

Imago mundi. The notion of something as a microcosm of the macrocosm

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Abstract. This essay studies the notion of something as a microcosm of the macrocosm in medieval and early modern cultures from several perspectives. To gain deeper insights into this idea, it is necessary to understand medieval principles of astrology, ideas that were related to the Neoplatonic and Hermetic mindsets, two schools of philosophy and religion for which the concept of microcosm was central. Specifically, it is examined here from four perspectives, namely, the human mind/soul/imagination, the human body, cities and buildings, especially churches, as microcosms, and finally a work of art or image as an *imago mundi* that mirrors the whole. To this end, the analysis draws from visual and textual sources, enquires into iconographic types such as the zodiac man, intellectual milieus like the court of Alfonso X, interpretations appearing in Arabic texts and essential reading in this regard, including the *Picatrix* and al-Kindi's *De radiis*, plus some examples as far removed from the Christian medieval cultural horizon as the Indian *Upanishads*, Andrei Tarkovsky and Antoni Tàpies. This study is not only based on information from different fields of knowledge, mostly visual and religious studies, but also draws from anthropology of arts and philosophy.

Keywords: Astrology; *Picatrix*; al-Kindi; Ficino; Hermetism; zodiac man.

[es] *Imago mundi*. La intuición de algo como microcosmos del macrocosmos

Resumen. El artículo² estudia la noción de que algo es un microcosmos del macrocosmos en las culturas medieval y renacentista desde diversas perspectivas. Para profundizar en esta intuición, será necesario entender principios medievales de astrología, ideas que estaban vinculadas a la mentalidad hermética y neoplatónica, dos tendencias de filosofía y religión para las cuales la idea del microcosmos es central. La analogía se estudiará desde 4 ángulos: la mente, el alma o la imaginación humana como un microcosmos, el cuerpo del ser humano como uno, la ciudad o un edificio, especialmente la iglesia, como tal cosa, y finalmente la obra de arte o la imagen como una *imago mundi* que refleja el todo. El análisis unirá fuentes visuales y textuales, comentará tipos iconográficos como el Hombre zodiacal, ambientes intelectuales como la corte de Alfonso X, características básicas provenientes de textos islámicos, esenciales para este tema, tales como el *Picatrix* y el *De radiis* de Al-Kindi, y también algunos ejemplos más allá del horizonte cultural medieval cristiano, como las *Upanishads* indias, Andrei Tarkovski y Antoni Tàpies. La información se recogerá de diferentes campos de conocimiento, sobre todo de estudios visuales y religiosos, pero también antropología del arte y filosofía.

Palabras clave: Astrología; *Picatrix*; al-Kindi; Ficino; Hermetismo; Hombre zodiacal.

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1. Introduction

The notion of an essential correspondence between human and universal macrocosm was one of the principal tenets in medieval and early modern mindsets, involving several fields of knowledge, chiefly medi-

cine, philosophy and metaphysics, plus magic and religion. Moreover, it was an obsession not only in the Christian but also Muslim world. For instance, in the *Picatrix* it is stated that the human being resembles the universe,³ a central idea above all for Hermetic and Neoplatonic authors.⁴

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³ *Picatrix* I, 6, in [Anonymous], *Picatrix. Un traité de magie medieval* (Turnhout: Brepols, 2003), 79-83.

⁴ "The microcosm-macrocosm identity is a typical trait of hermetic lore," David Meakin, *Hermetic Fictions. Alchemy and Irony in the Modern Novel* (Bodmin: Keele University Press, 1995), 99. Likewise, Domínguez Rodríguez asserts that the notion of microcosm of the macrocosm was one of the pillars of the Neoplatonic worldview: Ana Domínguez Rodríguez, *Astrología y arte en el lapidario de Alfonso X el Sabio* (Murcia: Real Academia Alfonso X el Sabio, 2007), 20.

The human being and the work of art or image as a microcosm of the macrocosm was a commonly held belief not only in Hermetic and Neoplatonic thought, but also in the hegemonic way of thinking during the Middle Ages, a belief that is examined in further detail below. A number of Christian thinkers proposed this analogy, above all those with a Platonic background, such as Gregory of Nyssa who, in his *On the Making of Man*, reflected on this matter: human beings were not merely microcosms formed by the same elements as the universe, as could be said of mice, but rather were made in the image and likeness of God.⁵



Fig. 1. The human body as a microcosm, Limbourg Brothers / Anonymous, *Très Riches Heures du duc de Berry*, c. 1415, Chantilly. Bibliothèque du Château (Musée Condé), 0065 (1284), f. 14v

St Augustine used the analogy frequently to refer, for instance, to the Church as Sion and, consequently, as the City of God.⁶ William of St-Thierry, a theologian who developed the thought of Augustinian Platonism, classified the human being as a microcosm⁷

in his inquiry into not only theological but also scientific and medical matters.

St Bonaventure, another theologian strongly influenced by St Augustine's philosophy, also resorted to this analogy in his *Collationes in Hexaemeron*, for example, in which things existing in the *maior mundus* are often linked to those existing in the lesser world of human beings.⁸

However, the focus is placed here on Neoplatonic and Hermetic authors because, for these currents, the direct relationship between the microcosm and the macrocosm was a core notion underpinning their worldviews.

The intention here is to consider how this cosmological and anthropological notion served to reveal ideas inherent to the medieval cultural horizon concerning the spheres, astrology and analogical thinking; and how it was transformed into visual motifs and iconographic types not only to offer a sophisticated explanation of the universe and its inner workings, but also to share complex notions with wider audiences. Accordingly, an important part of this paper revolves around the visual representations of this notion.

Some of the theories fleshing out the microcosm-macrocosm identity were linked to the astrological system. In order to fully understand the notion of microcosm of the macrocosm, it is first necessary to explain some of the principles of astrology in the medieval and early modern worlds. The proponents of that system believed that life and the world were replete with "riddles" to be solved by wise men. One of the pillars of this worldview had to do with the stellar movements that influenced sublunar beings, mankind included, in several ways, usually thoughts as invisible rays. Four examples of the microcosm-macrocosm analogy, to wit, the *macranthropos*, the zodiac man, the analogies between churches or cities and the universe, among others, are described below.

Additionally, an enquiry is made into some of the principles of the Hermetic and Neoplatonic philosophies, deriving from the literature in this respect and from Arabic sources, thus highlighting the impact of similar sources on those cultures (Hermetism and Platonism and Neoplatonism through the Harranians) and the Christian sources subsequently influenced by them.

2. The science of the stars

The academic study of astrology was not regarded as being essential to understand medieval and Renaissance philosophy until Warburg (history of art), Thorndike (history of science)⁹ and Festugière (religious studies)

⁵ *De opif. hom.*, XVI, in Grégoire de Nysse, *La création de l'homme* (Paris: Éditions du Cerf, 1943), 151-161

⁶ *En. in ps.* XXIX, 4, in Saint Augustine, *Exposition on the Book of Psalms* (New York: Grand Rapids, 1886), 735-736.

⁷ *De natura corporis et animae*, in Guillaume de Saint-Thierry, *De natura corporis et animae* (Paris: Les Belles Lettres, 1988), 66. Secondary source: Svenja Gröne, "Le premier écrit scientifique cistercien: le *De natura corporis* de Guillaume de Saint-Thierry (†1148)," *Rives nord-méditerranéennes*, 31 (2008): 115-130.

⁸ For example, *Collat.* XVI, 9-10, in San Buenaventura, *Obras de San Buenaventura. Tomo III* (Madrid: Biblioteca de autores cristianos, 1947), 472-475.

⁹ "Equally mistaken is the argument that because Charles V was called the Wise, he must have been too intelligent to believe in astrology. The case of Alfonso X, or the Wise, of Castile should have warned anyone against such an assumption. Indeed at this period wisdom and astrology were considered almost synonymous": Lynn Thorn-

published their works, a point that was then further emphasised by Garin (cultural history). Although scholars have shown more interest in this issue since the 1970s, it doubtless deserves greater attention.

In the Middle Ages, and indeed much earlier as well, there were two conceptions of astrology in Western Europe. It was Isidore of Seville who drew a distinction between natural and superstitious astrology, which subsequently resulted in the philosophical and theological acceptance of the former.¹⁰ The kind of astrology discussed below combines both natural astrology and also another kind known as “judicial astrology”, by and large a subfield based on the calculation of planetary and stellar bodies and the use of mathematics¹¹ to construct astrological charts for forecasting events.

The social value of the science of the stars is evidenced by the fact that in medieval and early modern societies it took centre stage in their visual culture. For instance, the Palazzo della Ragione in Padua, whose frescoes decorating its inner hall, which played an essential role in city life, were designed by the famous astrologer and theorist of magic Pietro d’Abano. Giotto has been traditionally associated with the original paintings for the palace’s Salone, since, as the story goes, the fresco cycle of its upper hall was painted by him under the guidance of this eminent astrologer. In any case, most of that fresco cycle was destroyed by a disastrous fire in 1420 and, consequently, its attribution, even if some part survived, must be tentative. The general composition seems to have been based on astrology and the planetary influences,¹² with large sections featuring the signs of the zodiac and the seven planets.

According to Pietro d’Abano, it was necessary to possess a knowledge of the different effects of talismans to create them and that when they were employed by wise astrologers familiar with their inner workings, they served to channel the appropriate powers. In other words, for this medieval intellectual it was vital to create talismans with the right images at the most propitious moment. The skill of the image-maker lay in recognising this.

The repainting of the upper hall of the Salone might have been influenced by the original fresco

cycle, replicating it to a certain extent.¹³ The relevance of astrology in the general layout of the Salone of the Palazzo della Ragione has led Diana Norman to claim that it would have had greater precedence in Padua than in Florence, where it played a less prominent role in the physical layout of public spaces;¹⁴ although one generation later, in the worldview of the Italian philosopher Marsilio Ficino the opposite was possibly true.

