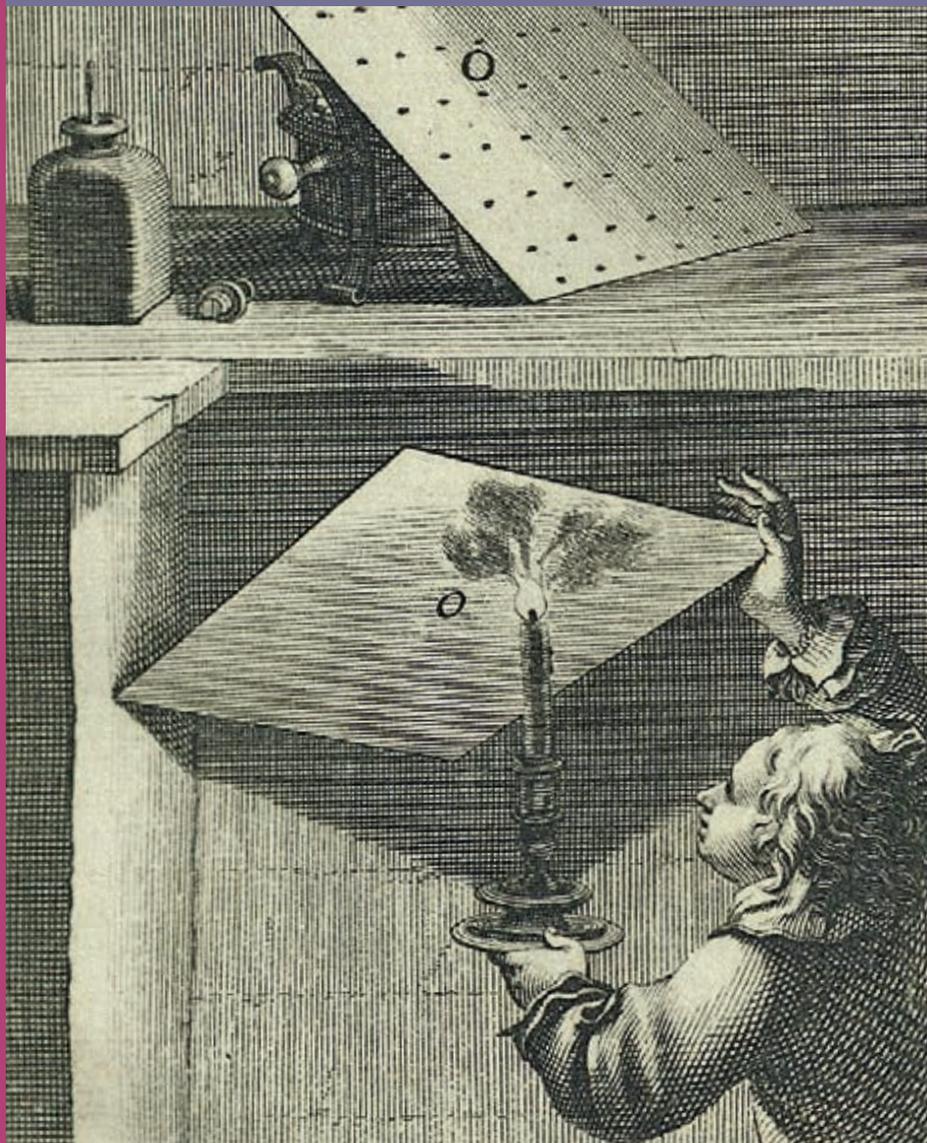


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Edited by Ruth Sargent Noyes

Reassessing Epistemic Images in the Early Modern World

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This book was generously made possible by the Mads Øvlisen Fellowship in Art History from the Novo Nordisk Foundation.

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Cover illustration: Abraham Bosse, Preparing the etching plate, from *Traicté des manières de graver en taille douce sur l'airin* (Paris: Chez Bosse, 1645), plate 1, etching. Duke University, Durham, NC, David M. Rubenstein Rare Book & Manuscript Library, NE1760 .B73 1645 c.1.

Cover design: Coördesign, Leiden

Lay-out: Crius Group, Hulshout

ISBN 978 94 6372 335 0

e-ISBN 978 90 4855 353 2

DOI 10.5117/9789463723350

NUR 685

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Table of Contents

1. Prologue 9
For a Metaphorology of Engraving: From Epistemic Images to an
Imaged Epistemology
Ralph Dekoninck
2. Introduction 25
Pittura filosofica: Etching Galileo's Sunspots and the Discursive Field
of Early Modern Epistemic Images
Ruth Sargent Noyes

Part 1 Approaches to Print Matrices

3. Sequencing Vesalius's *De Humani Corporis Fabrica* 59
Dániel Margócsy, Mark Somos, and Stephen N. Joffe
4. Meticulous Matrices: Building a Chronology of Albrecht
Dürer's *Meisterstiche* Impressions through the Analysis and
Documentation of Microscopic Scratches in His Engraved Plates 83
Angela Campbell
5. Digital Resuscitation of the Officina Plantiniana's Woodblock
Collection: Goals, Approaches, and Results 109
Jolien Van den Bossche

