

**‘Dwelck den Mensche, aldermeest tot Consten verweect.’
The Artist’s Perspective.¹**

Abstract

In the short seven years between the Peace of Cateau-Cambrésis and the Iconoclastic Troubles of 1566, Frans Floris and Pieter Bruegel the Elder took an unprecedented step for Netherlandish painters, and executed several images which proclaimed that Painting and Sculpture are founded in precepts, not in practice. Several of the *spelen van sinne* in the 1561 *landjuweel* corroborate that such notions were circulating, if not widespread, in Antwerp during this period.

Leonardo da Vinci once wrote, ‘la scientia è il capitano e la pratica sono i soldati.’² In a related metaphor in the *Trattato della pittura* one reads,

Those who are in love with practice without knowledge [scientia] are like sailors who gets into a ship without rudder or compass, and who never can be certain where [they are] going. Practice must always be founded on sound theory, and to this Perspective is the guide and the gateway.³

Albrecht Dürer voiced similar sentiments in the dedication of his 1525 *Vnderweysung der Messung* when he explained:

It has now been the custom in our Germany to put a great number of talented lads to the task of artistic painting without real foundation other than what they learned by daily usage. They have therefore grown up in ignorance like an unpruned tree. Although some of them have achieved a skillful hand through continual practice, their works are made intuitively and solely according to their tastes [...] [t]hey never learned the art of measurement [*Messung*] [...] which is the foundation of all painting.⁴

Dürer’s text was intended to instruct the young painter in Geometry (as *Messung* was rendered by his Latin translator Joachim Camerarius in 1532). His system of perspective was heavily indebted not only to Alberti, but also to Jean Pelerin, known as Viator, who had published his *De artificialis perspectiva* in Toul in 1505. Viator’s text was popular; within four years of publication it had been pirated twice, once in Strasbourg and a second time in Nuremberg. He

¹ I would like to thank David Cast and Elsa Strietman for particularly useful suggestions and commentary.

² C. Ravaisson-Mollien, ms I 130 [82]. In: Leonardo da Vinci 1970: 1160.

³ C. Ravaisson-Mollien, ms G 8 r. In: Leonardo da Vinci 1970: 20.

⁴ Dürer 1977: 36, 37.

issued a second, expanded edition in Toul in 1509, spelling out in both Latin and French what he had only summarily indicated in the first edition: one had to first learn the principles of art — perspective — then learn how to apply those principles, before one could actually portray something seen or conceived.⁵

Alberti had written *De pictura* in 1435; by the opening decades of the sixteenth century the fact that an image could be organized by a mathematically plotted perspectival grid was by no means unfamiliar to a literate audience interested in the process of making representations. These texts are historically significant not for the *res* or topic, but rather for the *verba*, that is the rhetorical claims they make. First and most obvious is the claim that painting is associated with the liberal arts. In each case, however, the making of images is regarded not as an activity which presents persuasive moral truths, and thereby allied with rhetoric; instead it makes use of one of the mathematically based arts of the quadrivium, Geometry. Secondly, and perhaps the rhetorically more effective argument, the linking of image making with Geometry is framed by the age-old Aristotelean distinction between theory and practice. Associating representation with the art of Geometry was to assert that the making of images was grounded in the active use of the intellect rather than in the execution. Practice was important, but precepts were essential.

The situation was very different in the Lowlands. In a letter to Giorgio Vasari of April 27, 1565, the Liège painter Lambert Lombard lamented that there has been no writing on art north of the Alps:

A generous Nature has so ornamented you with her gifts that we here on the other side of the [Alps] remain stupified. It seems extraordinary to us, and to men of letters it seems a miracle, that an artist could be such an excellent philosopher and historian at the same time. Not precisely because this could not happen, but because it has been so long and so many centuries have passed without nothing having been written by the artists, nor of the lives of the artists, nor of recollections, nor of the manner to follow proper principles [seguitare il bono].⁶

Lombard dissimulates somewhat, for he is about to launch into an extended paean to the virtues of Dominicus Lampsonius, who two days earlier had sent a manuscript of his soon-to-be-published *Lamberti Lombardi [...] Vita* to Vasari. In that biography, published by Hubert Goltzius and dedicated to Abraham Ortelius, Lampsonius explains that through imitating ancient statues and fragments Lombard discovered a science, a grammar as he called it, composed of essential rules. These rules are the foundation of art; it is only through them, coupled with the imitation of nature, that the ancients were able to perfect their art. Lampsonius' text is a first for the Lowlands, but it was not influential — less than forty years later Van Mander was unable to find a single copy. As a result the artists of the Low Countries, unlike their ultramontaine contemporaries, developed no sustained self-reflective theoretical discourse in text during the period we normally label the Renaissance.

The relationship between textual and visual traditions is exceedingly complex.

