

SCALING THE GEOMETRIC COSMOS: ARTISTIC AND DEMIURGIC CREATION IN FRANCISCO DE HOLANDA'S VISIONS OF GENESIS

Vernita Zhai

Stanford University '25

Several decades after Michelangelo (1475–1564) filled the Sistine Chapel ceiling with a panoply of human forms chronicling the biblical tale of creation, Portuguese painter and philosopher Francisco de Holanda (circa 1517–85)—to whom Michelangelo was both a mentor and a lifelong friend¹—colored the pages of his sketchbook with a radically different vision of cosmic genesis. In the opening plates to *De aetatibus mundi imagines* (Images of the Ages of the World), a visual retelling of biblical history from the Creation to the Apocalypse, Holanda trades the torsion of muscle and sinew for the precision of mathematical principles and geometric forms. Why, when his own mentor as well as contemporaries were preoccupied with mastering the world of concrete and sensible objects, did Holanda seek to manifest the divine through the ordered forms of a higher, intelligible reality?

Focusing on the opening plates to *Imagines*, which together testify to Holanda's belief in the immanence of divine wisdom within temporal phenomena, this essay unravels the geometric transformations embedded in these plates so as to crystallize the philosophical underpinnings of Holanda's nonpareil vision of a geometric cosmos.² Examined in light of the painter-philosopher's own

¹ Michael Benson, "Cosmos as Masterpiece," *The New York Times*, October 13, 2014, <https://www.nytimes.com/2014/10/14/science/space/in-cosmigraphics-our-changing-pictures-of-space-through-time.html>.

² While Holanda was by no means the first to conceive of a geometric cosmos, he was, arguably, the first to depict the geometric cosmos through geometry itself. The notion of God as the architect of a geometrically ordered cosmos was

writings on the artistic enterprise, Holanda's compositions materialize as a meditation on the creative potential immanent within humanity. Drawing various parallels between the processes of divine and artistic creation, they configure the mortal artist as a terrestrial analogue to the demiurge. For Holanda, this essay argues, access to the divine is attained by emulating the process of demiurgic creation through one's own creative enterprise.

PART I. A Survey of the Holandian Corpus

The initial idea for *De aetatibus mundi imagines* arose in 1545,³ while Holanda was working in Évora, Portugal under the patronage of Queen Dona Catarina and the Infante Dom Luís.⁴ Eight years prior, Holanda had traveled to Italy alongside Dom Pedro de Mascarenhas, the Portuguese ambassador to the Holy See, who had been tasked by King Dom João III with securing papal authorization for the deployment of Portuguese Jesuit missionaries in India.⁵ The young artist, too, had been entrusted by the king with his own mission: to “see Italy and make drawings of the fortresses and other notable and important things there,” as Holanda himself would later recount.⁶ Departing for Rome from Lisbon toward the end of 1537 and traveling by way of Spain and France, Holanda began to work on a series of travel sketches that would become the *Antigualhas*, or the *Escorial Album*, a 54-folio book documenting around two hundred of the paintings, sculptures, monuments, and buildings—encountered both within Italy and on the road—which he deemed suitable for the purpose of revitalising the arts in Portugal.⁷ Arriving in Rome, finally, in August or September of 1538,⁸ Holanda soon found himself frequenting the circles of several notable figures of the Italian Renaissance, all of whom feature in his *Diálogos de Roma* (*Roman Dialogues*), a catalog of the conversations that the artist engaged in during his time in Italy, published a decade later, in 1548, as the second part to his treatise *Da Pintura Antigua* (*On Antique Painting*). Among those whom Holanda came into contact were the humanist Lattanzio Tolomei, miniaturist Giulio Clovio, poet Vittoria Colonna, and, most prominently, Michelangelo, who had completed his work on the Sistine Chapel

commonly held by medieval scholars, but portrayals of this architect-deity depicted its subject mimetically—that is, in the likeness of a human (see Fig. 6). Only in the opening plate to Holanda's *Imagines* does the demiurge materialize through pure geometry.

³ Maria Berbara, “Nascentes Morimur: Francisco de Holanda as Artist, Reader and Writer,” in *The Artist as Reader: On Education and Non-Education of Early Modern Artists*, ed. Claus Zittel, Michael Thimann, and Heiko Damm (Leiden: Brill, 2013), 396.

⁴ Alessandra Russo, “Lights on the Antipodes: Francisco de Holanda and an Art History of the Universal,” *The Art Bulletin* 102, no. 4 (2020): 39.

⁵ Russo, “Lights on the Antipodes,” 42.

⁶ Francisco de Holanda, *Da Fabrica*, 16, quoted in J. B. Bury, “Francisco de Holanda and His Illustrations of the Creation,” *Portuguese Studies* 2 (1986): 17.

⁷ Berbara, “Nascentes Morimur,” 391.

⁸ Bury, “Francisco de Holanda,” 17.

ceiling six years before Holanda's arrival in Rome. Holanda would remain in Italy until March 1540, when Mascarenhas finally succeeded in procuring Paul III's approval for the Jesuit mission.⁹

Exalting the profound metaphysical and spiritual depth of the mimetic mode of painting that he observed during his Italian sojourn, Holanda proclaims in *Da Pintura Antigua* that "the good painting is nothing but a copy of the perfections of God and a recollection of His painting,"¹⁰ and, through the voice of Michelangelo, that "divine and excellent painting is that which most resembles and best copies any work of the immortal God."¹¹ The *Antigualhas*, furthermore, visually elaborates upon these written sentiments on the supremacy of the mimetic arts. Featuring sculptures such as the *Apollo Belvedere* and *Laocoön and His Sons* alongside architectural landmarks such as the Pantheon and Trajan column, Holanda's *Antigualhas* implicitly affirms a key tenet of the Renaissance conception of the human form: that it expresses microcosmically the *concinntass universarum partium*, or harmony of all parts, found in classical architecture,¹² and, by extension—since classical architecture is in turn a microcosmic expression of a yet greater phenomenon—the macrocosmic harmony which pervades the universe itself.¹³

Together, Holanda's *Da Pintura Antigua* and *Antigualhas* constellate an ideologically unified artistic vision that celebrates the imitation of divine creation as the aim of true art. It is for this reason that the abstract viscosity of the opening plates to *Imagines* is so remarkable and surprising. Here was a man who had immersed himself in the classical humanist milieu of early cinquecento Italy, a place and time to which he would return time and time again throughout his oeuvre;¹⁴ who extolled

⁹ Russo, "Lights on the Antipodes," 42.

¹⁰ Francisco de Holanda, *Da Pintura Antigua*, ed. Ángel González García (Lisbon: Imprensa Nacional-Casa da Moeda, 1983), 236, quoted in Maria Berbara, "Nascentes Morimur: Francisco de Holanda as Artist, Reader and Writer," in *The Artist as Reader: On Education and Non-Education of Early Modern Artists*, ed. Claus Zittel, Michael Thimann, and Heiko Damm (Leiden: Brill, 2013), 397.

¹¹ Holanda, *Da Pintura Antigua*, 302, quoted in Berbara, "Nascentes Morimur," 397.

¹² Rudolf Wittkower, "Alberti's Approach to Antiquity in Architecture," *Journal of the Warburg and Courtauld Institutes* 4, no. 1/2 (1940): 7.

