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*Ptolemy and Strabo and Their Conversation with Appelles and Protogenes: Cosmography and Painting in Raphael's School of Athens**

by CHRISTIANE L. JOOST-GAUGIER

This paper studies the group of men on the lower right side of Raphael's School of Athens. While the portrayal of Euclid is undisputed, the figures who are attached to him have not yet been firmly identified. In studying these figures as part of the intellectual fabric of the painting as a whole, it becomes clear that each of these figures has a meaningful role that cannot be deduced by mere guessing. The figure with his back to us is quite clearly the great mathematician-cosmographer Ptolemy of Alexandria. Not only because he wears a particular crown, but more importantly because the globe he holds is terrestrial — a symbol of his scientific contribution to the humanist curriculum — can we be certain of his presence. The man who faces him is most likely Strabo, the most famous geographer known throughout medieval times and one who was also appreciated by humanists, especially for his consideration of the sphere and the celestial aspects of the universe in his Geography. Both Ptolemy and Strabo are well placed next to Euclid, for both are concerned with geometry. The two men to the far right are, it is suggested here, two famous painters of Greek antiquity, Apelles (in the guise of Raphael) and Protogenes (in the guise of Timoteo Viti?), whose presence reflects the interests of artists in the early Cinquecento. All these heroes are appropriately placed on Aristotle's side of the painting.

WRITING ONLY FORTY YEARS AFTER the completion of the so-called *School of Athens* (fig. 1) for the private library of Julius II, now known as the Stanza della Segnatura, Giorgio Vasari outlined the main features of this large fresco painting by Raphael. Though historians have been puzzled by Vasari's confusion of the *School of Athens* with its complementary neighbor, the *Disputa*,¹ he is nonetheless quite specific about certain characters in the former. He accords special attention to the group of four men at the lower right, on Aristotle's side of the paint-

*This paper has greatly benefitted from the constructive reading of Colin Eisler to whom I express my most sincere gratitude.

¹ Vasari's 1568 account of this fresco is virtually unchanged from his earlier (1550) description. Most confusing to his future readers would be the passages where he describes Pythagoras as Saint Matthew and refers to figures of the "evangelists." It is important to take into account, however, that, as Bellori pointed out, Vasari was working from a later engraving whose contents had been considerably elaborated. The earlier account of Vasari is contained in Vasari, 1550, 642; the later in Vasari, 1878, 4: 330-33. Cf. Bellori, 15.



FIGURE 1. Raphael, *The School of Athens*. Vatican, Stanza della Segnatura (Photo: Musei vaticani, archivio fotografico)



FIGURE 2. Raphael, *The School of Athens*, detail showing Euclid, Ptolemy, Strabo, Apelles (?), and Protogenes (?) (Photo: Musei vaticani, archivio fotografico)

ing (fig. 2). They are closely associated with the mathematician who bends forward, now generally regarded as Euclid in the guise, Vasari noted, of Bramante. Vasari only names two of the group of four near Euclid, identifying the man with his back turned and a globe in his hand as Zoroaster and the young man to his right who wears a black cap as a self-portrait of Raphael. He is silent regarding the identities of the bearded older man who, also holding a globe, faces the man seen from the back and the beholder, as he is about the man standing next to Raphael. The very careful attention accorded by Giovanni Pietro Bellori to this fresco in 1695 essentially repeats Vasari's interpretation for this group of four figures: the man with his back to us is Zoroaster and

standing to his right is Raphael. The other two figures remain unidentified.²

In modern times the man with his back to us has come to be regarded as Ptolemy. Since then, and rather incredibly, the name of Zoroaster was simply transferred by most historians to the older man with the grey beard seen full face (though some believe him to represent Baldassare Castiglione).³ No reason has ever been offered to explain why Zoroaster, not an Athenian, a Greek, or a philosopher, would be a required presence in a scene that takes place under the supervision of a statue of Athena and one dedicated to the great philosophers of Greek antiquity. Nor has an explanation ever been offered respecting why astrology and magic, those much-discussed Renaissance concerns which were distinguished from astronomy and the natural sciences by scholars, would be important to this scene while they play no other visible role in this elegant chamber exemplary of the major intellectual disciplines. Dante, obviously very important for this chamber as he is accorded the distinct honor of being the only hero represented twice, never mentions Zoroaster. The fact that humanist references to Zoroaster stress his ties with Platonists would, further, suggest his association with Plato's rather than Aristotle's side of the painting; so also do humanist writings fail to explain Zoroaster's close proximity to Euclid.⁴ Zoroaster is not particularly connected with Neopythagoreanism, which is important for the

² Bellori, 18-19.

³ This transferred identity seems to have first occurred in the late nineteenth century. See Springer, 246; Crowe and Cavalcaselle, 2: 64; Passavant, 98. Among later twentieth-century writers who have accepted this proposal see Camesasca, 39-41; Dussler, 83; Becherucci, 101-03; Jones and Penny, 77; Hersey, 135; and most recently Beck, 86. In contrast, the Ettlingers, though they are somewhat vague on the subject, appear to support the Vasarian notion that the man seen from the back is Zoroaster because they identify the man facing the beholder as Ptolemy (Ettlinger, 90, 93). For the idea that Zoroaster might be represented by Castiglione see Hersey, 135.

⁴ Regarding humanist references to the relationship between Zoroaster and Platonism see Pico della Mirandola, 1557, 320, 327, and 330 (*Oratio de hominis dignitate*). Pico's implication that Plato copied statements of Zoroaster and that Platonists have the greatest respect for Zoroaster is probably due in large part to the influence of the *Oracoli Caldaici* basic to the doctrines of Gemisto Pletho's commentary on them, in which he attributed these writings to Zoroaster. The *Oracoli Caldaici* were transmitted to Florentine Platonists through their translation by Ficino. For this see Kieszkowski, especially 34-36 and 155-56. That Pico had the *Oracoli Caldaici* in mind is clear from his *Conclusiones* (1973, 77-78). On the history of Zoroastrianism, its texts, and associated legends, see Bidez and Cumont; Herzfeld; and Zaehner. On the Renaissance Neoplatonist view that Zoroaster, through the *Oracoli Caldaici*, preceded Plato, who was in general agreement with him, see Kristeller, 64 and 98.

Stanza della Segnatura.⁵ Last but not least, Julius had no known interest in Zoroastrianism, and no such works on the subject in his library.⁶

No one has ever explained why the man with the beard carries a globe, or what the two globes might mean for this part of the painting. Nor have the two men with globes, who face each other and thus must be considered to form a contrast within a unity, been linked with each other or with their two onlooking neighbors. Modern scholarship has failed to suggest why these auxiliary participants should be painters and why contemporary Italians such as Raphael and "Perugino" or Raphael and "Sodoma" would have been considered appropriate choices in a display of the great Greek philosophers.⁷

Indeed, the latest writer on the subject of the *School of Athens* considers the identification of the man with the beard as Zoroaster among the "indisputable" characters of the fresco. He is as silent about the question of the proximity of Renaissance painters to "Zoroaster" and Ptolemy as he is about the relation of the entire group to Euclid.⁸

It will be the aim of this paper to reconsider the two men in the lower foreground who hold globes in order to suggest their role in the fresco: through this their identities will emerge. The possible role of their companions to the far right, and thus their identities, may then be reconsidered.