Part 2 Imprints as Instruments

6. Academic Print Practices in the Southern Netherlands:
Allegory and Emblematics as Epistemic Tools 131
Gwendoline de Mûelenaere
7. Visual Worlds on Early Modern Scientific Instruments: Types
and Messages 153
Julia Ellinghaus and Volker R. Remmert



8. Visual Tools and Searchable Science in Early Modern Books 175
Britta-Juliane Kruse and Stephanie Leitch

Part 3 Imprint, Knowledge, and Affect

9. The Hydraulics of the Soul: Jacobus Meilingius's Allegorical Schemata 201
Anneke de Bont

10. Images of the Eye from Vesalius to Fabricius ab Aquapendente 221
The Rise of Metrical Representation in Anatomical Diagrams and the Cross-Fertilization of Visual Traditions
Tawrin Baker

11. Illustrating the Vernacular Body: Juan Valverde de Amusco and the Art of Embodied Anatomy 243
Emily Monty

12. Epilogue 265
Forgetting How to See
Stephanie Porras

Bibliography 287

Index 321

1. Prologue

For a Metaphorology of Engraving: From Epistemic Images to an Imaged Epistemology

Ralph Dekoninck

Abstract

The volume preface takes up the question of the reversibility between knowledge and image through the issue of engraving (and intaglio printmaking more broadly) as a metaphor for thinking knowledge in the early modern period. Reflecting on period epistemic-artistic metaphorology of engraving that enabled a thinking through of the actual plastic processes entailed in the reception and production of knowledge, this chapter interrogates how a new technique such as engraving generated or reactivated and thereby transformed rich metaphorical networks, enabling a re-thinking of certain issues at the intersection of knowledge, belief, and vision in early modernity.

Keywords: metaphorology, engraving, Claude Mellan, media studies, mnemonics, theology of images

In the guise of a preface to this volume, and as an overview and extension of the authors' reflections contributing to an exploration of prints' epistemic dimension, I would like to take up the question of the reversibility between knowledge and image through the issue of engraving (and intaglio printmaking more broadly) as a metaphor for thinking knowledge.¹ In his *Paradigms for a Metaphorology* of 1960, Hans Blumenberg interrogates the place of metaphors in Western thought. He thus underscores how metaphors

¹ As it will be shown in what follows that period sources tend to gesture to burin engraving, acid etching, and sometimes even xylography interchangeably, this essay occasionally references specific techniques, while addressing intaglio techniques more generally.

(e.g. light as a metaphor for truth, or the legibility of the world, to which he dedicated a book),² far from simple ornaments of philosophical discourse or efficacious didactic means, allow for a consideration of that which resists conceptualization. Metaphors constitute *Grundbestände*, which is to say “fundamental elements” “from which and upon which philosophy operates, and do not allow themselves to be overtaken within a conceptuality.”³ That within this reflection on metaphorology artistic metaphors number among Western thought’s fundamental elements can be confirmed, for example, in the metaphor of sculpture in Aristotle’s theory of causality (doctrine of the four causes). They have enabled a thinking through of the actual plastic processes entailed in the reception and production of knowledge. Among such epistemic-artistic metaphors is that of engraving. This begs the question: how might a new technique such as engraving – a term that refers at once to procedure and product – generate or reactivate and thereby transform rich metaphorical networks, enabling a re-thinking of certain issues at the intersection of knowledge, belief, and vision in early modernity?⁴

In bringing an introductory reflection to this volume, I would thus propose an interrogation not so much of the ways that engraving specifically (and print-making more broadly) produced knowledge, but rather of how knowledge was thought of as engraving. I would likewise underscore that the latter, in return, by means of its own mediological characteristics, preserves the material and imaginary memory of not only technical but also mental processes that presided over its genesis. If, according to McLuhan’s formulation, the medium is the message, this is also in the sense that medium constitutes an extension of the individual (as McLuhan specified),⁵ an extension that I understand in the sense of an analogy between the mental and material fabric of an image. From this follows the idea that the medium thinks and people think with the aid of the medium. Put differently: not only does the medium produce knowledge, but it also enters into an epistemic phase wherein the modes of knowledge production are conceived simultaneously to the production of the image.