¹³ Marsilio Ficino writes in a passage from Proclus' *Alcibiades*: "The heaven is full of *concentu* (consonance) and *concinntas* (harmony) in its motions. Then, the divinities that are superior to us participate in this harmony, which proceeds from heaven; after them, human life, when it is disposed correctly, receives from them the consonance of its customs and the harmony of its actions... For the superior beings [...] order each soul by means of harmonious proportions, and they unite each body by means of measures..." Quoted in Maude Vanhaelen, "Cosmic Harmony, Demons, and the Mnemonic Power of Music in Renaissance Florence," in *Sing Aloud Harmonious Spheres: Renaissance Conceptions of Cosmic Harmony*, ed. Jacomien Prins and Maude Vanhaelen (New York: Routledge, 2017), 110. Ficino's discourse, though focused upon the subject of music, draws upon the Albertian architectural concept of *concinntas*. Just as *concinntas* governs the empyrean realm, so too does it manifest itself in the architecture of the human body and soul.

¹⁴ In the prologue to the first book of *Da Pintura Antigua*, Holanda refers to himself as "um homem vindo de terra estrangeira inda não ha muitos dias" (62)—"a man coming from a foreign land not many days ago." In the prologue to the second book, *Diálogos de Roma*, he declares: "vindo eu de Italia ha pouco tempo" (175)—"I came from Italy a little while ago." Quoted in Bury, "Francisco de Holanda," 25. Holanda's Italian sojourn must've been fresh on his mind as he began to work on *Imagines*, despite the five years that had elapsed since his return to Portugal.

Michelangelo's vision of Genesis upon the Sistine Chapel ceiling as the apotheosis of artistic achievement;¹⁵ who sought to galvanize within his nation an artistic *renovatio* guided by Tuscan ideals.¹⁶ Yet, peculiarly, his own artistic project seems to bear little resonance with the principles that he himself so ardently and unwaveringly asserts in writing.

The disconformity between *Imagines* and the rest of Holanda's oeuvre is made all the more inexplicable by the temporal overlap in the artist's realization of his various projects. The first book of *Da Pintura Antigua* was completed on 18 February 1548, and the second book, *Diálogos de Roma*, precisely eight months later on 18 October.¹⁷ With his drawings of the first two days of Creation completed in Évora in 1545, and his drawings the second and fourth day drawn in Santarém in 1547 and colored in Almeirim in 1551,¹⁸ Holanda was presumably creating his geometric illustrations of Genesis at the same time that he was exalting the spirituality of Italian painting in his writing. Further compounded by the fact that Holanda supposedly lacked instruction in the particular cosmological models which inform his illustrations, the dissonance between *Imagines* and the rest of Holanda's corpus has led some scholars to altogether dismiss his part in conceiving the Creation segment of *Imagines*, accepting only his role in its execution.¹⁹ In the following section, I will seek to restore intellectual ownership of *Imagines* to Holanda by demonstrating the compatibility—indeed, the synergy—between the artist's aesthetic theory as conveyed in his written works, and his vision of cosmic genesis as conveyed in *Imagines*.

PART II. Holanda's Geometric Cosmos

Holanda's fascination with the geometry of the cosmos begins in earnest in his watercolor painting of the first day of Creation (Fig. 1), in which a series of three nested triangles extend from a common base situated within a pink circle, reaching downwards to penetrate an empty spherical vessel. The opaque triangular forms partially obscure the circumference of the circle; however, manually connecting the broken perimeter and recovering the hidden arc reveals that the lower vertex of the central, equilateral triangle rests precisely upon the circle's lowermost point.²⁰ Inscribed within a form whose perimeter is cyclical, directionless, and thus infinite, and further marked at its upper base and

¹⁵ Holanda expresses this sentiment in *Diálogos de Roma* through the character of Vittoria Colonna, who describes the Sistine Chapel ceiling as "the fountain-head from which [famous paintings] all spring and have their being." Holanda, *Da Pintura Antigua*, 236.

¹⁶ Berbara, "Nascentes Morimur," 389.

¹⁷ Bury, "Francisco de Holanda," 24–25.

¹⁸ Russo, "Lights on the Antipodes," 43.

¹⁹ For a comprehensive discussion on the issue of Holanda's authorship of *Imagines*, see Bury, "Francisco de Holanda and His Illustrations of the Creation."

²⁰ Note the structural similarity between Holanda's composite triangle-circle and Leonardo's *Vitruvian Man*, whose outstretched legs and arms rest precisely on the circumference of the circle in which he is contained. Again, we are reminded of the order and *concinnitas* of the human form.

lower vertex, respectively, with the first and last letters of the Greek alphabet—a direct reference to God’s self-proclamation as the “Alpha and Omega, the beginning and the end, the first and the last” (Rev. 22:13, KJV)—the equilateral triangle is symbolically imbued with the eternity and infinitude of the Holy Trinity. An emblem of divinity whose usage dates back to the writings of twelfth-century liturgist and theologian Joannes Belethus,²¹ the iconography of a triangle anchored within a circle reflects, too, the doctrines of German Catholic theologian Nicolaus Cusanus (1401–64), for whom the triangle, as the fundamental and irreducible unit from which all other polygons are derived, stood alongside the circle as a symbol of the divine.²²

The fraternity between the circular and triangular forms, however, extends beyond the mere fact of their numinosity, for the two shapes are further linked by geometric manipulations that may not be immediately evident. One might imagine, in the mind’s eye, the three arcs that form the circumference of the circle collapsing to form the three edges of the equilateral triangle. From there, the triangle is replicated twice, with each new form extending from the same base but reaching downwards for a greater distance, entering and finally penetrating the body of the darkened orb. This series of hypothetical geometric transformations, from the triangulation of the circle to the replication of the triangle, is made possible by what Nicolaus Cusanus terms the *coincidentia oppositorum*, or coincidence of opposites, wherein seemingly opposed geometric properties such as the curvature of a circle and rectilinearity of a triangle, at the scale of the infinite, turn out to coincide.²³ To visualize this phenomenon, consider a circle positioned in such a way that it remains tangential to a straight line at a specific point on its circumference (Fig. 2). As its diameter increases in length and the circle expands in size, the curvature of the circle—that is, its degree of deviation from the straight line—decreases, so that, as the diameter of the circle tends toward infinity, the arc of the maximally enlarged circle attains perfect alignment with the straight line to which it was originally tangential. Thus, in the form of a circle, which is curvilinear at minimum and rectilinear at maximum, curvature and straightness coincide. Similarly, consider a triangle ABC, with A as the vertex angle and B and C as the base angles. As vertex A is lowered onto the base side BC while BC increases in length, the elongated triangle tends toward a straight line that possesses the properties of both singularity (in being one line, and bearing one angle) and triunity (in enfolding the three sides and three angles of the original triangle).²⁴ As the phenomenon of *coincidentia oppositorum* demonstrates, circles and triangles achieve an identity of form when they are geometrically transformed into a line of infinite magnitude. While the potential of

²¹ Guillaume Durand, Anselmus Davril, and T. M. Thibodeau, “Chapter 44,” in *Rationale Divinorum Officiorum* (Turnholt: Brepols, 1998).

