

AGATHOS IN MICHELANGELO'S SISTINE CEILING

PATRICIA TRUTTY-COOHILL*

Abstract: Michelangelo's design of the Sistine Chapel ceiling is examined from the sense of this new journal *Agathos*. The paper demonstrates to the modern world the point of view, the confidence, of the Christian humanism of the Renaissance. With *agathos*, that combination of noble and beautiful goodness, we ascend to the overarching realms Michelangelo depicts. We look at the architectural structure, the *disegno*, as a Jacob's ladder that returns us to our rightful place, the home that we forgot when we descended to the world into which we were born. Michelangelo makes our origins apparent, shows us that we are scion of the great ancestors of Christ. Through the beauty of the design we are lead to the goodness that is our true place in the universe. Michelangelo then allows our spirit to return home and in that returning to properly view our place in the divine order.

Keywords: Michelangelo, Sistine Chapel, Renaissance, phenomenological aesthetics, Christian humanism, *disegno*, space, domain, *agathos*.

*Che cosa è questo, Amore,
C'al core entra per gli occhi,
Per poco spazio dentro par che cresca?
E s'avvien che trabocchi?*
MICHELANGELO, CA. 1511¹

When I first saw the Sistine Chapel ceiling in 2001 I was astounded. The figures on Michelangelo's ceiling hovered over me, a part of my world. When I had seen it before the cleaning, the effect was totally different. When I studied it in photographs, the effect was totally

* Patricia Trutty-Coohill, is Ph.D. Professor of Art History and Chair Department of Creative Arts, Siena College, Loudonville, NY, USA. E-mail: ptrutty@siena.edu

¹ [What thing is this, Love,/ that enters into the heart through the eyes, / that seems to expand inside its small space? / And what if it should overflow?] Madrigal written on the same sheet as four other fragmentary poems from c. 1511, including the well know quatrain *Colu che 'l tutto fe'*.... [He who made everything, first made each part / and then from all chose the most beautiful to demonstrate here his sublime creations, / as he has now done with his divine art.], See James M. Saslow, *The Poetry of Michelangelo: An Annotated Translation*, New Haven: Yale, 1991, nos. 8 and 9

different. It was not that the physical dimensions of the chapel changed - the ceiling was still 68 feet above my head -- but the space had changed, and so had my place in it. I wrote an article about that change.² Now, I will examine Michelangelo's design of the Sistine Chapel ceiling from the sense of this new journal *Agathos*, to demonstrate to the modern world the point of view and the confidence of the Christian humanism of the Renaissance. With *agathos*, that combination of noble and beautiful goodness, we can ascend – without a hitch – to the overarching realms Michelangelo depicts. We will look at the architectural structure, the *disegno*, as a Jacob's ladder that returns us to our rightful place, the home we forgot when we descended to the world into which we were born. Michelangelo makes our origins apparent, shows us that we are scion of the great ancestors of Christ our brother. From the point of view of the framing figures, we are shown, in filmstrips as it were, scenes of the God's creative powers and man's foolish disregard for the inherent goodness of creation that made the redemptive act of Christ necessary. Through the beauty of the design we are lead to the goodness that is our true place in the universe. Michelangelo then allows our spirit to return home and in that returning to properly view our place in the divine order.

THE FACTS

The Sistine Chapel is the *capella maggiore* in the Vatican. It replaced an earlier dilapidated chapel for the corporate body of the “the Papal Chapel” (clerics, officials of the Vatican and distinguished laity) that numbered about 200 persons who met about fifty times in the year.³ About twenty-seven Masses per year were held in the *capella maggiore*,⁴ the others were celebrated in St. Peter's itself. To this day the conclave to elect the pope is held within these walls. At the time of the conclave the chapel its participants are kept in closest secret, sealed

² “When the Transcendent Becomes Immanent: The Cleaned Sistine Chapel” pp. 67-78 in *Human Creation Between Reality and Illusion, Analecta Husserliana* vol. LXXXVII, ed. Anna-Teresa Tymieniecka, Dordrecht: Springer

³ The size of the papal chapel grew quickly after 1484. Space was needed to lodge them, and it seems, that space included the Sistine Chapel. See D.Chambers. “Papal Conclave and Prophetic Mystery in the Sistine Chapel,” *Journal of the Warburg and the Courtauld Institutes*, 41 (1978), 322-26

⁴ *Wikipedia*, Sistine Chapel

away from all outside influence. The chapel functions therefore as the sealed enclosure upon which the future of the papacy is determined.⁵

While the interior of the Chapel is now grand, the exterior of the building that houses it is plain brick. It has no exterior façade or processional doorways because the entrance to the chapel was always from the internal rooms of the Papal Palace. Even in the interior space of the chapel the doorways are not emphasized, a point that will increase in significance in my later discussion.

