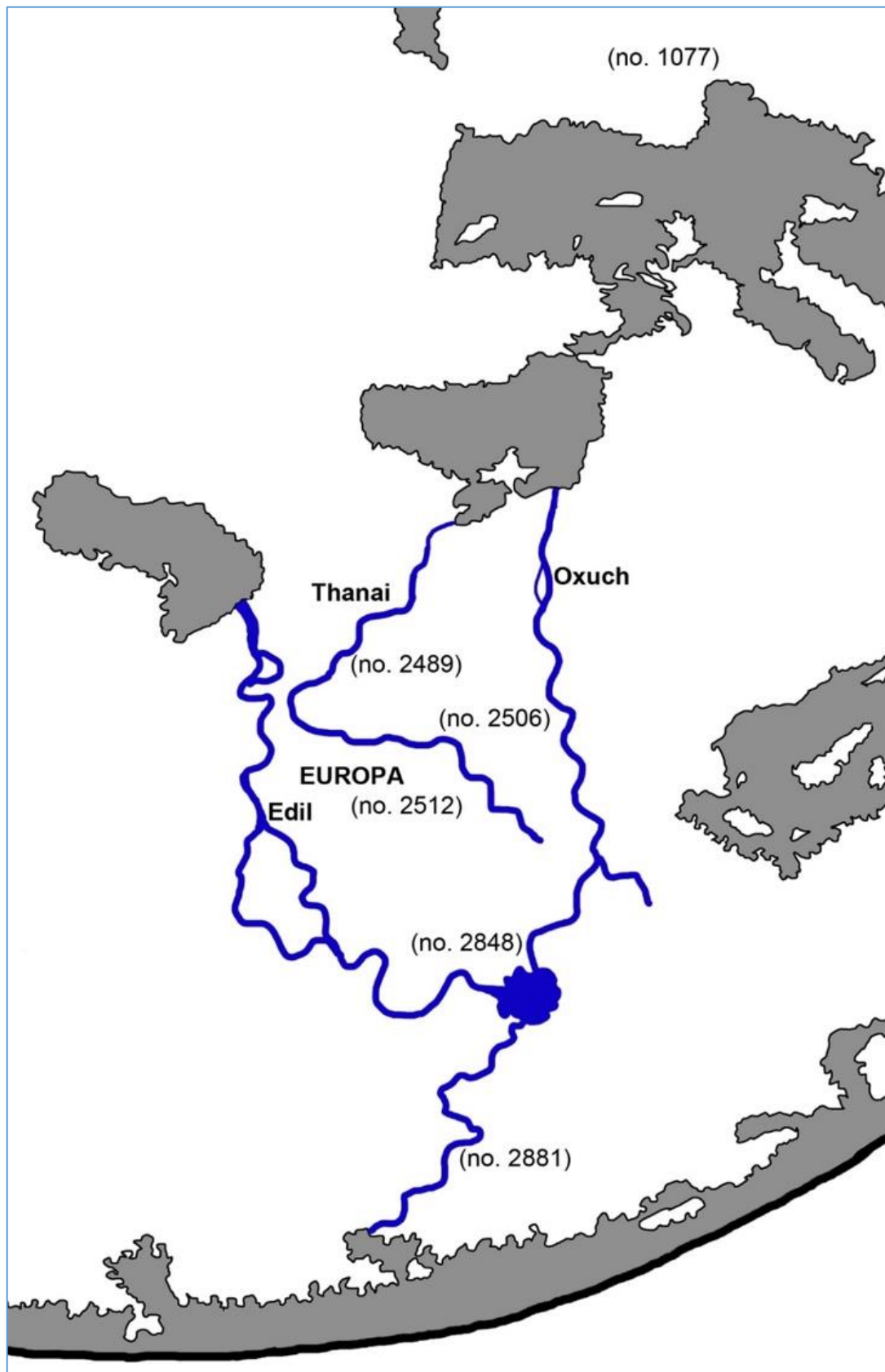


Figure 2b Map of Fra Mauro Schematic Rendering. Photo: author.