⁵ Viator 1973: n.p. He also expanded his illustrations, including one based on Dürer's *Presentation in the Temple* from the *Life of the Virgin* (B.88).

⁶ Vasari 1982: II, 164.

There are periods in which a lack of activity in one medium may stimulate action in another medium. Such a phenomenon seems to have evolved in the city of Antwerp just at the end of the sixth decade of the century. In 1559 Frans Floris initiated a series of representations in which painters asserted that they were practitioners of the liberal, not the mechanical arts. A year later Pieter Bruegel the Elder associated painters and sculptors with the 'precepts' of measure, or Geometry. Faint echoes of this visual polemic can be heard in the 1561 Antwerp *landjuweel*. In the plays performed in that civic, vernacular forum the Netherlandish painter and sculptor were occasionally, but by no means uniformly, given the title of practitioner of the liberal arts. Finally, the public nature of that never-to-be-equalled theatrical display may have considerably affected one of the artists who was on the organizing committee of the *landjuweel*; for within two or three years Floris proclaimed publicly on the facade of his house in the Arenbergstraat that painters and sculptors were practitioners of *scientia*, much as Leonardo and Dürer had asserted before him.

Just in this period Lampsonius wrote his life of Lombard which was published in 1565. The same year Lucas d'Heere published his *Den Hof en Boomgaerd der Poësie*, with its epigram to Floris, the 'Invective against a Certain Painter', and the refrain to the *Violieren* on the subject of painting; 1565 was also when the Antwerp printer Willem Silvius obtained the royal privilege for Guicciardini's *Descrittione di tutti i Paesi Bassi*, which includes some of our earliest information on Netherlandish artists. In the following year iconoclasm swept through the Lowlands. Silvius was just able to publish Guicciardini's text, albeit in error-filled editions. The representation of the learned art of image-making did not, for the most part, survive in the areas hit hardest by iconoclasm.

Before iconoclasm, however, in the spring of 1559, the citizens of Antwerp may have felt it was finally their turn to profit from a reborn culture, a renaissance as it were. On April third of that year the Peace of Cateau-Cambrésis was signed between Philip II and England on one side and Henry II of France on the other. Jervis Wegg described the ten-day celebration that took place the following week:

The ballad-mongers in the streets sold songs proclaiming the doors of the temple of Janus closed for ever, and calling on Rhetoric and Music to join hands, since Mars was now a prisoner and the Furies had fled away. Many foretold that this Antwerp, which the Florentine Guicciardini knew, was only at this moment entering on her golden age.⁷

There was an *ommegang* in celebration, one in which ten new floats lead the procession, dedicated, as the inscription in front of the first carriage declared, to the theme of peace. On the seventh float, of particular interest, an inscription read: 'Everyone will rejoice hereafter, for Peace reigns'. There followed the nine muses, three of whom sang a new song. Next the personifications of the Common Good and Good Cheer carried a placard which read 'That everywhere

⁷ Wegg 1979: 1-2.



Fig. 1. Frans Floris, *The Awakening of the Arts*. Ponce, Museo de Arte, Fundación Luis A. Ferré.

everyone liberally gorges themselves, Peace will bring us good things in abundance'. They were followed by children carrying musical instruments. In another float labeled 'Let's feast' peasants ate and drank lustily. Next there were members of the various guilds riding behind, including the painters' guild, the Guild of St. Luke. The next float displayed the maiden of Antwerp surrounded by Mercury, Peace, as well as Ceres and accompanied by young boys and girls with flaming torches.⁸

These festivities serve as a useful context for a canvas signed by Frans Floris of somewhat uncertain subject matter now in the Museo de Arte de Ponce (fig. 1). The composition may have been commissioned by the Antwerp banker Nicolaas Jongelinck, who owned a series of paintings of the personifications of the Liberal Arts by Floris executed a few years earlier, in the mid-1550s.⁹ Karel van Mander identified the subject as the nine sleeping muses, but in his

⁸ *Ordnantie* 1559: [1].

⁹ Van de Velde 1975: 1, 454 reprints part of the document in which Nicolaas Jongelinck pledged sixteen paintings as security on a tax debt in which the phrase 'acht stucken vande slapenden Conste... al gemaect by Franchoijs Floris' appears. Van de Velde suggests that the phrase refers to the seven liberal arts Floris executed in the mid-1550s and the canvas now in Ponce.

catalogue raisonné of Floris' oeuvre, Carl van de Velde convincingly argued, on the basis of another misidentification of Van Mander's in the life of Jacob de Backer, that Van Mander never saw the canvas in the house of Melchior Wijntgis, but rather was told of it.¹⁰ However knowledgeable or unknowledgeable Van Mander's source was, in the 1613 posthumous inventory of the collection of Charles de Croy, apparently the same canvas is described as 'la représentation des sept arts libéraux dormans par la vertu de Mars'.¹¹ Indeed some of the reclining figures can clearly be identified as personifications of the liberal arts. The woman in the center with her back to us rests against a globe and has a compass beside her; the two attributes identify her as Geometry. An astrolabe nearby suggests she is resting against the figure of Astronomy. And on one of the sheets of music the words are clearly legible: 'Le cruel Mars faict qu'en long sommeiller/ Toute science à reposer s'efforce/ Mais luy vaincu par prude[n]ce et par force/ Le vray Amy nous viendra réveiller'.¹²