⁵ The significance of Neopythagoreanism for the Stanza della Segnatura is discussed in Joost-Gaugier, 1993; and Joost-Gaugier, 1996.

⁶ A surviving inventory of Julius II's library lists 220 volumes. Though it is of uncertain date, it may be associated with the death of Julius and, therefore, may have been compiled in 1513. See BAV Cod. Lat. 3966, fols. 111-17.

⁷ The man accompanying the presumed Raphael in the lower right corner of the *School of Athens* is not mentioned by Vasari or Bellori. Two late-nineteenth-century scholars proposed that the identity of this presumed second painter is Sodoma (Springer, 1:246; and Lermolieff [Morelli], 192), an idea that has had considerable following in the twentieth century (see, e.g., Camesasca, 39-41; Dussler, 83; Becherucci, 102-03; Ettlinger, 90 and 93; Hersey, 135; and Beck, 86). Another late-nineteenth-century proposal was that of Passavant who thought the figure represented Perugino (Passavant, 98), followed by Crowe and Cavalcaselle (Crowe and Cavalcaselle, 65). While it is conceivable that Raphael might have wished to represent his teacher, Perugino, the portrait does not appear to represent the Perugino who is well known from two self-portraits, one in the Cambio (with inscription) and the other in the fresco of *Christ Giving the Keys to St. Peter* (Sistine Chapel), as well as from Vasari's portrait. It would seem even less likely that Raphael should wish to memorialize a painter (Sodoma) who had essentially been replaced on the job by himself; nor does the portrait even resemble Vasari's portrait of Sodoma. Thus neither of these theories appear to work in the case of the man accompanying Raphael.

⁸ Bell, 639-46.

* * *

Because we now know that the Stanza della Segnatura was founded as the private library of Julius II, we are in a better position to understand its pictorial program.⁹ Surely not incidental to the sudden emergence of a wholly new type and scale of art on the part of its young painter, Raphael, is the fact that the appointment of its chief librarian, the already eminent humanist Tommaso Inghirami, coincided with the inauguration of its frescoed program.¹⁰ As over forty books are pictorially represented in this chamber, the strong attachment of the *School of Athens* to the library of Julius is clear. Though Julius did not read Greek, the contents of his library, presumably assembled in large part by his librarian, included many Greek works in Latin translation. Keeping this in mind as we reconsider this painting, we see not an ad hoc distribution of characters whose identities can be discovered by ad hoc designations (as has tended to be the case ever since Vasari's time), but rather a close-knit interrelationship of authors and issues that were dear to early Cinquecento Roman humanism at the papal court. In this sense, the waves of movement must be viewed as waves of related intellectual, as well as physical and geometrical, movement. Into this picture, all of whose known characters are Greek, are fitted at the lower right, on Aristotle's side of the painting and in closest proximity to Euclid who demonstrates the faculty of geometry, the four characters who are the subject of this study.

⁹ The hypothesis that the Stanza della Segnatura, as it later came to be called, was originally designed as the private library of Julius II was presented in 1883 by Springer, who referred to the subject divisions of the walls and ceiling as suggesting the intellectual faculties, or subject matters, known in the decoration of early-Renaissance libraries, such as that of Federigo da Montefeltro at Urbino (Springer, 199-201). In 1893 Franz Wickhoff added documentation to the iconographical argument (Wickhoff, 49-64). The proposition was enlarged by Julius von Schlosser and Léon Dorez who, in the same decade, discussed it in light of late-medieval decorative traditions (Schlosser; Dorez), and reaffirmed in 1937 by Heinrich Weisäcker (see Weisäcker). In recent years John Shearman has convincingly reargued this matter on the basis of function and decoration (see Shearman).

¹⁰ A letter from Scipione Carteromachus in Rome to Aldus Manutius in Venice states that in 1505 Inghirami had been made "preposito" of the Vatican Library. See the dated document in Nollhac, 1887, 288; and Nollhac, 1888, 68, n. 2. Regarding Inghirami's appointment as "praesidio" of the Library in 1510 see the document published by Assemanus (Assemanus, 1xi).

* * *

There can be no doubt that the figure seen from the back is indeed the celebrated Greek mathematician-cosmographer Ptolemy of Alexandria.¹¹ Good reason to regard this character as a secure member of the *School of Athens* lies in the fact that he wears a crown, an indication of the confusion in Renaissance times of this renowned polymath — sometimes called “King” Ptolemy — with the dynasty of Macedonian kings of the same name who ruled Egypt from 323 to 30 B.C (Figs. 3, 4).¹² The particular crown that Ptolemy wears, however, is unique in Renaissance painting, suggesting that Raphael had already acquired at this time strong archaeological interests.¹³ By holding a globe, Ptolemy is clearly identified with geography. The globe he holds is terrestrial, not celestial.

¹¹ There is no question that Ptolemy was Greek. In Egyptian Alexandria Greek men of science were welcomed after Greece lost her independence under Alexander and was subsequently crushed by Rome. The great library there, which was liberally endowed by the Ptolemaic kings, surpassed any other scientific library in the world. Many major Greek geographers — including Ptolemy's great predecessor Eratosthenes — are known to have worked there, as well as celebrated mathematicians and geometers — for example, Euclid. On this subject see the comments of Orr, 87-89.

¹² See, e.g., the famous encyclopedia composed by Raffaele Maffei, a member of the curia of Julius II and fellow humanist with his friend and countryman, Tommaso Inghirami, the *Commentaria Urbana*. In this volume, published in Rome in 1506 and dedicated to Julius, Raffaele places a great deal of importance on Ptolemy, who he discusses in several places as “Ptolemeos Reges” (Maffei, CCLX[r] esp; also CCCXCXIII[r], CCCXCXV[r], and DXXXIII[r]). For accounts of the lives and accomplishments of the Ptolemaic kings the best antique source is Diodorus Siculus, *Library of History*, *passim*.

¹³ The “portrait” of Ptolemy painted by Justus of Ghent for the Studiolo of Federigo da Montefeltro in Urbino (fig. 3) shows Ptolemy wearing a turban-like headdress which might have been devised to suggest an exotic Egyptian crown. Early printed editions of Ptolemy's *Geography* (which will be discussed in the text below) occasionally show idealized portraits of Ptolemy. See, e.g., a 1490 illuminated portrait of Ptolemy which serves as the frontispiece to a Roman edition of the *Cosmographia* printed by Petrus de Turre in which Ptolemy wears a turban-like “crown” (fig. 4). In the woodcut image of Ptolemy in *Ptolemaeus Cosmografia*, d'Angelo (trans. Nicolaus Germanus ed., published in Ulm in 1498), he wears a tri-cornered hat, much like a crown. See also *Ptolemaeus Geographiae*, printed by B. De Vitalibus in Rome in 1508, where both covers show Ptolemy wearing a turban-like hat-crown. Most actual Ptolemaic coins show the various Ptolemies wearing only the diadem which was assumed by Ptolemy I in 305 as a sign of his kingship (after Ptolemy assumed the diadem, Diodorus Siculus tells us in XX.53, he signed himself as king). Ptolemy I's deliberate affectation of a regal style after he donned the diadem corresponded with the fact that he was the first of the Hellenistic kings to put his name, title, and diademed head upon his coinage. Most all coins issued in the reigns of successive Ptolemies show the use of the diadem. A crown as such rarely appears in Ptolemaic coin-

While this might be confusing to a twentieth-century viewer, it provides confirmation that the man seen from the back must be Ptolemy.