tells.³⁵ In another legend, the cartographer offered complementary information on the river Volga, addressing the same arguments in an inscription located at the source of the Volga:

The river Edil or Volga arises in the Ripheian Mountains, flows into the lake called Nepro and then continues to the Caspian or Hyrcanian Sea. It would seem that this river is better suited to mark the division between Asia and Europe because it runs straighter and with a better form; and it arises in the place which gives origin to this division. From the lake called Nepro arises also the river Osuch [i.e. the Dnieper], which then runs into the Black Sea.³⁶

Indeed, Fra Mauro argued with the course of both rivers: in order to be a reasonable boundary, a river should have a regular, straight course with a source that can be clearly located. In such a case, there was no need to draw “imaginary lines,”³⁷ which means to imagine a straighter course. One could argue that these reflections belong to the sphere of opinion and that accordingly Mauro chose his words carefully (*questa opinione sia aperta et più manifesta; chi volesse contradir; se acosti meio*). Whereas Fra Mauro’s interest in the question of continents has been noted, a key element of his map has mostly been left disregarded: the inscriptions referring to the continents’ names themselves.³⁸

³⁵ Ibid., 709 (no. 2881).

³⁶ *El fiume edil over vulga nasce da li monti riphei e poi intra nel lago dito nepro e poi tira nel mar chaspio over hircano. E questo fiume par che se acosti meio a far division de l’europa da l’asia perché el va più al dreto e cum mior forma e nasce dal luogo che dà origine a questa division. Item de quel lago dito nepro nasce el fiume osuch, el qual intra nel mar mauro.* Ibid., 703 (no. 2848). A closer look at the depiction of the Volga (Edil) on the map, however, shows that it does not really follow a straighter course than the Don.

³⁷ See n. 25.

³⁸ To my knowledge, the only notable exception is the short note by Andrew Gow, “Empirical Empire. Eurocentrism and Cosmopolitanism in the ‘last’ Mappamundi (Fra Mauro)” in Ingrid Baumgärtner and Hartmut Kugler (eds.), *Europa im Weltbild des Mittelalters. Kartographische Konzepte*. *Orbis mediaevalis* 10 (Berlin: Akademie-Verlag, 2008), 259–267, here 262. See also Edson, *The World Map* (n.32), 146–147.



Figure 3 Detail of Map of Fra Mauro (1459), Venice, Biblioteca Nazionale Marciana.

Like most of the larger medieval *mappae mundi*, Fra Mauro's map names the three known continents with distinct inscriptions. However, in contrast to, for example, the Hereford map,³⁹ the continents' names are written down several times, in golden capital letters. There are five inscriptions for Asia, four for Europe and two for Africa.⁴⁰ Mostly, these are distributed over the extent of the respective continents. For this discussion, however, one inscription is of primary interest: One lettering of *Europa* is located just beside the longer inscriptions already cited – claiming the region east of the Don and west of the Volga for Europe (**Fig. 2b and Fig. 3**).⁴¹ With this inscription, Fra Mauro left his

³⁹ Scott D. Westrem (ed.), *Hereford map*. *Terrarum orbis* 1 (Turnhout: Brepols, 2001), 21 (no. 32: *Asia*, no. 33: *Africa*, no. 34: *Europa*). It is noteworthy that the names of Africa and Europe are inverted. Recently on this Marcia Kupfer, *Art and Optics in the Hereford Map. An English mappa mundi, c. 1300* (New Haven, CT: Yale University Press, 2016), 5–6 and 27–28.

⁴⁰ For *Asia*, see Falchetta (ed.), *Fra Mauro's world map* (n. 1), 253 (no. 341), 319 (no. 672), 449 (no. 1389), 475 (no. 1511), 691 (no. 2792). For *Europa* see 547 (no. 1990), 645 (no. 2521), 665 (no. 2654), 709 (no. 2877). For *Africa* see 279 (no. 463), 409 (no. 1167). The term *Asia* occurs several other times in alternately red and blue letters, designating the province of Asia in modern day Turkey: *Ibid.*, 373 (no. 958), 493 (no. 1630), 493 (no. 1636), see also *Asia minor* *Ibid.*, 489 (no. 1610).