'Toute science' then, is depicted here asleep. The composition is extraordinary in that Floris appears to have been the first Netherlandish artist to include within 'toute science' the personification of Sculpture with a statue lying at her feet, and next to her, at the far left of the composition, Painting, with a panel on her lap. But there are ten, not nine figures depicted. Who is the woman behind Pictura, the woman who is fully awake and actively inscribing something on her slate? Most writers have discounted Van Mander's identification of the composition as the nine muses, and have suggested that although not each figure can be identified precisely, in this canvas Floris depicted the seven liberal arts and added the personifications of Painting, Sculpture and Architecture.¹³ Such an explanation, however, fails to account for the marked distinction between the nine figures in the foreground who are asleep or just awakening as 'le vray ami' leans over them, and the woman working industriously behind them.

One of the implicit assumptions of the iconographic method is that a finished representation depicts a coherent and complete program. For example, faced with the ambiguous subject matter, Julius Held, in his entry for this painting in the catalogue of the Ponce Museum, suggested that Floris conflated the Muses and the Liberal Arts much as the expanded set of Muses and enlarged number of Liberal Arts were associated in the so-called *Tarocchi* prints.¹⁴ I would argue that there are occasions when such an interpretive strategy assigns too precise a level of specificity to Netherlandish compositions. When Hieronymus Cock published Giorgio Ghisi's engraving of Raphael's *School of Athens*, for instance, it was given the inscription 'PAVLVS ATHENIS PER EPICVRAEOS' describing, of course, one of Raphael's Sistine tapestries, *St. Paul preaching at Athens*. Moreover the misidentification did not seem to draw much attention, since the inscription was not altered in the four known states of the engraving. In this

¹⁰ Waterschoot [Van Mander] 1983: 153; Van de Velde 1975: I, 263-264.

¹¹ The inventory is reprinted in Van de Velde 1975: I, 492-494.

¹² First transcribed in Held 1965: 66.

¹³ Van de Velde 1975: I 264, Filipczak 1987: 13.

¹⁴ Held 1965: 67.



Fig. 2. Frans Floris, *The Awakening of the Arts*. Stockholm, Nationalmuseum.

particular case we might surmise the lack of interest in the correct identification of the topic can be explained because the engraving was intended for an audience of artists anxious to study Raphael's manner. In the case of Floris' canvas, the ambiguous subject matter seems to be the result of a series of artistic choices that transformed the topic. If the reader will bear with a rather technical step-by-step description, Floris' working method will become apparent.

A drawing for the composition survives in Stockholm (fig. 2). It is a working sketch in which, beside the obvious addition of a strip at the top, several decisions are evident. For the general configuration of his composition, Floris apparently studied a print by an engraver who occasionally was to reproduce his own designs, Cornelis Bos (fig. 3). In both Floris' drawing and Bos' engraving of *Ingenuity (Solertia) rewarding Labor and punishing Sloth* the central figure that forms the apex of the triangle of humans gestures to the viewer's right and, with a rod, to the left.¹⁵ Floris achieved the vertical emphasis provided by the

¹⁵ The print, after a design attributed to Siciolante da Sermoneta, is undated, but probably executed before 1544 when Bos fled Antwerp. According to S. Schéle, the drawing for the engraving was sold at a judicial sale after Bos's flight from Antwerp Schéle 1965: 210.



Fig. 3. Cornelis Bos, *Ingenuity rewarding Labor and punishing Sloth*. Vienna, Albertina.

engraved Solertia by means of the antique statue and broken arch on the central axis of the drawing. More importantly, the artist also wanted to reproduce the triangular mass formed by the slothful group on the left of the print — he has the heads of the sleeping women at the left of his drawing create a diagonal, culminating in the figure with the slate. She in turn seems to have been suggested by the configuration of trees behind the couple in the engraving. As a result, in both compositions there is an opposition established between reclining figures and one who works industriously on a slate. It would seem, therefore, that this contrast was part of the earliest stages of Floris' thought process.¹⁶

Finally, the area just to the left of the 'vray ami's' rod seems to have given Floris pause. The configuration does not give the impression that it was

¹⁶ Floris will reuse the composition of this engraving for the facade of his house several years later. See pp. 240.

conceived as a woman from the very beginning — in contrast to the remaining figures, there is no room for a body, nor is the head carefully delineated. It seems more likely that the negative space of the expanse of ground behind the group was too prominent, and Floris was uncertain how to fill it. Having decided to place a head there, he then found himself with a composition comprising ten figures.