Though the *Almagest* is now widely considered to be the greatest work of Ptolemy, its complicated mathematics and astronomical charts were less appealing to medieval scholars than his *Geography* (written ca. AD 150), a work only partially known during late medieval times. Nonetheless Ptolemy had the high regard of Boccaccio as well as a place in Dante's Limbo of Great Antique Spirits (where, as Raphael probably knew, Dante placed Ptolemy next to Euclid).¹⁴ It was during the very early Renaissance that Ptolemy's great geographical work was rediscovered and received its first complete Latin translation. The powerful effect it exerted made him known in Renaissance times primarily as a geographer rather than as an astronomer. While the *Almagest* did not receive its first printing until 1515,¹⁵ by that year at least twelve editions of the *Geography* were in print.¹⁶ Indeed, the advanced humanistic curriculum in Renaissance schools included the study of Ptolemy as early as 1459.¹⁷

Humanist interest in this work was already under way in 1405 when Leonardo Bruni deposited a manuscript of the *Geography* with Niccolò Niccoli, an event that introduced Florence to discussions of the "new" geographical sciences.¹⁸ This work, which describes a terrestrial globe, was the first in antiquity to propose the domination of earthly land masses (previously thought to be mere islands surrounded by a

age, but when it does, it is of the spiked metallic type that Raphael has portrayed. Known as the radiate crown of Helios, it was worn by Ptolemy III in coins struck by his successor Ptolemy IV as a symbol of the triumphs Ptolemy III had mastered (see, e.g., Hazzard, 7, fig. 12). On Ptolemaic portrait coins, statue heads, cameos, gems, and seals purported to provide portraits of the Ptolemaic dynasty see, generally, Sboronos; Kyrielleis; Neverov; Nicolaou and Mørkholm; Smith; and Hazzard. On the founding of the dynasty by Ptolemy I see Ellis. For a document mentioning (only in passing) the ceremonial use of gold crowns by early Ptolemaic rulers see Rice, especially 25 and 183. Regarding the exploits of Ptolemy III see (in addition to Diodorus Siculus) Beyer-Rothhoff.

¹⁴ For a discussion of Boccaccio's high esteem for Ptolemy, who he regarded as the supreme authority, see Orr, 149. Dante's reference to Ptolemy, whose work he probably knew at least in part, is in *Divina Comedia, Inferno* IV.142.

¹⁵ Ptolemy's *Almagest*, complete with its astronomical tables, was first printed in Venice (*Ptolemaeus. Almagestum*, by P. Liechtenstein, in 1515). For a discussion of this work see Sander, 2:1019.

¹⁶ Swerdlow, 157; and Tooley, 6.

¹⁷ For example, in Battista Guarini's comprehensive syllabus of 1459. On this see Grendler, 203.

¹⁸ On this see Sabbadini, 1905, 1:52; Bolgar, 489; and Romby, 198-99.



FIGURE 3. Justus of Ghent (?), *Ptolemy*, Paris, Louvre (Photo: Réunion des Musées Nationaux)



FIGURE 4. *Ptolemy*, from *Ptolemaeus Cosmographia*, Rome: Petrus de Turre, 1490, 1 (v) (Photo: New York, The Pierpoint Morgan Library PML 17)

dominating sea) as well as the first to delineate the length and breadth of regions of the known world through the use of coordinates, or latitudes and longitudes.¹⁹ Book 7 of Ptolemy's *Geography* includes instructions for constructing a globe, showing the inhabited world on a grid. Book 8 contains descriptions of twenty-six terrestrial maps identifying Europe, Asia, and Africa.

While it is not known that original papyrus rolls contained actual maps — since none survive — late medieval manuscripts of this work dating from ca. 1300 to well into the fifteenth century do contain painted maps. The first complete Latin translation of this work was undertaken by the Byzantine scholar Manuel Chrysoloras while he was apostolic secretary to Gregory XII, and completed by Iacopo Angeli da Scarperia (Jacopo d'Angelo), also an apostolic secretary, who translated its title as the *Cosmographia*.²⁰ This new translation was the one that began to circulate in about 1405. More than forty fifteenth-century manuscripts of the *Cosmographia* survive, suggesting its enormous popularity and the acceleration of its influence on humanists.²¹ In his private library — the Stanza della Segnatura — Julius II owned a manuscript of Ptolemy's *Cosmographia* bound in red.²²

The first printing of Ptolemy's great geographical work occurred in Vicenza in 1473, and the first with engraved maps was printed in Bolo-

¹⁹ For the full text of Ptolemy's *Geography*, see Müller and Fischer.

²⁰ For a discussion of papyrus rolls and fifteenth-century manuscripts of this work see Swerdlow, 157-65. On the first appearance of Ptolemy's great geographical work in Florence, where it was brought by Crisolora in 1397, and its first Latin translation see Rombai, 1993, especially 38-42. See also Rombai, 1992; and Swerdlow, 160.

²¹ It is now thought to have inspired Alberti's concept of artificial perspective as it surely influenced the great Florentine cosmographer Paolo Toscanelli. (Regarding Alberti's dependence on Ptolemaic concepts see Gadol, especially 157-75. For a rich discussion of Toscanelli's interest in ancient cosmography and especially in Ptolemy see Rombai, 1993, especially 52-59.) It also provided a major source for Alberti's mapmaking in his survey of the city of Rome and the preparation of the *Descriptio urbis Roma* of 1432-1434. On this work, prepared during Alberti's first stay in Rome, see Gadol, 70-72; on its dating cf. Mancini, 112-14. A number of manuscripts of this work are known to have been sold by Vespasiano da Bisticci (Swerdlow, 164). A particularly opulent example was owned by Federigo da Montefeltro, perhaps inspiring him to include Ptolemy in the famous men of his Studiolo; another was presented, together with an inscribed sphere, to René d'Anjou, King of Naples, then living in France, by Jacopo Antonio Marcello of Venice, then Governor of Padua. Regarding the copy owned by Federigo see Bolgar, 489. On Ptolemy in Federigo's Studiolo see Cheles, *passim*. On the gift to René see Meiss, 30-35.