²² Nicholas Cusanus and Jasper Hopkins, *Nicholas of Cusa On Learned Ignorance: A Translation and an Appraisal of De Docta Ignorantia* (Minneapolis: A.J. Benning Press, 1996), 33.

²³ Jean Celeyrette, “Mathematics and Theology: The Infinite in Nicholas of Cusa,” *Revue de métaphysique et de morale* 70, no. 2 (2011): 151–65.

²⁴ Celeyrette, “Mathematics and Theology,” 23.

infinitude is already latent in the geometric properties of even a finite circle or triangle, the material realization of this infinitude here in this realm of finite forms can only be apprehended by way of the intellect.²⁵ This is precisely what Holanda's isosceles triangles, in their incremental elongation and thus gradual progression toward infinity, prompt the viewer to consider: the potential of boundlessness that inheres within a bounded form.²⁶

Holanda's composition thus gestures toward a vision of an immanently divine cosmos, where even temporal phenomena harbor an embryonic infinitude. At first blush, superimposed upon a primordial, shadow-drenched netherworld of flames and foaming seas, the sharply delineated syntax of circular and triangular forms in the foreground appear as if to belong to an altogether distinct ontological plane. In their perfect symmetry and perfect clarity, the geometric figures occupy the intelligible realm of first principles and eternal forms; beyond them lies an abyss of indeterminacy, a world in flux. Yet, dispelling the illusion of separation are suggestions of slippage, of the descent of the Trinity onto the material realm—specifically, through the vessel of divine light. Vertically inscribed within the central triangle are the words *FIAT LUX*, or “Let there be light” (Gen. 1:3), uttered by God on the first day of creation. Through the conduit of the triangular forms, inverted so as to resemble a funnel, the luminosity that suffuses the firmaments advances toward the earth in a swathe of celestial light. There, it enters through the oculus of the perceptible world so as to illuminate the orb from within. Upon puncturing this temporal sphere of existence, the pure and opaque structures of light fuse with the atmosphere, transforming from the pink of the firmaments into the cerulean of the sphere's ocean-like terrain—this is “the Spirit of God [moving] upon the face of the waters” (Gen. 1:2). That divine light does not merely irradiate the temporal realm, but penetrates it and suffuses it from within becomes all the more apparent in Holanda's depiction of the second day of Creation (Fig. 3), in which we see the precise intersection at which the now translucent cone of light pierces the surface of the sphere, transforming it from a dark orb into a crystalline sphere. Belted with concentric markings and furnished with a minuscule earth at its nucleus, the sphere recalls the geocentric and homocentric

²⁵ Celeyrette, “Mathematics and Theology,” 151–65.

²⁶ While it is the presence of the infinite within the finite that is the subject of Holanda's illustration, it is perhaps equally fascinating to consider the finitude of the infinite. An illumination in a late thirteenth-century Genoese manuscript, *Supplicationes variae*, depicts Christ enrobed in a gold tunic and green mantle, standing upon an ornate *linea*, or line, accompanied by the following caption: “If prolonged twelve times, this [*linea*] shows the *mensura* [height] of the body of our Lord.” Both mirroring and subverting the manner in which Holanda's illustration compels its viewer to imagine the gradual elongation of the triangles toward infinity, the Genoese manuscript encourages its readers to actively reconstruct the entire length of Christ's body through the faculty of imagination. In both cases, an artist has attempted to reduce something ineffable into a finite image, entrusting the viewer with the task of recovering the essence of the intended subject. In the Genoese case, however, even the intellectually and imaginatively recovered subject remains a finite incarnation of the infinite divine. The medieval phenomenon of seeking to measure the unmeasurable body of Christ thus provides a fascinating counterpart to Holanda's illustration, pointing to the human inclination to grasp the divine by reducing it into something tangible. For further exploration of this topic, see Emanuele Lugli, “The Height of Christ,” in *The Making of Measure and the Promise of Sameness* (Chicago: The University of Chicago Press, 2019), 145–152.

cosmological model proposed by Aristotle, who conceived of the universe as comprised of a series of celestial spheres that move the sun, moon, and planets in the course of their rotation around a stationary earth (Fig. 4).²⁷

The immanence of the divine within corporeal reality is entrenched deeper still, penetrating the very core—and heart—of the created world. In the sixth plate of *Imagines*, having witnessed the creation of light on the first day (Gen. 1:1–5), the creation of the sky on the second (Gen. 1:6–8), the creation of dry lands, seas, plants, and trees on the third (Gen. 1:9–13), the creation of the sun, moon, and stars on the fourth (Gen. 1:14–19), and the creation of aquatic and aerial creatures on the fifth (Gen. 1:20–23), we finally arrive at the creation of mankind (Gen. 1:27) (Fig. 5).²⁸ Deprived of the sprawling cosmic perspective that Holanda grants us on the first and second days of Creation, we instead find ourselves as earthbound observers in the interior of the celestial sphere, the oculus above revealing a vista of the azure, star-speckled heavens. Adam lies before us, his vegetative, petrified body still sutured to and undifferentiated from the earth from which it is being fashioned (Gen. 2:7). In producing form out of non-form, being out of non-being, and life out of the primordial, insensate matter of the earth, the process of the divine creation of man may be likened to an act of sculptural *poiesis*, of carving figures out of virginal stone. A body in the midst of metamorphosis from earth to flesh, then, may be analogized to an unfinished sculpture, a figure that appears to remain one with the raw material that composes it. Holanda's decision to portray Adam in the manner of such an unfinished sculpture, and thus to evoke the *non finito*—a sculptural technique often employed by Michelangelo²⁹—perhaps reflects an implicit recognition of the Neoplatonic sentiment that the corporeal human form, though created in the likeness of the divine, is at best a counterfeit image of its creator. Therein arises another parallel between artistic *poiesis* and divine creation: the existence of an unbridgeable chasm between the creative concept and its execution (in the case of artistic *poiesis*),³⁰ and between the ideal form and its corporeal realization (in the case of divine creation).

Yet, as in the case of the intelligible and sensible spheres of existence, the chasm between the Godhead and his creation is not entirely impenetrable. Regardless of the intentionality (or lack

²⁷ Aristotle, "Metaphysics," in *The Basic Works of Aristotle*, ed. Richard McKeon (New York: The Modern Library, 2001), 882–883.

²⁸ Note that Holanda's depiction of the sixth day of Creation is divided into two illustrations. See Fig. 10 for the second.

²⁹ Paul Barolsky, "As In Ovid, So In Renaissance Art," *Renaissance Quarterly* 51, no. 2 (1998): 451.