Anyway, this and many other compositions and works evince that astrological ideas were accepted in medieval and Renaissance Christian societies. Consequently, Christian theologians established a nuanced cosmic system that recognised the influence of the stars to a degree, notwithstanding the fact that in the famous verse from Deuteronomy against making idols God also forbids man to observe and worship the stars (*Deut.* 4: 16-19). Later on, Augustine, one of the most remarkable philosophers in that regard, argued against the practice in his *The City of God*.¹⁵

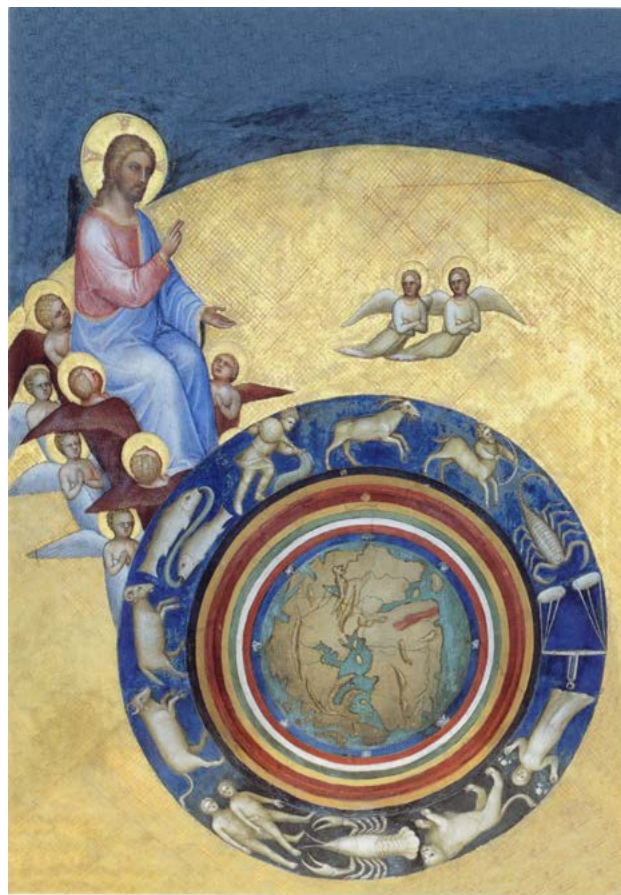


Fig. 2. Giusto de’Menabuoi. *Creation*, Baptistery of Padua, c. 1370. Image: Wikimedia Commons

kike, *A History of Magic and Experimental Science. Volume III* (New York: Columbia University Press, 1934), 585.

¹⁰ Alejandro García Avilés, *El tiempo y los astros. Arte, ciencia y religión en la alta edad media* (Murcia: Universidad de Murcia, 2001), 152. That distinction brings to mind the difference between natural magic, based on the elements, and the astral and spiritual kind in which non-physical beings, such as angels, gods, demons and so forth, clearly intervene.

¹¹ Agrippa starts his second book of magic, concerning the celestial kind, in other words, astrology, claiming, “The doctrines of mathematics are so necessary to, and have such an affinity with magic, that they who profess it without them are quite out of the way.” *De occulta philosophia* II, 1, in H. C. Agrippa, *Three Books of Occult Philosophy* (St Paul: Llewellyn Publications, 1995), 233.

¹² Charles Harrison, “The Arena Chapel: patronage and authorship”, in *Siena, Florence and Padua. Art, Society and Religion 1280-1400. Vol II: Case Studies*, ed. Diana Norman (New Haven: Yale University Press & The Open University, 1995b), 83-104, 102-103.

¹³ Diana Norman, “The art of knowledge: two artistic schemes in Florence”, in *Siena, Florence and Padua. Art, Society and Religion 1280-1400. Vol II: Case Studies*, ed. Diana Norman (New Haven: Yale University Press & The Open University, 1995b), 217-242, 228.

¹⁴ Norman, “The art of knowledge”, 229.

¹⁵ *De civitate dei*, V, 1-10, in Augustine of Hippo, *The City of God against the Pagans* (Cambridge: Cambridge University Press, 1998), 187-206.

Even though predictions about individual destiny were attacked because they refuted the principle of free will,¹⁶ fourteenth-, fifteenth- and sixteenth-century Christian thinkers apparently accepted collective predictions. For instance, Roger Bacon wrote, “A wise astrologer is able to look up and observe the stars in a useful way concerning usages and laws and religions and wars and peace etc., matters related to the state of cities, regions and kingdoms.”¹⁷

In those Christian cultures, however, the cosmological system was thought to be always under the control of the Christian God, its creator, as can be seen in another fresco cycle from Padua. In the 1370s, Giusto de’Menabuoi painted the astrological fresco on the dome and drum of the Baptistery of the Duomo (i.e. the cathedral of Santa Maria Assunta), the centre of religious life of Paduan society. God’s creation of the world is represented by an iconographic motif combining Ptolemaic notions with the Aristotelian and Neoplatonic kind.¹⁸

God, in shape of the Son, blesses the universe from the golden Empyrean, surrounded by angels. Below Him appear the spheres of the fixed stars, here only as the signs of the zodiac, followed by the seven planets in their respective spheres and the four elements, with the Earth at the centre. The fresco, as with others decorating the rest of the Baptistery, is inarguably one of the masterpieces of the Trecento

In that cultural horizon, all was connected, forming a complete unitarian system, with correspondences between everything within the cosmos, and a harmony that lay at the core of the whole system. There was a sympathy that covertly united things (*similitudo et concordantia*), drawing parallels between mankind, the world and the divine, the very essence of the microcosm-macrocosm analogy, considering man as a small universe,¹⁹ probably owing to the influence of Platonic and Gnostic authors.

Nevertheless, it was a thorny issue, with other Christian thinkers, like Guillaume d’Auvergne, denying sympathy through resemblance.²⁰ At any rate, the macrocosm of the constellations would have been the original image that explained sublunary beings;

on the contrary, the lion would have given visual meaning to Leo.²¹

The opposite was true among Hermetic and Neoplatonic thinkers who based their ideas on that microcosm-macrocosm analogy. Other Hermetic-Neoplatonic treatises addressing universal sympathy include the *Cyranides*, a book written as late as in third or fourth century CE which describes the healing power of certain stones, relating them to the stars as regards the laws of the microcosm and the macrocosm and universal sympathy, alike.²²

Nevertheless, the *De radiis* by the Muslim philosopher al-Kindi (ninth century) probably stands out as a more remarkable and influential work, which was already known in Latin in the thirteenth century, if not earlier. In his masterful analysis of astrological images, Weill-Parot underscored al-Kindi’s influence,²³ for whom all universal bodies were united by the rays pouring down from the celestial harmony of the stars, constellations and planets.

That element of sympathy in a harmonious order was essential in al-Kindi’s system for allowing those rays to pour down, because his worldview was essentially based on the notion of harmony, rather than on the power of daimons or spirits. For this philosopher, sublunary actions were triggered by celestial forces, namely, their cause,²⁴ although the order governing the general scheme was based on celestial harmony and the rays emanating from it. For this reason, artists (and magi) had to create talismans at the right astrological moment, their power depending on this astrological “tapestry”,²⁵ when those rays struck an object perpendicularly, because this was when they were at their most powerful.

It was held that those rays poured down radially, forming a pyramid with the star or planet at its vertex and the receivers at its base. This shape recalls Alberti’s way of conceiving the art of painting as the intersection of a visual pyramid at a single point. In this scheme, the artwork would be a visual pyramid whose apex corresponds to the vanishing point. Curiously, the same visual metaphor used by al-Kindi and Ficino to express the inner workings of the cosmic system, with rays and pyramids, was employed by Alberti to formulate his theory of painting.²⁶

Although al-Kindi’s *De radiis* was heavily censored,²⁷ it circulated far and wide, casting a long shadow over European cultures during the following centuries. The Arab philosopher and even more so his controversial book were well known in Christian intellectual circles from the thirteenth century onwards,

¹⁶ Sophie Page, *Astrology in Medieval Manuscripts* (London: British Library, 2002), 30-31.

¹⁷ Collected in Paola Zambelli, *Astrology and Magic from the Medieval Latin and Islamic World to Renaissance Europe* (Surrey: Ashgate Publishing Limited, 2012), 17-18. Even Luther expressed some astrological ideas. See more in Zambelli, *Astrology and Magic*, 1-3.

¹⁸ This idea of a cosmos formed by several concentric spheres surrounding the Earth already appears in Aristotle (*On the heavens*, a reference work for centuries). Ptolemy adapted some of Plato’s and Aristotle’s ideas, with a model of the universe that maintained the movement of the spheres, but in an eccentric way. For an excellent explanation, see Vicente Llamas Roig. “Sintaxis matemática del cielo precopernicano”. *De Medio Aevo* 12, n° 1 (2023): 5-25. <https://doi.org/10.5209/dmae.83990>

¹⁹ Charles Clark, “The Zodiac Man in Medieval Medical Astrology”, *Quidditas*, 3, (1982): 13-38, 21.

²⁰ In fact, he “laid the basis for the systematic condemnation of astrology and magic by later theologians”: Michael A. Ryan, *A Kingdom of Stargazers. Astrology and Authority in the Late Medieval Crown of Aragon* (New York: Cornell University Press, 2011), 35.

²¹ Weill-Parot, *Images astrologiques*, 206-208.

²² Domínguez Rodríguez, *Astrología y arte*, 32-33.

²³ Weill-Parot, *Images astrologiques*, 665.

²⁴ *De radiis* IV, 8, in al-Kindi, *De radiis: théorie des arts magiques* (Paris: Allia, 2003), 33.

²⁵ Primary source: *De radiis* II, 13-16, in al-Kindi, *De radiis*, pp. 20-23. Secondary source: Weill-Parot, *Images astrologiques*, 164-165.

²⁶ *De pictura* I, 5-13, in Leon Battista Alberti, *De la pintura y otros escritos sobre arte* (Madrid: Tecnos, 1999), 71-80.

²⁷ Zambelli, *Astrology and Magic*, 7.

for its magical notions gave rise to sharp differences of opinion. Thomas Aquinas criticised the book, while pseudo-Giles of Rome included it among his *Errores philosophorum*, although not much is known about its reception before the second half of the thirteenth century.²⁸

Contrary to this criticism, those rays were, in the Hermetic-Neoplatonic mindset, synonymous of species and forms, in the sense that they transported the essential forms in Platonic terms. They penetrated bodies and, after modifying their form, abandoned them.²⁹ Those authors placed the accent more on the dimension of universal organisms, all of whose parts were perfectly assembled and whose paradigmatic model would be proposed by al-Kindi with his rays of cosmic harmony. With reference to al-Kindi's system, some authors emphasised the existence of intelligences that governed the entire system, including some nuclear energies, angels, gods, decans, archons and related notions.³⁰

In the same vein as al-Kindi, Ficino elaborated on the theory of stellar rays in his *De vita*,³¹ grounded in the conception of living rays that imbued images with power. During the Renaissance, likeminded philosophers combined late antique Hermetism with Neoplatonism. In this combination characteristic of the fifteenth and sixteenth centuries, not only Ficino, but also Paracelsus and Giordano Bruno, borrowed part of al-Kindi's cosmological system.

