3 Bessarion's Italian Years: Politics and Patronage of Arts and Sciences (1438-1472)

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Bessarion's first important experience in an Italian context was the Council of Ferrara-Florence (1437-39), in which both he and Plethon took an active part. Unlike Plethon, who contrasted the reconciliation between Rome and Constantinople, Bessarion acted as a promoter of union between the Catholic and Orthodox Churches. The final decree of the Council in 1439 marked not only the resolution of the *Filioque* question, with the success of Latin theology, but also a reaffirmation of papal supremacy over all Christians. However, most of the Byzantines, along with the claims of forgery of the original text of the *Filioque*, perceived the decree about the union as an act of humiliation. Hence, most of the members of the Byzantine delegation withdrew their agreement to the union once they left Florence. Nonetheless, the union was officially proclaimed in Constantinople in 1452 and not rejected officially until the Orthodox Synod of 1484.[1]

All in all, the Council of Ferrara-Florence intensified intellectual exchanges between East and West. Indeed, the so-called renaissance of Platonism in Florence owed some debts to Neoplatonic thinkers who came to the city.

As the union was just an ephemeral outcome, it eventually generated more discrepancy between the two worlds, alongside disappointment among those Orthodox exponents who adhered to the union cause: Bessarion, for instance. Due to the inconveniences of the Council and other theological concerns, and his will to unify the Churches, Bessarion decided to join the

1 Gill, *The Council of Florence*.

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Church of Rome. In 1439, he was proclaimed a cardinal of the Catholic Church, and expatriated definitively to Italy. His ecclesiastic career reached its apex in 1455, the year in which he was nominated as a candidate for the papal throne.[2] In the meantime, he devoted his efforts to philosophical and theological issues, as well as politics. He struggled – following his teacher Plethon – to compare and reconcile the philosophy of Plato with that of Aristotle and to evaluate their compatibility with Christian doctrine. Bessarion, as mentioned, entered a controversy over this issue with another Byzantine expatriate, George of Trebizond.[3] Moreover, Bessarion worked intensively in politics to defend Europe against the menace of the Ottoman Turks. Yet, amid these various activities, astronomy remained Bessarion's special topic of interest, and this found concrete expression in Bessarion's patronage of the most brilliant astronomer of the fifteenth century, Regiomontanus.[4]

Bessarion's Italian years cemented his historical-political significance, especially that of being a defender of Christians in Europe against the attacks of the Muslim Ottoman Turks and of being a major protagonist in the saving of manuscripts so as to preserve the written witnesses of Greek cultural heritage. Although the project of 'saving manuscripts' began in earnest after the fall of Constantinople (1453) to the Ottoman Turks, Bessarion had been collecting manuscripts even in his youth. He became renowned for these activities in his own lifetime and was quite often regarded as a bibliophile among his contemporaries.[5]

John Monfasani has offered convincing and thought-provoking words on Bessarion's Italian years:

> Bessarion adapted brilliantly to Latin culture, but he did not internalise it. His intellectual reactions, instincts, and erudition always remained profoundly Greek. Bessarion was neither the most Latin among the Greeks nor the most Greek among the Latins. Rather he was the most influential of the Greeks in the Latin West, the *potentissimus Graecorum inter Latinos*. He wished to use that position politically to rescue Greece, religiously to unite Greek Orthodoxy with Latin Catholicism, and culturally to salvage Greek culture from the rubble of the Byzantine Empire. He failed in the first two goals, but succeeded in the third. By his patronage, writings, and library he did more than any individual in the fifteenth century to advance the Hellenisation of the Latin West.[6]

The so-called process of Hellenisation of the Latin West involved many fields of knowledge. Concerning astronomy, this process requires attention, because it is inextricably linked to what kind of astronomical knowledge Bessarion was bringing to Italy. As anticipated, his astronomical background was marked by the coexistence of Hellenistic astronomy (Ptolemy) and Arabo-Persian handbooks and tables. While Bessarion's activity in Italy was focused on politics, theology, and philosophy, his astronomical interests were

2 Mohler, *Kardinal Bessarion*, 1: 267-8.

3 Monfasani, "Bessarion's 1469 *In Calumniatorem Platonis*"; Monfasani, "A tale of two books"; Monfasani, *George of Trebizond*; Monfasani, *Collectanea Trapezuntiana*.