On this point, it is important to relativize the modern rupture, as it is clear that engraving and the imaginary that conveys it are characterized by the survival and metamorphoses of a certain indexical imaginary inherited

2 Blumenberg, *Die Lesbarkeit*.

3 Blumenberg, *Paradigms*, p. 5.

4 I would permit a reference to Dekoninck, “*Formatur unicus una, non alter*.”

5 See *Understanding Media*.



from ancient philosophy and Christian theology.⁶ Suffice it here to recall the importance of the metaphor of the imprint in ancient theories of the soul, since Plato's *Theaetetus* (191 c–d) and Aristotle's *De Anima* (427b, 18–22) in the field of philosophy, and Cicero's *De oratore* (II, LXXXVI, 354) and Quintilian's *Institutio oratoria* (XI, II, 17–22) in the domain of rhetoric, where the imprint is intimately connected to the *artes memoriae*. During antiquity, the soul was, in effect, conceived as a ductile material assimilated to wax, on or in which images conducted through the canal of the senses were imprinted in the manner of a seal. Such a noetic metaphor – or, more precisely, mnemonic metaphor since it essentially takes into account the *modus operandi* of memory – would remain among the principle epistemic analogies in the domain of theories of the soul through the early modern period. It is nonetheless interesting to note that this becomes progressively adapted to the new ascendant technologies of engraving and imprinting, although closer scrutiny reveals this to be much more than a simple transfer of meaning. Rather, we are witnessing the emergence of a new way of thinking about the close relationship between image and psychic functioning, whose effects on the very apprehension of engraving must be taken into account, particularly as regards its triple scientific, religious, and artistic vocation.⁷

Let us take two examples from the field of children's education: in a work dedicated to a defense of the religious image, French Jesuit Louis Richeome cites the example of a three-year-old child who, having seen and named birds in the work of naturalist Pierre Belon, can recognize and identify them.⁸ Richeome's conclusion is particularly striking: the engravings, he claims, functioned as “*matrix and burin* to his little memory, so as to *engrave* so appropriately these *impressions* on the capacity of his age” (emphasis added).⁹ Here, the perfect coincidence between the nature of perceived images and these images' effect on the mind, and particularly the memory, gives rise to engraved images that, in turn, engrave, according to the somewhat curious expression “*matrix and burin*” eliciting the sphere of agentive images

6 For a broader anthropological perspective, see Didi-Huberman, *La Ressemblance par contact*.

7 On this point, I would add William B. MacGregor's remarks: “how this conceptual system potentially structured the culture's experience of actual prints? If the mind was thought to be like an engraved copper plate or a sheet of paper imprinted with figures, what of the interface with its material referents? Put simply, what might be thought to happen when people with print- or plate-like minds looked at printed images?” In “The Authority of Prints,” p. 411.

8 Richeome, *Trois discours*, p. 623.

9 *Ibid.*, p. 624.



(*images agentes*) that engraves the child's memory.¹⁰ This physiological truth reappears in Fénelon's *Traité de l'éducation des filles* (Treatise on the education of girls), according to which the "softness of [children's] minds is such that everything is easily *imprinted* thereupon, and the images of all sensible objects are very vivid," while the author insists on that fact that "the images to be *engraved* there must be carefully chosen [...] The first *engraved* images when the mind is still soft and nothing is yet written there are the deepest" (emphasis added).¹¹ One can see here the old hermeneutic of the imprint encountering that more recent of engraving, with the matrix remaining more or less similar to wax, whereas the imprinting mechanism is clearly taken from the realm of engraving.

Moving away from what appears tantamount to a psychological commonplace, it is clear that the notion of an almost instantaneous cerebral impression of the perceived image is progressively called into question, starting with Descartes. If the metaphor of the intaglio imprint (specifically acid etching) appears in the fourth discourse of his 1637 *Dioptrique* (Dioptrics), this is invoked not so much to explain the workings of memory, but rather to evoke the nature of the image produced by the imagination:

As you see that etchings, made from nothing more than a little ink placed here and there on paper, represent to us forests, towns, people, and even battles and storms, and although they make us think of countless different qualities in these objects, it is only in respect of shape that there is any real resemblance. And even this resemblance is very imperfect, since [these prints] represent to us bodies of varying relief and depth on a surface which is entirely flat. [...] Thus, it often happens that in order to be more perfect as an image and to represent an object better, etchings ought not to resemble it. Now, we must think of the images formed in our brain in just the same way, and note that the problem is to know simply how they can enable the soul to have sensory perceptions of all the various qualities of the objects to which they correspond, and not to know how they can resemble these objects.¹²

10 The deep mark left by the perceived image moreover imprints the imagination, which is largely dependent on it, as Malebranche will recall several years later: "[...] we imagine such things that much more strongly, if these marks are deeper and better *engraved*." Malebranche, *De la Recherche*, p. 207.

11 Fénelon, *De l'éducation des filles*, esp. pp. 55–69.

12 Descartes, *La Dioptrique*, p. 204. Adapted from a translation in Descartes, *Philosophical Writings*, I, pp. 165–166. See also MacGregor, "The Authority of Prints," pp. 404–408; Marion, *Sur la théologie*, pp. 249–255; Dumont, *Descartes et l'esthétique*, pp. 82–93; Leonhard and Felfe, *Lochmuster und Lienenspiel*, pp. 29–33.

The previously prevailing analogical link has, in a certain sense, been broken, hereafter there is no longer a relationship of contiguity between the referent and its image, no confusion between the model and its reproduction, which were suggested by the reference to the imprint. That transference gives way to translation or transposition signals the end of real presence and inaugurates the reign of representation.¹³ In this new *episteme*, the intaglio print is divested of its indexical symbolism and supplanted by the underlying abstractive process of the model of the *camera obscura*. This allowed a great economy of means for an “infinity of different qualities,” or, put differently, for an optimal result in terms of knowledge of reality.