³⁰ Giorgio Vasari writes of Leonardo that "... he began many projects but never finished them, feeling that his hand could not reach artistic perfection in the works he conceived..." (287) and of Michelangelo that "he found it impossible to express such grandiose and awesome conceptions with his hands, and he often abandoned his works, or rather ruined many of them... for fear that he might seem less than perfect" (472). Giorgio Vasari, *The Lives of the Artists*, trans. Julia Conway Bondanella and Peter Bondanella (Oxford: Oxford University Press, 1992), quoted in Jeremy Angier, "The Process of Artistic Creation in Terms of the Non-Finito," *Machine Graphics*, May 7, 2001, <http://machinegraphics.com/writings/non-finito/non-finito.html>.

thereof) behind Holanda's invocation of the *non finito*, his representation of an Adam whose mortal vessel is more earth than flesh minimizes any semblance of a physical likeness between man and God, and thereby turns our attention toward observing the spiritual likeness that binds them. While Adam's body remains lifeless, the opening on his chest reveals a heart colored in the same shade of crimson that saturates the divinities above. God and Adam are further linked by three sets of three golden lines, with the central set emanating from God's mouth, and the two peripheral sets emanating from the cloud formations that mirror God's visage, again evoking the triune personality of the Godhead as the Father, the Son, and the Holy Spirit. In the biblical account of Creation, the divine breath of life enters Adam's body through his nostrils (Gen. 2:7), but here, the central triad reaches directly from God's mouth to Adam's heart. Departing from scripture, Holanda's conception of human creation depicts the divine breath of life entering Adam's body not solely through an intermediary orifice, but through the vital organ of the heart itself. From there it is propagated, by way of the arteries visible on Adam's chest and along the length of his four limbs, throughout the rest of his body. Again we are witness to the immanence of the divine within temporal reality. In much the same way that divine light impregnates the corporeal sphere, divine breath powers the corporeal body from within. Holanda's depiction of the heart as the seat of the life principle further calls to mind Aristotle's cardiocentric theory, which posits that the tripartite aspects of the soul—its vegetative element (in its association with fundamental life processes such as nourishment and reproduction), sensitive element (in its association with sensation and movement), and intellectual element (in its association with cognition and reflection)—each arise from the functioning of the heart.³¹ Holandat thus appears to subscribe to an Aristotelian cardiocentrism about the human body as he does an Aristotelian geocentrism about the universe in which humanity resides.

PART III. The Demiurge & the Mortal Artist

If divinity is indeed immanent within the fallen kingdom, Holanda's painting seems to say, it exists in its purest form in the interior constitution of the human soul, and in particular, in human creative potential. A particular detail in Holanda's illustration of the creation of Adam that demands further attention is the drawing compass positioned toward the right of the composition. If, as Holanda's illustration of the first day of Creation demonstrates, the cosmos was born of a generative process governed by the laws of geometry, then we might conjecture that this compass here is that very same device with which God demarcated the firmaments, the sun and moon, the concentric spheres in which earth is englobed, and the topographies of the earth itself. Such a conception of God as the geometer of the universe was first represented pictorially in a prefatory miniature from the *Bible moralisée*, which portrays God in the process of imposing order upon the disorder of an

³¹ Giuseppe Santoro et al., "The Anatomic Location of the Soul from the Heart, through the Brain, to the Whole Body, and Beyond," *Neurosurgery* 65, no. 4 (2009): 637.

unindividuated earth³² (Fig. 6). Notably, however, Holanda's depiction subverts the iconography of the architect-God in displacing the demiurgic device from God's hands. An unseen force now moves the compass, which stands upright at the feet of the immobile Adam as an Aristotelian *primum movens*, or unmoved mover: a prime cause that sets the cosmos in motion while itself remaining causeless.³³ The compass—and the faculties of intellect and *inventio* which it signifies—has been divinely endowed to humankind, the inheritor to God's demiurgic power.

If the act of divine creation may be considered a form of artistic *poiesis*, then artistic *poiesis*, too, may be considered a mortal act that instantiates the process of divine creation, and the mortal creator a figure who instantiates the demiurge. Indeed, *Da Pintura Antigua* opens with a discussion of the parallels between the creation of the cosmos and the creation of a painting. In much the same manner in which God “[applied] light over the darkness and obscurity that covered the great picture of the world,” the creation of a painting unfolds by way of the interaction between light and shade, which, “coordinated in their diminution or augmentation, will paint all things.”³⁴ A painter is thus able to, in a sense, reenact divine creation through engaging in artistic creation. Accordingly, in citing Middle Platonist philosopher Alcinous' *De doctrina Platonis* (The Handbook of Platonism), Holanda suggests that in reproducing nature upon the canvas, a painter ought not to observe reality through their senses, but to emulate the very principles which facilitated God's engendering of that reality.³⁵ We thus find that the imitation of the *products* of divine creation (mimesis) and emulation of the *principles* of divine creation (abstraction), rather than existing in conflict, are inextricably intertwined. Whatever an artist seeks to reify upon their canvas, whether it be a product of God's creation or the event of Creation itself, they must probe deeper so as to grasp the subject through an apprehension of the principles of harmony, proportion, and order that make up its essence. This intellectual process plays out in Holanda's geometric imagination as much as in Michelangelo's precise *disegno* of the human form. In scaling the proportions of the cosmos as in the proportions of the human form, an artist engages in a creative and intellectual act that approximates divine creation itself. In doing so, they depart from the world of temporary objects and enter into a realm of pure concept—a realm closer to the divine. Far from being at odds with his written works, then, Holanda's cosmic vision affirms, albeit indirectly, the Holandian thesis that worthwhile painting is that which instantiates divine creation, be it its products or principles.

³² John Lowden, “Vienna, Österreichische Nationalbibliothek, MS 2554,” in *The Making of the Bibles Moralisées I: The Manuscripts* (University Park, PA: Pennsylvania State University Press, 2002), 47.

³³ Istvan Bodnar, “Aristotle's Natural Philosophy,” *Stanford Encyclopedia of Philosophy* (Spring 2025 Edition), Edward N. Zalta & Uri Nodelman (eds.), <https://plato.stanford.edu/entries/aristotle-natphil/>.

³⁴ Francisco de Holanda, *Da Pintura Antigua*, ed. Ángel González García (Lisbon: Imprensa Nacional-Casa da Moeda, 1984), 73.

³⁵ Holanda, *Da Pintura Antigua*, 97.

Let us now return momentarily to the first day of Creation, which appears to encode a visual allegory for the act of intellectual contemplation that is so central to the artistic enterprise. In positioning the words *FIAT LUX* along a vertical line, Holanda compels us toward a lateral reading of the image (see Fig. 1, rotated). As we reorient our viewpoint, we find ourselves immediately struck by the imagistic resemblance of Holanda's composition to the schematic of a human eye, a resemblance further underscored by the artist's decision to leave visible the intersecting lines from which the triangles have been constructed, such that the point of intersection is made to recall the focal point of a convex lens. In accordance with the emission theory of vision originated by Empedocles (circa 494–34 BCE) in the fifth century BCE, the tapering of the light cone towards the entry of the eye suggests that it is the eye itself that is the source of light, which emanates outward and, upon making contact with the perceived object—in this case, the circular plane of ideal and infinite forms—is reflected back into the eye. The theological implications of such a theory were profound, for it drew the perceiving subject and perceived object into direct contact via the trajectory of light.³⁶ In Empedoclean theory, all objects emit particles, or “effluences,” that enter the organ of perception upon being perceived;³⁷ in intuiting divine light, then, we interiorize the metaphorical effluences of the divine. As divine ontology cannot be apprehended sensorily, however, we might instead interpret the eye as a synecdoche for the *mind's* eye, and Holanda's portrayal of the visual perception of divine light, in turn, as a synecdoche for the intellectual contemplation of the divine. With a simple rotation of the image and reconfiguration of our viewpoint, a painting of cosmic creation thus becomes a meditation on how the immanent divine may be accessed through inward illumination. For if the aim of human creative activity is to approximate the prime cause of creation, and creation itself was enabled by a mastery of geometric intuitions, then this mastery must also be an aim of any true artist. While there is no evidence to suggest that Holanda himself subscribed to the emission theory of vision or intended for his illustration to conjure the impression of a human lens, reading his illustration in this manner nonetheless enables one to better grasp what Holanda understood to be a key marker of the artist: the ability to intuit that which lies beyond the reach of one's sensorium.