4 Zinner, *Leben und Wirken*.

5 Mioni, "Bessarione bibliofilo e filologo".

6 Monfasani, "Cardinal Bessarion and the Latins", 17.

reflected in the activity of his best protégé, Regiomontanus (see section 1). Was the latter benefitting from Bessarion's astronomical culture? Was he taking sides in favour of Ptolemy and against Arabo-Persian astronomy?

Bessarion's attempt to save Byzantium and Trebizond from the Ottomans involved the rhetorical tool of depicting the Ottomans as barbarians and enemies of Greek culture. Were the Ottomans really against such a heritage? Especially, were they ready to get rid of the Byzantine astronomical heritage, with its Hellenistic and Arabo-Persian elements, after conquering Constantinople? What follows cannot claim to provide a comprehensive answer, but it certainly explores several aspects crucial to approaching these questions, each of which merits a dedicated study in its own right.

1 Bessarion's Interest in Astronomy after Leaving Orthodox Christianity: the Friendship with Regiomontanus

After settling definitively on Italian soil, Bessarion, now a cardinal of the Catholic Church, was sent in 1460 to Vienna as papal legate to organise a crusade against the Turks.[7] On that occasion, he met the astronomer Georg Peuerbach (1423-1461) and his pupil, Regiomontanus. The most conspicuous evidence for Bessarion's interest in astronomy after migrating to Italy and joining the Church of Rome is his patronage of Regiomontanus.[8] The relationship between them was so intense that the mathematician dedicated some works to his patron and built an astrolabe with a dedication.[9]

From Peuerbach, Bessarion acquired a copy of a very successful textbook of astronomy, *Theoricae novae planetarum*, and he tasked Peuerbach with the preparation of a new commented translation of the *Almagest* from Greek into Latin. After Peuerbach's premature death in 1461, Bessarion charged Peuerbach's pupil, Regiomontanus, who became his protégé, with completing that task.[10] At that time, Ptolemy's *Almagest* was known in the West through the Latin translation (mediated by Arabic intermediaries) by Gerardus of Cremona and the more recent translation by George of Trebizond, redacted from the Greek.[11] Bessarion's interest in the *Almagest* notably intensified following the controversy with George of Trebizond, who accused Bessarion of incompetency in understanding the Greek of the *Almagest* after Bessarion had criticised some points of his translation. An examination of Bessarion's manuscripts preserved in the Biblioteca Marciana has revealed that Bessarion repeatedly assisted Regiomontanus in understanding the Greek terminology of the *Almagest*. For instance, Bessarion's manuscript *Marcianus latinus* 329 bears witness to his comparison between the works of Peuerbach, Regiomontanus and al-Battani with the Greek text of the *Almagest* contained in his manuscript *Marcianus graecus* 310 in order to assist Regiomontanus in his new version of the *Almagest*, which would

7 Märtl, "Kardinal Bessarion als Legat im Deutschen Reich".

8 Shank, "Regiomontanus and Astronomical Controversy". On Regiomontanus, cf. Zinner, *Leben und Wirken*; Hamann (ed.), *Regiomontanus-Studien*; Malpangotto, *Regiomontano*.

9 Rigo, "Bessarione, Giovanni Regiomontano", 76-7; King, L'Estrange Turner, "The astrolabe dedicated to Cardinal Bessarion".

10 Rigo "Bessarione, Giovanni Regiomontano", 50.

11 Rose, *The Italian Renaissance of Mathematics*, 39-44.

result in the *Epytoma*.[12] Moreover, the manuscript *Marc. lat.* 329 contains a copy of Menelaus's treatise on spherical trigonometry which was extensively annotated by Bessarion with references from the Greek of the *Almagest*.[13] In addition, Bessarion donated a Greek copy of Theon of Alexandria's *Commentary on the Almagest* to Regiomontanus, who later attempted to translate it into Latin.[14]