3.1. The human mind as a microcosm

As above, so below, *Tabula smaragdina*

One of the ideas best adapted to Hermetic and Neoplatonic thought was that of microcosm, originating from al-Kindi, among other authors. The Arab philosopher held that each individual thing would reflect complete celestial harmony, as a mirror of the other, because each thing became an image of this harmony.³²

Human beings were called "microcosms", or small universes, because of their ability to change themselves thanks to their imagination, for the imagination of each human being could lie at the very core of the universe and contain all within it.³³ This notion

is clearly linked to the famous verse of *Genesis* 1:26, declaring that "God created man in His own image". It was because of this central position that mankind could bring about changes, an ability that differed from person to person depending on the configuration of the stars at the time of birth.

But it was not only al-Kindi who made such a case. The Neoplatonic stance interpreted human consciousness as a *minor mundus* that reflected the creative and cognitive processes of the Prime Mover.³⁴ For a fifteenth-century philosopher influenced by Neoplatonism such as Nicholas of Cusa, wisdom turned human beings into the binding force of the universe. Human beings were even "microcosms".³⁵ In another text, Nicholas Cusanus elaborates on this idea, stating that "the world is threefold: a small world that is man, a maximal world that is God, and a large world that is called universe. The small world is a likeness of the large world; the large world is a likeness of the maximal world".³⁶ The human mind united matter with the spirit, this being the maximum expression of the senses and the minimum of the intelligible.³⁷

At a later date, in a letter to Lorenzo di Pierfrancesco Ficino recommended that he should not look for the heavens "outside ourselves, for all the heavens are within us and the fiery vigour in us testifies to our heavenly origin".³⁸ This was also the case with Bruno, another thinker who was attracted by this idea, for whom the aspect justifying that link was the equivalence between the universe (*macrocosmos*) and the human *mens* (*microcosmos*), a relationship in which the former was capable of discovering the secrets of the latter. In this respect, images were crucial because they were the language in which the *anima mundi* transmitted its information.

The fact that the human mind was an image of the universe and the measure of all things and mirrored the whole was a long-standing metaphor in Hermetic-Neoplatonic lore, in which it was believed that the human soul emulated God, in whose image it was made. As a matter of fact, for theologians that idea

²⁸ Alejandro García Avilés, "La magie astrale comme art visuel au XIII^e siècle", in *Images et magie. Picatrix entre Orient et Occident*, eds. Jean-Patrice Boudet; Anna Caiozzo; Nicolas Weill-Parot (Paris: Honoré Champion éditeur, 2011), 95-116, 112.

²⁹ Mary Quinlan-McGrath, *Influences. Art, Optics, and Astrology in the Italian Renaissance* (Chicago/London: The University of Chicago Press, 2013), 50 ff.

³⁰ They could be interpreted and accepted in Christian terms. In this view, God placed them in the firmament as archetypes and for teaching moral lessons. Moreover, wise men benefitted from them, receiving virtue and strength: Domínguez Rodríguez, *Astrología y arte*, 168-169.

³¹ *De vita triplici* III, 16-20, in Marsilio Ficino, *The Book of Life* (Dallas: Spring Publications, 1980), 137-158.

³² *De radiis* II, 16, in al-Kindi, *De radiis*, 22-23.

³³ *De radiis* IX, 3, in al-Kindi, *De radiis*, 79. On this notion in al-Kindi, see Weill-Parot, *Images astrologiques*, 155-157. The notion of microcosm of the macrocosm laid the ontological foundations of

al-Kindi's worldview: Weill-Parot, *Images astrologiques*, 161-162. Imagination was essential for Ugo Benzi, a noteworthy exponent of astrological thought in Italy and physician to the d'Este family who ruled in the city of Ferrara, where he developed a theory on the power of imagination and the elaboration of images at the appropriate time, that is, with the correct configuration of the stars, to achieve the most propitious influences. Despite the fact that he was physician to the d'Este family, his proposal was more focused on achieving good fortune than on healing: Weill-Parot, *Images astrologiques*, 546-550.

³⁴ John D. Lyons & Stephen J. Nichols Jr., "Introduction", in *Mimesis, from Mirror to Method, Augustine to Descartes*, ed. John D. Lyons & Stephen J. Nichols Jr. (Hanover: Dartmouth College Press, 1982), 1-19, 4.

³⁵ *De venatione sapientiae*, 32, 95, Nicholas of Cusa, *Nicholas of Cusa: Metaphysical Speculations* (Minneapolis: The Arthur J. Banning Press, 1998), 1338.

³⁶ *De ludo globi*, I, 42, in Cusa, *Metaphysical Speculations*, 1201.

³⁷ *De venatione sapientiae*, 32, 95, in Cusa, *Metaphysical Speculations*, 1338.

³⁸ In E. H. Gombrich, *On the Renaissance. Volume 2: Symbolic Images* (London: Phaidon, 1993), 41.

was expressed beyond those philosophies:³⁹ God as the original, the eternal Subject, the One, and each human being as an image of that One, a mirror image.

In the *Liber divinorum operum*—an image from a thirteenth-century edition, copied from the twelfth-century original—one of Hildegard von Bingen’s illuminated works, there is an example representing this, with God, the Holy Spirit, the decans and their respective influences, the macrocosm dominated by the divine and the human being as a microcosm representing the totality.



Fig. 3. Hildegard von Bingen, *Liber Divinorum Operum* I.2. (13th). Biblioteca Statale di Lucca, MS 1942, fol. 9r

As Agrippa claims in the third book of his *De occulta philosophia*, citing the *Corpus hermeticum*, God created both mankind and the universe as an image of Himself, for which reason the former was also an image of the world.⁴⁰ He would thus defend his theory that human beings represented a mirror image of the universal macrocosm. And taking a page from the book of authors influenced by Hermetism, for Paracelsus man reflected God and the four elements as if he were a mirror.⁴¹

The fabric of the celestial constellations was reflected in the axial point of the pneuma of each being, with mankind playing a special role as a go-between

par excellence. Bruno regarded the universe as a living mirror reflecting not only the image of natural things, but also the shadow of the divinity,⁴² thus evincing Neoplatonic influences: consensual reality as an emanated phantasmagorical shadow.

Microcosmic intuition appears in one of the most outstanding engravings of Robert Fludd’s *Utriusque cosmi ...*,⁴³ one of the most valuable Hermetic books of the early modern period which is divided into two parts, “Macrocosm” and “Microcosm”. The first volume is devoted to world history (macrocosm), while the second deals with the microcosm, viz. man and the arts that he practices.



Fig. 4. Robert Fludd, cover of the “Macrocosm” section in *Utriusque cosmi ...* 1617. Image: Wikimedia Commons

For Fludd, the relationship between the micro and the macro was based on the fact that, if creation possessed a soul, this manifested itself in all parts. In *Utriusque cosmi ...* his diagrams illustrate the associations between the two cosmic spheres in a reflection by analogy. The circles beyond the human figure

³⁹ For instance, the fourteenth-century theologian Henry of Langenstein, an example included in Hans Belting, *Miroir du monde: l'invention du tableau dans les Pays-Bas* (Paris: Hazan, 2014), 72.

⁴⁰ *De occulta philosophia* 3, XXXVI, in Agrippa, *Occult Philosophy*, 579-584.

⁴¹ For the four elements mirrored in humans, see Paracelsus, *Selected Writings* (Princeton: Princeton University Press, 1979), 39.

⁴² Giordano Bruno, *Mundo, magia, memoria* (edición de Ignacio Gómez de Liaño) (Madrid: Biblioteca nueva, 2007), 343. The microcosm-macrocosm analogy was already to be found in the work of the philosopher from Nola: Ignacio Gómez de Liaño, *El idioma de la imaginación*. (Madrid: Taurus, 1992), 317. In his commentaries on Bruno, Gómez de Liaño contends that the philosopher considered that just as life and the universe mirrored the unity of the intelligible world, so too was a work of art a microcosm of life: In Bruno, *Mundo, magia, memoria*, 57, n. 3.

⁴³ Not for nothing the full title of the work is *Utriusque Cosmi, Maioris scilicet et Minoris, metaphysica, physica, atque technica Historia*.

correspond to the revolving spheres, the seven planets-luminaries and the fixed stars. It is the Ptolemaic astronomical scheme, with the addition of four spheres without a planetary sign corresponding to the four elements.

3.2. The cosmic body

*Hominem, quasi minorem quemdam mundum*⁴⁴

Although the idea of the human mind as a microcosm was popular in terms of concepts and literature, the most common visual analogy between the macrocosm and the microcosm was the human body, in a model called the zodiac man. As in the previous section, the famous verse from *Genesis* 1:26 about God creating man in His own image springs yet again to mind.

For that mindset, according to Mircea Eliade, “[T] here is a complete solidarity between physical matter and the psycho-somatic body of the man.”⁴⁵ As the human body reproduced the whole universe, there was also an affinity between its parts and the stars, constellations and planets. To offer just one example, the painter Jacopo de’Barbari remarked on how the influence of the stars was stronger on two body-parts: the face and the hands. Consequently, the painter had to pay due attention to them, assigning them their respective signs.⁴⁶

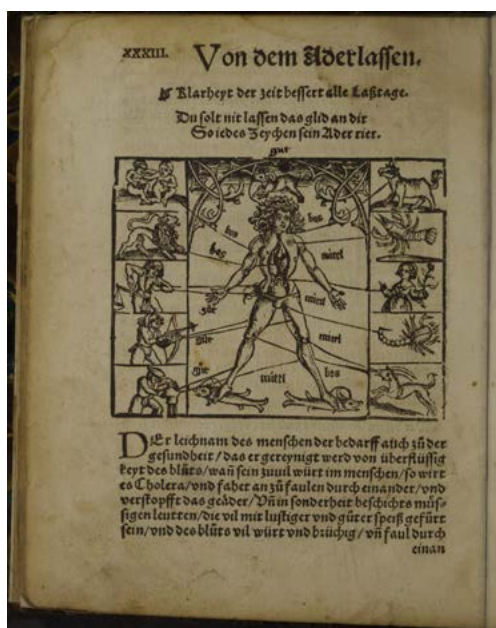


Fig. 5. The zodiac man. Joannes Regiomontanus, *Natürlicher Kunst der Astronomiei ...*, 1529, p. 33. From Welcome Collection <https://wellcomecollection.org/works/juxuebww>

It has ancient origins for there are examples in the Babylonian culture. As to the ancient Greek culture, in the *Timaeus* Plato was already comparing the movement of the blood flowing through the human body with the revolutions of all that existed in the universe,⁴⁷ an idea that was particularly relevant for the School of Chartres.

