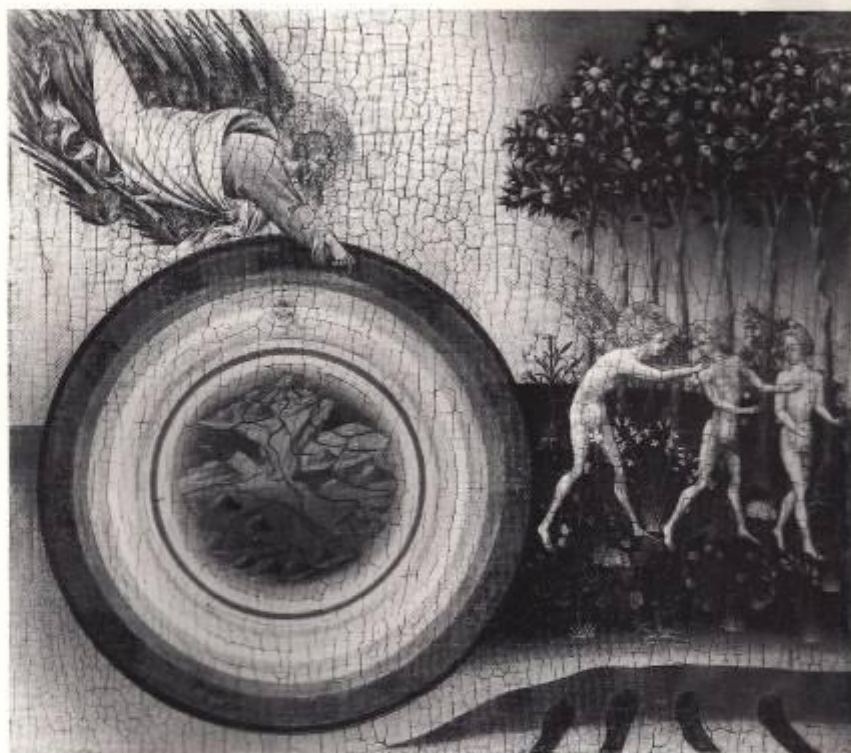


Giovanni di Paolo's 'Creation of the World' and the tradition of the 'Thema Mundi' in late medieval and renaissance art*



1. *The creation of the world and the expulsion of Adam and Eve from paradise*, by Giovanni di Paolo, 1445. Tempera and gold leaf on panel. 46.5 by 32 cm. (The Robert Lehman Collection, The Metropolitan Museum of Art, New York).

DESPITE the scholarly attention received by Giovanni di Paolo's predella fragment in the Lehman Collection, New York, one aspect of its subject matter has been overlooked (Fig. 1). The arrangement of the zodiacal signs and the location of the Sun in the cosmological diagram coincides with an established tradition of the *thema mundi*, an astrological depiction of the Creation of the World. This raises some interesting questions about the subject of the Lehman panel and about the use of astrological symbolism in late medieval and renaissance art.

In its current state, the panel is divided into two sections: the left half shows God the Father surrounded by twelve cherubim hovering above a schematic rendering of the so-called Ptolemaic geocentric universe; the right half illustrates the expulsion of Adam and Eve from Paradise.¹ In 1937, Pope-Hennessy suggested that the Lehman panel formed approximately the left third of the predella of the *Guelfi altar-piece*, painted by Giovanni in 1445 for the Church of S. Domenico in Siena.² The connexion was made by referring to Ugurgieri's 1649 description of the predella of

*The material in this paper has been drawn from a more detailed study of the topic in my forthcoming work on astrological iconography. I wish to thank the Samuel H. Kress Foundation, the National Endowment for the Humanities and the Getty Grant Program for their generous support of my research.

¹For the most recent study of the painting and a full bibliography, see K. CHRISTENSEN, C.B. KANTER and C.B. STREHLKE: *Painting in Renaissance Siena, 1429-*

1500, New York [1988]. In particular, see STREHLKE's essays on the *Guelfi altar-piece*, catalogue no. 32a and b, pp. 192-200, including the *Creation and the Expulsion of Adam and Eve*, pp. 193-98. See also J. POPE-HENNESSY: *Giovanni di Paolo, New York* [1988], esp. pp. 14-17 and *idem*: *The Robert Lehman Collection. I, Italian Paintings*, New York [1987], pp. 115-17.

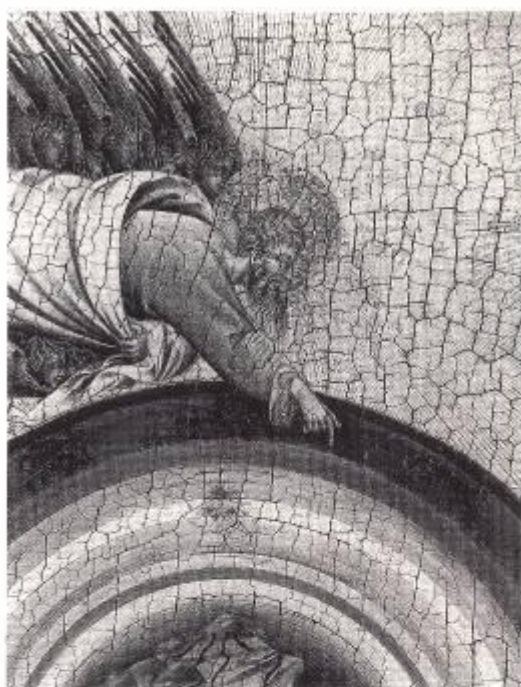
²J. POPE-HENNESSY: *Giovanni di Paolo, 1403-1493*, London [1937], pp. 16-23.

the *Guelph altar-piece* as composed of 'il giudizio finale, il diluvio e la creazione del mondo (cose bellissime)'.³ Originally, Pope-Hennessy was hesitant to accept Ugurgieri's observation as a title for the painting.⁴ A decade later, however, he described it as 'God . . . setting in motion a wheel composed of coloured concentric circles, depicting the seven planets, in the centre of which is a map, the *'mappa-mondo'*, showing in rudimentary fashion the physical features of the terrestrial world'.⁵ As a result, the Lehman panel now bears the title of *The Creation of the World and the Expulsion of Adam and Eve from Paradise*.