Because of his focus on the *Almagest*, Bessarion has been considered a purist of Ptolemaic astronomy.[15] Yet such purism apparently stands in opposition to a current of Byzantine scholars who preferred Arabo-Persian astronomy (originally stemming from Islamic authors) over Ptolemy.[16] These assessments are influenced by a tendency within recent scholarship to consider two separate currents in the Byzantine astronomical world of the thirteenth- to fifteenth-century, namely the purists of Ptolemy and those who favoured non-Greek astronomy, mediated by Persian authors.[17] This view finds some support from scholars such as the Byzantine Theodoros Metochites (1300), who suggested a preference for Greek astronomy rather than other traditions.[18] However, it has been shown that some Byzantine astronomical texts of the first half of the fifteenth century provided a mixture of Ptolemaic and Arabo-Persian methods. The distinction between the two currents was rather ideological and did not mirror the actual scientific practice.[19] As seen, Bessarion's astronomical education saw a combination of Ptolemaic and Arabo-Persian works. Moreover, Plethon had integrated his astronomical works with Arabo-Persian and Hebrew astronomical tables. Bessarion was educated in environments which were quite eclectic in the selection of astronomical sources, and such an eclectic approach is detectable also in Regiomontanus.

Beside his work on the translation of the *Almagest*, Regiomontanus's lecture of 1464[20] at the University of Padua can be read as a source on Bessarion's view on sciences; indeed, since he praised Bessarion as his patron, it can hardly be considered a document providing views contrary to Bessarion's. In his lecture, Regiomontanus provided a brief history of mathematical sciences, and, remarkably, praised astrology as the queen of mathematical sciences because it granted human beings access to knowledge of divine realms and the links between them and human realms.[21] This is more than telling in light of the culture Bessarion experienced in

12 Rigo, "Bessarione, Giovanni Regiomontano", 86-90.

13 Rigo, "Bessarione, Giovanni Regiomontano", 81-2.

14 Zinner, *Leben und Wirken*, 328-9.

15 Rigo, "Bessarione, Giovanni Regiomontano"

16 Rigo, "Bessarione, Giovanni Regiomontano", 98-9.

17 Pingree, "Gregory Chioniades and Palaeologan Astronomy".

18 Rigo, "Bessarione", 99. On Metochites see Paschos, Simelidis, *Introduction to Astronomy*.

19 Caudano, "Le calcul".

20 Original title: *Oratio Johannis de Monteregio, habita Patavij in praelectione Alfragani*. First printed in *Rudimenta astronomica Alfragrani* (Johannes Petreius: Nuremberg, 1537). On Regiomontanus's lecture, cf. Swerdlow, "An Inaugural Oration by Johannes Regiomontanu", 131-68; Byrne. "A Humanist History of Mathematics?", 41-61; Malpangotto, *Regiomontano,* 133-46; Goulding, *Defending Hypatia*, 8-10; Omodeo, "Johannes Regiomontanus and Erasmus Reinhold", 165-86.

21 See chapter 2, note 41.

Constantinople and of the high praise that Plethon had for astrology in his reform plans (see chapter 1 and 2).

Bessarion's patronage and will to re-translate the *Almagest* suggests that he internalised a wish to reform astronomical studies, and this could not have been reconciled with the expectations of the Byzantine Orthodoxy in Constantinople. Bessarion's wish likely found an ideal ground for growth in Plethon's Mistra, and this wish is attested to in his patronage of Regiomontanus.

In light of the close intellectual relationship between Bessarion and Regiomontanus, it is reasonable to see in the Paduan lecture a reflection of the aims of a scientific agenda shared with Bessarion. As evinced by the 1464 lecture, Regiomontanus had privileged access to Bessarion's manuscripts, which included works on not only mathematical astronomy but also philosophy of astronomy, such as Proclus's *Exposition of Astronomical Hypotheses*, as well as works of a rather astrological character by Ptolemy, Vettius Valens and Hermes Trismegistos.[22] Regiomontanus also single-handedly copied some astrological texts from Bessarion's manuscripts and there is evidence of Regiomontanus having had access to astrological materials in Bessarion's manuscripts to study astrology and learn Greek.[23]

It is likely that Bessarion's move to Italy was not only motivated by religious or political reasons, but also by his disappointment with the decisions of Byzantine officials after the failure of the 1439 Council of Florence and their positioning against union with the Church of Rome – something that could have been life-saving in the fight with the Muslim Ottoman Turks about to conquer Constantinople. For Bessarion, the passage to the West also offered a golden opportunity to conduct a broader investigation of astronomical studies including astrology, a path that had been denied him in his homeland due to the political-theological choices of his compatriots.