In 1673, this idea reappears summarized and simplified in a completely different context, that of the “philosophy of images” as elaborated by Jesuit Claude-François Ménéstrier. In one of the treatises that comprise his vast iconological project, he traces metaphors borrowed from the field of artistic techniques to explain the work of each of the six faculties of the soul. He wrote regarding intaglio printmaking (including xylography): “as it is in the nature [of sensible images] that are graven on copper or wood to be printed [...] [and] those that are printed and pulled from engraved images [...], imagination engraves images in the soul and on the body, [...] [and] memory prints and arranges them.”¹⁴ It is clear from this passage that the image of gravening as a creative process is preferable to that of the impression, as the imagination was no longer solely conceived of as a receiving faculty. Even the memory is no longer restricted to imprinting, but now arranges as well. As for the notion that a lively imagination engraves not only the soul but also the body, this constitutes another point of intersection with ancient physiology, which will reappear in seventeenth-century spiritual literature.

If the reign of the indexical paradigm thus seems to come to an end in the domain of the sciences, it effectively survives in the field of spirituality, where it tends toward a different referential horizon: no longer only that of ancient theories of the soul, but also that of Christian theology. To designate the imaginal condition of man, Augustine explicitly invokes the indexical paradigm. The image of God in man is of the order of the trace in search of its matrix: “The true honor of man,” he writes in *De Trinitate*, “is being the image and resemblance of God, an image that can only be preserved by recourse the one by whom it is printed [*a quo imprimatur*]” (*Trin.*, XII, 11, 16). This same anthropological principle resurfaces in Ménéstrier. For him,

13 See Havelange, *De L'œil et du monde*, pp. 332–333.

14 Ménéstrier, “Avertissement,” in *Le véritable art*, n.p.



if man thinks and creates only through and in images, it is because he is an image-copy of the Creator:

Man has such an inclination for his origin that he loves all of its copies, to the point of forgetting the original from which they were taken. This love seems right, since it is founded on resemblance, and being the Image of God he relates to pictures, and is sympathetic to portraits and painting.¹⁵

This passage has the merit of being quite explicit regarding the conceptualization of the divine creature as taken from its original: certainly a diminished copy, but one that nevertheless retains the trace of the original resemblance of an ontological nature, which makes him naturally appreciate any form of reproduction.

This genetic relationship is commonly thought of in the mode of *vestigium*, a concept widely exploited across Latin patristic and scholastic literature, as well as its Greek counterpart, *typos* (τύπος), which covers a vast semantic field, closely related to the lexicon of the Christian image.¹⁶ That in the seventeenth century the calcographic metaphor largely inherits from the Christian *vestige* is witnessed, for example, by a passage in François de Sales' 1616 *Traité de l'amour de Dieu* (Treatise on the Love of God):

Let us imagine, I pray you, on the one hand, a painter making a picture of Our Saviour's birth (and I write this in the days dedicated to this holy mystery). Doubtless he will give a thousand and a thousand touches with his brush, and will take not only days, but weeks and months, to perfect this picture, according to the variety of persons and other things to be represented. On the other hand, let us look at a printer of pictures, who having spread his sheet upon the plate which has the same mystery of the Nativity cut in it, gives but a single stroke of the press: in this one stroke, Theotimus, he will do all his work, and instantly he will pull [from the plate] a picture representing in a fine etching all that has been imagined, as sacred history records it. Though he performed the work with one movement, yet it contains a great number of personages, and other different things, each one well distinguished in its order, rank, place, distance and proportion: so that one not acquainted with the secret would be astonished to see proceed from one act so great a variety of effects.¹⁷

15 Ménéstrier, *L'Art des emblèmes*, pp. 1–2.

16 See Goyet, "De la rhétorique," pp. 46–67.

17 de Sales, *Traicté*, 73. See Legros, *François de Sales*, pp. 159–163.



This rather unconventional *paragone* between painting and intaglio print-making – or, to be more precise, between the work of a painter and that of a printer of images – thus rests on the following analogy: the time-consuming labor of the painter is contrasted against the almost instantaneous work of the printer. For the thousand brushstrokes, a single pull of the intaglio press seems to conflate the very realization of the image itself, thereby effacing the long and fastidious work of the engraver (or etcher). Here the image's printing is equivalent to its revelation. This technical act appears almost miraculous: a single movement begets infinite effects.

That this double analogy appears in a spiritual work, however, raises the question of the deep import of this parallelism between the ends and means of the respective media. This metaphor no longer occludes a scientific truth as in Descartes, but rather a spiritual meaning:

...like the painter, nature multiplies and diversifies her acts accordingly, as the works she has in hand are various, and it takes her a great time to finish great effects, but God, like the printer, has given being to all the diversity of creatures which have been, are, or shall be, by one only stroke of his omnipotent will. He draws from his idea as from a well-cut plate, this admirable difference of persons and of things, which succeed one another in seasons, in ages, and in times, each one in its order, as they were to be.¹⁸

The comparison can be summarized thus: God is to nature, what the printer of images is to the painter – a comparison whose full implications (including for example the ambivalence between the act of engraving and that of printing) are beyond the scope of this chapter, but whose essence for our present purposes can be limited to the immediacy or instantaneity superintending the act of creation, achieved through a single strike or pull from the divine press.