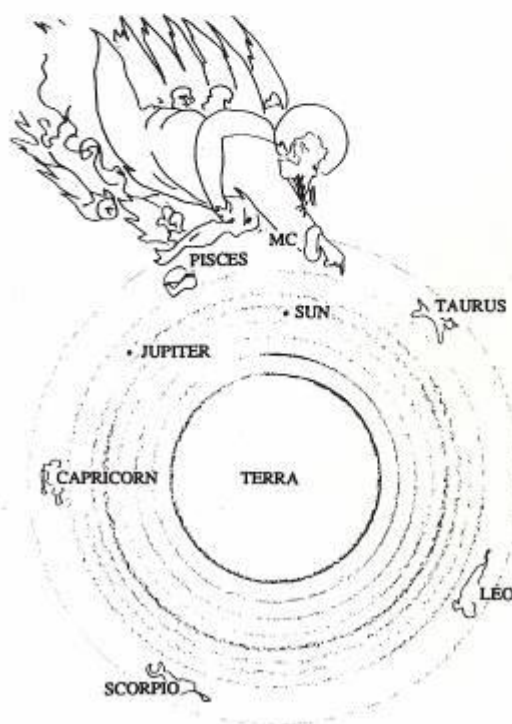
This title was first disputed by Baránszky-Jób in 1958.⁶ He argued that since the 'theme' of the altar-piece as a whole was based on 'the dialectic conception of sin and punishment – the Fall – and promised and fulfilled salvation', a representation of the Creation of the World within this context was not only inappropriate, but heretical to Dominican doxology. According to Baránszky-Jób, God the Father was not creating the universe, but was pointing to the terrestrial orb to which Adam and Eve were banished when they were driven out of Paradise.⁷ The 'subject' of the Lehman panel was the Expulsion; the left half was included merely as a pictorial gloss.

The title was again challenged in 1985.⁸ Dixon, noting that the zodiacal signs in Giovanni's cosmological diagram were ordered clockwise, beginning with Aries at the Mid-Heaven, suggested that God the Father was pointing to a spot on the zodiacal circle, mid-way between Aries and Taurus (Figs.2 and 3). Since the Sun passes through these signs during early spring, Dixon argued that God's gesture implied a reference to the only major religious feast to occur at this time – the Feast of the Annunciation, on 25th March. The intention was to remind us 'of the Annunciation, which leads us to meditations upon the purpose of the coming of Christ to "repair the Fall" – enacted by Adam and Eve in the adjoining sector of the panel'.⁹

Before addressing either of these proposals, an examination of the astrological significance of two related illustrations of the Creation seems warranted. The first is the lunette of the *Creation of the World* painted by Bartolo di Fredi in the Chiesa della Collegiata in San Gimignano in



2. Detail of God's hand from Fig. 1.



3. Schematic rendering of the signs and planets in Fig. 1.

³*Ibid.*, p.17, citing U. UGURGIERI AZZOLINI: *Le opere sacre, d'arte religiosa dell'umanità e delle illustrazioni di Siena e suo stato*, Vol. II, Pisa [1649], p.346. Pope-Hennessy also identified the *Ultimi Vergine and Child with St Dominic, Peter, Paul and Thomas Aquinas* as the main panel of the *Guelph altar-piece*. For Brandt's objections to this suggestion, see C. BRANDT: *Giovanni di Paolo*, Florence [1947], pp.76-77 and *idem*: *La Regia Pinacoteca di Siena*, Rome [1933], pp.84-86. For a refutation of these arguments see SORRILLICE, *loc. cit.* at note 1 above, p.193.

⁴POPE-HENNESSY, *op. cit.* at note 2 above, p.20: 'We can see that not only might the picture have been mistaken for *The Creation*, but that *The Creation* is the nearest approximation of modern terminology for what it does represent'.

⁵J. POPE-HENNESSY: *A Sienese Gallery of the Divine Comedy*, Oxford and London [1917], p.30.

⁶L. BARÁNSZKY-JÓB: 'The Problems and Meaning of Giovanni di Paolo's *Expulsion from Paradise*', *Mazsas*, VIII [1957-59], pp.1-6, esp. p.2.

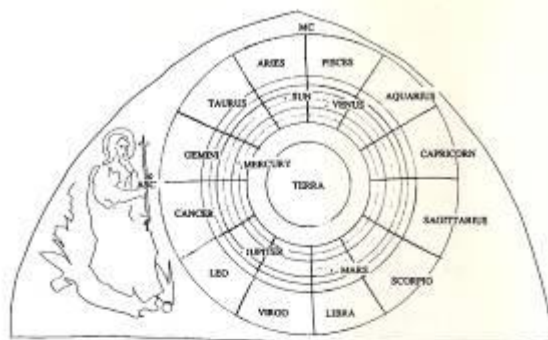
⁷This interpretation of the Lehman panel was first suggested by R. JACOBSEN in *Das Quattrocento in Siena (Studien in der Gemäldesammlung der Akademie der Kunstgeschichte des Landes, Heft LIX)*, Strassburg [1906], p.44.

⁸L.S. DIXON: 'Giovanni di Paolo's Cosmology', *Art Bulletin*, LXVII, no.4 [1985], pp.604-13.

⁹*Ibid.*, p.612.



4. *Come dio creò il mondo*, by Bartolo di Fredi. 1367. Fresco. (Chiesa della Collegiata, San Gimignano).



5. Schematic rendering of the signs and planets in Fig. 4.

1367 (Figs 4 and 5).¹⁰ The lunette, entitled '*Come dio creò el mondo*', shows God the Father seated on an angelic throne beside a geocentric schema of the universe with His right hand raised in benediction. The universe is composed of a central earth, depicted as a topographical *mappamundi*, surrounded by a wide empty band and seven planetary circles, some of which contain planets. The whole is bordered with the twelve signs of the zodiac, running clockwise with the Pisces/Aries cusp placed at the top of the diagram (at the celestial Mid-Heaven) and the Gemini/Cancer cusp located at the Ascendant near the blessing hand of God. The second is the Creation scene painted by the Florentine artist Giusto de' Menabuoi in the Baptistery of the Duomo of Padua between 1376 and 1378 (Figs 6 and 7).¹¹ In the frame depicting the *Creation of the World*, God the Father is seated on an angelic throne poised above a geocentric schema of the universe, with his right hand raised in benediction and his left held lower with its palm open as if he were presenting his creation to the viewer. The universe is composed of a central, spherical earth surrounded by two elemental spheres – the inner-most of the two is identified as 'elemental air' by the inclusion of eight small white clouds – and seven planetary circles each of which contains a planet. The whole is bordered by the twelve signs of the zodiac, which run counter-clockwise, beginning with Aries at the Ascendant.