In sum, such a series of decisions suggests that Floris may have first conceived of the composition as the nine muses. Since the contrast between the sleeping or slowly awakening figures and the woman actively inscribing something was part of the original invention, the latter might originally have been Clio, the muse of history often depicted with a slate, here taking note that Fortitude and Prudence have finally disarmed Mars.¹⁷ When Floris added the tenth head, however, he would have had to reconsider the subject matter; apparently he decided to emphasize the liberal arts instead of the muses. Although not each of the seven liberal arts is identified, two figures are especially recognizable by means of obvious attributes: Painting and Sculpture.¹⁸

This leaves the figure working on her slate, who can no longer represent the muse of history, Clio. Returning to the engraving Floris used as inspiration for his composition, in that sheet the figure working on the slate is usually identified as 'Diligence.'¹⁹ The attribute of Diligentia, however, is normally a whip, with which, as Cornelisz Anthonisz. had the personification declare, 'I can drive the idler, and my feet too, are spurred, as is fit and proper, to rub sleep from the eyes of the drowsy.'²⁰ The inscription in Bos' engraving, 'Sum bona laudatis sic dicta solertia seclis desidiam sperno sed placet usque labos', suggests that the figure working on the slate embodies not one, but a cluster of ideas — labor, industry, application and diligence — all of which served as the antithesis of sloth for a sixteenth-century audience more prone to examine the health of its mercantile economy than the state of its collective soul threatened by a medieval, outmoded notion of *acedia*.²¹ Floris' painted figure would logically share this more modern characterization — she is the sole figure occupied with her work while the others are inactive. Depicted with the seven liberal arts, *Pictura* and *Sculptura*, she is one of the earlier representations of *Usus*, or application in the sense of putting into practice.²² The 'vray ami' is probably Mer-

¹⁷ I thank E. Strietman for this suggestion.

¹⁸ The stone figure that is placed next to the personification of Sculpture may originally have simply been a broken column resting near its base, while the panel which identifies Painting could easily have been added.

¹⁹ The drawing sold at the judicial sale after Bos' escape was described as 'een schilderje van Negligentia ende Diligentia.' See Schéle 1965: 210.

²⁰ Transcribed and translated by Veldman 1992: 234.

²¹ For an especially useful discussion of the emergence of this work ethic in images see Veldman 1992.

²² For a discussion of the term as it was used by Rudolf Agricola, see Peter Mack's contribution to this volume.

cury, under whose protection not only Rhetorica, but all the liberal arts were practiced. Floris' message in this canvas becomes that during the reign of Mars mere practice could work uninterrupted, but 'toute science' is incapacitated by war.²³

While compositionally Floris' canvas is based upon Cornelis Bos' engraving, conceptually it is indebted to one of the most profound and influential visual meditations on the relationship between theory and practice in the making of art: Albrecht Dürer's *Melencolia I* of 1514 (fig. 4).

Dürer's composition has been subjected to interpretation by legions of art historians, but to my knowledge no one has questioned a fundamental observation that Erwin Panofsky articulated in his monograph on the artist in 1943, and then developed and published with his Warburg colleagues Raymond Klibansky and Fritz Saxl in the 1964 *Saturn and Melancholy*. Panofsky discerned that Dürer's composition is conceptually closely related to the woodcut of the *Typus geometricus* (fig. 5) which appeared in one of the most widely read of the late-medieval encyclopedias, Gregor Reisch's *Margarita Philosophica*, first published in Freiburg in 1503, republished in 1504, and then reissued in progressively larger editions eighteen more times in the sixteenth century.

The *Margarita Philosophica* was one of the last of a long series of texts based upon that most voluminous of medieval encyclopedias, Vincent of Beauvais' *Speculum Doctrinale*. In the *Speculum* the hieratically stepped universe through which the soul ascended to Divine Wisdom was firmly inscribed with the Aristotelean separation of practice from theory. On the lowest rung was Necessity, composed of the mechanical arts, that is the Victorine sequence of Weaving, Armatura (stone, wood and metalwork, the construction of weaponry, architecture, sculpture and painting), Navigation, Agriculture, Hunting Medicine and Theatre. Next the soul progressed through Virtus (Practica), or monastic, social and civic virtue. Last was Sapientia (Theorica), divided into Rational Philosophy composed of the Trivium and Natural Philosophy, which included the Quadrivium. Finally there was Divine Philosophy, or Theology.