Regiomontanus's claims about the highest degree of certitude granted by mathematical sciences, especially his praise of astrology to reach divine realms, without any mention of theology, might lead one to consider him an anti-Scholastic thinker. Of course, this cannot be said with certainty, but to be sure this was a non-orthodox Scholastic approach, and it remains to be determined whether this approach might have been influenced by Bessarion. Before moving to Italy and converting to Catholicism, Bessarion had not perceived his commitment to Orthodoxy and to Thomism as contradictory. His reception of the works of Thomas Aquinas was mediated by Greek translations of *Summa contra Gentiles* and *Summa Theologiae* by Demetrios Cydones. It is certainly an exaggeration to view Bessarion as an anti-Scholastic philosopher *tout court*. The world of Catholic theology in his time was the one before the Council of Trent, and thus it did not have Thomism institutionalised; it was rather open to experimentation with different forms of theology, such that Bessarion could find in it a suitable hub for his predilection for Platonic philosophy.[24] His manuscripts collection reflects some

22 Shank, "Regiomontanus and Astronomical Controversy", 91.

23 Rigo, "Bessarione, Giovanni Regiomontano", 74-5.

24 For an overview of theology and philosophy in the Catholic world before the Council of Trent, cf. Gilson, *The Spirit of Medieval Philosophy*, esp. 364-426.

interest in the works of Aquinas, but after moving to Italy he did not use Thomism to tackle the theological and scientific issues he was dealing with.[25]

Although certainly sharing Regiomontanus's view on the high dignity of the mathematical sciences, Bessarion was a man of faith, and as such he very likely distinguished between the truths provided by mathematical sciences and those truths not mathematically provable. It is difficult to believe that he would have allowed his protégé to state that mathematics was superior to theology. Not only was he a churchman, but his collection of manuscripts testifies to a strong interest in theological and philosophical questions, making a thesis on the superiority of mathematics to theology historically incongruous and misleading. The same applies to Regiomontanus. The question of the certitude provided by mathematical sciences is detectable in the backgrounds of both Regiomontanus and Bessarion. The former likely stressed that concept under the influence of the anti-Scholastic philosophers with whom he was in contact, whereas Bessarion's familiarity with the idea hailed from Byzantium. The certitude of mathematics as guaranteeing the superiority of astronomy to the other sciences was common knowledge during his years of study in Constantinople in the 1420s, and had its origins in Ptolemy.[26] In Padua, in contrast to other university contexts such as Paris, the teaching of theology was not superior to the arts, medicine, or law. This made Padua the perfect place for a pupil of Plethon and his protégé.

The significance of Bessarion's patronage of Regiomontanus and his fostering of study of the *Almagest* in Italy lies in his being heir to a lineage of scholars, especially Plethon, unaligned with Orthodox views on astronomical studies without astrology after the Council of 1351. On this account, Bessarion saw in Regiomontanus the possibility to propound non-Orthodox views and reform astronomical studies. He stressed the importance of having Regiomontanus teach at the University of Padua, because he saw in that institution the ideal framework for the type of study of the heavens that did not proscribe investigation of the physical properties of the heavens, both in the form of celestial physics and for astrological purposes.

As demonstrated by Michael Shank, in his *Defensio Theonis* Regiomontanus made significant claims pertaining to the physical properties of the heavens, advocating the physical reality of the geometric models astronomers used to account for the motions of the heavens.[27] Alongside Regiomontanus's unquestionable talent, Bessarion's patronage and his intellectual background might have supported the creation of an ideal framework for this programme to unfold. It was not only the opportunity provided by the patronage but also the intellectual heritage Bessarion transmitted to his mentee that allowed Regiomontanus to conceive of astronomy as physical and not just a problem of modeling and computation.[28]

Regiomontanus's inaugural lecture reflected his enthusiasm for the Greek and Arabic scientific literature he had accessed thanks to his patron.[29] Regi-

25 Monfasani, *Bessarion Scholasticus*, 61-81.

26 For an overview on the discussions about the certainty of mathematics, cf. Omodeo, Renn, *Science in Court Society*, 79-82.