Pope Sixtus IV della Rovere built and decorated his eponymous chapel between 1473-84⁶ according to dimensions of the Temple of Solomon as given in 1 Kings 6: 134 feet (40.9 m) long by 44 feet (13.4 m) wide. A shallow vault, decorated with a blue sky and stars in the manner of e.g. San Francesco at Assisi, rises 68 feet (20.7 m) above the floor. From 1480-83 the walls were frescoed on three levels: below the vault and between the windows of the clerestory, a gallery of popes; the middle, two historical cycles, the antitypical lives of Moses and Christ painted by the great Italian painters of the 1480s: Ghirlandajo, Perugino, Botticelli, Rossellino, Signorelli and their workshops; lowest range, faux wall hangings. The continuity of the wall surface reiterates the continuous intervention of God through Moses, Christ and the Church.

By 1505 the ceiling needed repair; it had cracks and was rain damaged. Sixtus's nephew Pope Julius II della Rovere commissioned Michelangelo's to paint the ceiling anew with images of the twelve Apostles. Complaining vociferously – he was a sculptor not a painter – between 1508-12 Michelangelo making the vault a personal monument to pope's family, including heraldic oak leaf garlands (della Rovere literally means "from the oak."). And he covered the vault with twenty-five times twelve figures. These depicted the ancestry of Christ (lunettes), the prophets and sibyls who foretold His coming (seated on plinths between the spandrels); down the spine of the ceiling a filmstrip depicting the creation of the universe and the fall of man and its consequences. Numerous other figures act as frameworks, supports, and incidentals.

⁵ Thanks to David Macauley of Penn State for relating my argument about the enclosed space of the chapel to the conclave in the 2007 Built Spaces: Earth Sky and Human Praxis Conference of the International Association of the Study of the Environment, Space and Place at Duquesne University

⁶ Designed by Baccio Pontelli and executed under the direction of Giovannino de' Dolci

The third major change was non-della Rovere, Michelangelo's giant fresco of the *Last Judgment* – the largest single fresco in the sixteenth century -- commissioned by Pope Clement VII de' Medici (1523-1534) shortly before his death in 1534, and executed from 1535-41 during reign Paul III Farnese (1534-1549). Interpretations abound over the iconography of the whole room, the relationship of the meaning of one detail with another, but, for the most part, they are variations and particularizations of the theme of continuity so appropriate to this major Vatican chapel.

PHENOMENOLOGICAL DESCRIPTION

Stock photographs of the Sistine before and after cleaning⁷ show details of the chapel as a whole from a vantage point well above the floor. These capture the identity of the figures and iconographic programs; they show the effect of the cleaning.

They worked well enough as long as we were concerned with historical, conceptual and formal issues.⁸ Dealing with such a work in only those terms seriously limits our ability to understand it. As John Dixon recently remarked: "So long as his work is seen programmatically and in terms of routine "formal" analysis, it remains, finally, inaccessible to us. . . . The Renaissance definition of the relation between the spectator and images was one of the most profound in the western intellectual enterprise. Awareness of it is the

⁷ Michael Hirst and Carlo Pietrangeli, *The Sistine Chapel, A Glorious Restoration*, New York: Abrams, 1994, p. 80. The sections of the chapel were cleaned in the following order: 1980-84 for the lunettes (over 600 square yards), 1985-88 for the ceiling (750 square yards); 1989-92 for the *Last Judgment* (200 square yards). Carlo Pietrangeli, in *Glorious Restoration*, 6