In the Christian tradition, the trace left by this process is nevertheless perceived as an obscure and indistinct mark, removed from and inferior to its matrix. Only the Incarnation could reveal a true imprint, as one pulled from a graven plate. The Son, perfect Icon of the Father, thus reconciled the image and its model, restoring the perfect identification between the seal and its imprint.¹⁹ The image that incarnates in the strict sense this

¹⁸ *Traicté de l'amour de Dieu*, p. 74.

¹⁹ The sigillary metaphor that dominated in eleventh- and twelfth-century pre-scholastic theology, largely derived from Neoplatonism, assimilated the *imago*, understood as the seal's

identification, rendering it visible, is the Holy Face, in the form of three archetypes: the Mandylion, the Veronica, and the Turin Shroud. In the second half of the sixteenth century, Catholics exalted these three prestigious contact relics – miraculous imprints resulting from a real impression – as tangible proof of the legitimacy of the image, as they were held to perpetuate in some way the incarnational economy. Their striking kinship with the printed image engendered evocative connections, justifying most notably the multiplication of these *acheiropoietia*.²⁰

Louis Richeome, speaking of the various *sudaria* in Turin, Besançon, and Spain, thus explicitly invoked the metaphor of pulling a print: the Shroud is composed of “two large sheets, where our Savior is printed [*tiré*] front and back life-size, as he was when entombed. This is preserved in Turin and Besançon; both have performed many miracles. The Veronica is likewise preserved, in a church in Spain. That these are found in different places is no cause for amazement: because it could be that many were printed [*tirées*] together, or that he who miraculously printed the first also miraculously multiplied them.”²¹

The printing or “pulling” – a master engraver would pull proofs – of these *acheiropoietia* enabled engraving to furnish a model that, in turn, empowered a conceptualization of the miracle. In return, the model of the venerable icon profoundly imbued the ideation of engraving. The deliberate linking of the Veronica’s impression to printing is evidenced by the frequency with which this *sudarium* was used as a printer’s mark. The *acheiropoietic* miracle could thus be viewed as printing’s origin myth, the ideal of a direct revelation of truth – not to be confused with a true imitation of reality, as *mimesis* here gives way to *genesis*, the latter divested of any presumption of mimetic identity.²² Suffice it to think, too, of intaglio prints reproducing pilgrimage cult images and conserving their auratic traces, which the accompanying inscriptions never fail to emphasize. Thus, Israhel van Meckenem’s engraving *Imago pietatis* is accompanied by the legend “This image was *counterfeited* [*contrafacta*] according to the manner and resemblance of the first *Imago Pietatis* in the church of Santa Croce [di Gerusalemme] in the city of Rome

imprint, to the human condition, whereas only Christ could be himself assimilated and co-extensive with the seal, i.e. consubstantial with the divine matrix. On this, see especially the work of Bedos-Rezak, e.g. “Replica.”

20 The prototypical account was that of the legend of the Mandylion of Edessa, produced through auto-duplication by means of an impression on cloth (*Keramidion*). See Kessler and Wolf, pp. 95–108; Lecercle, “De la relique à l’image.”

21 Richeome, *Trois discours*, pp. 611–612.

22 Lecercle, “Le signe et la relique,” II: 487.



[...]” (emphasis added). Peter Parshall has thoroughly underscored the importance of the term “counterfeit” (*conterfeit, contrafactur*) in the domain of not only religious intaglio prints (with the attending notion of the contact relic), but also the scientific (with the idea of objective eyewitness).²³ Distinct from the realm of imitation, this concept suggests the idea of an identical reproduction, as if the world had come to rest on the image.

While the religious and scientific spheres began to separate in early modernity, they nonetheless shared a common indexical paradigm grounding a particular notion of truth. In order to set them into mutual dialog, I would like to close with an evocation of two engravings by Claude Mellan: one, his celebrated *Holy Face* of 1649; the other, his less well-known but equally fascinating series of three engravings of the moon’s phases (commissioned by Nicolas-Claude Fabri de Peiresc and Pierre Gassendi), engraved after sketches the artist made in Aix-en-Provence in early 1636 based on telescopic observations.