The frontispiece to the 1504 edition of the *Margarita Philosophica* illustrates the scholastic partitioning that Reisch inherited. Winged Philosophia stands in a roundel with the Seven Liberal Arts at her feet (fig. 6). She has three heads,

²³ For the *locus classicus* of Mercury as one who brings sleep to or awakens mortals, see de Mirimonde 1969: 346. As that author indicates, the allegory is much more explicit in the derivative panel in Turin attributed to Lucas de Heere, where the seven women awakened by Mercury in his winged helmet all have clearly indicated attributes of the liberal arts (reproduced in *The Burlington Magazine* 93 [1951] fig. 34). There is additional evidence that the ambiguity of Floris' topic was disturbing to at least some of his audience. In the 1563 engraving of the composition by Balthasar Bos the attributes have been 'corrected' in order to make it obvious that the women are personifications of the Liberal Arts. One of the books of music in the painting has been transformed into a treatise on Geometry and Pictura's panel is now a slate with Arithmetica's calculations (reproduced in Van de Velde II, fig. 286).



Fig. 4. Albrecht Dürer, *Melencolia I*. Washington, D.C., National Gallery of Art, Rosenwald Collection.

as the inscription explains, for the three divisions of the discipline: the natural, the moral and the rational. The woodcut does not indicate, however, that this author somewhat rearranged the traditional categories. Reisch divided *Philosophia* into two parts: *Practicum* and *Theoricam*. *Practicam* was divided into *Factiva* (the Mechanical Arts) and *Activa*, which reflected Vincent's category of *Virtus*. The second division of *Philosophia*, *Theoricam*, included the Liberal Arts, Natural Science and Metaphysics.²⁴ Most importantly in this con-

²⁴ The most comprehensive overview of these texts as they are reflected in images is still Julius von Schlosser, 'Giusto's Fresken in Padua und die Vorläufer der Stanza della Segnatura,' *Jahrbuch der kunsthistorischen Sammlungen des allerhöchsten Kaiserhauses* 17 (1896), 13-100.



Fig. 5. 'Typus geometris', Gregor Reisch, *Margarita Philosophica*, Basel, 1504. Brussels, Koninklijke Bibliotheek.

text, *Liber vi, De geometria speculativa* was separated into two sections, the first of which enumerated the elements of Geometry, and the second of which, entitled 'Geometrie practice,' explained the actions, or applications of the art.

As Panofsky demonstrated, Dürer studied the frontispiece for Book vi, which depicts the personification of *Typus geometris* in the center, busy with compass and sphere (fig. 5). She is surrounded by the practical applications of her theoretical discoveries: a building is under construction, a young man draws on a block of stone with a set-square, another divides a landscape into *iugera* (an ancient measure of land) and to Geometria's left two figures study the night sky with the help of a sextant and astrolabe. In his engraving Dürer too shows his primary figure with compass and sphere now, however, unused. He borrowed the clouds, moon and stars as well. Moreover, according to a preliminary

Dürer's *Melencolia I* was well circulated; Floris could hardly have been unaware of it. Four decades later after it was executed he depicted the Liberal Arts, Sculpture and Painting rendered powerless by the forces of Mars, while Usus, industriously inscribing her tablet, remained unaffected by the ravages of war. And while Floris' composition in its final format is a relatively straightforward meditation on the relationship between the incapacitated intellect and unaffected practice, a drawing of the same period by Pieter Bruegel the Elder raises the selfsame issues in a fashion more profoundly related to *Melencolia I*.

The 1560 drawing of *Temperantia* was one of the last two sheets executed by Bruegel in his series of the Seven Virtues that were engraved by Philips Galle and published by Hieronymus Cock probably in that same year (fig. 7). Bruegel placed the personification of Temperantia in the center of the composition and surrounded her with scenes depicting the practice of the liberal and mechanical arts. In the lower left the schoolboys who are taught to read represent Grammar. To the right a merchant checks his accounts. One companion tallies his reckonings on the side of a pair of bellows, while another hunches over his