⁴¹ *Ibid.*, 645 (no. 2521).

caution behind and made his case clear, clearer than in his still uncertain inscriptions: he considered the Volga the only rational choice for the boundary between Asia and Europe.

As noted above, Fra Mauro offered three arguments for this choice, two of which were of purely geographical nature (the straighter course and the better-known source of the Volga). The other argument, however, is more difficult to explain. Fra Mauro stated that the Don as the boundary would cut off a large part of Europe.⁴² This of course raises the question of why the region west of the Don and east of the Volga should belong to Europe. Sadly, Fra Mauro does not tell us why. His choice indeed enlarges the space imagined as “Europe.” One could argue that the cartographer tried to keep the traditional proportions of the parts of the earth, namely Asia representing the eastern half of the ecumene, Africa and Europe each a quarter of the western half. But obviously, this was not Fra Mauro’s intention: even if we accept the Volga as the boundary between Asia and Europe, Asia covers more than half the space of Fra Mauro’s ecumene – and our cartographer was well aware of this. In a legend on Jerusalem, traditionally imagined as being the center of the world, but shifted westwards on his map,⁴³ Fra Mauro stated that Jerusalem was indeed the center of the world, not in terms of geography, but in terms of population (as Europe was thought of as being more densely populated than Asia).⁴⁴

⁴² See above, n. 33.

⁴³ On medieval views of Jerusalem, see Beat Wolf, *Jerusalem und Rom: Mitte, Nabel – Zentrum, Haupt. Die Metaphern “Umbilicus mundi” und “Caput mundi” in den Weltbildern der Antike und des Abendlands bis in die Zeit der Ebstorfer Weltkarte* (Bern et al.: Lang, 2010). Concerning Jerusalem in maps, see Marcia Kupfer, “The Jerusalem Effect. Rethinking the Centre in Medieval World Maps” in Bianca Kühnel, Galit Noga-Banai and Hanna Vorhaolt (eds.), *Visual constructs of Jerusalem. Cultural Encounters in Late Antiquity and the Middle Ages* 18 (Turnhout: Brepols, 2014), 353–365; Ingrid Baumgärtner, “Die Wahrnehmung Jerusalems auf mittelalterlichen Weltkarten” in Dieter Bauer, Klaus Herbers and Nikolas Jaspert (eds.), *Jerusalem im Hoch- und Spätmittelalter. Konflikte und Konfliktbewältigung, Vorstellungen und Vergegenwärtigungen*. Historische Studien 29 (Frankfurt, Main/New York: Campus, 2001), 271–334.

⁴⁴ *Hierusalen è in mezo de la terra habitabile secondo la latitudine de la terra habitabile, benché secondo la longetudine la sia più occidental, ma perché la parte ch’è più occidental è più habitada per l’europa perhò l’è in mezo ancora secondo la longitudine, non considerando el spatio de la terra ma la moltitudine di abitanti*. Falchetta (ed.), *Fra Mauro’s world map* (n. 1), 381 (no. 1011).

An examination of the legends located between the rivers Volga and Don also gives no hint to the alleged “European character” of this region. The area is said to be inhabited by a number of people (among which we can identify the Mordvins) and twice named as a part of Russia.⁴⁵ Moreover, there are two inscriptions reading “Sarmatia or Russia in Asia,” west of the Volga and clearly in Asia, and “Sarmatia or Russia in Europa,” east of the Don and thus in Europe.⁴⁶ The region of the (Crimean) Tatars, however, is explicitly located east of the Don, so belongs to Europe anyway, as the legend on the map clearly indicates.⁴⁷

To sum up, Fra Mauro developed a coherent image of the border region between Asia and Europe. He argues for the Volga as the better boundary between the continents, mainly because of geographical reasons founded on the course of the river. The only seemingly arbitrary point is his claim that the region between the Don and the Volga would belong to Europe. As Andrew Gow points out, Europe as depicted by Fra Mauro is by no means a culturally homogenous region. Quite the contrast: its fringes are peopled with non-Christians as well as with people with allegedly uncivilized customs.⁴⁸ Indeed, the Venetian cartographer seems to reject any reflection on Europe as a culturally or religiously homogenous entity. Overall, Fra Mauro invested quite a lot of attention in a supposedly boring and unimportant matter. As we will see, his conclusion was unique.