It is worth recalling the technical and artistic tour de force that is Mellan’s *Holy Face*²⁴ (Figure 1.1). This image is formed by the spiraling circonvolution, starting from the tip of the nose, of a single alternatively swelling and tapering line, a continuous and undulating line that winds or unwinds depending on the viewer’s perspective, to the point of completely filling the void of the sheet of paper, whose limits coincide with the veil’s edge. This creates a kind of identity between paper and veil, material support and figured support, as the latter at once conceals and reveals the former – or perhaps just the opposite, as this coincidence engenders a particular trouble between presence and representation, even a confusion between engraving and acheiropoietic imprint. This confusion is admittedly not total, since the veil’s presence is revealed at the bottom of the image by a discreet curvature revealing a slight margin, a fictive stony background on which are engraved (or rather chiseled) both the date and artist’s name, and the continuation of the legend printed on the *sudarium* itself. The fact remains that, except for this detail, as Irving Lavin writes, “the sheet of paper is and represents at the same time the single image which represents the single face.”²⁵ As if this perceptive elision was not sufficiently explicit, Mellan added the legend: *Formatur unicus una, non alter* (“uniquely formed, [like] no other”), a species of *motto* that emblemizes the image, *motto* invented by Michel

23 Parshall, “*Imago contrafacta*.”

24 See Sgard, *La Sainte Face*; Préaud and De Lavergnée, *L’œil d’or*, 92–96; Macgregor and Bonfait, *Il Dio Nascosto*, 170–173.

25 Lavin, “Il Volto Santo de Claude Mellan.”





Figure 1.1 Claude Mellan, *Face of Christ on St. Veronica's Cloth (Holy Face)*, 1649. Engraving, 46 × 34.8 cm. Rijksmuseum, Amsterdam, RP-P-OB-69.798.

de Marolles, friend of Mellan and avid collector of the artist's works. In his *Memoirs*, de Marolles gives the following explication:

Formatur unicus una alludes to the beauty of the only Son of the Eternal Father, born of a virgin, and with a single spiral line with which the artist has so well drawn the portrait, with this other phrase written below, *Non alter*, because there is no one who resembles this First of

the Predestined, and because the engraver of this image has made such a masterpiece that another would have difficulty imitating it and creating its equal.²⁶

In a kind of cascade or procession of nested prototypes, *unicus* therefore refers not only to Christ himself, unique Image of the Eternal Word and prototype of every Christian, but also to the unique image of Christ, i.e. the Veronica, prototype of all Christological (and, indeed, Christian) images. The term *una* designates at once the Virgin, often called *unigenita*, and the artistic masterpiece, both conceived as corporal and visual mediation of the incarnation. The mystery of the universal line, creating an uncircumscribable portrait, meets the Christological mystery, representing in one stroke human and divine. The chiropoietic wonder merges the acheiropoietic miracle to the point of confusion, the union of technique and subject accomplished so as to become a figure of the incarnation.

If the first horizon is indeed of a theological nature because of the subtle play on the infinite line uniting the Christological prototype to its pictorial type – which is really only the image (the engraving) of an image (the Veronica veil) of an Image (Christ himself) – by means of a progressive shifting of thresholds toward the ultimate prototype, this game is imperceptibly transformed into a purely mental exercise, provoking an admiration that is no longer so tethered to the model in the image, but rather to the image's inventor. The prototype is now relocated to the brilliant mind of the artist; the masterpiece becomes no more than a portrait of his technical and artistic *maestria*. A zone of indecision remains, however, given that the artist's hand tends both to assert and occlude itself, as if to better pay homage to the prototype represented, were it not for his own talent.

The result of this dialectic is an eloquent effect in the rhetorical sense: in this case, it is the imprint that leaves a lasting mark in the mind. The figure of Christ becomes a veritable figure of speech that simultaneously diverts and attracts the gaze, intensifying the almost supernatural revelation by obscuring the technical process that makes it possible, and exposing the geometric underpinnings to the point of vanishing the model as the gaze approaches it – all ultimately a function of the beholder's distance from the image. These hypotheses are not mutually exclusive: this movement is, indeed, twofold, and the two artistic and theological dimensions are coextensive. To take up the distinction made by Thomas Aquinas concerning

²⁶ *Les Mémoires de Michel de Marolles*, 266. Cited in Préaud and Brejon de Lavergnée, *L'œil d'or*, p. 121.



the just adoration due the image of Christ (*Summa theologiae*, pars 3, quaest. 25, art. 3), the movement of the gaze toward the image as an image and the movement toward the model in the image to some extent coincide.²⁷

Due to this overlap of type and prototype with theological-artistic resonances, Mellan's engraving can be considered as representative of a visual culture still trying to achieve synthesis between two spheres that then tend to grow progressively and mutually distant. The image printed at the dawn of the era of mechanical reproduction clearly appears as the multiple type of a single prototype, where the latter refers not only to the engraved matrix, but also to the divinely created universe whose trace is preserved more or less distinctly in every image, with man living only in a world of "deferred transmission." The new technique takes hold of the symbolic universe of an indexical Christian paradigm that precedes it and gives it meaning.