One fundamental tenet of astrological belief was that certain things were astrologically true because they reflected the disposition of the stars at the moment of Creation. This *topos* was known as the *thema mundi*. In form, it was essentially a natal chart representing the moment the World was born. The explicitly astrological

content of both Giusto's and Bartolo di Fredi's Creation scenes suggests that both represent the *thema mundi*. Their similarities are obvious, but there are a few fundamental differences between the two which help us to understand what I believe to be the iconographic premise of several astrological depictions of the Creation.

Although most of the fundamental astrological doctrines concerning the relationships between planets and zodiacal signs were fairly well standardised by the first century B.C., descriptions and discussions of the *thema mundi* are remarkably inconsistent. This is due largely to a conflict over when the solar year begins – the *thema mundi*, logically, being based on the same astro-mythology as the solar year. The Egyptians placed the beginning of the year at the summer solstice and the dawn-rising of the star Sirius. The Graeco-Roman tradition, apparently based on Chaldean astrology, began the year with the vernal equinox. Others believed that the year commenced when the Sun rose to its apogee, that point most distant from the earth, in the zodiacal sign of Leo. In all three traditions, however, it was primarily the position of the Sun relative to the zodiacal signs that determined the time when the year, and by extension, the universe began.¹²

The Mediterranean is not a large sea and most descriptions of the *thema mundi* betray the influence of more than one tradition. Macrobius, for example, perhaps the most popular source for the *thema mundi*, provides a rather curious conflation of the three separate systems, highlighting the auspicious placements of Cancer, Leo and Aries at the moment of Creation. He attributes this system somewhat romantically to the Egyptians.¹³ According to Macrobius, a horoscopic chart of the universe at the moment of

¹⁰ An inscription reading 'Anno domini MCCCLXVII Bartolus magistri Fredi de senis sue p[ro]p[ri]et[ati]s' was discovered during the cleaning of the fresco immediately after the war, and published in E. CARLI: 'La data degli affreschi di Bartolo di Fredi a S. Gimignano', *Critica d'arte*, VIII [1949], pp. 75–76. Prior to this discovery, the fresco had usually been dated to 1356 following Vasari (VASARI-MILANDI, II, p. 36, 'Vita di Taddeo Bartoli'). See also N. BALDORIA: 'Monumenti artistici in San Gimignano', *Archivio storico dell'arte*, Vol. III [1890], pp. 35–68, esp. pp. 41–42; L. ARNATUNO: 'Bartolo di Fredi', *La Dione*, IX, fasc. III–IV [1934], pp. 214–16 and L. FARRON, JR.: 'Barna and Bartolo di Fredi', *Art Bulletin*, XIV, no. 4 [1932], pp. 285–315.

¹¹ See D.A. GOMIN: *Descrizione del Battistero della Cattedrale di Padova (pubblicata nell'occasione che celebra il suo primo sacrificio dal. Giovanni Marconi, cappellano di detta Basilica)*. Pittore Giusto de' Menabuoi, Padova [1812]; A. MENEGERO: *Il Battistero di Padova e l'arte di Giusto de' Menabuoi*, Padova [1934]; S. BETTINI: *Giusto de' Menabuoi e*

l'arte del Trecento, Padova [1944], pp. 125–29 and pla. 72–74; C. RAGGIORANTE: 'Problemi padovani. Battistero, Cappella Belludi', *Critica d'arte*, VIII, no. 45 [1961], pp. 1–15; S. BETTINI: *Le pitture di Giusto de' Menabuoi nel Battistero del Duomo di Padova*, Venice [1960]; and N.J. DELANEY, JR.: 'Giusto de' Menabuoi: Iconography and Style', doctoral dissertation, Columbia University, New York, 1972.

¹² For further bibliography on the varying opinions on the date of the *thema mundi*, see A. BOUCHÉ-LE CLERCQ: *L'astrologie grecque*, Paris [1899], pp. 129–30, note 1; and E. NORDEN: *Die Geburt des Kindes. Geschichte einer religiösen Idee*, Leipzig [1924], esp. pp. 16ff.; A.E. HOUSMAN in MANLIUS: *Astronomia*, I, London [1903], pp. 25–26; S. WEINSTEIN: 'A New Greek Calendar and Festivals of the Sun', *Journal of Roman Studies*, XXXVIII [1948], pp. 37–42, esp. pp. 38–39. See also the discussion in A.E. TAYLOR: *A Commentary on Plato's 'Timaeus'*, Oxford [1928], pp. 219–20.

Creation would have Aries at the Mid-Heaven and Cancer at the Ascendant. With the Sun in Leo, the time of year would be between mid-July and mid-August. From this information, it is fairly easy to make a rough sketch of the *thema mundi*, especially since, in a preceding passage, Macrobius has supplied specific instructions for making a diagram of the cosmos to help the reader better understand its structure.¹⁶ Such a diagram, as reconstructed by Stahl in his English translation of the *Commentarii* (Fig. 8)¹⁷ or as it appears in numerous manuscripts and early printed editions of the text,¹⁸ is virtually identical to the cosmological schema in Bartolo di Fredi's *Creation of the World*, which not only reproduces the seven concentric planetary circles intersected by lines dividing one zodiacal sign from the next, but also places Aries at the top of the diagram, at the Mid-Heaven, and Cancer at the left edge of the chart or at the Ascendant.

Unfortunately, the Collegiata *Creation* seems to be the only large-scale *thema mundi* to include Macrobius's wheel-like structure.¹⁷ Nevertheless, there is one interesting astrological detail which the Collegiata *Creation* shares with its Paduan counterpart. Both frescoes have the Sun located directly beneath the zodiacal constellation of Aries – and not in Leo, as Macrobius had specified.