²² "Ptolomei Cosmographia, ex membranis, in rubro." (See the inventory of Julius's books cited in n.6 *supra*.)

gna in 1477.²³ A magnificent Roman edition with twenty-seven superb engraved maps appeared in 1478, to be reprinted in editions of 1490, 1507, and 1508.²⁴ Christopher Columbus owned a copy of the 1478 edition.²⁵ Replete with magnificent engraved maps, the *Cosmographia* of Ptolemy achieved renewed popularity throughout the Cinquecento, as its many subsequent printed editions testify.²⁶

The special relevance of this work to the Stanza della Segnatura has gone without notice. The 1508 Roman edition, published in the very year of the Stanza's planning, when Raphael began work on the *Disputa* — whose iconography is surely related to the expansion of Christianity because of the discovery of new lands around the globe, including the New World²⁷ — added an engraved map not previously present and bearing a different title page. It refers to an account of the New World by Marcus Beneventanus, with the world map, titled "Nova Tabula," the first in any edition of Ptolemy's *Cosmographia* to introduce the New World.²⁸ A subsequent edition, published in 1513, increased the "modern" maps of the New World.²⁹ Taken together, these important events show that the *Cosmographia* of Ptolemy was significant for Roman humanists, who were aware of the importance of geography for the papal mission of converting the expanded New World.³⁰

²³ *Ptolemaeus Cosmographia*, Angelus Vadius editor, Hermann Lichtenstein printer, was printed in Vicenza in 1475. See also *Ptolemaeus Cosmografia*, printed by Domenicus de Lapis, Bologna, 1477. Domenicus printed 500 copies; each copy contained twenty-six maps, the first maps to be printed on copper plates. It also contains the first engraved atlas of the then-known world. On the former see Sander, 2:1019. On the latter and the history of printing Ptolemy's maps see Lynam; also Sander, 2:1020. On these first printings see Tooley, 6.

²⁴ See *Ptolemaeus Cosmografia*, printed by Arnoldus Buckinck, Rome, 1478. This edition, edited by Domitius Calderinus of Verona, contains twenty-seven double-page maps accompanying the text of Jacopo d'Angelo (the same text used in the other editions cited here). The 1490 edition, published in Rome by Petrus de Turre, was edited by Nicolaus Germanus and contains the same twenty-seven maps. The 1507 edition, also published in Rome, printed by B. De Vitalibus, contains thirty-three engraved double-page maps. The 1508 edition uses the title *Ptolemaeus Geographiae*. It too was printed in Rome by B. De Vitalibus. On the latter see especially Sander, 2:1021-22; and Tooley, 19.

²⁵ The copy owned by Columbus is preserved in the Real Academia de la Historia di Madrid. On this and the 1478 edition, see Gentile, 219-21.

²⁶ For a list of early printed editions of this work see Tooley, 6-7.

²⁷ On the iconography of the *Disputa* see Joost-Gaugier, 1997.

²⁸ Tooley, 6. (See map 1 in Library of Congress copy of this edition).

²⁹ *Ibid.*, 6; also Pelletier, 17.

³⁰ See the various essays on humanism, cartography, navigation, travels, and the

The imposition of mathematical rules on global representation changed the character of fifteenth-century cartography.³¹ The emphasis on the geometrical positioning of land masses made possible by the reintroduction of Ptolemy's great work offered a new role for geometry that affected many aspects of the spiritual and intellectual worlds. Ptolemy's globe, with its land masses depicted in the *School of Athens*, indicates this particular importance to Renaissance scholars, cosmographers, and navigators. It also parallels the celestial globe held by Ptolemy's counterpart, the man with the grey beard. As he and Ptolemy face one another, like Plato and Aristotle or Pythagoras and Euclid, they suggest an opposition of equals.

Most likely the older bearded man is the celebrated Greek geographer Strabo,³² well known in the Renaissance. Most of our knowledge of him must be gleaned from statements in his great surviving work, the *Geography*, the oldest complete treatise on geography that has survived

New World in relation to the new possibilities generated by the rediscovery of Ptolemy's *Cosmographia* in Comitato organizzatore delle manifestazioni celebrative del V centenario della scoperta delle Americhe (*passim*).

³¹ On this subject see Cormack, especially 376-79. My thanks are due Jim Housefield for bringing this study to my attention.

³² One might be tempted to wonder if this man with the starry orb is Cicero, whose *Somnium Scipionis* was well-appreciated by Renaissance devotees of Pythagorean doctrine about the music of the spheres. This does not appear to be the case, since we know of no Roman philosopher represented in this fresco. This is underscored by the fact that the bearded sage does not resemble known portraits of Cicero, who was admired and studied by Roman humanists. On this see especially D'Amico, 123-43; also the earlier but still important work of Sabbadini, 1885. Nor is there reason to believe the character represents Macrobius, a Roman Christian whose *Commentary* on the *Somnium Scipionis*, a work that sought to define celestial harmony, was an important cosmological work for Renaissance humanists. (Macrobius had been a consistently important authority on astronomy and geography in the Middle Ages. It was through his inspiration that the *mappamundi* of the middle ages — to be replaced by the concept of geometrical measurement made possible through the rediscovery of Ptolemy's *Geography* — developed. On this see Stahl, especially 232-42.) Indeed, since both authors' works were closely related to Plato's *Timaeus* and to Pythagorean cosmological theory, it would be difficult to explain their presence on Aristotle's side of the painting and their proximity to Euclid. A possible Greek candidate may also be ruled out: the greatest achievement of Eratosthenes was the measurement of the circumference of the terrestrial globe; this is not suggested by the starry globe displayed here. There is no medieval manuscript tradition for his works, which were known in the Renaissance only through the citations of other antique authors, not to mention the fact that one of his most famous works, the *Platonicus*, dealt with Plato's philosophy. On Eratosthenes see Columba, *passim*. On the absence of a manuscript tradition of his works see Swerdlow, 157. Nor does Renaissance tradition

from antiquity and a work of particular interest to early Cinquecento Roman humanists.³³

Born in Pontus in about 64 B.C., Strabo's early education was Greek. In 44 B.C., he made the first of many visits to Rome, where he studied philosophy and geography. Like Ptolemy after him, Strabo also studied in Alexandria. There he had access to the great library during the time of Augustus. He discussed and offered excerpts from the works of his predecessors, including Eratosthenes, most of which perished with the destruction of this most important library of Greek antiquity. Though his monumental historical work known as the *Historical Commentaries* is now entirely lost, and though the time and place of his death remain uncertain, events to which he refers in the *Geography* suggest it was written in whole or at least in great part at the end of his life, when he was in his eighties.³⁴

Strabo's primary teachers were Peripatetics and thus he was "Aristotelized," though later he became a Stoic. Reflecting the fact that his instructors were Peripatetics, Strabo retains throughout the *Geography* an admiration for their school. An expert on otherwise little-known facts of Aristotle's life, he reports that Aristotle was "the first" to collect books, and "the first" to build a library. According to him it was Aristotle who taught the kings of Egypt how to arrange a library.³⁵ This suggests that Aristotle's methods were applied in establishing the library at Alexandria. Strabo also provides a history of the disposition of the library of Aristotle.³⁶ He makes an Aristotelian connection in explaining that knowledge of geography is essential for rulers because it has a bearing on their eth-

offer a contrasting connection with Ptolemy. The fact that the older bearded man stands together with Ptolemy, facing him, with one holding a terrestrial globe and the other a celestial one, clearly suggests that the two are complementary Greek personalities who were equally appreciated in Renaissance times.