⁴⁵ *Tuti questi populi, zoè nef, alich, marobab, balimenta, quier, smaici, meschiera, sibir, cimano, çestan, mordua, sono ne la provincia de rossia.* Falchetta (ed.), *Ibid.*, 701 (no. 2835). See Falchetta’s editorial note, 700. *Rossia negra.* *Ibid.*, 649 (no. 2542). See also *ibid.*, 645 (no. 2524).

⁴⁶ *Sarmatia over Rossia in Asia.* *Ibid.*, 689 (no. 2781); *Sarmatia over Rossia in Europa.* *Ibid.*, 705 (no. 2854).

⁴⁷ *Tartaria in Europa.* *Ibid.*, 639 (no. 2490). See also the editorial note *ibid.*, 638.

⁴⁸ See Gow, “Empirical Empire” (see n. 38), 266. See for example Fra Mauro’s description of the inhabitants of Perm as the “last people to the north,” Falchetta (ed.), *Fra Mauro’s world map* (n. 1), 709 (no. 2880). See also his note on Norway, whose “people were a great affliction to Europe” (*Item questi populi hano dato grande affliction a l’europea*), *ibid.*, 675 (no. 2708).

The Parts of the World on other Medieval Mappae Mundi

In order to put Fra Mauro's map into a broader comparative perspective, it is worthwhile looking more closely at other medieval world maps and the way in which the parts of the world are named or marked. For this, I selected a sample of seventeen maps (including Fra Mauro's), thirteen larger *mappae mundi*⁴⁹ and four smaller ones.⁵⁰ This sample covers different regions and a broad chronological scope. While it is, of course, not exhaustive, it might still serve as a basis for a nuanced comparison. On nine out of seventeen of these maps, the names of the continents are inscribed, mostly in an accentuated style.⁵¹ Of the nine maps, Fra Mauro's is the only one that names the continents more than once. The other eight, in contrast, only bear the inscription for each part once; in five out of nine cases, their letters are spaced in order to cover the entire breadth of the continent (i.e. Europe from the Don to Gibraltar),⁵² while the other four do

⁴⁹ Beatus map of Saint-Sever (c.1028–1072, Paris, Bibliothèque nationale de France, Ms lat 8878, fol. 45bisv–45terr), Sawley map (c. 1190, Cambridge, Corpus Christi College, MS 66, p 2), Hereford map (c.1290, Hereford Cathedral), Ebstorf map (c.1300, destroyed in 1943), map of Pietro Vesconte (1320, Vatican, Biblioteca Apostolica Vaticana, Vat. Lat. 2972, fol. 112v–113r), map of Ranulph Higden (late 14th century, London, British Library, Royal 14 C.IX, fol. 1v–2r), Velletri-Borgia map (c.1430, Vatican, Biblioteca Apostolica Vaticana, Ms Borg. lat. XVI), map of Andrea Bianco (1436, Venice, Biblioteca Nazionale Marciana, MS It Z, 76, fol. 8v–9r), map of Andreas Walsperger (1448, Vatican, Biblioteca Apostolica Vaticana, Vat. Lat. 1362 B), map of Giovanni Leardo (1452, Milwaukee, University of Wisconsin, American Geographical Society Library), Modena world map (c.1450, Modena, Biblioteca Estense, MS CGA 1), map of Fra Mauro (c.1450, Venice, Biblioteca Nazionale Marciana), Genoese map (1457, Florence, Biblioteca Nazionale Centrale, Portolano 1).