⁸ "The Iconography of the Sistine Chapel Ceiling," *The Burlington Magazine* Vol. 130/1025, (8/1988), pp. 597-605. Bull argues that the ideas of Joachim of Fiore may have been a significant influence on design of the ceiling, especially the patterns that can be related to a Golden Age of the Church predicted by Joachim and Egidio da Viterbo, Prior General (through Julius II) of the Augustinian Order. Egidio thought the achievements Julius II, Michelangelo's patron in the Sistine Chapel, signified the coming of the Golden Age of the Church. It is he who is proposed as a mediator of the patterns of iconography. Twenty-five years ago, Ester Gordon Dotson emphasized the Augustinian influence through Viterbo on the iconographic program of the Ceiling ["An Augustinian Interpretation of the Michelangelo's Sistine Ceiling," *The Art Bulletin*, Vol. 61 (1979), pp. 223-56, 405-29. Reprinted in William Wallace, ed., *Michelangelo: Selected Scholarship in English* (5 vols). Vol. 2: *The Sistine Chapel*, New York: Garland, 195, 203-27]

necessary background for any intelligible treatment of Michelangelo's work".⁹



Figure 1. Michelangelo, Sistine Chapel Ceiling, before cleaning. Photo: Wikipedia Commons

⁹ John. W. Dixon, Jr., "The Christology of Michelangelo: The Sistine Chapel," *Journal of the American Academy of Religion*, Vol. LV/3, pp. 503-33, esp. p. 514

The situation became more apparent with the cleaning. What was missed in earlier discussions is the phenomenological effect of the ceiling on the viewer, that is the way the ceiling presents itself to us in actual experience, what that presentation means upon reflection, and how that reflection can open us to the experience of another age. S.J. Freedberg's comment that "the Sistine Ceiling basically means what it instantly and evidently says"¹⁰ was borne out for me, only when I encountered the cleaned ceiling. In the dirty state, I had only seen a grand design painted high above me. It never moved me or revealed anything to me.

The cleaning however completely changed the physical sense of the Chapel: it now appears lower and broader. What I saw, but what I can't show you because no general photograph I have found gives this sense, was a vast expanse of another world not very far from my own, one that had exposed itself to me, one that revealed itself for me. See Michelangelo's lines above written at the end of his work on the Sistine Ceiling: *Per poco spazio dentro par che cresca?/ E s'avvien che trabocchi?* The world above me was close, it even extended beyond the walls of my enclosure, as a protecting mantle. The giant figures were not intimidating, they were wonders I was privileged to experience. While that world was above me, it was not beyond me. I recognized the sense of that world because it was an extension of my own. It transcended the room, yet was also immanent.¹¹

¹⁰ Dixon introduces his essay with this quotation

¹¹ I suppose I will never be able to explain the reasons the Ceiling appeared different to me in 2001. The color had changed significantly. Perhaps I was prepared to read the ceiling anew because of the publicity, perhaps I had believed my own lectures to freshmen that reproductions give false information and that the work only shows itself in person; perhaps it was my greater experience of Renaissance art, especially the study of the proxemics of the picture plane and *eminentia*. "La *Eminentia* in Antonello da Messina," *Antichità Viva*, vol. XXI/4, 1982, pp. 5–9; "The Plinian Concept of *Eminentia*: a Different Way of Conceiving Perspective in Antonello," *Atti del Convegno di studi tenuto a Messina dal 29 novembre al 2 dicembre 1981*, Messina, 1987, pp. 75–99. For Singer, "all is clearly on the surface of the ceiling vault ("Understanding the Sistine Chapel and its Paintings," *Bible Review*, 4 August 1988, pp. 21–25, esp. 21). Marcia Hall notes that the Genesis pictures are mark the surface of the wall plane (*Michelangelo: The Frescoes of the Sistine Chapel*, New York: Abrams, 2002, p. 21)



Figure 2. Michelangelo, Panoply of the Sistine Chapel Ceiling, Vatican. 1508-12.
Photo: Wikipedia Commons

How can I verify whether the illusion I experienced was intentional, a part of the original meaning of the Chapel and not the mistake caused by the cleaning? Are there objective criteria within the work to support my experience? Does the work of others support my experience? Does my experience have any parallel in the aesthetic, religious or cosmological world of early sixteenth-century Rome?