³³ For the most recent complete text of this work see Horace L. Jones's eight-volume edition. The bibliography on Strabo is vast. Among the more useful secondary sources pertaining to his *Geography* are Pais; Dubois; Aujac; Diller, 1975; Biraschi; and Syme.

³⁴ See Jones, 1: xxvi; also Easterling and Knox, 817 (for references to datable events in the *Geography*).

³⁵ Strabo, *Geography*, XIII.1.54. Respecting the implication that Aristotle's methods were employed by the Peripatetics in establishing the library at Alexandria, see Easterling and Knox, 30.

³⁶ For Strabo's description of the disposition of the library of Aristotle see Strabo, XIII.1.54.

ics.³⁷ It is clear throughout that as a Greek, Strabo was conscious of the practical applications of Aristotle's *Ethics* (coincidentally the book Aristotle holds in the fresco), while as one who was strongly impressed by Rome he was also an energetic advocate of Roman government.³⁸ Strabo, who was a man of wide reading with a deep interest in history, stressed the importance of philosophy and referred to himself as a philosopher. As a philosopher, Strabo frequently cited his own Stoic beliefs that centered on the interconnection of terrestrial phenomena and celestial phenomena which, united in the science of philosophy, composed geography.³⁹

It is perhaps Strabo's description of the globe that most impressed early Cinquecento humanists. While the first philosophers who we can say with certainty believed the earth to be a globe were the Pythagoreans, we have no direct knowledge — nor did Renaissance scholars — that Pythagoras himself taught this. Indeed Pythagoras was more important for his supposed theory of celestial harmony and for number systems attributed to him than he was for astronomical knowledge.⁴⁰ Aristotle, on the other hand, was well-appreciated since medieval times for his idea of a finite spherical universe. It was Strabo who first attempted to summarize ancient knowledge on this subject and outline a tentative procedure for measuring the earth. Basing his thoughts on the authority of

³⁷ Regarding Strabo's opinion on the necessity of geography for princes and rulers to understand ethical values see Strabo, I.1.22-23.

³⁸ On Strabo's political opinions and his advocacy of Roman government see the discussion in Tozer, 242-43.

³⁹ Regarding Strabo's references to himself as a philosopher see, e.g., Strabo I.1.1 and I.1.23. From the opening of his text to its end he insists that the science of geography is the concern of the philosopher; because geography investigates things both human and divine it constitutes philosophy. He cites all his predecessors as philosophers. That this was understood by successive generations is demonstrated by Plutarch who, in several references to Strabo (and in works well known to Renaissance humanists) identifies him as "Strabo the philosopher" (e.g., *Vita of Lucullus* XXVIII.7; *Vita of Sulla* XXVI.3; and *Vita of Caesar* LXIII.2-3). To Renaissance humanists Strabo was, as will be shown below, a philosopher. On the interconnection of celestial and terrestrial phenomena in Strabo see, e.g., I.1.15.

⁴⁰ Pythagoras left no writings that have survived. Despite this fact, later writers, starting with Diogenes Laertius, believed he had left extensive writings on a great variety of subjects that developed into the "cult" of literature of early Neopythagoreanism. Pythagoras's followers organized themselves into secret societies that we know something about through the writings of Philolaus, Iamblichus, Aulus Gellius, Proclus, Porphyry, and others. On the significance of Pythagoras for celestial harmony and number systems, much has been written. See, e.g., important works by Heninger (*passim*); and Allen (*passim*).

Eratosthenes, Strabo struggled to define a scientific system for measuring distance and surface, a discovery that would be realized by Ptolemy.

Strabo's struggle centers on the necessity of viewing the earth as a sphere. No longer is this a theoretical idea, based on the ideal shape of Aristotle's celestial sphere; instead, it is based on observation.⁴¹ Though his conception holds that the earth is stationary and the heavenly bodies revolve around the earth, he insists repeatedly, by offering celestial "proofs," that the earth is a sphere.⁴² In several places Strabo urges the reader to observe a globe in order to understand the position of the earth surrounded by its celestial "universe."⁴³ A long passage in book 2 instructs the reader on how to construct a large globe.⁴⁴

Again and again throughout his work, but especially in describing the spherical shape of the earth, Strabo connects the science of geography with astronomy and geometry, and himself with geometricians. "All those," he writes, "who undertake [geography] . . . devote special attention to astronomy and geometry . . . Most of all . . . we need . . . geometry and astronomy for a subject like geography; and the need of them is real indeed; . . . Now as for matters which he regards as fundamental principles of his science, the geographer must rely upon the geometricians . . . and in their turn the geometricians must rely upon the astronomers."⁴⁵

Unlike Renaissance editions of Ptolemy's *Geography*, which were accompanied by superb terrestrial maps, Renaissance editions of Strabo's work were without maps. No doubt Strabo's description of the globe in celestial terms corresponded with the significance accorded the celestial world by Dante, a significance still very much alive in the early Cinquecento as suggested by Dante's dominating presence in the Stanza.⁴⁶

Though Strabo's works were largely neglected in late antiquity — probably because his work was eclipsed by the discoveries of Ptolemy — interest in him was revived in the late fifth century by Stephanus of Byzantium, who cited him abundantly. During the ninth and tenth centuries Byzantine scholarship saw a revival of Strabo manuscripts.

⁴¹ He frequently uses circumnavigation to prove his point. See, e.g., Strabo, I.1.8.

⁴² See Strabo's description of the spherical earth revolving along with the heavens and surrounded by the fixed stars in Strabo, I.1.20 and II.5.2.

⁴³ Strabo, I.1.21.

⁴⁴ The instructions are for a globe ten feet in diameter. See Strabo, II.5.10.

⁴⁵ Strabo, I.1.13, I.1.20, and II.5.2 (Jones translation).

⁴⁶ The *Divina Comedia* is abundant in its references to "stelle" (e.g., *Inferno* XVI.83, *Purgatorio* XXVII.89-90, *Paradiso* XV.19, XXIV.147, and XXV.70) and other splendors of the sky — sun, moon, spheres, etc.

Throughout the later middle ages Strabo's *Geography* was known in Greek codices in the form of complete editions as well as in excerpts.⁴⁷ During late-medieval times he was known as *the* geographer.⁴⁸ Byzantine editions of Strabo found their way to Italy as early as 1423, 1427, and the 1440s.⁴⁹

The first translation of the entire *Geography* into Latin was accomplished in the 1450s when, on commission from Pope Nicholas V, Guarino da Verona worked periodically on this monumental project which he first dedicated to Nicholas. Gregorio Tifernate was also employed by Nicholas V to translate books 9-17 of the *Geography*.⁵⁰ After Guarino completed his translation on 13 July 1458 (subsequent to the death of Nicholas), Guarino dedicated it anew to his second patron, Jacopo Antonio Marcello of Venice who, in turn, rededicated it in 1459 to René d'Anjou.⁵¹ One of two copies of the autograph manuscript was intended for René and was given to him as a gift by Marcello. This manuscript (Bibliothèque Rochegude, Albi) is adorned with elegant dedicatory miniature paintings attributed to the young Giovanni Bellini.⁵² In 1468 a complete manuscript of the *Geography*, which had formerly belonged to Pletho and was annotated by him and Toscanelli, was together with an excerpt donated by Cardinal Bessarion to San Marco at

⁴⁷ On Stephanus of Byzantium and Strabo, see Diller, 1950. Regarding the developing interest in Strabo during the middle ages see especially Lasserre; and Diller, 1975, especially 25-95.