⁵⁰ The so-called Isidore map of Munich (c. 1130–35, Munich, Bayerische Staatsbibliothek, cgm 10058, fol. 154v), Psalter-map (1260, London, British Library, Add. 28681, fol. 9r), Olomouc map (1450, Olomouc, Vědecká knihovna M I 155), Zeitz map (c. 1470, Zeitz, Stiftsbibliothek MS Lat. Hist. fol. 497, fol. 48r).

⁵¹ The names of the continents are not mentioned on the Isidore map of Munich, on the maps of Ranulph Higden and Andrea Bianco, nor on the Sawley-map, Psalter-map or on Zeitz map. The map of Andreas Walsperger only names *asya*, in modern day Turkey, and *Affrica*.

⁵² This is the case on the Beatus map, on the maps of Hereford and Ebstorf, and on the maps of Pietro Vesconte (though the inscriptions here are written in a circular way in the ocean) and Giovanni Leardo.

not spread out the inscriptions. However, they all use an accentuated style and thus emphasize the continents' names, for example, with capital letters,⁵³ coloring (red or gold),⁵⁴ or other graphical markers.⁵⁵

A closer look at the map of Fra Mauro shows that the golden capital letters were not used exclusively for the inscriptions of the parts of the world, but also for some regional names.⁵⁶ This observation is echoed also in the bigger sample: of the nine maps that indicate the continents, in only four cases is the graphical style of the lettering used exclusively for the legends conveying the names of Africa, Asia, and Europe.⁵⁷ On the five other maps, an identical style was used indiscriminately to indicate region names,⁵⁸ towns,⁵⁹ or other contents.⁶⁰ Thus, while the names of the three parts of the world were highlighted on most maps, their display characteristics were not as exclusive as one might expect. Most maps named the continents prominently, but at the same time, many

⁵³ Beatus of Saint-Sever, Hereford map, Ebstorf map, map of Pietro Vesconte, maps of Giovanni Leardo and Fra Mauro.

⁵⁴ Inscriptions in red: Beatus of Saint-Sever, Ebstorf map, map of Pietro Vesconte, map of Giovanni Leardo. Inscriptions in gold: Velletri Borgia map, map of Fra Mauro. For color codes on maps see Anna-Dorothee von den Brincken, "Die Ausbildung konventioneller Zeichen und Farbgebungen in der Universalkartographie des Mittelalters," *Archiv für Diplomatik* 16 (1970), 325–349.

⁵⁵ The inscriptions on Modena map are in blue cartridges, outlined in red, with white inscriptions. On the Velletri Borgia map the names of the continents are engraved in bigger letters, on Olomouc map they are bold and highlighted by red rectangles (as are some other, smaller inscriptions as well, e.g. Rome, India etc.).

⁵⁶ Falchetta (ed.), *Fra Mauro's world map* (n.1), 381 (no. 1009, *Siria*), 599 (no. 2314, *Chataio*), 367 (no. 934, *Mesopotamia*), 667 (no. 2675, *Norvegia*).

⁵⁷ Beatus of Saint-Sever, Ebstorf map, and the maps of Giovanni Leardo and Pietro Vesconte.

⁵⁸ Beatus of Saint-Sever (*ASIA MINOR, LIBIA*), Olomouc map (*asia mi[n]or*), Hereford map: (*INDIA*), Velletri-Borgia map (*Egi[p]t[us]*), *Minor asia*, *Asia maior*, Fra Mauro (several inscriptions, see n. 56).

⁵⁹ E.g. the map of Andreas Walsperger (*Jerusalem* and other places).

⁶⁰ Map of Andreas Walsperger (several legends), Modena map (nine rulers, each depicted in an elaborate drawing such as *rey melli*, *rey dorgana*, *rey de nubia*, *presta iohan*...).

cartographers appeared not to be concerned with a clear and stringently maintained hierarchy of inscriptions, and instead used uniform patterns of lettering for different categories of objects that seemed important.