Furthermore, the universe/earth/human being analogy is depicted in the first treatise of the aforementioned *Picatrix*, with coincidences in their forms based on their correspondences, instead of on causal logic. The microcosm and the macrocosm are linked by the laws of analogical correspondences, which differ from logical analogies. For example, it is held that the eyes of this archetypical human being are akin to two bright stars.⁴⁸ Man is but a small fragment of the universe, but symbolically contains all within it.

In the *Picatrix*, which led to the Muslim Neoplatonism of the so-called Brothers of Purity,⁴⁹ it is claimed that the stars, constellations and planets are linked to the sublunary world through their *spiritus-pneuma*. The origin of the *Picatrix* is to be found in older texts from Iraq, collected in Arabic under the title of *Ghayat al-Hakim: The Goal of the Wise*. Notwithstanding the changes and interpolations that were made, which on the other hand was a matter of course with most of the main works of occultism, when the original Arabic text was translated into Spanish, Latin and even Hebrew, this book was held in high esteem.⁵⁰ It was translated into Spanish and Latin at the court of Alfonso X, ca. 1250. The Latin version seems to have been produced at a later date, but exactly when it was translated and by whom are still moot points.⁵¹ However that may be, it would not come into its own until the end of the fourteenth century and later on.⁵² It was highly valued by Ficino who owned a copy of the book and acknowledged having borrowed ideas from it for his third book of the *De vita*.⁵³

Owing to the fact that it bordered on Muslim al-Andalus, it was the Crown of Castile that served as

⁴⁷ *Timaeus* 80e-81b, in Plato, *Complete Works* (Indianapolis: Hackett Publishing Company, 1997), 1280-1.

⁴⁸ *Picatrix* I, 6, in [Anonymous], *Picatrix*, 79-83. Eugenio Garin detects similarities between this section of the *Picatrix*, Pico della Mirandola's *Oration on the Dignity of Man* and the Hermetic *Asclepius*: Eugenio Garin, *El zodiaco de la vida. La polémica astrológica del Trescientos al Quinientos* (Barcelona: Península, 1981), 79-80.

⁴⁹ Ana González Sánchez, *Alfonso X el mago* (Madrid: Ediciones de la Universidad Autónoma de Madrid, 2015), 134.

⁵⁰ Reimund Leicht, "Le chapitre II, 12 du *Picatrix* latin et les versions hébraïques du *De duodecim imaginibus*", in *Images et magie. Picatrix entre Orient et Occident*, eds. Jean-Patrice Boudet; Anna Caiozzo; Nicolas Weill-Parot (Paris: Honoré Champion éditeur, 2011), 295-330, 296.

⁵¹ González Sánchez, *Alfonso X el mago*, 125.

⁵² Weill-Parot, *Images astrologiques*, 591, 645, 653. Benedek Láng, "Puissances ou Démons? Les images décaniques dans le *Picatrix* de Cracovie", in *Images et magie. Picatrix entre Orient et Occident*, eds. Jean-Patrice Boudet; Anna Caiozzo; Nicolas Weill-Parot (Paris: Honoré Champion éditeur, 2011), 137-148, 139. Ryan, *A Kingdom of Stargazers*, 94-95. Ryan tentatively dates the Spanish version to between 1256 and 1258.

⁵³ Quinlan-McGrath, *Influences*, 187.

⁴⁴ Firmicus Maternus, *Mathesis Livres III-IV* (Paris: Les belles lettres, 2002), 15. Translation: "Man, as a tiny world".

⁴⁵ Mircea Eliade, *The Forge and the Crucible. The Origins and Structures of Alchemy* (Chicago: The University of Chicago Press, 1978), 128.

⁴⁶ Hans Belting, *Likeness and Presence: A History of the Image before the Era of Art* (Chicago: University of Chicago Press, 1994), 552.

a door for the reintroduction of astrology on a larger scale. Consequently, as of the twelfth century astrology combined ideas from Babylon, Egypt, Greece, Rome, Byzantium and the Christian countries of Europe, with Muslim ones. Scholars from all over Europe travelled not only to the Iberian Peninsula—mostly Castile—but also to Sicily and the Middle East to translate those Arabic texts, often in collaboration with Jewish intellectuals.⁵⁴

One of the most relevant thirteenth-century centres of production, from whose translations the rest of Europe would benefit over the following centuries, was the court of Alfonso X “the Wise” of Castile, who was also known as “the Astrologer”. The translations by the Toledo School of Translators (Escuela de Traductores de Toledo) can be divided into two periods. In the first, this task was performed by rendering texts into vernacular Spanish (Castilian, in fact) or another romance language, before translating them into standard high Latin or even Spanish. With regard to the second period, books were directly translated to Spanish-Castilian, without any intermediate steps, their translators normally being Mozarabs or Jews.⁵⁵

The microcosm-macrocosm analogy was popular in several fields of knowledge, standing out as one of the core ideas in Hermetic and Neoplatonic thought, due its importance for these philosophical/religious currents. The *Iatromathemátiká of Hermes Trimegisto to Amon the Egyptian* illustrates *melothesia*, that is, assigning human body-parts to celestial objects and astrological signs: the head to Aries, the right eye to the sun, the left eye to the moon and so on, according to the idea that, at birth, each human received energy from the configuration of the planets and the stars through their rays.⁵⁶ In Stobaeus’

Extracts, reference is also made to those correspondences.⁵⁷

As already noted, with respect to Neoplatonism this idea appears in Plato’s *Timaeus*, in which the universe is mirrored in the human body, with the gods uniting both.⁵⁸ According to Plotinus, in his *Enneads*, each being in the fragmented universal multiplicity became an image of that multiplicity, which was ultimately a unity in itself, bearing a trace of the common source.⁵⁹ This could lead to error, however, and he was equally critical of a mistaken theory of the cosmos that overestimated it by equating it with the intelligible realm, when it was actually a mirror image of it.⁶⁰

In his *Elements of Theology*, Proclus proposed that the individual soul, on its different levels, participated in and mirrored the divine order and structure of the macrocosm. The discussion of the microcosm was integrated into the overall framework of his metaphysical and theological system, which he further developed so as to gain a deeper understanding of this analogy. For Proclus, the microcosm was not merely a reflection or image of the macrocosm but an active participant in its unfolding.

Macrobius also employed the analogy in his *Commentary on the Dream of Scipio*: “Philosophers called the universe a huge man and man a miniature Universe.”⁶¹ And even the Neoplatonist Firmicus made a similar point in his *Mathesis*, claiming that man was an image of the world, a microcosm in which the powers of the astral forces converged. The same principles governed human beings and the world.⁶²

In Antiquity, this analogy was shared by several schools of scientific thought. In his *Tetrabiblos*, Ptolemy related the human body-parts to the planets, with Saturn corresponding to the right ear, the bones and the bladder.⁶³ Likewise, in the Hippocratic school of medicine the aforementioned parallels were drawn between the universe and the human body:

Book 1 of the *On Regimen* generates, in quite striking detail, a theory of the human body as a mirror of the cosmos. Similar microcosm-macrocosm models appear elsewhere in the Hippocratic corpus. The great principle of fire, the author tells us, constructs each individual as an imitation [...] of the cosmos. Heavenly circuits [...] and revolutions are mirrored by circuits [...] and movements in the body. The belly is an imitation of the sea, the flesh an imitation of the earth; the

⁵⁴ Page, *Astrology*, 9. Owen Davies, *Grimoires: A History of Magic Books* (Oxford: Oxford University Press, 2009) [e-book], 26. The Muslim and Jewish presence gave momentum to the Spanish scientific milieu not only of that period, with Alfonso X as monarch, but even later on in the fourteenth century. In the view of Weill-Parot, the period between the twelfth and fourteenth centuries deserves to be regarded as an “*époque faste*”, namely, the golden age of Spanish science when it had wielded influence on the Western intellectual world as whole, before gradually declining in the Kingdom of Castile as of the beginning of the fourteenth century and in the Kingdom of Aragon a few decades later, where, in contrast to other European countries, much progress had been made in the occult sciences, specifically in the field of medical astrology, due to Muslim and Jewish influences: Weill-Parot, *Images astrologiques*, pp. 772-773. This was especially the case in the realm of the occult sciences: Weill-Parot, *Images astrologiques*, 772. The Arab influence probably led to the perception that the Iberian Peninsula was a realm of magic, astrology and the occult. According to Ryan, the best European region for studying the occult in the Middle Ages was the Iberian Peninsula, because of the available texts: Ryan, *A Kingdom of Stargazers*, 2-3, 79.

⁵⁵ González Sánchez, *Alfonso X el mago*, 13 ff. Besides the *Picatrix*, other texts translated there derived from Arabic sources, including the *Raziel*, the *Lapidary*, the *Libro de la ochava esfera*, the *Libros del saber de la astrología* and the *Tablas alfonsies*.

⁵⁶ Collected in Xavier Renau Nebot (ed.) *Textos herméticos* (Madrid: Gredos, 1999), 345, n. 99.

⁵⁷ *Extractos de Estobeo* XX, 7, Renau Nebot (ed.), *Textos herméticos*, 344. The microcosm-macrocosm analogy also appears in another Hermetic text: *Definiciones herméticas armenias*, I, 4, in Renau Nebot (ed.), *Textos herméticos*, 530.

⁵⁸ *Timaeus* 44d, in Plato, *Complete Works*, 1248.

⁵⁹ *Ennead* III, 3, 7, in Plotinus, *The Enneads* (New York: Larson Publications, 1992), 208.

⁶⁰ *Ennead* II, 9, 4, in Plotinus, *The Enneads*, 154.

⁶¹ *In Somnium Scipionis*, 2, XII, 11, in Macrobius, *Commentary on the Dream of Scipio* (New York: Columbia University Press, 1990), 224.