⁴⁸ See Tozer, 249.

⁴⁹ In 1423 a Strabo manuscript is mentioned in a list of works sent to Florence by Aurispa; in 1427 another manuscript was brought back by Filelfo. (On these see Bolgar, 489-90. The Aurispa codex is thought to be the one now in Moscow [Mos. Gr. 204]. On this see Gentile, 186.) A Strabo codex copied in Constantinople was owned in the 1440s by Ciriaco d'Ancona. For a description of Ciriaco's manuscript (Florence, Bib. Med. Laur. XXVIII.15) see Gentile, 183-85.

⁵⁰ The original undertaking has not survived (see Diller, 1975, 130). However, Gentile cites a copy of it as Bib. Med. Laur. XXX.8 (Gentile, 187). The combined text of Guarino (bks. 1-10) and Tifernate (bks. 9-17) is the one most often used in later printed editions.

⁵¹ On this see Sabbadini, 1909, especially 13-15; Diller, 1975, 128; and Meiss, 30-35. Meiss describes the history of the relationship between René and Marcello as well as the steady flow of gifts from Padua to Aix. The text of Marcello's dedication, which tells the story of the translation, is quoted in Meiss, 34. The autograph manuscript is now in Oxford (Bod. Lib. Cod. Canon Lat. 301).

⁵² The other copy is in the Laurentian Library at Florence. For the history of the manuscript as a diplomatic gift see Meiss, 30-35; the attribution of the exceptional miniatures of the Albi manuscript to Giovanni Bellini was made later (see Joost-Gaugier, 1979). On the Laurentian copy (Bib. Med. Laur. XXX.7) see Gentile, 185-86.

Venice.⁵³ Among the numerous late-Quattrocento codices derived from Guarino and Tifernate's texts, one is known to have been owned by Marsilio Ficino and another to have been in the Vatican Library of Sixtus IV.⁵⁴

A manuscript edition of the *Geography*, whose date is uncertain, was in the private library of Julius II: that is the Stanza della Segnatura.⁵⁵ Of additional interest in connection with Julius is the fact that among the texts found in the Badia at Bobbio, near Pavia (a famous "find" that occurred in the early 1490s) was a Greek manuscript fragment of Strabo's *Geography*. The person who brought it to Rome from Milan in 1494 was none other than Tommaso Inghirami, future librarian of Julius II and Raphael's apparent collaborator in the designing of the Stanza della Segnatura.⁵⁶ Strabo's *Geography* was therefore well known not only to Julius but also seen as an archaeological prize recently obtained for Rome by his librarian.

The first printing of Strabo's *Geography* occurred in Rome in 1469 when a complete Latin edition, relying on the combined translations of Guarino and Tifernate, was printed by Giovanni Andrea Bussi. Its extremely early date, estimated from its dedication to Paul II, shows that this work was one of the first monumental classics to be printed. Among the many Italian printed editions were those of 1472, 1480, 1494, 1502, and 1510 — the latter being the year in which the *School of Athens* was undertaken by Raphael.⁵⁷ The entire Greek text was printed in an *editio*

⁵³ Venice, Marc.Gr. 379 (coll.520). On this see Bolgar, 490; Diller, 1975, 123 and 138; and especially Gentile, 165-68.

⁵⁴ On the Ficino codex see Gentile, Niccoli and Viti, 58; on that of Sixtus, see Diller, 1975, 132 and *passim*. On other late-Quattrocento codices see Bolgar, 489-90. This suggests that manuscript activity continued even after Strabo's *Geography* had received its first printing (which occurred, as will be noted below, in 1469).

⁵⁵ "Strabonis Cosmographia, ex membranis, in nigro." For the inventory of Julius's library see note 6 above.

⁵⁶ The dismembered Greek codex (now BAV Grec. 2306) was recognized by the nineteenth-century scholar and prefect of the Vatican Library, Cardinal Angelo Mai. On this see Cozza; and Diller, 1975, 19-22.

⁵⁷ For a description of the 1469 edition, which was almost the first work by a Greek author to be printed, and its dedication, see Gentile, 187-88; also Diller, 1975, 132-34. The other editions are as follows: *Geographica*, printed by Vindelino de Spira in Venice, 1472; *Geographia Libri XVI*, printed by Vendelinus de Spira in Venice, also 1472; *Geographica*, printed by Johannes Rubeus in Tarvisio, 1480; *Geographica*, printed by Johannes Rubeus in Venice, 1494-95; *Strabo de situ orbis*, printed by Bertholomeum de Zanis de Portesio in Venice, 1502; and *Strabo de situ orbis*, printed by Philippo Pincio Mantuano in Venice, 1510.

princeps in 1516.⁵⁸ Among the early printed editions of this work, several include a prefatory *vita* of Strabo. In these Renaissance *vite* Strabo is described as a philosopher, indicating that this tradition, begun by the author himself, persisted into Renaissance times.⁵⁹

As collaborative philosophers, then, Strabo and Ptolemy take their places in the *School of Athens* suitably on the side of Aristotle, next to Euclid. Their spheres show the earth as a terrestrial globe (appropriate to Ptolemy whose works were accompanied by superb land maps) and a celestial globe (for Strabo, whose writings open with celestial considerations, their Renaissance versions unaccompanied by land maps). Interest in both Strabo and Ptolemy was high among humanists in the early Cinquecento not only for their philosophical achievements but also because of the tremendous expansion of the world in the time of Julius.⁶⁰ The Cape of Good Hope had been discovered in 1487, the West Indies (and America) in 1492, India in 1498, and Brazil in 1500. Balboa would discover the Pacific in 1513 and Magellan would complete his circumnavigation of the globe in 1521.⁶¹ The geographical horizon had greatly expanded during the papacy of Julius and preachers were being sent to India, Africa, and the New World.⁶² Thus these ancient scholars were appropriate to the Christian interests of Julius.

In the Renaissance a tradition existed for consideration of these two philosophers as a pair. A fourteenth-century Greek codex contains the *Geography* of Ptolemy together with that of Strabo.⁶³ In the mid-fifteenth century Flavio Biondo included information from both Ptolemy and

⁵⁸ *Strabo Geografia*, printed by Aldus Manutius in Venice, 1516, in Greek. On this *editio princeps* see Diller, 1975, 167. Though Aldus Manutius had died in February of 1515, Marcus Musurus, his chief Greek editor, continued the printing which was probably initiated before his trip to Rome in 1516. The work is largely taken from a Greek codex of Strabo now in Paris (Cod. Grec. 1395), which bears the original printer's marks. On this see Diller, 1975, 160-61. See also Firmin-Didot, 370 and 409. This was in turn followed by elegant folio editions printed in Basel in 1539 (by Johannes Vualder), 1549 and 1571 (both by Xylander), and a revision printed in Geneva in 1587. On these see Jones, 1:xxxiv.