6. The Creation of the world, by Giusto de Menabui, 1376-78. Fresco. (Baptistry, Duomo, Padua).

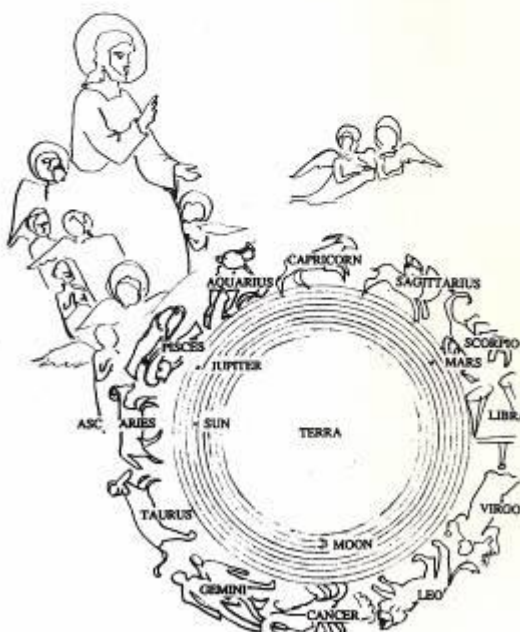
¹⁶MACROBIUS: *Commentarii in somnium Scipionis*, I, xxi, 9-22. The Egyptians, he says, began their measurement of the skies with the sign of Aries because 'according to them, at the beginning of that day which was the first of all days – that is, the time when the sky and the universe took on their brilliant sheen, the day which is rightly called the birthday of the universe – Aries was in the middle of the sky . . . when the world was being born, at the very hour of birth, Aries, as mentioned above, occupied the middle of the sky and the Moon was in Cancer. The Sun then rose in Leo, Mercury in Virgo, Venus in Libra, Mars in Scorpio, Jupiter in Sagittarius and Saturn in Capricorn'. (I, xxi, 23-24; quoted from W.B. STAHL, trans. *Commentary on the Dream of Scipio*, New York [1952], p.179.) For similar statements, see AGNELLUS: *Isagoge*, XX; the anonymous *Sphaera* and the Scholia Marciana and Parisiana to the *Phaenomena* of Aratus (all cited in E. MAASE: *Commentarius in Aratum reliquias*, Berlin [1898], pp.48, 162 and 449); HEPHAESTUS THEBANUS: *Apotheosis* I, 1; an anonymous Greek source cited by ROUCHÉ-LE CLERCQ, *op.cit.* at note 12 above, p.129, note 1; STEPHEN MATERNUS: *Mathesis*, III, 1, II; PAULUS ALEXANDRINUS: *Isagoge*, I, 1, chap.37; JOHN OF SALISBURY: *Polycricon*, II, xix, and VINCENT OF BEAUVAIS: *Speculum naturae*, XV, xxxvii.

¹⁷MACROBIUS *op.cit.* at note 13 above, I, xxi, 3-4: 'Since our eyes often open the way to the understanding of a problem, it would be well to draw a diagram. Let a circle marked A represent the zodiac; within it draw 7 concentric circles. Divide the outer circle into 12 parts assigning in sequence the letters A to M to the divisions. Allot the space between A and B to Aries, between B and C to Taurus, between C and D to Gemini, the next to Cancer, and so on around the circle. Next, draw lines from each division on the outer circle towards the center, passing through the circles and extending to the innermost one; of course these intersecting lines will divide each circle into 12 parts. When the Sun or Moon or any planet has advanced in its sphere to an area that is bounded by the lines originating in the marks at A and B, it will be said to be 'in' Aries because in that position it will have directly over it the space marked out on the zodiac as belonging to Aries, as we explained above. Likewise, into whatever sector the planet passes it will be said to be in the sign that is above it' (STAHL, translation cited at note 13 above, pp.173-76).

¹⁸*Ibid.*, p.175.

¹⁹Each of the eleven complete manuscript copies and ten printed editions of the *Commentarii* pre-dating 1520 in the British Library has a diagram of the twelve-part *rota* illustrating this portion of the text or has a blank space undoubtedly intended to contain the *rota* which has yet to be drawn in. Often these diagrams are prefaced with some form of introduction, such as 'Hanc est figura quae sequitur' (London, British Library, MS Harley 5433, fol.39v) or 'principium circuli' (15th June 1513; de Zanni edn of the *Commentarii*).

²⁰One might cite the badly drawn *rota* on fol.2r of the *Genesis* cycle in the Swedish *Annals Collogensis* (Berlin, Staatsbibliothek, theol. lat. 2° 149) as a possible manuscript example. See J. ZÄHLERS: 'Cosmische Welt: Darstellungen der sechs Schöpfungstage und naturwissenschaftliches Weltbild im Mittelalter', Stuttgart [1979], p.75 and Fig. 162.

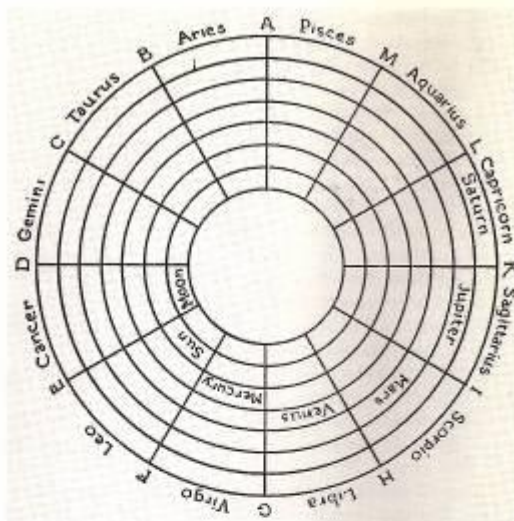


7. Schematic rendering of the signs and planets in Fig. 6.

As mentioned, in the Graeco-Latin tradition the Creation of the World was most often linked to the vernal equinox and the zodiacal sign of Aries. During the late middle ages, the primary secular authorities on this topic were Virgil¹⁸ and Dante.¹⁹ One theologian particularly concerned with the astrological configurations of the Creation, the Venerable Bede, explains that the difference of opinions concerning the actual date of the Creation – whether it occurred on 19th March or 23rd March – reflects the problem of how one might determine the first day of Creation if, strictly speaking, there was no time prior to the Creation of the Sun, the Moon, and the Stars.²⁰ Even though God created light and shade during the Second Day of Creation, it was not until He created the stars that He could place the Sun in its equinoctial position.²¹ Bede believed that the universe began with time – on the Fourth Day of Creation when God placed the Sun on the vernal equinox in the zodiacal sign of Aries.²²

At this point, one might return to Giovanni di Paolo's *Creation of the World* and to the objections concerning its title. Baránszky-Jób's claim that Giovanni di Paolo's schema cannot represent the Creation, since it illustrates a completed universe, should be quelled by the pictorial precedent of Giusto de' Menabuoi's 'complete universe', labelled expressly as '*Come deo creò il mondo*'. His second point, that God's outstretched hand is pointing directly towards earth seems based, in part, on a misunderstanding of the subject of the schema itself. Unfortunately, the secondary literature most often describes Giovanni's diagram as a *mappamondo* – a term not wholly incorrect, but potentially misleading.²³ The Latin word *mappamundi* (or its Italian equivalent) is a medieval invention used to describe a two-dimensional depiction of the surface of the earth.²⁴ Strictly speaking, the Lehman diagram is not a *mappamundi*, but a schematic rendering of the universe which contains one.