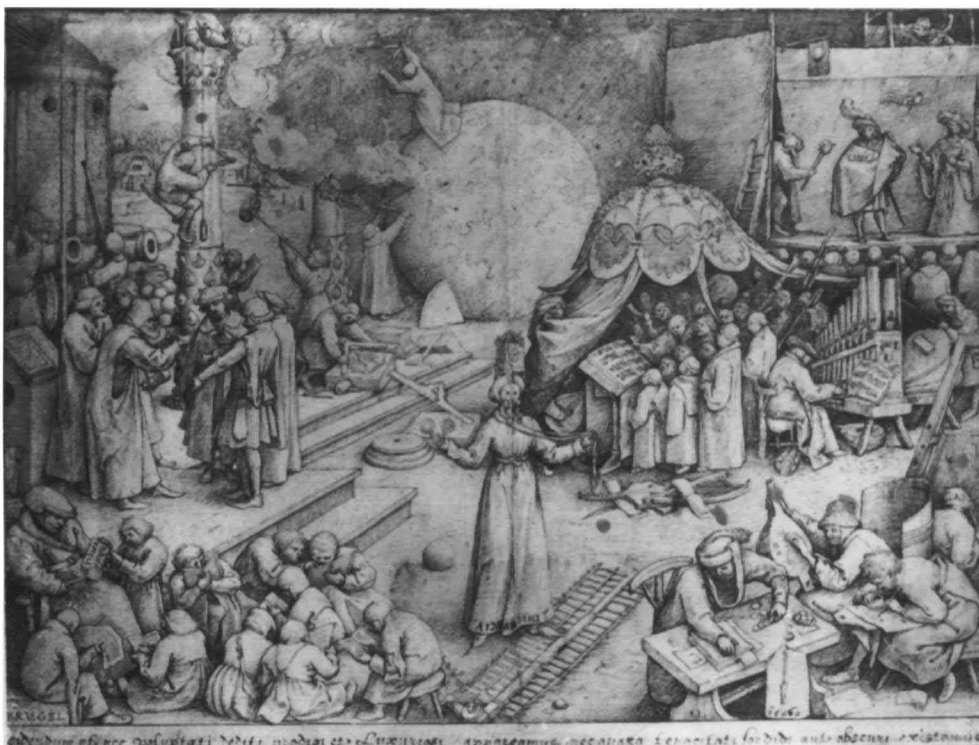


Fig. 7. Pieter Bruegel the Elder, *Temperantia*. Rotterdam, Boymans-van Beuningen Museum.

inkpot as he pens some ciphers. Behind this scene of Arithmetic a painter works at his easel.

Underneath an elaborately decorated canopy Music is portrayed as a choir accompanied by trumpets and clarinets, an organ and lute. At the right back Rhetoric is represented by a *rederijker* play in progress on a raised stage. In the left middleground three young men dispute with two older scholars — the animated gestures are the conventional attributes of Dialectic. At the center one geometer calculates the distance between two points on the globe, while an astronomer plots the distance between two stars. In front of the canons on the left, an archer and riflemen test their aim on the bird perched on the pole. Nearby a young sculptor places a set square on his block, two boys with plumb-line and calipers measure a column, and in the distant landscape a farmer plots his field.

Bruegel girds the waist of his personification of Temperance with a serpent. As part of a caduceus it was the attribute of Mercury; the artist's mixture of the mechanical and the liberal arts suggests that he was thinking of the surrounding scenes as representations of the Children of Mercury. The 1506 *Kalendar of Shepherdes* explains, next to a woodcut of Mercury facing an artist at his easel, and astronomer and a sculptor, that 'They that be borne vnder mercuryus/ be subtile of wyt & [...] be crafty in reteryke phylosophy and gemetry/ he shall loue all maner instrumentys of musyke and a clothemaker [...]'²⁷ In the several series of woodcuts and engravings that have come down to us of the Children of the Planets a rather standard set of activities was depicted. The woodcut of the Children of Mercury attributed variously to Hans Sebald Beham or George Pencz is typical: a sculptor works on his lathe next to two seated men, one of whom pens ciphers as the second computes on an abacus. To the left a painter sits at his easel, while nearby a physician inspects a flask and two astrologers measure an astrolabe.²⁸

In the numerous French, German and Netherlandish editions of the *Kalendar of Shepherdes*, as well as in the inscriptions above and below the engravings and woodcuts, the Children of the Planets were assigned various character traits according to astrological lore. The Children of Saturn are pale, cold and sad; the Children of Sol are fiery and choleric. The Children of Mercury are 'subtile of wyt,' as above, they are industrious, they amass wealth 'par sa prudence,' or they even 'crijge wijsheyt groot meesters.' I have not found a single text, however, in which the offspring of the eloquent and inventive Mercury were specifically associated with the cardinal virtue of Temperance. What inspired Bruegel to combine the two?

Indeed, who is this curiously bedecked Temperantia that Bruegel placed in the center of his composition? Balancing a clock atop her head, with spurred feet she steps on the vane of a windmill. One hand displays her eyeglasses while the other clasps the reins from her bridled mouth. As he did for the other six per

²⁷ *The Kalendar of Shepherdes* 1928: 144.

²⁸ For reproductions of these sets see F. Lippmann, *The Seven Planets*, tr. F. Simonds (London, 1895).

sonifications in his series of drawings, the artist gave this virtue the attributes of what in 1949 Emile Mâle dubbed the ‘nouvelle iconographie’ of fifteenth-century manuscript illumination. Although there are a number of sixteenth-century sources from which Bruegel could simply have borrowed these attributes, the combination of the ‘nouvelle iconographie’ with the surrounding Children of Mercury suggests that the artist understood and took advantage of the conceptual complexities offered by this relatively uncommon strain of virtue imagery.

Those complexities were discerned and examined in the mid-1960s by two scholars, Rosemond Tuve and Lynn White, Jr. In the first of a magisterial pair of articles published in 1963-64, Tuve suggested that the new accoutrements given the virtues by manuscript illuminators represent the visual embodiment of the age-old Ciceronian/Macrobian partitioning of the virtues.