⁶² *Mathesis* III, 2-3, in Firmicus Maternus, *Mathesis*, 13-15.

⁶³ Brian Vickers, “On the Function of Analogy in the Occult”, in *Hermeticism and the Renaissance. Intellectual History and the Occult in Early Modern Europe*, eds. Ingrid Merkel & Allen G. Debus (Washington: Folger Books, 1988), 265-292, 273.

body's inner circuit imitates the circuit of the moon; its outer circuit mirrors that of the stars.⁶⁴



Fig. 6. The zodiac man, text by Nicholas of Lynn, ca. 1395 (Bodleian Library MS. Ashmole 391(5) f. 9r)

Astrological medicine gave rise to a string of correspondences between buildings, planets, signs, organs and temperaments, among many other aspects, an order of relationships that prevailed at least until the advent of early modern culture.⁶⁵ This factor probably explains why the microcosm-macrocosm analogy was so popular and even maintained after the arrival of Christianity. For instance, it already appears in the bishop of Emesa Nemesius' *De natura hominis* (c. 400).⁶⁶

The zodiac man was a sort of *melothesia*, slightly different from the previous analogies between organs, body-parts and so on, and the planets, constellations and stars. The literary versions commented on above were more specific than this zodiac man, whose iconographic type was so popular that there are many extant examples illustrating the microcosm-macrocosm analogy in medieval illuminated books. Sophie Page rightly considers it to be a "ubiquitous image of astrological medicine".⁶⁷

This iconographic type represents a naked male body with the 12 astrological signs governing the different body-parts and sections. The astrological signs arranged from his head (Aries) to his feet (Pisces) follow the conventional astronomical order.⁶⁸ One famous version of this zodiac man was produced by Nicholas of Lynn in the fourteenth century.

Clark established the first representations of the zodiac man in the West, with one pictorial example in the eleventh century and many more by the thirteenth century. The literary descriptions of the zodiac man derived from the deluge of Latin translations of Arabic and Greek works. Although those descriptions drew from such sources, the visual depiction of the zodiac man, the image of a man inscribed with astrological signs and so forth, might have had a Western origin insofar as examples have yet to be discovered in the Arabic and Greek sources.⁶⁹

In Europe, this kind of information on the zodiac man was included in the most popular medieval and early modern publications: almanacs. Astrological (and alchemical) ideas were widely disseminated in this crowd-pleasing format, as well as in books and books of hours. Astrological almanacs were all the rage in the Late Middle Ages and until as late as the seventeenth century. Following the publication of the first in 1685, these almanacs (some with astrological content) continued to appear in the United States.⁷⁰

Since almanacs, herbal remedy books and other works disseminated those ideas in a process of inter-

⁶⁴ Collected in Peter Struck, "Viscera and the Divine. Dreams As the Divinatory Bridge Between the Corporeal and the Incorporeal", in *Prayer, Magic, and the Stars in the Ancient and Late Antique World*, eds. Scott Noegel, Joel Walker & Brannon Wheeler (University Park: The Pennsylvania State University Press, 2003), 125-136, 128.

⁶⁵ Anthony Grafton & Nancy Siraisi, "Between the Election and My Hopes: Girolamo Cardano and Medical Astrology", in *Secrets of Nature. Astrology and Alchemy in Early Modern Europe*, eds. William R. Newman & Anthony Grafton (Cambridge: The MIT Press, 2001), 69-132, 78. Doctors bore in mind the astrological configuration, above all for determining the most propitious moment for administering medicines.

⁶⁶ Antoine Faivre, "Ancient and Medieval Sources of Modern Esoteric Movements", in *Modern Esoteric Spirituality*, eds. Antoine Faivre & Jacob Needleman (New York: Crossroad), 1-70, 17-18.

⁶⁷ Page, *Astrology*, 56. The same specialist in medieval astrology recounts an amusing anecdote. In 1557, the Archdeacon of Canterbury realised to his horror that religious services were being performed in front of a zodiac man, namely, before the representation of a naked man surrounded by the 12 astrological signs, a state of affairs about which he complained: Page, *Astrology*, 56.

⁶⁸ Page, *Astrology*, 52-54; González Sánchez, *Alfonso X el mago*, 155. In Gnosticism, there is an idea relating to this. In the *Apocryphon of John*, Adam is created in the resemblance of God and the demiurge and archons; powers, angels and demons created each member, feature, virtue and weakness of Adam: *Apocryphon of John* II 15-19, in José Montserrat Torrents (ed.), "Apócrifo de Juan (NHC II, 1)", in *Textos gnósticos. Biblioteca de Nag Hammadi I*, ed. Antonio Piñero (Madrid: Trotta, 1997), 209-236, 225-227. For Antonio Piñero and José Montserrat, the editors of the Gnostic texts, this microcosm-macrocosm analogy is Iranian rather than Greek: Antonio Piñero & José Montserrat, "Introducción general", in *Textos gnósticos. Biblioteca de Nag Hammadi I*, ed. Antonio Piñero (Madrid: Trotta, 1997), 19-120, 92.

⁶⁹ Clark, "The Zodiac Man", 26, 37.

⁷⁰ On almanacs, see Davies, *Grimoires*, 56, 142; William Eamon, "Astrology and Society", in *A Companion to Astrology in the Renaissance*, ed. Brendan Dooley, (Leiden: Brill, 2014), 141-191, 163. As regards medieval books of astrology, see Page, *Astrology*, 49.

polation, assimilation and contamination by other texts, their authorship is unclear. They were so popular, in fact, as to prompt French physicians to lodge complaints with Parliament, alleging unfair competition and the consequent loss of fees.⁷¹

As a last point, a variation on this idea of the human body as a microcosm reversed the analogy, with the universe taking the shape of a human body or *macanthropos*.

3.3. The city or temple as a vision of the universe

As well as in each human being, that universal order should be reflected in both cities and buildings in order to provide structure and maintain harmony.⁷² Another version of the microcosm-macrocosm analogy equated some architecture to the universe, mostly the ideal city (Jerusalem is an example par excellence) or the main temple of a religion, churches in the case of Christianity.

As to cities, two examples are offered here, among many others, to illustrate two different versions. The first is Athens which, according to J. P. Vernant, was organised along the lines of the cosmic model in the time of Cleisthenes.⁷³ The second example is borrowed from the architectural and city planning theorist Filarete, who belonged to the Quattrocento astrological milieu and for whom a city or building was such a reflection of the universe.⁷⁴

Astrology and the notion of a city as a reflection of the universe were so important for rectifying horoscopes and even re-founding cities that they were used as a method for reversing bad luck in places like Rome, Florence, Forlì and Milan. Quinlan-McGrath asserts, “The practice of re-founding a city had become an accepted astrological remedy.”⁷⁵ Spurious horoscopes of cities, whose intention was to mislead other cities, were fairly common as a political tool for defeating enemies. In the same vein, horoscopes considered as bona fide were kept under lock and key, since the information that they contained could be used by a city’s enemies to undermine it.

According to Joseph Campbell, that things occurring in the celestial order also occurred on Earth was first intuited in ca. 3500 BC. In the so-called hieratic city state, the union of the sun and the moon, of the king and the queen, was celebrated, although Campbell reverses the opposition, with the king as the moon and the queen as the sun, as in the Germanic culture.

Additionally, the main roles of a city embodied the heavenly myth in the human dimension. Venus was the virgin priestess accompanying the king at his death and becoming his bride after his resurrection. The state had four main ministers, the lords of the

treasury (Mercury) and war (Mars), the prime minister (Jupiter) and the executioner (Saturn). In other places, the sun and moon opposition was inversely represented.⁷⁶ Anyway, the fact that one dimension mirrored the other, celestial and terrestrial, was what really mattered.

If the human body was a microcosm, for some medieval and early modern authors the same applied to the church as a building, taking the shape of an anthropoid figure.⁷⁷ In fact, this analogy, in this case between the temple and the human body, first appeared in Hellenist architectural thinking and subsequently in the works of Roman thinkers, including Vitruvius.⁷⁸ As mentioned above, this is also the case with the works of Christian authors. For instance, the thirteenth-century bishop and Christian writer William Durandus claimed, “The arrangement of a material church resembleth that of the human body,”⁷⁹ with the chancel as the head, the transept as the arms and hands, the nave as the torso and legs and the double tower at the entrance as the feet. This idea was corroborated by Pietro Cataneo, for whom the main church of a city was built as if it were a well-proportioned human body.⁸⁰



Fig. 7. From Pietro Cataneo’s treatise on architecture, *L’architettura*, 1554. Image: from Alberti’s Window blog <http://albertis-window.com/wp-content/uploads/2012/09/Pietro-Cataneo-Vitruvian-Man-in-Basilica-Floor-Plan-1554.jpg> [accessed 29/05/23]

⁷¹ Clark, “The Zodiac Man”, 37.

⁷² René Passet, *Las grandes representaciones del mundo y la economía a lo largo de la historia* (Buenos Aires/Madrid: Eudeba/Clave intelectual, 2012) 54-55.

⁷³ J.-P. Vernant, *Mythe et pensée chez les Grecs, 1 vol.* (Paris: Maspero, 1974), 218.

⁷⁴ Quinlan-McGrath, *Influences*, 99.

⁷⁵ Quinlan-McGrath, *Influences*, 91.

⁷⁶ Joseph Campbell, *The Masks of God. Primitive Mythology* (London: Secker & Warburg, 1960), 404-405.

⁷⁷ Tom Flynn, *El cuerpo en la escultura* (Madrid: Akal, 2002), 46.

⁷⁸ Wladyslaw Tatarkiewicz, *History of Aesthetics. Volume 1. Ancient Aesthetics*. (London: Continuum International Publishing Group, 2005), 275-281.

⁷⁹ William Durandus, “The Symbolism of Churches and Church Ornaments”, in *Main Currents of Western Thought*, ed. Franklin le van Baumer (New Haven: Yale University Press, 1978), 43-46, 44.

⁸⁰ Pietro Cataneo, “L’architettura”, in *Trattati*. Pietro Cataneo; Giacomo Barozzi da Vignola (Milano: Edizioni il polifilo, 1985), 163-498, 302-305.

In this text, the temple of Solomon is cited as an example. The analogy between temples, especially that of Solomon, and the universe is the most frequently employed in the history of esoteric religious thought not only in the Jewish and Christian cultures, but also in other currents such as Masonry and in esotericism. In Masonry, it became a divine work performed by the architect and blacksmith Hiram Abiff.