The object of God's pointing finger is difficult to determine, but even if He were meant to be pointing specifically towards earth, such a gesture should not be understood as an indication of the place to which Adam and Eve were to be banished after their Expulsion from Paradise. The un-



8. Diagram of the *Thema mundi* according to Macrobius. From *Commentary on the Dream of Scipio*, English translation by W.H. Stahl, p.179.

acknowledged premise of this interpretation is that Adam and Eve are being banished to earth from somewhere else; but, as far as theologians were able to agree on the matter, Eden was thought to be located on earth. Giovanni di Paolo certainly believed this since he illustrates the four rivers of Paradise both in the *mappamundi* at the centre of the cosmological diagram, and at the bottom edge of the *Expulsion of Adam and Eve from Paradise*. The portrayal of God pointing towards the earth to indicate banishment from Eden would be redundant, if not misleading.

Finally, one must reject Baránszky-Jób's thesis that the meaning of the *Guelfi altar-piece* is clarified through comparison with paintings which juxtapose the *Expulsion of Adam and Eve* with the *Annunciation*, such as Fra Angelico's

¹⁸Virgil, *Georgica*, II, 323 ff. The glosses on this passage are particularly interesting. Servius's comments on l. 336 ('*Nas alius prius...*'), are obviously influenced by PYTHAGORAS's observations on the precession of the equinoxes (*Tetrabiblos*, I, 21; perhaps via IEMERUS: *Ephemerides*, V, xxxv, 2), since he notes that the location of the vernal equinox is no longer the same as it was when the world began: '*Hoc secundum locutionem poetarum dicit, non falsum est. Coelestis enim post factum mundum ex quadrate [curvas] solis tempora esse divisa*'. (Servii Grammatici in Vergiliu Bucolica et Georgica Commentarii, III, ed. G. THILO, Leipzig [1887], pp.247-48).

¹⁹DANTE: *La Divina Commedia*, *Inferno*, I, 37-43; XI, 113; *Purgatorio*, I, 21 and XIX, 4 and *Paradiso*, I, 37E and the *Convivio*, II, iv, 68ff. I feel STRICKLAND somewhat overemphasises the Dantesque elements of Giovanni's cosmological diagram in the Lehman panel (*loc.cit.* at note 2 above). Whereas the pictorial context for this image is certainly Giovanni's own illustrations of *La Divina Commedia* (London, British Library, MS Yates Thompson 36), there is nothing extraordinary linking the Lehman diagram specifically to the text of the poem itself. Both share a commonly inherited cosmological vision.

²⁰Bede: *De temporum ratione*, VI in *Bede venerabilis opera*, Paris VI, *Opera didascalica*, 2 (*Corpus Christianorum. Series latina*, CXXIII B), ed. G.W. JONES, Turnhout [1977], pp.290-91.

²¹Or, as one scholar to this passage explains: 'Before the creation of the Sun there was neither time nor hour, because there was nothing which might make a shadow, that means by which the time or the hour would have been measured'. Cited from the '*Scholia et glossae*' to the *De temporum ratione* in C. MOORE: *Patrologia Latina*, XC, col.318D, where it is incorrectly attributed to Berylthor of Ramsey.

For further information on Bede's glossators, see *De temporum ratione*, ed. cited at note 20 above, pp.257-61.

²²See similar arguments in his *Hexameron*, I, i, 14 (*Libri quatuor in principium genesis usque ad nativitatem Isaac et rivitatem Israhelitis adulationem in Bedae venerabilis opera*, Paris II, *Opera exegetica*, I (*Corpus Christianorum. Series latina*, CXXVIII A, ed. G.W. JONES, Turnhout [1967], pp.15-16). There are two further list of planetary positions for the *thema mundi* attributed to Bede: in the pseudo-Bedan *De mundi celestis terrestres constitutione*, I, 892C-D (ed. G.S.F. BURNETT, Warburg Institute Surveys and Texts X, London [1985], pp.42-43) and in the pseudo-Bedan *De planetarum et signorum ratione* (ed. C. MOORE: *Patrologia Latina*, XC, cols.944-45). The first lines of the latter passage echo the opinions attributed to Ptolemy and Nechepso by PTHAGORAS MATERNUS (*Matheseos*, III, i, 1ff.).

²³The label seems to have originated with JACOBUS (*op.cit.* at note 7 above, p.44), but is repeated by S. RETRUCI ('Il mappamondo di Ambrogio Lorenzetti del Palazzo Pubblico di Siena', *Rivista d'arte senese*, X [1914], p.8), P. RENNEBERG (*op.cit.* at note 2 above, p.20) and G. SLADÓ (*The Lehman Collection*, New York [1975], pp.48-49).

²⁴See C. DE FRESNE DU CANGE: *Glossarium mediae et infimae latinitatis conditum a Carolo Du Fresno, doctore Du Cange... cum e supplementis integris D.P. Carpentarii*, V, Paris [1840-50], p.255 (*mappa mundi*) and the discussion of the subject by D. WOODWARD in *The History of Cartography*, I, *Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean*, ed. J.B. HARLEY and D. WOODWARD, Chicago and London [1987], esp.pp.207-88.



9. The Fourth day of creation, Matfio da Cremona, c.1420. Stained glass. (Duomo, Milan).



10. Detail from an illuminated manuscript showing the Fourth day of creation. (Bibliothèque Nationale, lat 557, fol. 41r., Paris).