⁵⁹ See, e.g., editions of 1480 and 1539. (Not every edition, it should be noted, contained a prefatory *vita*.)

⁶⁰ On this see Joost-Gaugier, 1997.

⁶¹ For a summary of the great geographical discoveries of the late Quattrocento and early Cinquecento in terms of their relation to map-making, see Pelletier, 15.

⁶² O'Malley, 1969, 265-338; O'Malley, 1976, 185-200; and O'Malley, 1979, especially 207-08 and 236.

⁶³ Diller, 1937, 174-84.

Strabo in *Italia illustrata*. It is believed that he made use of the new translation of Guarino shortly before it appeared.⁶⁴ In 1457 Pius II expressed his indebtedness to both Ptolemy and Strabo in his *Historia rerum ubique gestarum*: it appears he had at his disposal Guarino's translation of the first ten books of Strabo's work.⁶⁵ The gift of Ptolemy's *Geography* to René d'Anjou by Jacopo Antonio Marcello was actually part of a double gift, for it was accompanied by Strabo's *Geography*. Millard Meiss has demonstrated that the two were in fact offered together, as part of the same "bouquet" of diplomatic gifts. Guarino's translation was not yet complete in 1457, but it was sent as soon as it was completed in 1459.⁶⁶ In the dedication of the first printed edition (1469) of Strabo's *Geography* in Rome, its printer, Giovanni Antonio Bussi, praised the great Greek geographers of the past, expressing his gratitude to the popes who had foreseen the necessity to translate the works of Ptolemy and Strabo in assigning their translations to Jacopo d'Angelo and Guarino da Verona respectively.⁶⁷ Clearly, by late Quattrocento times, Italian humanists easily connected the two.⁶⁸

The portrayal of Ptolemy and Strabo doubtless presented a problem for Raphael because no antique portrait of Ptolemy was known in Renaissance times; thus Ptolemy could be seen from the back, since his identification could rest on his crown and his terrestrial globe. Early printed editions of Strabo, even those that included woodblock or engraved borders or initials, did not contain portraits. Because Strabo was to be portrayed full face, Raphael may have used an appropriate contemporary as a stand-in, just as he employed Bramante for Euclid (Fig. 5). Though Strabo appears to bear some resemblance to Leonardo da Vinci — himself a cartographer with "celestial" interests — as he might have appeared in his mid 50s when Raphael knew him in Flo-

⁶⁴ On this see Gentile, 190.

⁶⁵ See Diller, 1975, 129; and Gentile, 188-89.

⁶⁶ Meiss, 30-35; see also Gentile, 185-86.

⁶⁷ Gentile, 188.

⁶⁸ In the great geographical compendium of Francesco Berlinghieri, the *Sette giornate della geographia*, composed at century's end in 1495, its author includes significant excerpts from the works of both Ptolemy and Strabo in his magnificent codex. On this see Gentile, 229-34. Renaissance humanist interest in the sphere was, of course, not limited to the works of Strabo and Ptolemy. Other works, including mostly Neopythagorean texts (deriving from Plato's *Timaeus*) were known as well. Raffaello Maffei who, as cited in note 12 above, was in the curia of Julius II, wrote a commentary (of unknown date) to accompany his translation of Proclus's *De Sphaera*. See *Procli De Sphaera Liber I*, printed by Henricvm Petri in Basel in 1561, which contains Maffei's text.



FIGURE 5. *Leonardo da Vinci*, Vasari, *Ritratti de' più eccellenti pittori, scultori, et architetti contenuti nelle Vite de m. Giorgio Vasari*, ed. Giunti, Florence 1568, no. 82. (Photo: Library of Congress)

rence,⁶⁹ the high broad brow, straight nose, and prominent eyes suggest instead that he is represented by Castiglione, whose image is well known through Raphael's portrait, now in the Louvre.

⁶⁹ The only portrait we know of Leonardo is the (later) woodcut of Vasari. The so called self-portrait of Leonardo, a drawing in the Biblioteca Reale at Turin, has been the subject of speculation ever since its appearance in 1840, when it was bequeathed to the library by Carlo Alberto during his reign. It is not mentioned in the older literature on Leonardo. Although most writers accept the drawing as a) by Leonardo and b) a self-portrait, there are several troubling issues connected with it beyond its unknown provenance and the lack of its previous mention. These include the fact that the head is extremely different from the portrait of Leonardo presented by Vasari, who researched carefully the individual artists he worked on. Also to be considered is the fact that the head appears to resemble very closely images of Plato as they were known in idealized Greek portraits in the late Quattrocento, most specifically, a portrait brought to Florence supposedly from the Old Academy in Athens which was "adored" by Ficino and other members of the *Accademia Platonica*. Indeed because it resembles Raphael's idea of Plato, the argument that the figure represented is Plato (Raphael would have known the Florence bust, if not similar ones) is strong. A second argument lies in the fact that Raphael knew Leonardo when Leonardo was in his fifties, whereas the "self-portrait" appears to represent a much

* * *

The proposed presence of Ptolemy and Strabo in the *School of Athens* reaffirms the antiquity and Hellenism of its characters. In this light it would be odd indeed to insist — or assume — that the two figures to the far right are meant to represent contemporary Italian painters, Raphael and Sodoma, Raphael and Perugino, or Raphael and Pinturicchio.⁷⁰ Nonetheless, the hats they wear suggest these characters are, in fact, painters.

Because of the extreme peripheral placement of the two, these figures were probably meant to represent famous painters of Greek antiquity. This is appropriate for, as Paul Oskar Kristeller has discussed, the steady rise of painting and the visual arts in Italy reached a point in the early sixteenth century where close links came to be established between literary culture, the sciences, and the visual arts.⁷¹ Because knowledge of perspective, anatomy, cartography, and geometry was considered necessary for artists, the disciplines came to be separated from the crafts with which they had been previously associated. This had first occurred in the 1430s when Alberti demonstrated the new system of *prospettiva legitima*.⁷² Although the idea was not yet formulated in a precise way, the ambition of painting to be recognized as a liberal art had ample supporters by the early Cinquecento — most notably in Leonardo himself, who argued the superiority of painting over poetry and music (traditional Pythagorean “domains”) and described painting as a science. Thus a pair of great painters from Greek antiquity looking in on the scene could

older man — which could, again, suggest Plato. Last but not least, Jakob Rosenberg expressed doubts about the authenticity of the drawing, preferring to attribute it (on the basis of certain weaknesses in construction) to a pupil or follower of Leonardo. The drawing, in my judgment, represents Plato and probably was made from a presumed antique bust of him, perhaps by Leonardo. Regarding this drawing, see Pedretti, 3-7; and Sciolla, 3-13 on its problematic provenance. For Rosenberg’s doubts see Rosenberg, 30. Vasari’s portrait of Leonardo (with inscription) is in Vasari, 1568. No.82.