27 Shank, "Regiomontanus as a Physical Astronomer".

28 Shank, "Regiomontanus on Ptolemy".

29 Rose, *The Italian Renaissance*, 98-9.

omontanus emphasised the Greek origins of mathematics and acknowledged the Arabic advancements in astronomy. Therefore, if he and Bessarion had set out to pursue an anti-Arabic humanist agenda, they would not have bestowed such lavish praise on Arabic astronomy – such praise would have been counterproductive. While some exponents of humanism had worked for the suppression of Arabic science in Europe and had constructed a purist vision of society with Greek science and Christian faith,[30] Regiomontanus and Bessarion were not part of those groups.

2 Political Defence of Constantinople at a Distance

Bessarion's main task in foreign policy during his life in Italy was the defence of Constantinople against conquest by the Ottomans, the menace of Islamisation of the Christian Empire of Byzantium. After the fall of Constantinople (1453), Bessarion tried to convince the Church of Rome to organise a crusade against the Ottoman Turks.[31] After his native city, Trebizond, fell under the attacks of the Ottomans in 1461, Bessarion's activity in preserving Greek manuscripts and transferring them to Italy likely became more urgent.

Bessarion's foreign policy had already started at the time of the Council of Florence. In an oration there, he suggested a correlation between the weakness generated by the division of the Churches and the successful warfare the Ottomans were waging in Byzantium.[32] It is at that time that the Byzantines in Italy started to shape a propaganda about themselves as heirs of the glorious Greek civilisation, and soon they depicted the Ottomans as barbarians. Bessarion, once he realised that the conquest of Constantinople was inevitable, assumed the responsibility of preserving the Greek *paideia* (education, civilisation), and thus Greek culture, science, and philosophy, which would have been destroyed by the despicable crudity of the Ottomans.[33] Still, there was no consensus among Byzantine expatriates on foreign policy. For instance, Bessarion's prominent opponent, George of Trebizond, was a supporter of the Ottoman sultan Mehmed II. Therefore, the controversy over the *Almagest* and over Plato also had an important political dimension.

It is important to note that, in the context of his struggle against George, Bessarion played the role of an anti-Islam exponent; yet, regarding sciences, he was the patron of a scholar who lectured on an Islamic author, al-Farghani (ninth century), and he acknowledged the scientific advancements in Islamicate contexts.

Bessarion's foreign policy did not succeed in persuading the Latins to launch a crusade, but his political mindset still remained focused on stressing the Greek heritage. This generated a pervasive bias in Italian intellectual circles: the Ottomans as barbarians, who would have sent culture and science into oblivion. This view breaks down upon closer inspection, for

30 Hasse, *Success and Suppression*.

31 Kourniakos, *Die Kreuzzugslegation Kardinal Bessarions in Venedig*.

32 Bisaha, *Creating East and West*, 109.

33 Accendere, "Scriptorium Bessarionis".

sciences, especially astronomy, were cultivated and fostered at the Ottoman court by the sultan Mehmed II and they also flourished later on.[34] Notably, Mehmed II's court was a hub for people willing to cultivate arts and sciences and he himself did not disdain scholarly disputes. His cultural politics viewed the conquest of Constantinople as the chance to establish a new imperial capital of a multi-confessional empire.[35] Accordingly, after 1453, Mehmed's centralisation policies in administration made Constantinople attractive for many scholars, artists, and literati from East to West, even Byzantines. Remarkably, the Byzantine scholar Georgios Amiroutzes (1400-1470), a native of Trebizond like Bessarion, became an advisor of Mehmed, who consulted him on issues concerning Christian theology and Greek philosophy. Amiroutzes praised Mehmed's patronage of Greek and Arabic sciences and philosophy.[36] Among the most important astronomers at Mehmed's court was Ali Qushji (1403-1474), one of the major innovators of Ptolemy's models and, to some historians, a possible inspiration for the Copernican theory.[37]