PATHS AND DOMAINS IN THE SISTINE CEILING

If we look closely at the panoply of the ceiling we see that the whole canopy of figures is divided into units, what in Christian Norberg Shultz are called “domains,” indicating “man’s general need for imagining his world ‘as an ordered cosmos within an unordered chaos.’”¹² (The age that identified chaos with hell.) He organized his 300 figures with and on an illusionistic architectural grid¹³ that divides the ceiling into domains based on the rhythm of the physical divisions of the *real frames* of the triangular vaults over the windows. These are visually supported by the pilasters that rise from the floor. The prophets and sibyls are on the spandrels that rise from those pilasters; they flank the heavy triangular frames of the vaults. The longitudinal center row of history paintings is divided by fictive pilasters that rise from the haunch of the spandrels and enthrone the prophets and sibyls; transverse ribs rise from them. Note that all the transverse forms are overlaid with figures. In contrast the horizontal cornices running the whole length of the ceiling have no articulation except the fictive capitals that support them.

The major paths of the fictive architecture direct the eye upward through the verticals of the wall pilasters. The direction is emphatic at the Y of the spandrels because sitting on a plinth are the huge prophets and sibyls whose place marks the transition between the vertical of the wall, and the longitudinal horizontal of the crown of the vault. That these figures appear to project before the vault is a feat of perspective,

¹² Christian Norberg-Schultz, *Existence, Space and Architecture*, New York: Praeger, 1971, p. 23, quoting W. Müller, *Die heilige Stadt*, 1961, p. 227

¹³ The function as shelter is like that of Frank Gehry’s characterization of the huge metal trellis he designed for the open-air Jay Pritzker Pavilion, a band shell in Chicago Millennium Park, recently opened: “You feel like you’re in something even though you’re not. It has the sense of being an enclosure and defining the space” (reported by Tara Burghart, Associated Press, in *Times Union*, Albany, NY, July 15, 2004, Arts Section, p. 41)

for they are painted on the deep concave haunch of the vault. The smaller of the individual episodes of the narrative at the crown of the vault are centered above the heads of the prophets and sibyls; their scale and framing lead our eye across the vault along the transverse ribs.



Figure 3. Sistine Chapel showing altar wall painted by Michelangelo, 1535-41. Its design respects the horizontal divisions of the walls and ceiling. Photo: Wikipedia Commons

The apex of the heavily framed triangles force the eye toward the major episodes of the narrative. The fictive architecture moves us from earth to heaven, transverses that deep past and, like the arch it is, brings us to the here and now again. The paths of the multiple verticals break through the cornices that divide realms of time.¹⁴ Even in designing the *Last Judgment* thirty years later Michelangelo respected the vertical forces of the illusionistic architecture; note the central figure of Christ rises above the triangle of sky framed by Saints Lawrence and Bartholemew.

Now that we have seen how carefully Michelangelo orchestrated vertical/transverse paths, it is time to examine the horizontal flow he established. The narrative panels along the center reiterate the strong longitudinal horizontals of the wall entablatures. These paths are narratives of Moses, Christ, the Creation, and the Fall of Man. They provide a good illustration of Norberg-Schulz's characterization of the horizontal direction in architecture as "man's concrete world of action. . . [Continuing the path, therefore,] represents a basic property of human existence, and it is one of the great original symbols" (Norberg-Schultz 1971, 21). In addition, the careful and prominent organization of the domains of the ceiling brings out the framework of the less aggressively framed domains of the earlier murals. These make narrative *paths* that lead to and focus on the altar. Michelangelo, through his skillful use of *disegno*, has managed to turn those long horizontal cornices into a Jacob's ladder – one that, like the angels of Genesis, the artist uses to reveal heaven to us. In this case one might argue, that like the Christ of John 1:51, the artist not only uses but builds the ladder that reveals heaven to man – a thought well in keeping with Michelangelo's aspirations.¹⁵

THE SISTINE CHAPEL AS OUR PLACE

Fictive architectural articulates the vault of the chapel horizontally, vertically and transversely; it is a massive pergola on which the figures rest and through which the space is orchestrated. Except for the

¹⁴ As summarized by Norberg-Schultz, p. 21

¹⁵ Although angels go up and down the ladder in Gen 28:12, New Testament interpretations consider the angels messengers; it is Christ himself that is the point of contact between heaven and earth. He reveals heavenly things to man. One might extend this to the artist himself who in this case does the revealing

narratives, which read as paintings and therefore are not part of the illusion, the space between the figures is interior wall. The *view beyond the vault is not emphasized*. The only glimpses of an exterior, an open blue sky, are tiny strips at the ends of the run of the central narrative panels; they read like fudge factors.¹⁶ A summarily articulated pale grey wall rises into the blue, but it does not continue behind the narratives. All in all, the ceiling appears to be completely covered by faux architecture, faux sculpture and paintings, so much so that *the suggestion of an enclosed space seems to be its function*. By defining the virtual space so emphatically, Michelangelo built Norberg-Schutz's *place*, "an 'inside' in contrast to the surrounding 'outside'" (Norberg-Schultz 1971, 20).