That which is valid for the relationship between art and religion in the formation of knowledge of the divine is likewise pertinent for their relationship with the production of scientific knowledge. To close the loop opened in Ruth Noyes's introduction to the volume, regarding Galileo's *Macchie Solari* ("Sunspot Letters") and Greuter's *intaglio finissimo*, I will close by way of Mellan's representations of the lunar phases (First Quarter, Full, and Final Quarter), called *icons* in the accompanying legend²⁸ (Figure 2.2). Although the selenographies were not realized with a single unbroken burin line, they are still the result of a series of parallel continuous lines that evince no less of a technical tour de force than *Holy Face*. Apart from technique, what do the selenographic prints have in common with the latter? It could be said that the representation of the moon, as the face of Christ, is a challenge to representation. That Peiresc dedicated the work to Gassendi as "a memorable work for all time,"²⁹ and Mellan himself spoke of "a very new thing,"³⁰ can be compared to Cesi's remarks on the images illustrating Galilean telescopic solar observations that "delight in the wonder of the spectacle and the accuracy of the expression." Moreover, Peiresc maintained, writing to dal Pozzo, that the technical-representational challenge was such that Mellan initially could find neither "artisan nor a machine suited to the delicacy of the work, the proofs being stained and poorly printed, because the printers did not know how to work the ink."

27 Dekoninck, "Le double mouvement."

28 Préaud and Brejon de Lavergnée, *L'œil d'or*, pp. 115–119. Jaffé, "Mellan and Peiresc."

29 Cited in Préaud and Brejon de Lavergnée, *L'œil d'or*, p. 118.

30 Cited in *ibid.*, p. 118.



Figure 1.2 Claude Mellan, *Full Moon*, from *Three Representations of the Moon*, 1635. Engraving, 24.8 × 21.7 cm. Rijksmuseum, Amsterdam, RP-P-OB-71.150.

This might be construed as an implicit challenge to François de Sales' topos of the facile printer of images, because, in this case, the engraved matrix after nature exceeded the printer's abilities.

Beyond the well-established period analogies assimilating the Virgin with the moon and Christ with the sun,³¹ and apart from the same striking effect, which can be likened to that of an image-eye (Mellan's self-proclaimed "eye of gold," a phrase he deployed to describe his geometrical science of representation) that fixes and hypnotizes the beholder, what emerges from this comparison between the Holy Face and the phases of the moon is again

31 On these tropes, see Ostrow, "Cigoli's Immacolata"; Booth and Van Helden, "The Virgin and the Telescope."

exegesis of the relationship between type and prototype.³² When it comes to probing the invisible – be it natural or supernatural – such as aspects of the Christological mystery or that which is revealed through the telescope, engraving not only becomes the instrument of knowledge and its diffusion, but also continues to carry the idea of unmediation, of a deposit/transfer of the real, or revelation (in the photographic sense, so to speak) of the truth. This notion aligns with Christian anthropology and iconology, which persisted in conceiving of man and the pictorial productions of his mind according to the paradigm of the imprinted trace. The intaglio image, which is the result of the epistemic dynamic, and the hermeneutical dynamic that it generates, continue to be conceptualized and experienced within the framework of this congruence of *techne* and *episteme*.

Bibliography

- Bedos-Rezak, Brigitte Miriam. "Replica: Images of Identity and the Identity of Images in Prescholastic France." In *The Mind's Eye: Art and Theological Argument in the Middle Ages*, edited by Jeffrey Hamburger and Anne-Marie Bouché, pp. 46–64. Princeton, NJ: Princeton University Press, 2006.
- Blumenberg, Hans. *Paradigms for a Metaphorology*. transl. Robert Savage. Ithaca, NY: Cornell University Press, 2010.
- Blumenberg, Hans. *Die Lesbarkeit der Welt*. Frankfurt am Main: Surhkamp, 1981.
- Booth, Sara Elizabeth, and Albert Van Helden. "The Virgin and the Telescope: The Moons of Cigoli and Galileo." *Science in Context* 13, no. 3–4 (2000): 463–486.
- Dekoninck, Ralph. "Formatur unicus una, non alter. Enjeux théologiques, Rhétoriques et Artistiques du Prototype dans le Monde de la Gravure Durant la Première Modernité." *Degrés: Revue de Synthèse à Orientation Sémiologique* 146 (2011): 1–16.
- Dekoninck, Ralph. "Le Double Mouvement de l'Âme vers l'Image: Une Théorie Aristotélico-Thomiste au Cœur des Débats du Milieu du XVI^e Siècle sur le Juste Rapport à l'Image Religieuse." *Revue de Théologie et de Philosophie*, 154 (2022), 277–296.
- Descartes, René. *La Dioptrique* [1637], in *Œuvres et lettres*, edited by André Bridoux. Paris: Bibliothèque de la Pléiade, 1953.

32 According to Antoine Furetière's definition, "type" is the "Copy of a model, character engraved or imprinted by some other thing. Less used than its cognates *prototype* and *archetype*, which are originals made without a model. This word comes from the Greek *typos*, signifying *figure*." In *Dictionnaire Universel*, p. 761.