Cortona altar-piece or Giovanni di Paolo's own panel with the *Expulsion* and the *Annunciation* in Washington.²⁵ This idea rests on Baránszky-Jób's assumption that there must have been a depiction of the Annunciate Virgin in the original gables of the *Guelfi* altar-piece which somehow 'corresponded' to the *Expulsion* in the predella.²⁶ The frame currently surrounding the altar-piece appears to be original and does not contain an *Annunciation*.²⁷ Nevertheless, the suggestion that the images depicted in the elements of a frame – the gables, the predella, the *pilastrini* – might form an extended iconographic programme is implausible. I know of no altar-piece in which this is the case. Still, allowing for the slim possibility that the *Guelfi* altar-piece may have been the iconographic exception to prove the rule, the connexion between it and this series of *Expulsion/Annunciation* paintings remains unconvincing. None of these paintings contains a depiction of God the Father fully comparable to that in the Lehman panel. In the closest parallel, Giovanni di Paolo's *Expulsion and Annunciation* in Washington, where God makes a similar gesture with His right arm, the conventions for depicting God's appearance are not the same. In the Washington painting, God is shown surrounded by 'deo-centric' orbs, a device used to indicate His self-generated radiance; in the Lehman panel, however, God the Father is placed outside a geocentric astrological schema.

Dixon's suggestion that God's gesture implies the *Annunciation*, although derived from Baránszky-Jób's comparisons, is problematic for different reasons. Dixon sees the celestially prefigured *Annunciation* and the *Expulsion* as having a 'cause and effect relationship'. Whereas it is permissible to portray the *Annunciation* as the resolution of Adam and Eve's *Expulsion from Paradise* (that is the historical truth according to Christian doctrine, with the familiar formulation of the Virgin Mary as the 'new Eve'), it is quite another thing to depict God prefiguring the date of the *Annunciation* in the heavens prior to the Fall. The issue of the astrology of Christ's nativity was a thorny one for medieval theologians – tied up, as it was, with such difficult issues as the humanity of Christ and of Necessity versus Free Will.²⁸ It was a topic sufficiently charged with what one might call 'heretical potential', that the inclusion of an astrological reference to either the *Annunciation* or to Christ's birth in an altar-piece would have been virtually unthinkable.

If it were needed, there is one final piece of evidence to support a reading of the Lehman diagram as a depiction of the moment of the Creation of the World. As Dixon pointed out, Giovanni di Paolo constructed his diagram with Aries at the Mid-Heaven.²⁹ Although she noted the fact that there is a large golden star placed in the fourth celestial sphere – the sphere of the Sun – she failed to

²⁵ BARÁNSZKY-JÓB, *loc. cit.* at note 6 above, pp.4-5 and Figs.6-9. He also cites the Fra Angelico workshop panels on the same subject in the Church of S. Francesco in Montecarlo and in the Prado, Madrid, and the fifteenth-century Florentine engraving illustrating Petrarca's *Trionfo della Divinità*.

²⁶ *Ibid.*, p.2.

²⁷ See Gili Uffici, *Catalogo generale*, Florence [1979], p.304 (P337).

²⁸ See, for example, O. GERHARDT: *Der Stern der Messias. Das Geburts- und das Todesjahr Jesu Christi nach astronomischer Berechnung*, Leipzig und Erlangen [1922], esp.pp.95-110.

²⁹ DIXON, *loc. cit.* at note 8 above, pp.611-13.



11. Detail from an illuminated manuscript showing the Fourth day of creation. (Biblioteca Apostolica, Vat. lat. 681, fol. 96r., Vatican, Rome).



12. Detail from an illuminated manuscript by Pellegrino di Mariano showing the Creation of the world. (Cambridge, Fitzwilliam Museum, no. 197).



13. Historiated initial from the title page of *Pontificale Ritum sacrorum Rituum ecclesie...*, printed by Luc' Antonio Giunta, 15th September 1520.



14. The Third and fourth days of creation, by Francesco Salviati. c.1534. (Chigi Chapel, S. Maria del Popolo, Rome).

mention that it was located directly beneath the zodiacal sign of Aries. These two aspects of the Lehman diagram lead one to conclude that it, too, illustrates an abbreviated version of the *thema mundi*.³⁰

I have mentioned three examples in which the Sun's placement in Aries has been used to indicate, albeit in a short-hand manner, the idea of the *thema mundi*. The use of this device is, however, more widespread than is generally recognised. For example, it reappears in the stained glass windows executed for the Cathedral of Milan between 1417 and 1424 (Fig. 9). The scene depicting the Fourth Day of Creation shows God the Father offering benediction to a section of the zodiacal band with the cusp of Aries placed immediately beneath His hand.³¹ In a late thirteenth-century Italian *Book of Hours*, God the Father is shown

³⁰ Whether or not God the Father is touching a significant point on the zodiacal sphere can be left for future debate. There was a tradition during the Middle Ages of attributing the same date to the Creation, the Annunciation and the Crucifixion (see e. nooke: *Studies in Dante, Third Series, Miscellaneous Essays*, London [1903], p. 61). If God specifies a precise calendrical date, the date could be triply 'symbolic'. Whether or not Giovanni di Paolo had this particular concept in mind, however, is uncertain. As STREHLKE pointed out, Pellegrino di Mariano's use of Giovanni's diagram to illustrate *Genesis*, I. 1 demonstrates that contemporaries recognised the image as the *Creation of the World* (loc. cit. at note 1 above, p. 198 and pp. 246-48, cat. no. 39; Cambridge, Fitzwilliam Museum, no. 197). It is intriguing, however, to speculate about the importance of this image in another context. In 1921, Rossi suggested that Michelangelo's figure of Christ in the *Last Judgment* of the Sistine Chapel was derived from or, at least, reminiscent of Giovanni di Paolo's Christ in his *Last Judgment predella* currently in the Accademia delle Belle Arti in Siena (see e. nooke: 'L'ispirazione dantesca in una pittura di Giovanni di Paolo', *Rassegna d'arte senese*, XIV [1921], pp. 137-49 and ROSE-HENNESSY, *op. cit.* at note 2 above, p. 138). Given this possibility, perhaps the image of God's outstretched hand in Michelangelo's Sistine Ceiling *Creation of Adam* might echo Giovanni di Paolo's God the Father in the Lehman panel.

³¹ See e. BRUVIO and A. MAJO: *Il Duomo di Milano nella storia e nell'arte*, Milan [1977], p. 31.