⁷⁰ As noted above, Vasari and Bellori both regarded the man to the left as a self-portrait of Raphael. This has never been disputed, nor is there reason to do so as the figure does resemble both Vasari’s portrait of the Prince of Painters and other presumed portraits (e.g., the supposed self-portrait in the *Parnassus*). The identity of the other man, however, has never been established. Clearly, as discussed above (note 7), he is neither Sodoma nor Perugino. Given Raphael’s relation with Pinturicchio (on this see Oberhuber, 155-72), this possibility must also be considered. However the figure does not resemble Vasari’s portrait of Pinturicchio.

⁷¹ Kristeller, especially 182-84.

⁷² Alberti, *Della Pittura*. See also the comments of Gadol as cited in note 20 above.

serve to introduce this notion. Placed in the realm of geometry and cartography as well as on Aristotle's side of the painting — Aristotle having argued that painted scenery and painted characters could help give life to scenes — they were closely attached to Ptolemy, who himself had connected geography and painting.⁷³

In concert with the balancing of opposites to create a harmonious unity as seen in other characters in this fresco, suggested identities for these peripheral characters are Apelles and Protogenes.

Apelles of Cos, according to Pliny the Elder in a work well known throughout the Renaissance — and which was represented by two manuscripts in the private library of Julius⁷⁴ — surpassed all other painters of Greek antiquity. The pupil of Pamphilus, the first painter to introduce geometry as a concern of painters, Apelles was famed for his execution of extraordinarily fine lines. He came into contact with Protogenes, a former ship-painter who was a laborious colorist and a careful painter of nature. Their inventions in the art of painting were very different, and inimitable. Apelles, Pliny tells us, expressed his admiration for Protogenes by claiming the latter to be superior to himself. The two artists actually met, we are told, at Rhodes when Apelles painted an extremely fine line across the panel of an unfinished work of Protogenes, who was absent at the time. Upon his return, Protogenes recognized its author and, admitting his own inferiority, set out to find Apelles.⁷⁵

Two such famed painters of Greek antiquity, both well known to Renaissance painters and both connected with Aristotle,⁷⁶ could well be the "outsiders" who enter the scene and become attached to the liberal arts in the domain of geometry on Aristotle's side of the painting. Because portraits of these were unknown in Renaissance times, the rep-

⁷³ Aristotle, *The Poetics*, *passim*. Ptolemy says that geographers must act as painters in composing first the larger features, then the smaller features, in proportionate relation to each other (*Geography*, I:1).

⁷⁴ The *Historia Naturalis* of Pliny the Elder was one of the volumes noted (twice) in the inventory of Julius II's library (see note 6 above).

⁷⁵ It was Pamphilus, the teacher of Apelles, Pliny tells us, who was the first painter to be highly educated in all the faculties of learning, especially in geometry without which, Pamphilus held, the practice of painting could not attain perfection (*Hist. Nat.* XXXV.xxxvi. 76-77). Regarding the mutual admiration and incomparability of Apelles and Protogenes see *Hist. Nat.* XXXV.xxxvi. 79-97 and 101-06. Among painters, they are the two on whom Pliny bestows most praise.

⁷⁶ Their connection with Aristotle is, again, through Pliny, who describes on the one hand the love, friendship, and admiration of Alexander (who was Aristotle's student) for Apelles, and on the other a portrait of Aristotle's mother by Protegenes (who also took advice directly from Aristotle himself). See *Hist. Nat.* XXXV.xxxvi. 85-93 and 106.

resentation of one of them, the figure to the left, provided Raphael with an opportunity to sign the fresco through the insertion of what is clearly a self-portrait. Thus Apelles was represented by Raphael, a not-unlikely proposition since Vasari referred to Raphael as the "new Apelles."⁷⁷

The model for the other artist must remain unclear at this time. He does not appear, however, to be Sodoma, Perugino, or Pinturicchio, whose portraits are known.⁷⁸ Nor does he resemble any other portrait of an artist living at the time known from Vasari. There is, however, the possibility that Protogenes is represented by an artist for whom Vasari provided no portrait. Such a possibility exists in Raphael's close friend and countryman, Timoteo da Urbino (Timoteo Viti). Vasari tells us that Timoteo was very much loved by Raphael who invited him to Rome "with much urgency . . . where he went willingly, and was received with the affection and graciousness that was as much the manner of Raphael himself as of his excellence in art."⁷⁹ The first, it seems, took place in 1510, the same year that Raphael undertook the painting of the *School of Athens*. It is not an unlikely leap of the imagination to speculate that Timoteo — who was about the same age as the man in the fresco — provided, as Vasari describes, not only the close friendship to Raphael but also superior assistance, thus earning his commemoration in this fresco.⁸⁰

The case for this area of the geography of the *School of Athens* not only relates to Aristotle but also embodies the classical ideal to perfec-

⁷⁷ For Vasari's reference see Vasari, 1878, 4: 493-94. See also Milanese's note at 494.

⁷⁸ See note 80 above.

⁷⁹ "[C]on molta istanza . . . dove andato di bonissima voglia, fu ricevuto con quella amorevolezza ed umanità, che fu non meno propria di Raffaello, che si fusse l'eccellenza dell'arte." Vasari, *vita* of Timoteo, 1878, 4:494-95.

⁸⁰ Vasari offers several comments on the closeness and love between Raphael and Timoteo da Urbino (see his *vita* of Raphael in 1878, IV, *passim*). Pope-Hennessy shows, through a drawing connected with the *School of Athens*, that Raphael was engaged in work on two sibyls and two prophets for the Chigi Chapel at the same time he was engaged in painting the *School of Athens*, 1510 (Pope-Hennessy, 104-05). In his *vita* of Timoteo, Vasari refers to a painting of sibyls "tanto stimate da tutti i pittori" executed by Timoteo together with Raphael during Timoteo's first visit to Rome (which would have taken place in about 1510). Though Timoteo's painting is described by Vasari as in S. Maria della Pace, this certainly suggests that Raphael and Timoteo were working together in 1510, probably on several paintings and possibly including the *School of Athens*. That Raphael memorialized his dear and beloved friend when, after a year in Rome, Timoteo left to get married in Urbino, seems a logical possibility. Born in 1469, Timoteo was about fourteen years older than Raphael. (For Vasari's *vita* of Timoteo see Vasari, 1878, 4:492-99.) Unfortunately, Vasari did not provide a woodcut to accompany his *vita* of Timoteo.

tion. The two most celebrated Greek geographers are related to each other through the fact that they hold complementary spheres. At the same time both are related to Euclid, Ptolemy through his application of geometric principles and Strabo through his praise of geometry. Accompanying them, the two most renowned painters of Greek antiquity make an entrance, through their special connection with geometry and cartography, to the world of learning. Sympathetic to the humanist plight of trying to build new subjects into the old structure,⁸¹ Ptolemy and Strabo give additional meaning to the fresco when they turn to greet their visitors (not yet included in Raphael's preliminary cartoon). The painters are thus warmly welcomed into a unity of philosophical thought of which Pico della Mirandola would have been proud.

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⁸¹ On this see, generally, Grafton and Jardine, especially 99.

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