In *Architecture and Magic*, Taylor argues that the architect and theologian Juan de Herrera used Solomon's temple as a source of inspiration for his design of the king's temple of El Escorial, resorting to a system of correspondences to propose the concept of **Solomon's temple-world** in which he compared the 12 Tribes of Israel with the astrological signs, a comparison to which he added the planets and biblical verses.⁸¹

As the largest church in some cities, cathedrals became miniature representations of their world and eras, which also changed from period to period with the incorporation of innovative features in these buildings with very varied and evolving functions.⁸² Christians mirrored the cosmos, the Celestial City and the Christian building par excellence, with each cathedral being a model of the cosmos and an image reflecting Celestial Jerusalem.⁸³

An analogy was even drawn between human creation and a vessel, albeit a very special one. The artist and theorist of art Gian Paolo Lomazzo (1584), for instance, resorted to the microcosm-macrocosm analogy to assert that God had taught Noah to build his ark using the measures of the human body as a model, because although He had created the world, He had endowed man with all the perfections, calling him the greater and the world the lesser work. Therefore, using the measures of the former to create the latter was tantamount to recognising that it was perfect.⁸⁴ Lomazzo was naturally given to employing Neoplatonic terms, because his treatise can be perfectly attributed to the Neoplatonic and Hermetic worldviews, with a sophisticated reasoning of numbers, a notion of creation through ideas and the links between the divine demiurgic God and the human being, and between mankind and its artefacts

3.4. The work of art or image as an *imago mundi* that mirrors the whole

There is still another use of this conception that considers a work of art or image as a mirror of the whole

universe. In this view, the work of art would consist of a monad that contains all the universe in the form of a mirror image. The microcosmic image would reflect the macrocosm, as a copy of its archetypal original reflected in a looking glass. If God is added to the equation, the universe is infinite, although the spheres are limited. Paintings—sculptures and, generally speaking, even the arts—can create an image of the universe, depicting its foundations and converting this image into an *imago mundi* that reveals the secret essence of that infinite totality. That is the power of a work of art or image.

The idea of an image as a mirror that reflects something gigantic, the cosmos more often than not, appears frequently in Gnostic texts including the *Apocryphon of John*, the *Allogenes* and the *Trimorphic Protennoia*. An image embodies something far too complex, for it serves to explain the convoluted and frequently contradictory ontology of reality, with the heavenly and multiple Aeons. The idea of something small as an image of something larger or more intricate appears repeatedly in the *Apocryphon of John*.

For instance, the Supreme Intelligence is an image of the Invisible, Father of everything. At the same time, Adam was created in the image of God, resembling the demiurge and archons.⁸⁵ For its part, in the *Allogenes* Barbelo is the image of the occult, a divine knowledge that simultaneously generates proto-manifestations.⁸⁶ Finally, in the *Trimorphic Protennoia* the thought of the Father or divine knowledge is the image of the Invisible Spirit, the Ineffable God prior to all existence.⁸⁷ This analogy was used in other currents, for one, in Hermetism, a philosophical current essential for this study, as already noted.⁸⁸

It was believed that each astronomical image was made of three elements: the material of the image (understood as the material of the talisman, fresco, drawing, engraving, etc.); the radiation of the figure shown (planets, signs, constellations, etc.) and the artificial figure evoked: Venus as a woman with a mirror and Saturn as an old man with a scythe, to offer just two examples, the first two parts endowed by nature and the last one depending on the skills of the human creator.⁸⁹

One of the most powerfully eloquent manifestations of these cosmic images, relevant above all in

⁸¹ Taylor, *Arquitectura y magia*, 74-75.

⁸² Eduardo Carrero, *La catedral habitada* (Barcelona: Edicions UAB, 2019), 404.

⁸³ Otto von Simson, *The Gothic Cathedral* (New York: Bollingen Foundation, 1962), 37. For his part, Michael Camille compares cathedrals to computers insofar as they attempt to contain an entire world and to create a virtual reality: see in Michael Camille, *Gothic Art: Glorious Visions* (New York: Harry N. Abrams, 1996), 15.

⁸⁴ Ernest B. Gilman, *The curious perspective: Literary and pictorial wit in the seventeenth century* (New Haven: Yale University Press, 1978), 38.

⁸⁵ *Apocryphon of John* II 14-15, in Montserrat Torrents, "Apócrifo de Juan", 225.

⁸⁶ *Allogenes* XI 51, 10-20, in José Montserrat Torrents (ed.) "Allógenes (NHC XIII)", in *Textos gnósticos. Biblioteca de Nag Hammadi I*, ed. Antonio Piñero (Madrid: Trotta, 1997), 281-295, 289.

⁸⁷ *Trimorphic Protennoia* XIII 38, 10-20, in Francisco García Bazán (ed.) "Pensamiento Trimorfo (NHC XIII)", in *Textos gnósticos. Biblioteca de Nag Hammadi I*, ed. Antonio Piñero (Madrid: Trotta, 1997), 297-320, 310.

⁸⁸ To offer just one of many examples, this sequence appears in the *Corpus hermeticum*: "Eternity, therefore, is an image of God; the cosmos is an image of eternity; and the sun is an image of the cosmos. The human is an image of the sun": *Corpus hermeticum* XI, 15, in Brian P. Copenhaver, (ed.) *Hermetica* (Cambridge: Cambridge University Press, 1992), 40.

⁸⁹ Quinlan-McGrath, *Influences*, 120.



Fig. 8. Giovanni Antonio da Varese, *Villa Farnese, Sala del Mappamondo*, circa 1575

the Renaissance, was painted on vaults and interiors of villas, and even in churches, ranging from the vault frescoes of Castello di Roccabianca to the Room of the World Map at Villa Farnese, through Brunelleschi's night sky in the Old Sacristy,⁹⁰ among many other painted ceilings. Nevertheless, this theme painted on vaults can be found in older cultures. A celestial map, with its counter clockwise order of the stars, already adorned the dome of an eighth-century Umayyad palace at *Qasr Amra*.

These fresco cycles featuring astrological motifs were naturally subordinated to Christian theology. This is the case of the planet fresco in the chancel of the church of the Eremitani, in Padua, and grisailles painted below Orthodox Christian representations, thus placing the planets under the influence of Christian values.⁹¹

Ficino stands out as the main proponent of this idea of transforming the cosmic macrocosm into an image because he revamped the medieval tradition to broaden its horizons, introducing some notions of magic and a certain degree of ambiguity about whether or not astrological images were licit in Christian terms.⁹² The philosopher recommended looking at paintings of the heavens for the curative properties of this type of contemplation, for it restored the sense of unity with the cosmos, avoiding the spectacle of individual things being substituted by the figure of the universe.

In a chapter of the third section of *The Book of Life*, Ficino offers a description of a stronomical images (such as armillary spheres and astronomical clocks, like the one that Lorenzo della Volpaia made), recommending that they be painted on the ceilings of rooms.⁹³ These motifs were supposed to be painted when the sun had entered Aries, because it marked the very beginning of the whole universe.⁹⁴

In *The Book of Life*, Ficino also explains his theory of the power of some kinds of astronomical images, whose rays can affect the *spiritus* of the beholder. Significantly, a person haunted by a spirit can break the spell by using a concave bronze mirror to reflect its rays in the opposite direction.⁹⁵ As can be inferred, al-Kindi's theory of rays was yet again fundamental, inasmuch as these pictorial representations were "in the technical

⁹⁰ Considered to have been designed and even painted by Alberti: David Summers, *Vision, Reflection and Desire in Western Painting* (Chapel Hill: University of North Carolina Press, 2007), 135.

⁹¹ Diana Norman, "Astrology, antiquity and empiricism: art and learning", in *Siena, Florence and Padua. Art, Society and Religion 1280-1400. Vol I: Interpretative Essays*, ed. Diana Norman (New Haven: Yale University Press & The Open University, 1995), 197-216, 210.

⁹² Weill-Parot, *Images astrologiques*, 882.

⁹³ *De vita triplici* III, 19, in Ficino, *The Book of Life*, 151-155. The armillary sphere was one of the attributes assigned to Hermes in his visual representations, as evidenced by a drawing of the deity in Boissard, *De divination et magicis*. It was an appealing luxury good for people interested in astrology. For instance, the king of Aragon Pere el Cerimoniós, who sponsored astrologers, commissioned the construction of a sumptuous celestial sphere from his astrologer in 1362: Ryan, *A Kingdom of Stargazers*, 113.

With regard to della Volpaia who, besides his work as a clock master, was a well-trained astrologer, Ficino even got in touch with him: Stéphane Toussaint, "Ficino, Archimedes and the Celestial Arts", in *Marsilio Ficino: His Theology, His Philosophy, His Legacy*, ed. Michael J.B. Allen & Valery Rees (Leiden: Brill, 2002), 307-326, 319. As to the zodiac clock, Toussaint considers that Ficino moved beyond Plotinus and the *Picatrix* towards a new kind of talisman: Toussaint, "Ficino, Archimedes and the Celestial Arts". 321.

Astrological clocks were commonplace during those centuries, examples including the clock tower of the Palazzo del Capitano, in Padua. An astrological clock, built by Jacopo Dondi in 1344, was installed there; his son also designed something similar, the Astrarium, which indicated the movement of the sun, the moon and the planets.

⁹⁴ *De vita triplici* III.19, en Ficino, *The Book of Life*, 151-155.

⁹⁵ *De vita triplici* III, 20, in Ficino, *The Book of Life*, 155-158.



Fig. 9. Raphael/Luigi da Pace, Vault in *Chigi chapel in Santa Maria del Popolo*, 1516. Image from Wikimedia Commons

sense, as a mathematical figure copying in color/light the essential radiation (the celestial figure) of the celestial original”,⁹⁶ meaning that in the sublunary world they embodied the essence of those rays.

The circular vault featuring astronomical motifs of Agostino Chigi’s burial chapel, located in Santa Maria del Popolo, reflects the influence of Plato’s and Ficino’s theories.⁹⁷ In the Renaissance closer to Ficino’s time, astronomical images benefitted those commissioning them for their abodes and their families, while also having an apotropaic value for their creators and owners. This factor should be taken into consideration when analysing some Renaissance works of art.