Each character has a defined place and is presented to us in a specific field. Most of the ancestors, prophets, sibyls and *ignudi*, as well as their auxiliary figures, are disposed parallel to the picture plane on the vertical, except for Jonah whose figures is foreshortened to be seen from below (however, still read vertically). As a range, however, they act as a canopy of shelter reiterating the enclosing wall. They do not allude to an outside, but rather are seated in fictive architecture projected before the fictive (and actual) plane of the wall. They are all, therefore, within the enclosed space. Indeed, most ceiling paintings of the earlier Renaissance *reiterate and enrich the sheltering function of the roof* (for example, the ceilings of the nearby Raphael Stanze or Leonardo's Sala delle Asse in the Castello della Sforzesca in Milan). The figures -- in their classical poses, in their *gravitas*, and in their movements -- are, as it were, at home; since their home contains our history, it is our home, too. They enclose our space; they keep us from flitting off and away from our place.

Those closest to us, the prophets and sibyls, form the visual base for and lead us to the filmstrip unfolded above where the *ignudi* put human frames on the story of the creations of God and the fall of man. They are not misty waifs, not winged messengers, but fully corporeal, human beings. The prophets and sibyls seek wisdom, a most human activity; in so doing they open us to the divine.

¹⁶ Indeed it may be considered an extension of the space of the last full frames, *The Flood* from the first campaign, and *The Division of Light from Dark* from the later campaign

Taken phenomenologically, Michelangelo's ceiling is a declarative statement, not a subtle mystery. It is open to us, as we are open to it. All is set before us, against a clearly demarcated backdrop. Michelangelo exposes the field of heaven, from past and in the present, revealing¹⁷ what Renaissance men knew as ever present.¹⁸ In very words of Augustine, the ceiling celebrates that "God did not withdraw from the world after He had created it, but was always filling heaven and earth with omnipresent powers" (*de Gen. Ad Litt.*, iv, 12; *de Civitate Dei* vii, 30). It is as if St. Augustine were crying out, as his did in *De fide rerum que non videntur* vii: "Give heed unto me," the Church says unto you; "give heed unto me, whom ye see, *although to see ye be unwilling*. For the faithful, who were in those times in the land of Judaea, were present at, and *learnt as present*,....[although] "*we cannot bring past things back into sight*"(emphases added).

But Michelangelo could. So what Augustine adds could apply to the world Michelangelo built in the Sistine Chapel: "Therefore behold these things, fix your eyes on these things, these things which ye see reflect on, which are not told you as things past, nor foretold you as things future, but *are shown you as things present*." Michelangelo brought back the past of creation, of man's weakness, or the generations of Christ and of those who foretold his coming. He revealed the omnipresent powers within the enclosure of the Sistine Chapel.

EXISTENTIAL SPACE OF MICHELANGELO'S SISTINE CHAPEL

Norberg-Schultz tells us that by understanding existential space we clarify just what its general orientation asks of us, what it expects of our "being in the world." Richard Etlin warns us, however, that the heart of such a space is "nearly invisible . . . because it is closest to our

¹⁷ "Reveal" is too romantic an idea for the Renaissance, for it privileges the artist as conjurer, as priest. Better to think of the Renaissance artist as dissector, uncovering the working system of life, of God's creation

¹⁸ Giorgio Vasari wrote that Michelangelo's *Last Judgment* "is that model to our art, that great painting sent by God to men on earth in order that they may see how fate acts when *intelletti* descend from the highest sphere to earth and infuse men with the grace and divinity of wisdom." Vasari, *Le vite de' più eccellenti pittori, scultori ed architettori*, ed. G. Milanese, Florence, 1888, pp. 425-69, esp. 210. See also Vasari, *The Lives of the Artists*, trans. G. Bull, Harmondsworth, 1965, pp. 378-79

everyday self.”¹⁹ With this focus on the fictive architecture I hope we have seen how Michelangelo related our near world with the distant divine, so that in the secure shelter of the Sistine Chapel, we experience a feeling of exultation and even of transcendence into the world that is just over our shoulders. To understand the context of the Ceiling, we must bracket out our modern assumptions about our insignificance *in* and *to* the cosmos.