3 Bessarion's Cultural and Symbolic Meaning

Travelling to Italy was decisive for Bessarion, as if he was anticipating the future generations of intellectuals who went to Italy to accomplish the *grand tour*. The Council of Ferrara-Florence triggered Bessarion's eventual decision to definitively expatriate. Italy became the venue of the *floruit* of his main political and scientific work, which he had begun to develop in his apprenticeship years in Constantinople and Mistra: the comparison between Plato and Aristotle, the development and reform of astronomical studies, the union of the Churches, and the fight against Islam to restore Constantinople and Trebizond.

Bessarion's foreign policy failed, as Mehmed II conquered both Byzantium and Trebizond, but the idea of the Byzantines as heirs of Greek civilisation was successfully transmitted into the West. This aspect is worthy of attention. In fact, there is a distinction between Bessarion's political discourse against the Ottomans and his mindset towards scientific discourse. In the former he portrayed the Islamic civilisation, personified by the Ottomans, as barbarians neglectful of sciences and philosophy, while he himself had been educated on astronomical sources stemming from Islamic authors and he encouraged Regiomontanus to give a course on al-Farghani and acknowledged Arabic contributions to sciences.

The discrepancy between the political discourse and the views on science reveals Bessarion's cultural politics, and this likely underlies Bessarion's depiction as the champion of Greek astronomy in the West. Actually,

34 Küçük. *Science without leisure*; Shefer-Mossensohn, *Science among the Ottomans*; Şen, "Reading the Stars at the Ottoman Court"; Balıkçıoğlu, *Verifying the Truth on Their Own Terms*.

35 Necipoğlu, *Byzantium between the Ottomans and the Latins*; Necipoğlu, "From Byzantine Constantinople to Ottoman Kostantiniyye"; İnalcık, "The Policy of Mehmed II"; Bryer, Lowry, *Continuity and Change*; Akasoy, "A Baghdad Court in Constantinople/Istanbul".

36 Monfasani, *George Amiroutzes*.

37 Although the similarities between the models employed by Copernicus and Ali Qushji are striking, there is no evidence that Copernicus copied from him or other Islamic astronomers. Cf., for instance, Ragep, "Ali Qushji and Regiomontanus".

Bessarion assumed a cultural and symbolic meaning owing to such commitment. The symbolic meaning, perfectly exemplified by Lorenzo Valla's motto about Bessarion *inter Graecos latinissimus inter Latinos graecissimus* (the most Latin among the Greeks, the most Greek among the Latins), was due to his political activity *pro* Latins and *contra* Ottomans as well as his being *de facto* a native Greek speaker, educated in Greek philosophy but operating among the Latins. Bessarion's cultural meaning was the role that his efforts of preserving the 'Greek heritage' actually accomplished: for instance, concerning astronomical sciences, Bessarion's heritage was the outcome of the comparison and merging of different traditions, the Hellenistic and the Arabo-Persian, thus stemming from both Christian and Islamic contexts.

Bessarion's symbolic meaning likely contributed to the formation of the notion of purism concerning Greek sciences and philosophy and thus affected their cultural value during their transmission into Latin Europe. In the long run, Bessarion's and Byzantine expatriates' propaganda has been influential also on recent views concerning the purism of Greek science. In fact, the notion of purism was still alive among twentieth-century historians of science, among whom Alexandre Koyré.[38] Although closer examination of Bessarion's patronage of Regiomontanus suggests that the former's views on sciences were not purist at all, and also Bessarion's background in astronomy was all but purist (see chapters 1 and 2), the relevance of Bessarion's symbolic meaning has shaped the historiographical current which has considered Greek science as a pure product preserved by Byzantines and reborn in Latin Europe (see chapter 5). The distinction between Bessarion's symbolic meaning and his cultural meaning will cause this narrative to break down, but first a deeper examination of Bessarion's astronomical manuscripts will further enrich our knowledge of the scientific Byzantine heritage.

38 Among others, cf. Koyré, *From the Closed World to the Infinite Universe*.