Some of the maps analysed here show a noticeable interest in the boundaries of the continents, if not as much as Fra Mauro. The Beatus Map of Saint-Sever, for example, has two inscriptions at the source of the Don, reading “this is the end of Asia” (*hic finis asiae*) and “this is the head of Europe” (*hic capud europae*), as if to make sure to mark the geographic function of this river.⁶¹ The same pattern applies to other maps: indeed, inscriptions naming the continents mostly refer to their function as boundaries. Both the Hereford and Ebstorf maps mark the boundary zones with inscriptions. On the Ebstorf Map, the source of the Don is lettered with an inscription about the boundary function and etymology of the Tanais,⁶² and a bit westward follows another inscription about the name of Europe.⁶³ The boundary between Africa and Asia is marked as well. However, it is not the Nile that is emphasized here, but Catabathmos, an ancient name for the Gulf of Aqaba as well as for the town of the same name in modern day Jordan.⁶⁴ It was Sallust who defined Catabathmos as the boundary between the two continents in his *Jugurthine War*.⁶⁵ Directly next to this inscription, *Africa* is written in red capital letters.⁶⁶ Next to a

⁶¹ See Sandra Sáenz-López Pérez, *The Beatus maps. The revelation of the world in the Middle Ages* (Burgos, 2014), 92–93.

⁶² *Tanais fuit rex Scytarum a quo Tanais vocatur, qui dirimit Europam ad Asya inter duas mundi partes medius currens*. Hartmut Kugler (ed.), *Die Ebstorfer Weltkarte*, 2 vols. (Berlin: Akademie-Verlag, 2007), vol. I, 86 (29/11).

⁶³ *Europa Agenoris regis Lybie filia fuit, quam Jupiter ab Affrica raptam Cretam advexit et partem tertiam orbis ex eius nomine appellavit. Iste autem Agenor Lybie fuit filius, ex qua Lybia Affrica fertur appellata, unde apparet prius Lybiam accepisse vocabulum postea Europam*. Ibid., vol. I, 100 (36/3).

⁶⁴ *Mons Gathabathmon. In his montibus Africa sumit initium*. Ibid., vol. I, 96 (34/20).

⁶⁵ *Ea finis [Africa, CM] habet ab occidente fretum nostri maris et Oceani, ab ortu solis declivem latitudinem, quem locum Catabathmon incolae appellant*. Sallust, *Bellum Jugurthinum*, XVII.5, similar ibid. XIX.3.

small depiction of a temple, there is an etymological explanation of the name of Africa.⁶⁷ At Gibraltar, however, no inscription refers to the continents. In comparison to the Ebstorf Map, the Hereford Map covers the relevant spots a bit more consistently. At the source of the Don, an inscription tells us about the extent of Europe,⁶⁸ at the source of the Nile two inscriptions inform us about the boundary function of the river and the extent of Africa⁶⁹ and the strait of Gibraltar is also marked on both sides as the continental boundary.⁷⁰

This pattern is implemented most consistently on the Sawley Map, (**Fig. 4**) which accompanies a late twelfth-century copy of Honorius of Autun's *Imago Mundi*.⁷¹ While most inscriptions on this map are written in black ink, there are a few in red. Some of them refer to region names, such as *Italia* or *Asia minor*, and the cardinal directions are also labeled in red. Most of the red inscriptions, however, refer to the boundaries of the continents, which themselves are not named. Indeed, the map refers to the boundaries

⁶⁶ Kugler (ed.), *Ebstorfer Weltkarte* (n. 62), vol. I, 96 (34/21).

⁶⁷ *Africa ab Afer uno de posteris Abrahe est dicta. Hec in oriente a Nilo flumine surgit et per meridiem vergens in occidentem tendit. Huius prima provincia est Lybia. Hinc Cyreneica dicta Pentapolis a V. ciuitatibus Berenice. Asyrie. Ptolomaide. Apollonia. Cyrene. Inde Tripolis a tribus ciuitatibus. que sunt Occa. Saberete et Leptis Magna. Post hanc Bisace a duobus urbibus Bisancie et Adrumeo. Inde Cartago, postea Geulia. Inde Numidia, post Mauritania.* Ibid., vol. I, 110 (41/10).

⁶⁸ Westrem (ed.), *Hereford map* (see n. 39), 189 (no. 444).