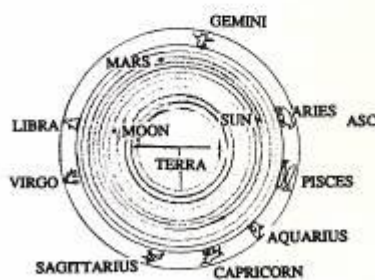
placing the Sun in Aries (Fig. 10).³² The fourteenth-century Neapolitan *Sententiarum Libri* of Petrus Lombardus in the Vatican has God the Father creating an orb whose zodiac is stopped at the Pisces/Aries cusp (Fig. 11).³³ Similar depictions appear in the *Hamilton Bible* and *Turin Bible*.³⁴ The fifteenth-century reliefs on southern choir portal of the Heiligkreuzmünster in Schwäbisch-Gmünd have an image of God the Father holding a celestial sphere with the Pisces/Aries equinoctial colure clearly marked.³⁵ In the free copy of Giovanni's predella scene by Pellegrino di Mariano, the Sun is placed in Aries at the Mid-Heaven (Fig. 12).³⁶ Also, there is the delightful, historiated initial 'P' created by the Venetian branch of the Giunta press, in which God is shown placing a smiling Sun directly on top of the sign of Aries (Fig. 13).³⁷ Finally, there is evidence that the *topos* survived well into the sixteenth century. For example, in Francesco Salviati's paintings for the drum of the cupola in the Chigi Chapel in S. Maria del Popolo in Rome, Aries is featured as the sole zodiacal constellation on the ecliptical band in the scene conflating the Third and Fourth Days of Creation (Fig. 14).³⁸

Examining this list of examples, it becomes clear that even though the convention is long-lived, it reaches its peak during the mid-fourteenth century. Why might this be so?

The large fresco painted in 1389-90 by Pietro da Orvieto for the Camposanto at Pisa offers an explanation (Figs. 15 and 16).³⁹ The picture shows a youthful, nimbed and bearded God the Father holding a large schematic rendering of the universe in front of him. The earth is shown in the centre of the schema as a *mappamondo* divided into Asia, Africa and 'Uropia' by a large black 'T'.⁴⁰ This is surrounded by the elements, planets, 'lo cielo cristallino' and the nine layers of the angelic spheres.⁴¹ From the



15. *The Creation of the world*, by Pietro di Pucci da Orvieto, 1389-90. Fresco. (Camposanto, Pisa).



16. Schematic rendering of the signs and planets in Fig. 15.

³²Paris, Bibliothèque Nationale, MS, lat. 757, fol. 41r.

³³Vatican, Biblioteca apostolica, Vat. lat. 681, fol. 96r. The constellation of Pisces is clearly identifiable. The rest seem a bit mysterious, however.

³⁴Berlin, Kupferstichkabinett, 78.E.83, fol. 4r and Turin, Biblioteca Reale, MSS varii 175, fol. 4v.

³⁵See ZAHLEN, *op.cit.* at note 17 above, Fig. 361. In addition, the zodiacal schema in the Creation cycle of the Rovigo Bible has Aries placed at the Mid-Heaven (Rovigo, Biblioteca dei Concordi Silvestriani 212, fol. 2v) and the early fifteenth-century Italian *World Chronicle* in Vienna has Aries located at the Ascendant (Vienna, Österreichisches Nationalbibliothek, ser. nov. 3394). See ZAHLEN, Figs. 369 and 338.

³⁶Cambridge, Fitzwilliam Museum, no. 197. See note 30 above.

³⁷The initial appears, for example, in the frontispiece decoration of the *Pontificale secundum ritum sacrosanctae Romanae ecclesiae*, printed by Luc'Antonio Giunta in Venice on 15th September 1520. For a reproduction, see PRINCE D'ESLING: *Les livres à figures dévotionnelles*, I, ii, Florence and Paris [1909], p. 211 (no. 1695).

³⁸The detail has been noted by K. WEIL-GARRIE: 'Cosmological Patterns in Raphael's Chigi Chapel in S. Maria del Popolo', *Raffaello a Roma. Il convegno del 1983*, Rome [1986], pp. 127-58, esp. p. 149. See also L. CHENEY: *Francesco Salviati (1510-1563)*, doctoral dissertation, New York University, 1963, II, pp. 410-12.

³⁹See M. BUCCI and L. BERTOLINI, eds.: *Camposanto monumentale di Pisa. Affreschi e stucchi*, Pisa [1960], pp. 104-06; R. LONGHI: 'Tracciato orvietano', *Paragone*, XIII, no. 149 [1962], pp. 1-14, and A. CALLEGRA, G. NENCINI and G. MANCARELLI: *Pisa - Mura delle risse del Campo Santo monumentale*, Pisa [1979], pp. 86-91. Vasari's description of the frescoes appears in his life of Buffalmacco (VASARI-VILANESI, I, pp. 513-14). He lists the subject as 'del principio del mondo usato alla fabrica dell'arca di Noè' and records the verses which once accompanied the picture (I, 513-14).

⁴⁰For the best résumé of the literature on the T-shaped *mappamundi*, see WOODWARD, *loc.cit.* at note 24 above, pp. 292-302 and 343-58.

⁴¹For further information regarding the order of the angels in the Camposanto fresco and its relation to the lost decoration in the church of S. Clemente in Rome, see J. BARCLAY LLOYD: 'The Trinity and the Hierarchies of Angels: A Lost Fresco from San Clemente in Rome and an Iconographic Tradition of the Angelic Choirs', *Arte cristiana*, LXXXIII, fasc. 708 [1985], pp. 167-80.

astrological information provided by this image, it is difficult to recognise it as a *thema mundi*.⁴² For our purposes, however, we need only note that a small star, labelled 'Sole', has been placed directly beneath the depiction of Aries located at the Ascendant. Again, the notation of the Sun in Aries seems to suffice as an abbreviation for the *thema mundi*.