PART IV. The Dialectic of Abstraction & Mimesis: Toward a Visual Language of the Divine

This analysis of *De aetatibus mundi imagines* has thus far focused on the geometric elements that abound throughout the first plates of the Creation segment. But Holanda's illustrations of Creation are not entirely devoid of mimetic forms—as early as the second day, he presents the viewer with a figural manifestation of the divine. While the geometric elements within Holanda's

³⁶ Robert S. Nelson, “Introduction,” in *Visuality Before and Beyond the Renaissance: Seeing as Others Saw* (Cambridge, U.K.: Cambridge University Press, 2000), 4–5.

³⁷ K. Scarlett Kingsley and Richard Parry, “Empedocles,” *Stanford Encyclopedia of Philosophy* (Spring 2025 Edition), Edward N. Zalta & Uri Nodelman (eds.), <https://plato.stanford.edu/entries/empedocles/>.

compositions may be their most striking feature, the interplay between the geometric and the figural yields further insight into Holanda's cosmic vision.

Throughout Holanda's works, the artist appears to struggle with competing impulses toward both geometric abstraction and figural representation as modes of portraying the divine. In *Da Pintura Antigua*, Holanda writes that divinity, which "has no shape nor figure," can only be made intelligible through geometry. Shortly thereafter, however, he acknowledges the insufficiency of pure abstraction and turns to the subject of how a painter ought to give flesh to the Trinity: "To the Principle and Father they shall give the image and age of a very mild and handsome old man. To the Son and Logos the image of a most benign and peaceable Saviour, and to the paraclete Holy Spirit the image of flame and figure, and also the purity of the dove."³⁸ In Holanda's illustrations, too, we find instances of slippage, or rather fusion, between geometric and figural forms. The Trinity first assumes a corporeal form on the second day of Creation (Fig. 3), with the Holy Spirit concretized as a flame, and Christ, or Logos, depicted with his arms outstretched and a seraph at his pubis. Inscribed upon his arms, thorax, and abdomen are the words *PIETAS* (piety), *RATIO* (reason), and *MANSUETUDO* (gentleness), among others.³⁹ In the manner of a leitmotif, the alpha and omega symbols upon the light rays bursting forth from Christ's hands, as well as the placement of Christ and the Holy Spirit within the silhouettes of three concentric circles, marks the figure of Logos and the flame of the Holy Spirit as constituting the same ontological entity as that which was symbolized by the equilateral triangle on the first day of Creation. From the second day onwards, each illustration of Creation contains some figural trace of the Trinity.

Even as Holanda depicts the divine mimetically, however, he resorts to a purposefully restrained style of imitation that appears to signify a resistance to complete mimesis. On the third day of Creation (Fig. 7), for instance, the geometric representation of the Trinity as a triangle circumscribed by a circle reappears, rising over the horizon of an earth now furnished with dry lands, mountains, and flora. Diverging from the pure geometry of the first day, Holanda inserts an image of God the Father into the upper left vertex of the triangle, and an apparition of a crucified Christ into the lower vertex. Uncolored, faintly rendered, and each enclosed in a mantle of clouds, God and the incarnated Logos appear more as mirages than they do figures of the flesh. Then, on both the fourth and fifth days of Creation (Fig. 8 and Fig. 9), the Godhead appears again, but with his body entirely concealed from view, extending beyond the pictorial frame on the fourth day and obscured by the faces and wings of his seraphim on the fifth. The minimalism of Holanda's figural representation of the divine is perhaps most pronounced, however, in his second illustration of the creation of man (Fig. 10), in which the Godhead gazes down upon his creations and gestures toward the now fully formed

³⁸ Holanda, *Da Pintura Antigua*, 146.

³⁹ Berbara, "Nascentes Morimur," 400.

Adam. Here, the manner in which Holanda represents Adam provides a foil to his representation of God. Whereas Adam's hair is painted a rich umber, God's hair, as well the rest of his visage, is rendered in beiges, whites, and greys that meld him with the clouds from which he is emerging, in much the same way that God is infused with the ultramarines and reds of the firmaments in Holanda's first illustration of the sixth day (Fig. 5). Furthermore, as in Holanda's portrayal of the divine on the fourth and fifth days, God's body is entirely concealed, this time by a blank triangle and a plumage-like mass of clouds. We thus observe at work the two characteristics of the minimalist mode of mimesis that Holanda adopts throughout his illustrations of Creation: the use of line rather than color to delineate the form of the divine,⁴⁰ and a reliance upon a deliberate visual obscurantism such that God is never illustrated in the totality of his incarnate form.⁴¹ Holanda's illustrations thus appear as if caught at a crossroads between enfleshing the divine and conceding to the impossibility of such an endeavor.⁴²

Beyond artistic and theological concerns, there is perhaps a further narrative explanation for Holanda's resistance to mimesis in his illustrations of Creation. *De aetatibus mundi imagines* is divided, according to the model of world history proposed by Eusebius in the fourth century, into six narrative segments, beginning with the period from the Creation to the Flood and culminating with the founding of the New Jerusalem at the end of the Apocalypse.⁴³ Paralleling this diegetic progression from Creation to Apocalypse is a spatial progression from the celestial heights to the infernal underworld (before the eventual triumph of the divine), and a Neoplatonic, metaphysical progression from a realm of intelligible forms to a sensible realm wanting in truth and virtue. Imagistically, Holanda mirrors these progressions by turning from a visual language of pure geometry to one of geometric-figural hybridism, and finally of pure mimesis in capturing the grotesque corporeality of the

⁴⁰ Holanda's preference for line over color in materializing the divine can be understood in light of the sixteenth century elevation of Florentine *disegno* (exemplified by Michelangelo, Leonardo, and Botticelli), above Venetian *colorito* (exemplified by the likes of Giorgione and Titian). Whereas *colorito* merely captures the transitory, sensorily perceived qualities of light, shade, and color, *disegno* reveals the more stable features of matter: mass, volume, form, and patterns which may be unseen to the naked eye ("Disegno: Italian Fine Art Drawing," Visual Arts Cork, accessed June 12, 2023, <http://www.visual-arts-cork.com/drawing/disegno.htm>). Holanda likely subscribed to such a Neoplatonic understanding of the respective functions of color and line, deeming the latter, with its spiritual depth, more suitable than the former, with its optical superficiality, for the purposes of visualizing the divine.

⁴¹ The only exception is Holanda's illustration of the second day of Creation, in which the Trinity's infinitude is instead signified through its containment within the three circles.