The fact that most of these images formed part of complex fresco cycles, which were difficult to understand for the public at large and located at a great height, has led Quinlan-McGrath to maintain that they had an apotropaic purpose, more for the effect of their rays on the *spiritus* than of their meaning on the mind.⁹⁸ Indeed, according to this scholar, the purpose of astronomical images was not that of understanding their meaning, as would be expected with other types, but that of being affected by their rays in the *spiritus*: “visual communication was not the primary purpose”.⁹⁹

Besides these vault frescoes and other paintings, the microcosmic *imago mundi* could also appear in other visual formats, like illuminated books.



Fig. 10. Nicole Oresme, *Traité de la sphère, De caelo et de mundo*, ca. 1410. Bibliothèque nationale, Ms. Fr. 565

⁹⁶ Quinlan-McGrath, *Influences*, 144.

⁹⁷ “With his vault, Chigi reified the radiation of his first beginnings through astronomical figures suspended in the medium of fresco”: Quinlan-McGrath, *Influences*, 179.

⁹⁸ Quinlan-McGrath, *Influences*, 172.

⁹⁹ Quinlan-McGrath, *Influences*, 193.

In fact, according to Charles Bouleau, miniaturists popularised the taste for pondering on artistic images

as a microcosm,¹⁰⁰ not in a cosmic/metaphysical sense, but in that of the composition of an image that unfolded before the eyes of the beholder for his pleasure.

As a last point, even cabinets of curiosities can be considered as another expression of this microcosmic intuition, a bizarre microcosm of the universe revealing an acute craving for weirdness, more in the current sense of conceptual art, but also based on objects.

4. An overview of other cultures and later periods

To end with, this notion is briefly explored in non-Western European cultures linked neither to Hermetic nor to Neoplatonic thought—especially its influence on the Arabic sources—and its evolution since the seventeenth century.

Although its importance in Europe has already been underscored, the notion of the human being as a mirror of the cosmos is not only to be found in medieval Europe, but also in other world cultures including China and India.¹⁰¹ In the latter, a similar idea appears in different Upanishads. All act of creation emanates from the primordial purusha, although the cosmos is not ideally conceived as an anthropomorphic body. It can be pondered on in a more essential way, based on the main parts, such as the head, the torso, the lower extremities and so forth.

In the *Aitareya Upanishad*, it is explained that man is a reflection of this primordial universe, a mirror image that adapts those parts of the cosmos to his own spirit, mind and body.¹⁰² And it also develops the *macranthropos* analogy, with the universe as a human body: in this Vedic culture, the head is equated to the celestial vault, the eyes to the luminaires and the spinal column to Mount Meru at the axis of the cosmic level.¹⁰³

In the Hebrew tradition, the notion of the universe conceived as a human body has a curious parallel in the Kabbalah, but adapted to the Torah, whose entire text is akin to a human body.¹⁰⁴ And in the mystic tradition of the *Merkabah*, there is a type of rumination, the *Shi'ur qomah*, addressing this subject.¹⁰⁵ And as already seen, it also appears in the Muslim sources, like the *Picatrix*.

As regards more modern examples, although this idea persisted until at least the seventeenth century,¹⁰⁶ there are artists who have developed the analogy even in the contemporary arts, most of them influ-

enced by the aforementioned philosophical and religious currents, including the Swedenborgian Honoré de Balzac who, in his alchemical novel *Séraphîta*, refers to the analogy in its artistic sense. The novel's angelic and hermaphroditic main character claims that art not only represents a mirror of nature, or of its creator's thoughts, but also of the whole world, and is therefore a microcosm, a mirror in which, so to speak, a full picture of the universe is reflected.¹⁰⁷

That very notion was expressed in both ways by the filmmaker Andrei Tarkovsky, namely, theoretically but also as a visual form. An exponent of mysticism and Neoplatonism and a spokesperson of this cultural horizon, in his book on his aesthetic ideas, he claims, "In a word, the image is not a certain meaning, expressed by the director, but an entire world reflected as a drop of water. Only in a drop of water!"¹⁰⁸

In my view, he also explores visually this intuition in a sequence of his last film, *Sacrifice*. The main character, Alexander, contemplates his house in the background, but then a close-up reveals that it is a scale model for a gift, alluding to the film's status as a microcosm, in a *mise en abyme* revolving around the idea of a house—equated traditionally to the human being, but here also to the world and the film—the house as a material object, the filmed house and the scale model house.



Fig. 11. Andrei Tarkovsky placing the scale model house during the filming of *Sacrifice*. From Russian Art and Culture, <https://www.russianartandculture.com/the-sacrifice-tarkovskys-last-testament/> [accessed 29/05/23]

¹⁰⁰ Charles Bouleau, *The Painter's Secret Geometry: A Study of Composition in Art* (Mineola: Dover Publications Inc., 2014), 189.

¹⁰¹ Arturo Schwarz, "Introduzione", in *Arte e alchimia. Arte e scienza. XLII Esposizione internazionale d'arte, La Biennale di Venezia*, by Arturo Schwarz (Venice: Edizioni La Biennale di Venezia, 1986), 9-54, 32.

¹⁰² In *Aitareya Upanishad* 1.2.4, in Eknath Easwaran (ed.), *The Upanishads* (Tomales: Nilgiri Press, 2007) [e-book], 160.

¹⁰³ Gilbert Durand, *The Anthropological Structures of the Imaginary* (Brisbane: Boombana Publications, 1999), 136.

¹⁰⁴ Gershom Scholem, *Kabbalah* (New York: New American Library, 1978), 171-2.

¹⁰⁵ González Sánchez, *Alfonso X el mago*, 145.

¹⁰⁶ Zambelli, *Astrology and Magic*, 12-13.

¹⁰⁷ Honoré de Balzac, *Etudes philosophiques et études analytiques. Séraphîta* (without information): Norp-Nop Editions, 2011 [e-book], pos. 681 ff.

¹⁰⁸ Andrei Tarkovsky, *Sculpting in Time* (Austin: University of Texas Press, 1989), 110.

The Catalan Antoni Tàpies, also influenced by non-dual Eastern religions and alchemy, was another artist who employed this very notion. In his essays on aesthetics, he developed the idea on several pages. To offer just one example, with respect to Japanese art and the way in which artworks are displayed, the abstract artist claimed, “It is a cosmos in itself, the whole universe made present,”¹⁰⁹ and, “That in a tiny piece of clay the whole universe is visible.”¹¹⁰

Lastly, mention should go to the 1978 version of *Powers of Ten*, a famous video-art work by Charles

and Ray Eames, a journey through the cosmos and the smallest taking the human body as a reference. The directors reflect on magnitudes by transporting viewers to the outer edges of the universe, moving 10 times further away from the starting point, a picnicker by the lakeside in Chicago, every 10 seconds until the Milky Way is just a speck of light among many other galaxies, before returning to Earth at breakneck speed, entering the hand of the sleeping picnicker with 10 times more magnification every 10 seconds and ending inside a proton of a carbon atom.

5. References

- Agrippa, H. C. *Three Books of Occult Philosophy*. St. Paul: Llewellyn Publications, 1995.
- Alberti, Leon Battista. *De la pintura y otros escritos sobre arte*. Madrid: Tecnos, 1999.
- [Anonymous]. *Picatrix. Un traité de magie medieval*. Turnhout: Brepols, 2003.
- Augustine of Hippo [Saint]. *The City of God against the Pagans* (Cambridge: Cambridge University Press, 1998).
- Augustine, Saint [of Hippo]. *Exposition on the Book of Psalms*. New York: Grand Rapids, 1886.
- Balzac, Honoré de. *Etudes philosophiques et études analytiques. Séraphita*. [Without information]: Norp-Nop Editions, 2011 [e-book].
- Belting, Hans. *Likeness and Presence: A History of the Image before the Era of Art*. Chicago: University of Chicago Press, 1994.
- Belting, Hans. *Miroir du monde: l'invention du tableau dans les Pays-Bas*. Paris : Hazan, 2014.
- Bouleau, Charles. *The Painter's Secret Geometry: A Study of Composition in Art*. Mineola: Dover Publications Inc., 2014.
- Bruno, Giordano. *Mundo, magia, memoria (edición de Ignacio Gómez de Liaño)*. Madrid: Biblioteca nueva, 2007.
- Buenaventura, San [Bonaventure]. *Obras de San Buenaventura. Tomo III*. Madrid: Biblioteca de autores cristianos, 1947.
- Campbell, Joseph. *The Masks of God. Primitive Mythology*. London: Secker & Warburg, 1960.
- Carrero, Eduardo. *La catedral habitada*. Barcelona: Edicions UAB, 2019.
- Cataneo, Pietro. “L'architettura”. In *Trattati*. Cataneo, Pietro; Barozzi da Vignola, Giacomo, 163-498. Milano: Edizioni il polifilo, 1985.
- Clark, Charles. “The Zodiac Man in Medieval Medical Astrology”, *Quidditas*, 3, (1982): 13-38.
- Copenhaver, Brian P. (ed.) *Hermetica*. Cambridge: Cambridge University Press, 1992.
- Cusa, Nicholas of. *Nicholas of Cusa: Metaphysical Speculations*. Minneapolis: The Arthur J. Banning Press, 1998.
- Davies, Owen. *Grimoires: A History of Magic Books*. Oxford: Oxford University Press, 2009 [e-book].
- Domínguez Rodríguez, Ana. *Astrología y arte en el lapidario de Alfonso X el Sabio*. Murcia: Real Academia Alfonso X el Sabio, 2007.
- Durand, Gilbert. *The Anthropological Structures of the Imaginary*. Brisbane: Boombana Publications, 1999.
- Durandus, William. “The Symbolism of Churches and Church Ornaments”. In *Main Currents of Western Thought*, ed. by Baumer, Franklin le van, 43-46. New Haven: Yale University Press, 1978.
- Eamon, William. “Astrology and Society”. In *A Companion to Astrology in the Renaissance*, ed. by Dooley, Brendan, pp. 141-191. Leiden: Brill, 2014.
- Easwaran, Eknath (ed.) *The Upanishads*. Tomales: Nilgiri Press, 2007 [e-book].
- Eliade, Mircea. *The Forge and the Crucible. The Origins and Structures of Alchemy*. Chicago: The University of Chicago Press, 1978.
- Faivre, Antoine. “Ancient and Medieval Sources of Modern Esoteric Movements”. In *Modern Esoteric Spirituality*, ed. by Faivre, Antoine; & Needleman, Jacob, pp. 1-70. New York: Crossroad, 1992.
- Ficino, Marsilio. *The Book of Life*. Dallas: Spring Publications, 1980.
- Firmicus Maternus. *Mathesis Livres III-IV*. Paris: Les belles lettres, 2002.
- Flynn, Tom. *El cuerpo en la escultura*. Madrid: Akal, 2002.
- García Avilés, Alejandro. *El tiempo y los astros. Arte, ciencia y religión en la alta edad media*. Murcia: Universidad de Murcia, 2001.