Michelangelo’s ceiling demonstrates the lived reality of the religious and theological systems of the sixteenth century. Whereas in the modern world, ultimate truth lay with science, in the Renaissance that truth lay with God. Michelangelo’s “illusion” depicts what for the Renaissance was factual, even though it was usually unseen by human eyes. The fictive beings in the Pope’s Chapel are located in the closed, ordered universe of the Ptolemaic cosmology. Only in Kant’s eighteenth century will the heavens be delineated as an open numinous space, separate from the terrestrial, much beyond us and our reach, as in Tiepolo’s Grand Staircase, (Residenz, Würzburg, 1750-53).

Since the advance of electricity, our skies have faded; our relationship to the heavens is at best tenuous. We enlightened moderns tend to be skeptics, not believing that the world can hold wonders, and so we might not genuinely appreciate the existential space Michelangelo built in the Sistine. Our lamplights, designed for convenience and safety, have changed our common apprehension of the cosmos, so that we are, with Kurt Weil, “lost out here in the stars.”²⁰

Modern stars are less brilliant than were those of earlier times. The black space into which they are set is less warm, less close, and not continuous with our enlightened world. Our lights fade the emanating blackness of the night sky, so we lose the sense that it is close and that we are a part of it. Our Christ, if we have one, dies alone on a craggy mountaintop like that of Casper David Friedrich’s *Tetschen Altar*. Our lights fade the emanating blackness of the night sky, so we lose the sense that it is close and that we are a part of it. Our Christ, if we

¹⁹ Richard Etlin, in “Aesthetics and the Spatial Sense of Self,” *Journal of Aesthetics and Art Criticism*, Vol. 56/1 (Winter 1998), pp. 1-19, esp. p. 9

²⁰ Kurt Weill’s *Lost in the Stars*, based on Alan Paton’s novel, *Cry the Beloved Country*, premiered on Broadway in 1949

have one, dies alone on a craggy mountaintop like that of Casper David Friedrich's *Tetschen Altar*.