⁴² See footnote 25. The simultaneous impulse to abstract and concretize the divine reminds one of the medieval practice of the *mensura Christi*, or the measurement of Christ, which art historian Emanuele Lugli describes as "a practice that constantly flips the plane on materiality—abstracting the specific and, at the same time, making the metaphysical palpable..." (Lugli, *The Making of Measure*, 146). Lugli postulates that this latter endeavor to "[make] the metaphysical palpable" stems from a desire to exist in close proximity to the divine. For a divine and living body to enter into contact, after all, there must be some ontological nexus that both can inhabit, and such a nexus can only exist if a human were to be elevated onto the plane of the divine, or the divine lowered onto the plane of materiality—i.e., if the human or divine acquired spatial extension.

⁴³ Berbara, "Nascentes Morimur," 391.

creatures of Apocalypse (see Fig. 11, 12, 13—notice that Holanda’s illustrations of Apocalypse are monochromatic; we can only imagine the tactile presence of their subjects had they been realized in color). Here we can glean a direct correspondence between *Imagines* and *Da Pintura Antigua*, where Holanda writes that “the discreet painter shall leave those [geometric figures] to the diadems of the Holy Trinity.”⁴⁴ We can postulate two reasons for Holanda’s decision to restrict the use of geometry for the portrayal of the divine. First, there is the ontological polarity between divinity and the beasts of Apocalypse: while beings of monstrous materiality can be demarcated without recourse to abstraction, beings of pure spirit require geometry to be made intelligible. Secondly, beyond the human need to make the Trinity intelligible, order and harmony are qualities intrinsically connected to the divine. To journey away from the Creation and toward the end of times is to descend, both physically and metaphysically, through tiers of reality increasingly deficient in order, harmony, and indeed, geometry.

In the final assessment, Holanda was not so different from his mentor after all. Both he and Michelangelo sought to reify the essence of the divine through their art, merely turning to different intermediaries in doing so: Michelangelo to the human form, and Holanda to the geometric forms which he saw as reflecting the potential of both divine and human creativity—both subjects, as we have seen, encode the same principles of proportion and harmony that governed God’s own act of creation. Moreover, as the suggestions of immanence within Holanda’s paintings emphasize so consummately, the creative powers of the demiurge have been bestowed to humanity in the form of a specifically rational, orderly creative potential. As art historian Alessandro Russo writes, Holanda conceived of humanity as “endowed [with artistic excellence] at its inception,” and thus “*immanently*, not phenomenologically, artistic.”⁴⁵ (“Artistic” here is defined broadly, as possessing “the capacity to mentally conceive and materially realise.”⁴⁶) Against the entropy of the universe, the material realization of this artistic potential—like the exercise of divine intelligence—asserts an negentropic force that creates form out of formlessness. For Holanda, it is through the exercise of this geometric and generative consciousness that an artist may reenact, upon a literal or hypothetical canvas, the divine act of creation which bequeathed them that potential in the first place. And, as for Holanda’s own images, through which we might ourselves glean something of the infinite and eternal, all that remains to be said is that they themselves are the product of one such luminous consciousness.

⁴⁴ Holanda, *Da Pintura Antigua*, 236, quoted in Berbara, “Nascentes Morimur,” 400.

⁴⁵ Russo, “Lights on the Antipodes,” 37.

⁴⁶ Russo, “Lights on the Antipodes,” 49.



Figure 1. Francisco de Holanda, *The Creation of Lights (First Day of Creation)*, from *De aetatibus mundi imagines*, 1547–51, painted manuscript, fol. 6r, Biblioteca Nacional de España, Madrid. Photo credit: Biblioteca Digital Hispánica.

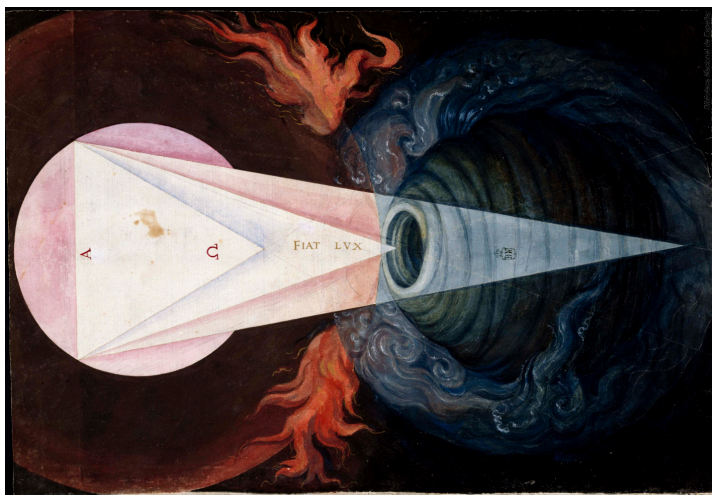


Figure 1., rotated.

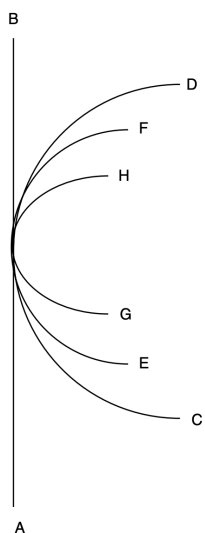


Figure 2. Coincidence of circularity and linearity, from Nicholas Cusanus and Jasper Hopkins, *Nicholas of Cusa on Learned Ignorance: A Translation and an Appraisal of De Docta Ignorantia* (Minneapolis: A.J. Benning Press, 1996), 21.

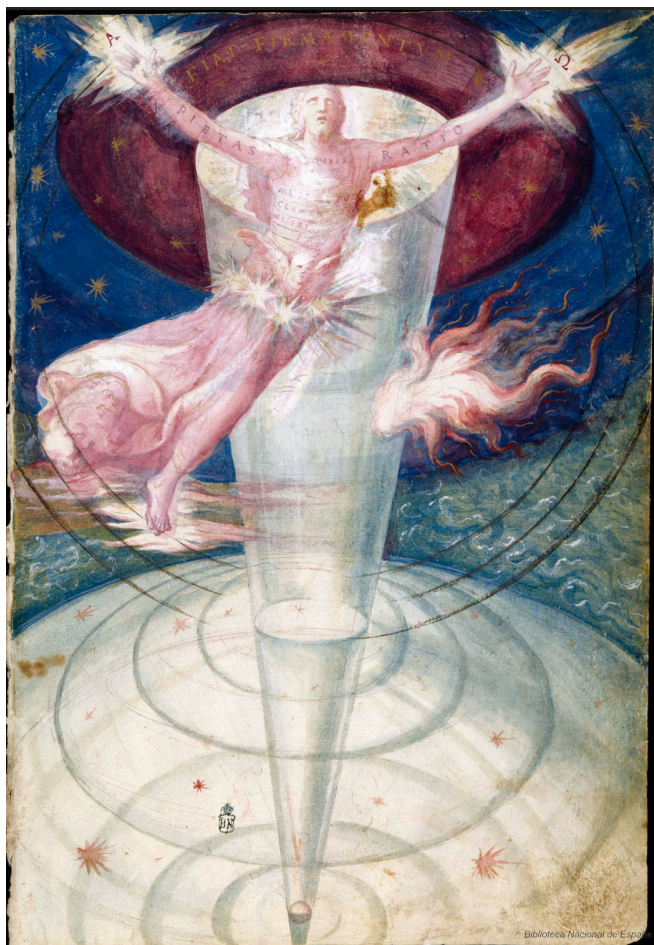


Figure 3. Francisco de Holanda, *Second Day of Creation*, from *De aetatibus mundi imagines*, 1547–51, painted manuscript, fol. 7r, Biblioteca Nacional de España, Madrid. Photo credit: Biblioteca Digital Hispánica.