- Descartes, René. *The Philosophical Writings of Descartes*, transl. John Cottingham, Robert Stoothoff, and Dugald Murdoch. 3 vols. Cambridge: Cambridge University Press, 1985.
- Didi-Huberman, Georges. *La Ressemblance par Contact. Archéologie, Anachronisme et Modernité de l'Empreinte*. Paris: Éditions de Minuit, 2008.
- Dumont, Pascal. *Descartes et l'Esthétique. L'Art d'Émerveiller*. Paris: Presses Universitaires de France, 1997.
- Fénelon, François de Pons de Salignac de La Mothe. *De l'Éducation des Filles* [1687], in *Œuvres*, edited by Jacques Le Brun. Paris: Bibliothèque de la Pléiade, 1983.
- Furetière, Antoine. *Dictionnaire Universel*. The Hague & Rotterdam: Arnout & Renier Leers, 1690.
- Goyet, Francis. "De la Rhétorique à la Création. Hypotypose, Type, Pathos." In *La Rhétorique. Enjeux de ses Résurgences*, edited by Jean Gayon, Jacques Poirier and Jean-Claude Gens, pp. 46–67. Brussels: Ousia, 1998.
- Havelange, Carl. *De L'œil et du Monde. Une Histoire du Regard au Seuil de la Modernité*. Paris: Fayard, 1998.
- Jaffé, David. "Mellan and Peiresc." *Print Quarterly* 7 (1990), 168–175.
- Kessler, Herbert L, and Gerhard Wolf, eds. *The Holy Face and the Paradox of Representation: Papers from a Colloquium Held at the Bibliotheca Hertziana, Rome and the Villa Spelman, Florence, 1996*. Bologna: Nuova Alfa Ed., 1998.
- Lavin, Irving. "Il Volto Santo de Claude Mellan. *Ostendatque etiam quae occultet*." In *République des Lettres, République des Arts. Mélanges offerts à Marc Fumaroli*, edited by Christian Mouchel and Colette Nativel, pp. 385–414. Geneva: Librairie Droz, 2008.
- Lecerclé, François. "Le Signe et la Relique. Les Théologies de l'Image à la Renaissance." PhD Dissertation, 2 vols. Montpellier: Université de Montpellier, 1987.
- Lecerclé, François. "De la Relique à l'Image: La Promotion du Suaire de Turin." In *Symboles de la Renaissance III*, ed. Daniel Arasse, Maurice Brock, and Georges Didi-Huberman, pp. 95–112. Paris: Éditions Rue d'Ulm, 1990.
- Legros, Philippe. *François de Sales, une Poétique de l'Imaginaire. Étude des Représentations Visuelles dans l'Introduction à la Vie Dévote et le Traité de l'Amour de Dieu*. Tübingen: Gunter Narr Verlag, 2004.
- Macgregor, Neil, and Olivier Bonfait, eds. *Il Dio Nascosto. I Grandi Maestri del Seicento e l'Immagine di Dio*. Rome: Edizioni De Luca, 2000.
- MacGregor, William B. "The Authority of Prints: An Early Modern Perspective." *Art History* 22 (1999): 389–420.
- McLuhan, Marshall. *Understanding Media: The Extensions of Man*. New York: McGraw-Hill, 1964.
- Malebranche, Nicolas de. *De la Recherche de la Vérité* [1674–1675], edited by Geneviève Rodis-Lewis. Paris: Bibliothèque de la Pléiade, 1979.

- Marion, Jean-Luc. *Sur la Théologie Blanche de Descartes. Analogie, Création des Vérités Éternelles et Fondement*. Paris: Presses Universitaires de France, 1981.
- Marolles, Michel de. *Les Mémoires de Michel de Marolles*. Paris: Antoine de Sommerville, 1656.
- Ménéstrier, Claude-François. *L'Art des Emblèmes où s'Enseigne la Morale par les Figures de la Fable, de l'Histoire, & de la Nature*. Lyon: Benoît Coral, 1662.
- Ménéstrier, Claude-François. *Le Veritable Art du Blason ou l'Usage des Armoiries*. Paris: Estienne Michallet, 1673.
- Ostrow, Steven F. "Cigoli's Immacolata and Galileo's Moon: Astronomy and the Virgin in Early Seicento Rome." *Art Bulletin*, 78, no. 2 (1996): 218–235.
- Parshall, Peter. "Imago Contrafacta: Images and Facts in the Northern Renaissance." *Art History* 16 (1993): 554–579.
- Préaud, Maxime, and Barbara Brejon de Lavergnée, eds. *L'Œil d'Or: Claude Mellan, 1598–1688*. Paris: Bibliothèque nationale, 1988.
- Richeome, Louis. *Trois Discours pour la Religion Catholique. Des Miracles, des Saints et des Images*. Bordeaux: Simon Millange, 1598.
- Sales, François de. *Traicté de l'Amour de Dieu*. Lyon: Pierre Rigaud, 1626.
- Sgard, Jean. *La Sainte Face de Claude Mellan. Étude des Bases Géométriques du Dessin*. Abbeville: Société d'Émulation Historique et Littéraire d'Abbeville, 1957.
- Trémolières, François. "L'Art Sacré au Prisme de Fénelon." *Dix-Septième Siècle* 230, no. 1 (2006): 49–69.

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