In *De inventione* Cicero had divided the four cardinal virtues into their respective *partes* and defined each in turn (II.53-59). In turn, Macrobius in his commentary on Cicero’s *Somnium* gave an expanded list of virtues which accompany the cardinal four (I.8). The latter’s sub-virtues, facets, or offices were not characterized, so his followers could devise their own definitions, or apply the Ciceronian ones. This combined Ciceronian/Macrobian tradition is the well-spring of countless medieval virtue and vice treatises, manuals, and advice-to-princes texts in which not only the cardinal virtues, but their facets, or offices are personified.²⁹

While the number of offices for each virtue varied from author to author — Alanus ab Insulis gave Temperantia ten — by the end of the thirteenth century the Macrobian facet of Moderatio had become the preeminent office of Temperantia. On occasion Moderatio, or as Lynn White, jr. added, *mesure*, *maze*, or *misura* was actually conflated with Temperance; as Dante’s teacher Brunetto Latini wrote, ‘Here stands Temperance/ Whom folk at times/ Call measure.’³⁰ Christine de Pisan in her ca. 1400 *Epitre d’Othea* clarified why the clock became a popular means of figuring the virtue popularly associated with this office. Above a miniature in which Temperantia adjusts the workings of a clock she explained:

Temperance should also be called a goddess. And because our body is composed of diverse things and should be tempered according to reason [temperance] can be figured by a clock where there are many weights and measures. And just as the clock is worth nothing if not tempered so too is our body [worthless] if temperance does not order it.³¹

‘Measure’ in this fifteenth-century sense means to temper, in the same way as we still speak of a ‘measured step’. In the sixteenth century, however, the term

²⁹ Tuve 1963: 284.

³⁰ ‘Qui sta la Temperanza/ Cui la gente talora / Suole chiamar misura,’ as quoted by White 1969: 204.

³¹ Attrempance estoit aussi appellé deesse. Et pourceque nostre corps humain est composé de diverses choses & doit estre attrempé selon raison puet estre figurer a l’orloge, ou il a plusieurs roes & mesures. Et toutefois ne vault riens l’orloge s’il n’est attrempé semblablement ne fait nostre corps humain se atrempance ne l’ordonne. Harley ms 4431, f. 96v. Transcribed in Tuve 1963: 289.

became much more closely associated with the modern sense of measurement, specifically with Geometry — as we have seen, for instance, in the example of the Latin translation of Dürer's *Vnderweysung der Messung* as the *Institutiones Geometricae*. While Temperantia's 'nouvelle iconographie' clock would have undoubtedly retained the tempered sense of measure for Bruegel, it was this newer connotation of 'mate houwen' that allowed the artist to provide the precept necessary to position painting and sculpture among the liberal arts in the Lowlands.

Like Dürer, Bruegel seems to have been inspired by the woodcut of the *Typus geometricis* from the *Margarita Philosophica* (fig. 5). Details from the lower section of the anonymous text illustration are visible in the upper left of the drawing. In the woodcut the man measures *iugera*; deep in the landscape of Bruegel's sheet the same activity is visible. A second man in the woodcut leans over his block with the set square just as Bruegel's young sculptor does, and a third in the print uses calipers to measure the vaults, much as in the drawing a youth measures a column.

By combining the theme of the Children of Mercury with the practical activities governed by the *Typus geometricis*, Bruegel arrived at a unique invention. Traditionally in depictions of the children of the planets, no distinctions were made among the offspring; all the participants, whether they were practitioners of a liberal or a mechanical art, were equally the Children of Mercury. But the format Bruegel uses here (as in his other drawings in this series) of a personification surrounded by figures engaged in activities that exemplify the application of the central concept, is the same format visible in the woodcut from Reisch's *Margarita Philosophica*. In both of these compositions the surrounding activities are equally related in an obviously subservient fashion to the personification in the center: they are the practice of her precepts. In Bruegel's drawing, the practice of painting, the practice of arithmetic, the practice of astronomy then all have the same theory: the precept personified by the woman in the center.

We can finally characterize this strangely attired figure. Her caduceus gives her the attributes of Mercury; her 'nouvelle iconographie' the office of Moderation, or tempering. She has one other significant attribute: a sphere is placed on the ground slightly behind her. In the *Margarita Philosophica* the *Typus geometricis* in the center of the composition leans over the table and draws on her sphere. In Dürer's *Melencolia I* the sphere is prominently displayed in the left corner, where it rests abandoned by its listless owner.³² From this perspective Dürer's engraving and Bruegel's drawing are profoundly related. Both are depicting a woman who represents theoretical knowledge based upon measure (in the sense of Geometry); both are accompanied by practitioners of that theory,

³² The sphere becomes one of the most readily recognizable attributes of Geometry: in his 1551 etching of *Geometria*, Floris has his personification standing with one foot on a sphere; in the ca. 1556 painting (known through Cock's engravings of 1565) Geometry studies a globe; in the 1559 *Awakening*, she rests against the sphere.

including in Bruegel's case the painter and the sculptor. Ironically, the painter whom Lampsonius was to describe as a student of Bosch's clever dreams, whom Van Mander labeled 'Pier den Drol,' and whom the nineteenth-century art historians were to dismiss as 'peasant Bruegel' is also the artist who gave painting its 'scientia' in Antwerp.