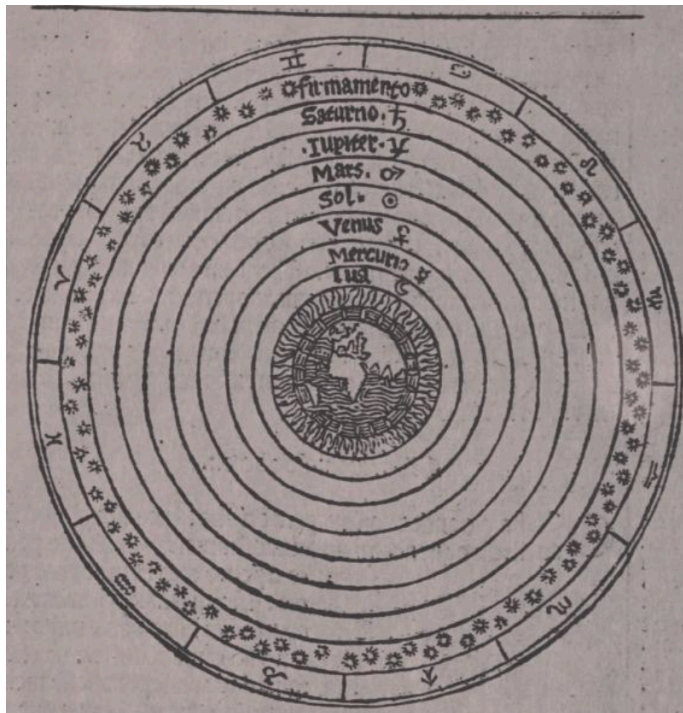


Figure 4. Concentric spheres, from Pedro Nunes, *Tratado da sphaera*, Lisbon, 1537, John Carter Brown Library, Providence, RI. Photo credit: Internet Archive.



Figure 5. Francisco de Holanda, *Creation of Adam*, from *De aetatibus mundi imagines*, 1547–51, painted manuscript, fol. 10v, Biblioteca Nacional de España, Madrid. Photo credit: Biblioteca Digital Hispánica.



Figure 6. Prefatory miniature from the *Bible moralisée*, folio I verso, Paris, circa 1220–1230. Ink, tempera, and gold leaf on vellum. Österreichische Nationalbibliothek, Vienna (2554). Photo credit: Web Gallery of Art.



Figure 7. Francisco de Holanda, *Third Day of Creation*, from *De aetatibus mundi imagines*, 1547–51, painted manuscript, fol. 8r, Biblioteca Nacional de España, Madrid. Photo credit: Biblioteca Digital Hispánica.

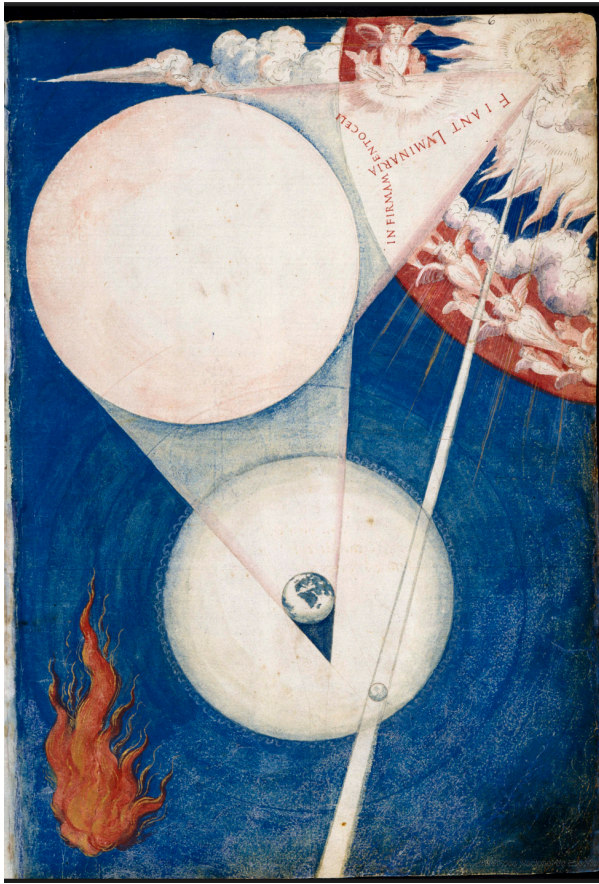


Figure 8. Francisco de Holanda, *Fourth Day of Creation*, from *De aetatibus mundi imagines*, 1547–51, painted manuscript, fol. 9r, Biblioteca Nacional de España, Madrid. Photo credit: Biblioteca Digital Hispánica.

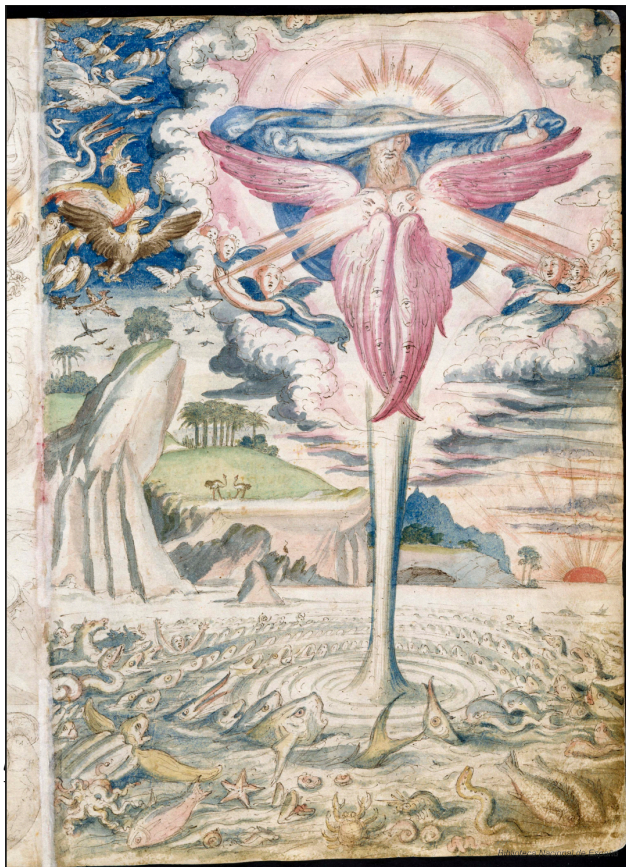


Figure 9. Francisco de Holanda, *Fifth Day of Creation*, from *De aetatibus mundi imagines*, 1547–51, painted manuscript, fol. 10r, Biblioteca Nacional de España, Madrid. Photo credit: Biblioteca Digital Hispánica.