Three additional aspects of the Camposanto fresco support its identification as an image of the Creation of the World. First, the payments for the fresco describe the paintings specifically as the '*istoria genesis*'.⁴³ Second, the picture is virtually identical to the Genesis illustrations one finds, for example, in a contemporary English Psalter⁴⁴ and in the fifteenth-century Italian *World Chronicle* rotulus in Vienna.⁴⁵ Finally, the subject of this picture is clarified by the texts held by the figures of Sts Augustine and Thomas Aquinas in the lower left- and right-hand corners of the fresco.⁴⁶ Augustine, with his bishop's mitre and crozier holds an open book bearing words: 'The angels are included amongst the works of God and they are the light which received the name *day*'.⁴⁷ Thomas carries a book with 'The order of things created by God demonstrates the unity of the universe, the universe itself being called 'the one', united by an order following that by which everything is ordered'.⁴⁸

The first of these quotations, taken from Augustine's *De civitate dei*, concerns the genesis of the angels. The creation, placement and essence of the angels were the subject of heated debate during the early middle ages. Augustine believed that the angels had been formed from that intelligible light created by the word of God ('*Fiat lux*') and that they were created simultaneously with the tangible matter of the universe.⁴⁹ Jerome and Ambrose, the latter following Basil, had argued that the angels were created by God prior to the material genesis.⁵⁰ It was not until the

close of the Fourth Lateran Council, convened by Innocent III in November 1215, that the official Church doctrine regarding the status of angels was established. Following Augustine's formulation, the Council decreed that God was

the creator of all things invisible and visible, spiritual and corporeal, who in His virtuous omnipotence fashioned simultaneously at the beginning of time and out of nothingness all things spiritual and corporeal, that is, angelic and mundane, and then He created Man constituted, as it were, jointly of the Spirit and the Body.⁵¹

It is actually this *credo*, therefore, which provides the doctrinal authority for any representation of the Creation containing both the stellar and angelic spheres. Thomas's inscription underlines this theme of the unity of the God's creation. Taken from the *Summa theologiae*, it encapsulates his belief that the essential oneness of the universe is made manifest specifically by the order of its parts. Thomas's writing serves as the textual justification for depicting the celestial hierarchy in pictures of the *Creation of the World*.

It seems possible that the sudden popularity of the single-scene *Genesis* stems directly from the doctrine adopted by the Fourth Lateran Council and from the Church's support for the theological arguments in favour of the instantaneous Creation proposed by Augustine and Thomas.⁵² I suggest that the inclusion of astronomical or astrological details in these pictures also derives directly from the desire to illustrate the simultaneity of Creation. Every two-dimensional depiction of the universe represents a moment when the cosmos is temporarily frozen in time. When the subject is the Creation of the World, the most appropriate moment to represent is the *thema mundi*, the birthday of the universe.

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⁴²As with the Collegiata and Paduan frescoes, astronomical accuracy seems beyond the interest of the painter. The circle representing the sphere of Mars has its small star located beneath Cancer and the label for Luna is placed below Virgo – neither of which coincide with known descriptions of the *thema mundi*.

⁴³St. CAMPE: *Notizie inedite della Sacrestia pisanesa dei belli arredi del Campo Santo Pisano e di altre opere di disegno*, Florence [1810], p.37: 'Magister Piero olim Pisci de Unbecker pictor qui dudum pinxit in Campo Santo ystorian genesis...'

⁴⁴London, British Library, Add. MS 20681, fol.9v.

⁴⁵Vienna, Österreichisches Nationalbibliothek, ser. nov. 3394. See note 35 above.

⁴⁶The importance of these figures was first suggested by G.L. BERTOLINI: 'La cosmografia teologica del Camposanto di Pisa', *Nasce analogia*, ser. v., XVI, [1910], pp. 720-25.

⁴⁷'Ad opera dei pertinent angeli unde et ipsi sunt illa lux quae diei nomen accepit', from AUGUSTINE: *De civitate dei libri XXII*, XI, chap.9. The passage actually reads: 'Nimirum ergo si ad istorum dierum opera Dei pertinent angeli ipsi sunt illa lux quae diei nomen accepit, cuius unitas et commendatur, non est dictus dies primus, sed dies unus' (ed. n. DOMBART, Leipzig [1910-21], p.473).

⁴⁸'Ordo in rebus a deo creatis unitatem mundi manifestat naves enim unus dicitur unitate animis secundum quod quodammodo ordinatur ad alia', from ST THOMAS AQUINAS: *Secunda theologiae pars prima*, questio XLVII, articulus 3. The passage reads: 'Respondens dicendum quod ipse ordo in rebus sic a Deo creatis existens, unitatem mundi manifestat. Manifestum enim est autem dicitur unitate ordinis, secundum quod quodammodo ad alia ordinatur' (ed. P. CARRELLI, Rome [1950], p.242).

⁴⁹The idea is most clearly presented in *De generi ad litteram*, II, 6; IV, 33 and V, 3 citing Ecclesiastes, XVIII, 1: 'Qui stat in aeternum, creavit omnia simul'. See J. DE

SLAC: 'La création chez Saint Augustin', *Mélanges offerts au R.P. Ferdinand Cavallera à l'occasion de la quarantième année de son professorat à l'Institut Catholique*, Toulouse [1948], pp.180-84; K. STANITZ: *Augustinus Schöpfungsgeschichte dargestellt nach seinen Genesis-auslegungen*, Breslau [1931], pp.74ff. and M.-TIL D'ALVERNY: 'Les anges et les jours', *Cahiers archéologiques*, IX [1957], pp.271-300.

⁵⁰See ST JEROME: *Commentarius in epistolam ad Titum*, I, 2ff; ST AMBROSE: *In Hexameron*, I, 5, 19 and *De incarnatione domini sacramenta*, 16 and ST BASIL: *Homilia I in Hexameron*, V. See also J. TIXERONT: *Histoire des Dogmes dans l'antiquité chrétienne*, Vol.II, Paris [1921], pp.273-75.

⁵¹'[Deus est] . . . creator omnium invisibilium et visibilium, spirituum et corporum qui sua omnipotenti virtute simul ab initio temporis, utrumque de nihilo condidit creaturam, spirituum et corporum, angelicam videlicet et mundanum, ac deinde humanam quasi communem ex spiritu et corpore constituit.' See H. DENZIGER: *Enchiridion Symbolicarum. Definitionum et declarationum de rebus fidei et morum*, revised edn. by A. SCHÖNMEYER, Barcelona, etc. [1963], p.239 (no.428/800) and *Conciliorum oecumenicarum decreta*, ed. J. ALBERGO, J.A. DORRERT PERKLE, P. JOHANNI, C. LEONARDI and P. PROBI, Bologna [1973], p.230. See also STREHLKE's citation of the Apostles Creed in relation to the Lehnman context (*loc.cit.* at note 1 above, pp.194-96).

⁵²The Dominican context of the Guelfi altar-piece certainly is reflected in its subject matter. Dominic and Augustine are featured in the main panel and the section of the predella depicting Paradise (see STREHLKE, *loc.cit.* at note 1 above, pp.196-200, no.32b) contains at least six Dominicans, including Peter Martyr. In light of this, it is tempting to interpret Giovanni's diagram of the *thema mundi* as an additional Dominican reference.