¹⁰⁹ Antoni Tàpies, *En blanc i negre. Assaigs* (Barcelona: Galàxia Gutenberg/Cercle de lectors, 2008), 53. Own Translation. The original is: “És tot un cosmos, tot l'univers fet presència”.

¹¹⁰ Antoni Tàpies, *En blanc i negre*, 54. Translated from the Catalan, “Que en un trosset d'argila de no-res s'hi arriba a veure tot l'univers.” In fact, in his memoirs the artist explained that he had had visions and hallucinations as a youth, when he had suffered from an illness, during which he had felt as if his body were void and now contained the whole universe: Antoni Tàpies, *Memòria personal. Fragment per a una autobiografia* (Barcelona: Fundació Antoni Tàpies, 2010), 153.

- García Avilés, Alejandro. "La magie astrale comme art visual au XIII^e siècle". In *Images et magie. Picatrix entre Orient et Occident*, ed. by Boudet, Jean-Patrice; Caiozzo, Anna; Weill-Parot, Nicolas, pp. 95-116. Paris: Honoré Champion éditeur, 2011.
- García Bazán, Francisco (ed.) "Pensamiento Trimorfo (NHC XIII)". In *Textos gnósticos. Biblioteca de Nag Hammadi I*, ed. by Piñero, Antonio (ed.), pp. 297-320. Madrid: Trotta, 1997.
- Garin, Eugenio. *El zodiaco de la vida. La polémica astrológica del Trescientos al Quinientos*. Barcelona: Peninsula, 1981.
- Gilman, Ernest B. *The curious perspective: Literary and pictorial wit in the seventeenth century*. New Haven: Yale University Press, 1978.
- Gombrich, E. H. *On the Renaissance. Volume 2: Symbolic Images*. London: Phaidon, 1993.
- Gómez de Liaño, Ignacio. *El idioma de la imaginación*. Madrid: Taurus, 1992.
- González Sánchez, Ana. *Alfonso X el mago*. Madrid: Ediciones de la Universidad Autónoma de Madrid, 2015.
- Grafton, Anthony; & Siraisi, Nancy. "Between the Election and My Hopes: Girolamo Cardano and Medical Astrology". In *Secrets of Nature. Astrology and Alchemy in Early Modern Europe*, ed. by Newman, William R.; & Grafton, Anthony, pp. 69-132. Cambridge: The MIT Press, 2001.
- Grégoire de Nysse. *La création de l'homme*. Paris : Éditions du Cerf, 1943.
- Gröne, Svenja. "Le premier écrit scientifique cistercien : le *De natura corporis* de Guillaume de Saint-Thierry (†1148)", *Rives nord-méditerranéennes*, 31, (2008): 115-130.
- Harrison, Charles. "The Arena Chapel: patronage and authorship". In *Siena, Florence and Padua. Art, Society and Religion 1280-1400. Vol II: Case Studies*, ed. by Norman, Diana, 83-104. New Haven: Yale University Press & The Open University, 1995b.
- Ilárraz, Félix G.; & Pujol, Òscar (eds.). *La sabiduría del bosque. Antología de las principales upanişáds*. Madrid: Trotta, 2003.
- Kindi, Al-. *De radiis: théorie des arts magiques*. Paris : Allia, 2003.
- Láng, Benedek. "Puissances ou Démons? Les images décaniques dans le *Picatrix* de Cracovie". In *Images et magie. Picatrix entre Orient et Occident*, ed. by Boudet, Jean-Patrice; Caiozzo, Anna; Weill-Parot, Nicolas, pp. 137-148. Paris: Honoré Champion éditeur, 2011.
- Leicht, Reimund. "Le chapitre II, 12 du *Picatrix* latin et les versions hébraïques du *De duodecim imaginibus*". In *Images et magie. Picatrix entre Orient et Occident*, ed. by Boudet, Jean-Patrice; Caiozzo, Anna; Weill-Parot, Nicolas, pp. 295-330. Paris: Honoré Champion éditeur, 2011.
- Llamas Roig, Vicente. "Sintaxis matemática del cielo precopernicano". *De Medio Aevo* 12, n° 1 (2023): 5-25. <https://doi.org/10.5209/dmae.83990>.
- Lyons, John D., & Nichols Jr., Stephen J. "Introduction". In *Mimesis, from Mirror to Method, Augustine to Descartes*, ed. by Lyons, John D., & Nichols Jr., Stephen J., pp. 1-19. Hanover: Dartmouth College Press, 1982.
- Macrobius. *Commentary on the Dream of Scipio*. New York: Columbia University Press, 1990.
- Meakin, David. *Hermetic Fictions. Alchemy and Irony in the Modern Novel*. Bodmin: Keele University Press, 1995.
- Montserrat Torrents, José (ed.) "Apócrifo de Juan (NHC II, 1)". In *Textos gnósticos. Biblioteca de Nag Hammadi I*, ed. by Piñero, Antonio, pp. 209-236. Madrid: Trotta, 1997.
- Montserrat Torrents, José (ed.) "Allógenes (NHC XIII)". In *Textos gnósticos. Biblioteca de Nag Hammadi I*, ed. by Piñero, Antonio, pp. 281-295. Madrid: Trotta, 1997.
- Norman, Diana. "Astrology, antiquity and empiricism: art and learning". In *Siena, Florence and Padua. Art, Society and Religion 1280-1400. Vol I: Interpretative Essays*, ed. by Norman, Diana, pp. 197-216. New Haven: Yale University Press & The Open University, 1995.
- Norman, Diana. "The art of knowledge: two artistic schemes in Florence". In *Siena, Florence and Padua. Art, Society and Religion 1280-1400. Vol II: Case Studies*, ed. by Norman, Diana, 217-242. New Haven: Yale University Press & The Open University, 1995b.
- Page, Sophie. *Astrology in Medieval Manuscripts*. London: British Library, 2002.
- Paracelsus. *Selected Writings*. Princeton: Princeton University Press, 1979.
- Passet, René. *Las grandes representaciones del mundo y la economía a lo largo de la historia*. Buenos Aires / Madrid: Eudeba / Clave intelectual, 2012.
- Piñero, Antonio & Montserrat, José. "Introducción general", in *Textos gnósticos. Biblioteca de Nag Hammadi I*, ed. by Piñero, Antonio, pp. 19-120. Madrid: Trotta, 1997.
- Plato. *Complete Works*. Indianapolis: Hackett Publishing Company, 1997.
- Plotinus. *The Enneads*. New York: Larson Publications, 1992.
- Quinlan-McGrath, Mary. *Influences. Art, Optics, and Astrology in the Italian Renaissance*. Chicago / London: The University of Chicago Press, 2013.
- Renau Nebot, Xavier (ed.) *Textos herméticos*. Madrid: Gredos, 1999.
- Ryan, Michael A. *A Kingdom of Stargazers. Astrology and Authority in the Late Medieval Crown of Aragon*. New York: Cornell University Press, 2011.
- Saint-Thierry, Guillaume de. *De natura corporis et animae*, Paris: Les Belles Lettres, 1988.
- Scholem, Gershom. *Kabbalah*. New York: New American Library, 1978.

- Schwarz, Arturo, "Introduzione". In *Arte e alchimia. Arte e scienza. XLII Esposizione internazionale d'arte, La Biennale di Venezia*, by Schwarz, Arturo, pp. 9-54. Venice: Edizioni La Biennale di Venezia, 1986.
- Simson, Otto von. *The Gothic Cathedral*. New York: Bollingen Foundation, 1962.
- Struck, Peter. "Viscera and the Divine. Dreams As the Divinatory Bridge Between the Corporeal and the Incorporeal". In *Prayer, Magic, and the Stars in the Ancient and Late Antique World*, ed. by Noegel, Scott, Walker, Joel; & Wheeler, Brannon, pp. 125-136. University Park: The Pennsylvania State University Press, 2003.
- Summers, David. *Vision, Reflection and Desire in Western Painting*. Chapel Hill: University of North Carolina Press, 2007.
- Tàpies, Antoni. *En blanc i negre. Assaigs*. Barcelona: Galàxia Gutenberg / Cercle de lectors, 2008.
- Tàpies, Antoni. *Memòria personal. Fragment per a una autobiografia*. Barcelona: Fundació Antoni Tàpies, 2010.
- Tarkovsky, Andrey. *Sculpting in Time*. Austin: University of Texas Press, 1989.
- Tatarkiewicz, Wladyslaw. *History of Aesthetics. Volume 1. Ancient Aesthetics*. London: Continuum International Publishing Group, 2005.
- Taylor, René. *Arquitectura y magia: consideraciones sobre la idea de El Escorial*. Madrid: Siruela, 2006.
- Thornkike, Lynn. *A History of Magic and Experimental Science. Volume III*. New York: Columbia University Press, 1934.
- Toussaint, Stéphane. "Ficino, Archimedes and the Celestial Arts". In *Marsilio Ficino: His Theology, His Philosophy, His Legacy*, ed. by Allen, Michael J.B.; & Rees, Valery, pp. 307-326. Leiden: Brill, 2002.
- Vernant, J.-P. *Mythe et pensée chez les Grecs, 1 vol*. Paris: Maspero, 1974.
- Vickers, Brian. "On the Function of Analogy in the Occult". In *Hermeticism and the Renaissance. Intellectual History and the Occult in Early Modern Europe*, ed. by Merkel, Ingrid; & Debus, Allen G., pp. 265-292. Washington: Folger Books, 1988.
- Weill-Parot, Nicolas. *Les "images astrologiques" au moyen âge et à la renaissance: spéculations intellectuelles et pratiques magiques (XIIe-XVe siècle)*. Paris: Champion, 2002.
- Zambelli, Paola. *Astrology and Magic from the Medieval Latin and Islamic World to Renaissance Europe*. Surrey: Ashgate Publishing Limited, 2012.