⁶⁹ *Terminus Asye et Affrice.* Ibid., 183 (no. 434) and 341 (no. 875).

⁷⁰ *Terminus Europe.* Ibid., 335 (no. 863), and *Terminus Africe.*, Ibid., 371 (no. 949).

⁷¹ See Paul D. A. Harvey, "The Sawley Map and Other World Maps in Twelfth-Century England," *Imago Mundi* 49 (1997), 33–42.



Figure 4 So-called “Sawley Map” (1180), Cambridge, The Parker Library, Corpus Christi College, MS 66, p 2. Photo: Wikipedia.

with astonishing completeness: the Don is marked by an inscription on each side,⁷² as are the Nile⁷³ and the strait of Gibraltar.⁷⁴

To sum up, the boundaries of the continents seemed to be of major interest to makers of medieval *mappae mundi*: besides legends with the continents' names, most of the longer inscriptions naming the parts of the world refer to their boundaries and are located accordingly on the maps. As for the concept of continents, one could say that it was self-referential, as mentions of the parts of the earth and their boundaries rarely related to something other than themselves. In the sample of bigger *mappae mundi* studied in this paper, the continents were neither used to explain or locate natural or cultural phenomena, nor were they linked to the division of the world among the sons of Noah, to name just one possibility often found on smaller T-O maps.⁷⁵

Conclusion

Fra Mauro's view on the question of continents not only consisted of his bold statement that this matter was boring and trivial. In fact, he was one of very few medieval authors who discussed a topic that in the overwhelming number of encyclopedias, geographical treatises, and maps was not debated at all: the question of the boundaries of the continents. Since the early Middle Ages, medieval authors followed the steps laid out by their ancient predecessors and considered the Mediterranean, the Don, and the Nile as the waters delimiting the continents. By arguing that the Volga would be the

⁷² *Terminus Asie et Europe*. Danielle Lecoq, "La Mappemonde d'Henri de Mayence, ou l'Image du Monde au XII^e Siècle" in Gaston Duchet-Suchaux (ed.), *Iconographie médiévale. Image texte contexte* (Paris, 1990), 155-207, here 162 (no. 95).

⁷³ *Terminus Asie et Affrice*. Ibid. (no. 170).

⁷⁴ *Terminus Europe et Affrice*. Ibid. (no. 155).

⁷⁵ See for example Marcia Kupfer, "The Noachide Dispersion in English Mappae Mundi, c. 960–c. 1130" in: *Peregrinations* 4/1 (2013), 81–106.

better boundary because of its course, Fra Mauro put this traditional knowledge into question through geographical reasoning. Although the Camaldolese Monk claimed disinterest and advised the reader to form his own opinion about the matter, he claimed the region east of the Don up to the Volga as “European” by including a separate inscription, *Europa*.⁷⁶

The map of Fra Mauro seems to be the only extant medieval *mappa mundi* manifesting such a sceptical and critical tone and such a deviation from the common approach to the perceived order of the world. Yet, his map is not the only one showing a noticeable interest in the boundaries of the continents. On several other *mappae mundi*, such as the Hereford and Ebstorf maps, the border regions of the continents (such as the source of the Don or the Straits of Gibraltar) are also marked with inscriptions indicating the boundary function of these places. Most consistently, this pattern is applied on the Sawley map, which highlights the Don, the Nile, and Gibraltar with two inscriptions each. Additionally, medieval world maps mostly depicted the continents’ names in an accentuated style; some of them also explicitly marked their boundaries, as was shown by a sample analysis of seventeen maps. The unique feature of Fra Mauro’s map is the extraordinary effort he made to scrutinize the traditional choice of boundaries. His vote for the Volga, however, was based primarily on geographical arguments, not cultural ones. 🐼

⁷⁶ Kupfer, “Noachide Dispersion” (n. 75), 93–94, mentions maps that enlarge Europe to the disadvantage of Asia, but those maps also offer a discussion or at least mention the dispersion of the sons of Noah. According to Gen. 9.27, Japheth, mostly imagined as having received Europe as his share, also obtained some regions that were later considered to be parts of Asia.