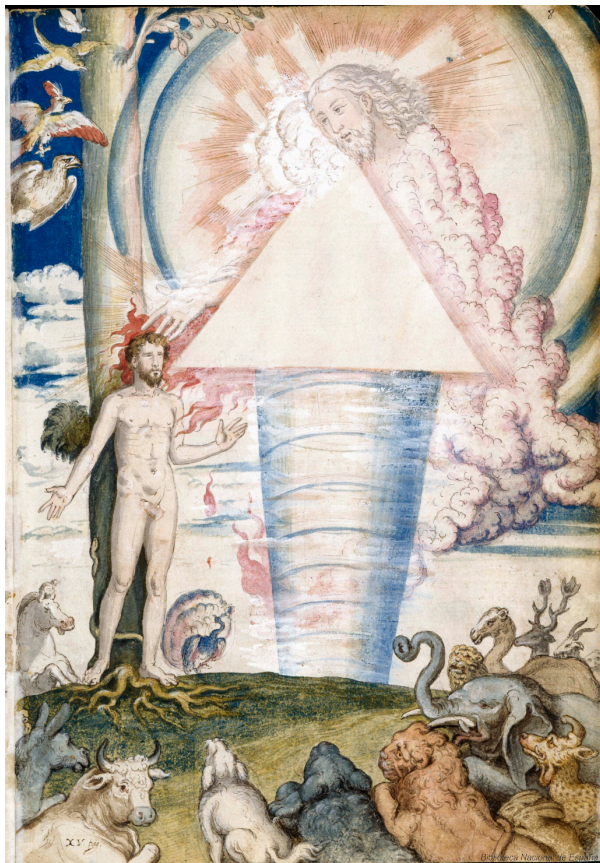


Figure 10. Francisco de Holanda, *Creation of Man*,
from *De aetatibus mundi imagines*, 1547–51,
painted manuscript, fol. 10r, Biblioteca Nacional
de España, Madrid. Photo credit: Biblioteca Digital
Hispánica.



Figures 11, 12, 13. Francisco de Holanda, Images from
Apocalypse, De aetatibus mundi imagines, circa 1570,
 Biblioteca Nacional de España, Madrid. Photo credit:
 Biblioteca Nacional Digital.

BIBLIOGRAPHY

- Angier, Jeremy. "The Process of Artistic Creation in Terms of the Non-Finito." *Machine Graphics*, May 7, 2001. <http://machinegraphics.com/writings/non-finito/non-finito.html>.
- Aristotle. "Metaphysics." In *The Basic Works of Aristotle*. Edited by Richard McKeon. New York: Modern Library, 2001.
- Barolsky, Paul. "As In Ovid, So In Renaissance Art." *Renaissance Quarterly* 51, no. 2 (1998): 451–74. <https://doi.org/10.2307/2901573>.
- Benson, Michael. "Cosmos as Masterpiece." *The New York Times*, October 13, 2014. <https://www.nytimes.com/2014/10/14/science/space/in-cosmographics-our-changing-picture-s-of-space-through-time.html>.
- Berbara, Maria. "Nascentes Morimur: Francisco de Holanda as Artist, Reader and Writer." In *The Artist as Reader: On Education and Non-Education of Early Modern Artists*, 387–404. Edited by Claus Zittel, Michael Thimann, and Heiko Damm. Leiden: Brill, 2013.
- Bodnar, Istvan. "Aristotle's Natural Philosophy." *Stanford Encyclopedia of Philosophy*, April 24, 2023. <https://plato.stanford.edu/entries/aristotle-natphil/>.
- Bury, J. B. "Francisco de Holanda and His Illustrations of the Creation." *Portuguese Studies* 2 (1986): 15–48. <http://www.jstor.org/stable/41104812>.
- Celeyrette, Jean. "Mathematics and Theology: The Infinite in Nicholas of Cusa." *Revue de métaphysique et de morale* 70, no. 2 (2011): 151–65. <https://doi.org/10.3917/rmm.112.0151>.
- Cusanus, Nicholas, and Jasper Hopkins. *Nicholas of Cusa On Learned Ignorance: A Translation and an Appraisal of De Docta Ignorantia*. Minneapolis: A.J. Benning Press, 1996.
- "Disegno: Italian Fine Art Drawing." Visual Arts Cork. Accessed June 12, 2023. <http://www.visual-arts-cork.com/drawing/disegno.htm>.
- Durand, Guillaume, Anselmus Davril, and T. M. Thibodeau. "Chapter 44." In *Rationale Divinorum Officiorum*. Turnhouti: Brepols, 1998.
- Holanda, Francisco de. *Da Pintura Antigua*. Edited by Ángel González García. Lisbon: Imprensa Nacional-Casa da Moeda, 1984.
- _____. *De aetatibus mundi imagines*. Painted manuscript. Madrid: Biblioteca Nacional de España, 1547–51.

- Kingsley, K. Scarlett, and Richard Parry. "Empedocles." *Stanford Encyclopedia of Philosophy*, Spring 2025 Edition. Edited by Edward N. Zalta & Uri Nodelman.
- Lowden, John. "Vienna, Österreichische Nationalbibliothek, MS 2554 ." In *The Making of the Bibles Moralises I: The Manuscripts*, 11–55. University Park, PA: Pennsylvania State University Press, 2002.
- Lugli, Emanuele. "The Height of Christ." In *The Making of Measure and the Promise of Sameness*, 145–152. Chicago: The University of Chicago Press, 2019.
- Nelson, Robert S. "Introduction." In *Visuality Before and Beyond the Renaissance: Seeing as Others Saw*, 1–22. Cambridge, U.K.: Cambridge University Press, 2000.
- Nunes, Pedro. *Tratado da sphaera*. Lisbon, 1537. John Carter Brown Library, Providence, RI.
- Prefatory miniature from the *Bible moralisée*, folio I verso, Paris, circa 1220–1230. Ink, tempera, and gold leaf on vellum. Österreichische Nationalbibliothek, Vienna 2554.
- Russo, Alessandra. "Lights on the Antipodes: Francisco de Holanda and an Art History of the Universal." *The Art Bulletin* 102, no. 4 (2020): 37–65.
<https://doi.org/10.1080/00043079.2020.1765635>.
- Santoro, Giuseppe, Mark D. Wood, Lucia Merlo, Giuseppe Pio Anastasi, Francesco Tomasello, and Antonino Germanò. "The Anatomic Location of the Soul from the Heart, through the Brain, to the Whole Body, and Beyond." *Neurosurgery* 65, no. 4 (2009): 633–43.
<https://doi.org/10.1227/01.neu.0000349750.22332.6a>.
- Vanhaelen, Maude. "Cosmic Harmony, Demons, and the Mnemonic Power of Music in Renaissance Florence." In *Sing Aloud Harmonious Spheres: Renaissance Conceptions of Cosmic Harmony*, 101–22. Edited by Jacomien Prins and Maude Vanhaelen. New York: Routledge, 2017.
<https://doi.org/10.4324/9781315161037-7>.
- Wittkower, Rudolf. "Alberti's Approach to Antiquity in Architecture." *Journal of the Warburg and Courtauld Institutes* 4, no. 1/2 (1940): 1–18. <https://doi.org/10.2307/750120>.