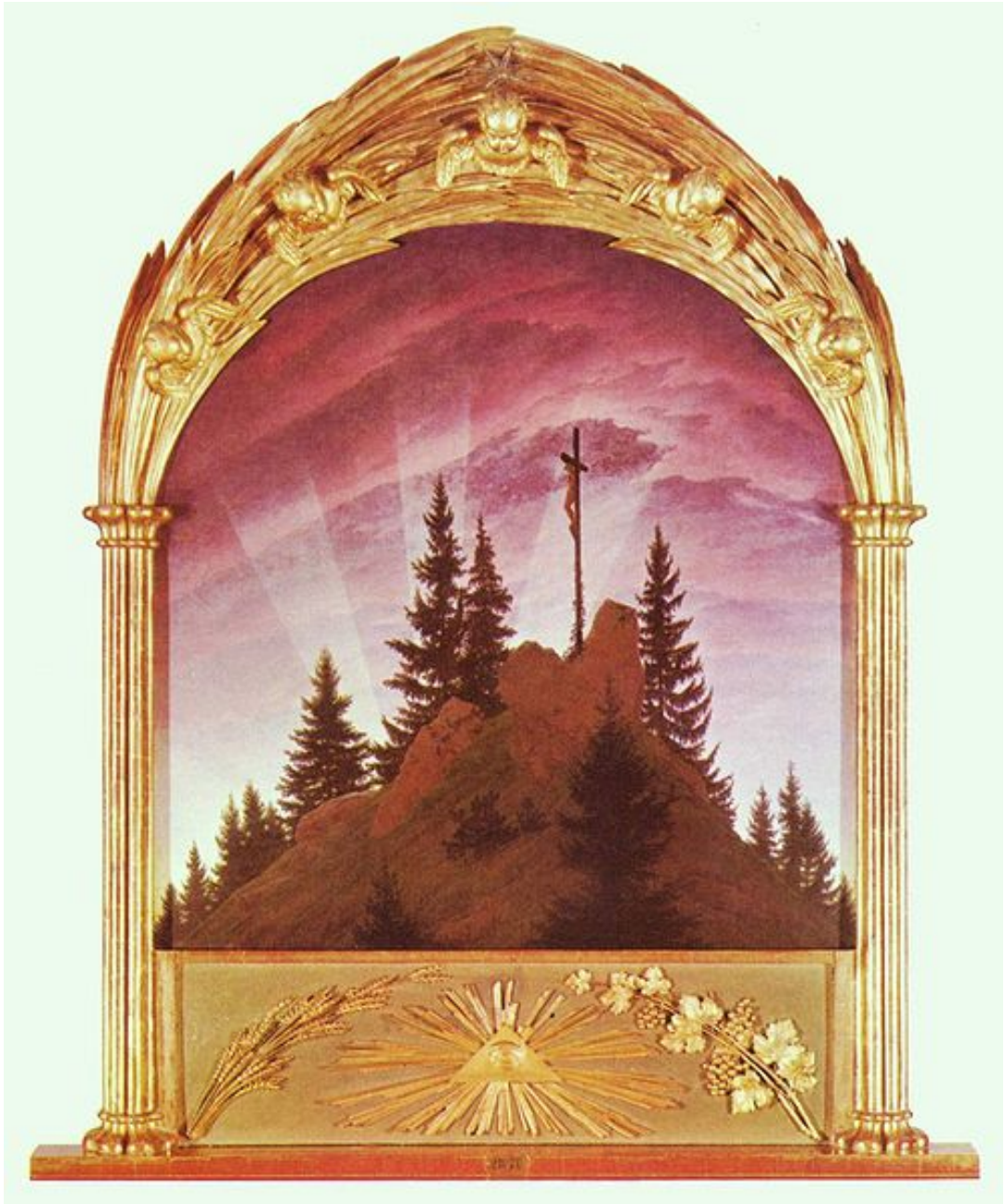


Figure 4. Caspar David Friedrich, *The Cross in the Mountains (The Tetschen Altar)*, 1807, Gemäldegalerie, Dresden

The cleaned Sistine Chapel brings us closer to the experience of the heavens that was and is common to all non-enlightened societies. The cleaning has removed the distancing effect of aerial perspective of the gray dirt. It has removed layers and layers of disinformation, not in terms of iconography, but disinformation to the senses. The new space of the ceiling celebrates our entry into it, and vice versa. The Ceiling's fictive architecture leads us to think and dwell *à la Heidegger*²¹ in the transcendent; our aesthetic reach²² makes the transcendent immanent.

On the Sistine Ceiling, the *ignudi*, the prophets and the sibyls sit on the faux architecture and protrude before it. These characters are most demonstrative; their motion captures our attention, brings us into their space and leads us around in it. Their noble gestures are casual intimacies rather than heraldic poses. We are not Heisenbergs who will change them by observing them; they are above such contingencies. We are the elect, witnesses to and at home in their company. We are a part of the social life of the city of God (Augustine, *de Civitate Dei* xix, 17).

As the seat of Christianity in 1508, the Sistine was an extraordinary space. Those who entered had a common faith. They were in privileged positions. They must be aware of *where*, *how*, and *who* they are in the Divine Order that is concentrated in this space. They must maintain that Order to become part of the City of God. Unlike characters of Kafka and Proust whose existential space threatens,²³ the existential space of the Sistine Chapel is a thing to be celebrated, for Michelangelo shows us our place as sons of God, sons who have inherited the beauty and truth of the divine order.²⁴ When we sin, we refuse the dignities and therefore the responsibilities of our *agathos*. Then we are subject to the perdition Michelangelo depicted on the altar wall of the chapel of the popes, those entrusted to bring Christ's own *agathos* into every age.

²¹ Heidegger, *Ideas: General Introduction to Pure Phenomenology*, tr. W. R. Boyce Gibson, New York: Collier, 1962, p. 165

²² Schmarsow, as quoted in Etlin, op. cit., p. 5, note 31

²³ "Nos épaules ont sur elles les plafonds qui conviennent," Le Corbusier, *La Ville radieuse, Eléments d'une doctrine d'urbanisme pour l'équipement de la civilisation machiniste*, 1935: reprint, Paris: Vincent, Fréal et Cie, 1964), p. 54: as cited by Etlin, op. cit., p. 9

²⁴ See Rudolf Schwartz, *The Church Incarnate, the Sacred Function of Christian Architecture*, trans. Cynthia Harris, Chicago; Henry Regnery Co., 1958, 15-16 (originally *Vom Bau der Kirche*, Heidelberg: Verlag Lambert Schneider, 1938)