Discerning the pictorial logic of a composition is a learned skill. While many of Bruegel's fellow members of the Guild of St. Luke would undoubtedly have understood the conceptual distinction between the *theoria* of the figure in the center and the *practica* embodied in the activities that surround her, surely not every viewer of Bruegel's *Temperantia* would have recognized this compositional hierarchy. A number would have simply interpreted the engraving according to the inscription that was appended to the image: 'One must see [to it] that we appear neither devoted to pleasure, unbridled and lustful, nor come into view with greedy tenacity [as] vulgar or low.'³³ To those viewers Bruegel's *Temperantia* would have retained its fifteenth-century connotations as an admonition to temper one's behaviour — none of the reassessment of painting and sculpture would have been apparent to them. Does this imply that Bruegel's engraving, Floris' panel, and even Dürer's *Melencolia I* were hermetic communications, intended for a few select *cognoscenti*?

It is difficult to determine how appropriate or widespread a particular visual interpretation is in a culture that rarely recorded its responses to images. The 1560s provide something of an exception in the Lowlands, however. In 1561 the most extravagant theatrical display Antwerp had ever witnessed took place, the rhetoricians' festival known as the *landjuweel*. The *spelen van sinne* that year were dedicated to the role of the arts; in those allegorical responses we are given some glimpses, however brief, of current attitudes to image making, and even more remarkably, some concrete indication of the level of visual literacy among the participants and spectators of this sumptuous pageant.

Primarily because of civil unrest, twenty years had passed, instead of the normal seven, before permission was requested and obtained from the authorities to stage another festival. The Violieren, who were to host the festival, submitted 24 possible topics for the *spel van sinne* that each chamber was to perform, and on March 22, 1560 the regentess Margaret of Parma approved three. One of the three was 'whether experience or learning brings more wisdom,' but the question the Violieren finally chose was, according to the invitation issued to the fourteen participating chambers, 'Dwelck den Mensche, aldermeest tot Consten

³³ VIDENDVM, VT NEC VOLVPTATI DEDITI PRODIGI ET LVXURIOSI APPAREAMVS, NEC AVARA TENACITATE SORDIDI AVT OBSCVRI EXISTAMVS. The inscriptions were added onto the drawings in a hand other than Bruegel's. In contrast to the Latin inscriptions under Bruegel's 'Seven Deadly Sins,' which are in dactylic hexameter, the ones under the "Seven Virtues" are in prose. The evidence suggests that these latter inscriptions are adaptations of quotations rewritten for the prints in Hieronymus Cock's workshop.

verweect?’ or ‘What best leads mankind to the arts?’³⁴ The topic was a conservative one, and judging by the instructions that followed, the *Violieren* expected conservative responses as well: ‘Alle goede Consten,’ the invitation continues, ‘injure no state, say no trifles/ but lead to Wisdom, Charity and Unity’.³⁵ Indeed, many of the plays made use of that medieval hierarchy of learning that undergird the still-popular *Margarita Philosophica* to come to their unsurprising responses. Painting is explicitly associated with the liberal arts in only four of the fourteen plays submitted and published by Willem Silvius the following year.

One of the most obviously traditional treatment of the arts is found in the contribution from Lier, written by Jeronimus van der Voort (later a factor of the Antwerp chamber of the Marygold), who wrote that it is hope of immortality through heavenly and earthly glory that best arouses mankind to the arts. The answer is given by *Conste* who enters dressed in gold, with a mirror in her hand; she is *Philosophia*, the art of arts who, when a vision of the name of God appears in Hebrew, instructs Man to study her seven daughters, the liberal arts, in order to acquire a correct knowledge of God. To all extents and purposes, here *Conste* is identical to the figure depicted on the frontispiece of the 1504 edition of the *Margarita Philosophica* (fig. 6). In this play however, the poet and painter are included in the hierarchy under the aegis of Rhetorica, as Cicero instructs, *Conste* explains.

Although the *spel* put on by the Peony from Mechelen is even more taxonomic, it nonetheless provides the rudiments of a modern reassessment of painting grounded in precept, not simply practice. The figure of Man, who has lead an empty, useless life, asks Reason and Understanding what he should do. In order to overcome idleness, he is told he should occupy himself with the arts. *Conste*, accompanied by the three graces, enters on stage, in a place called Contemplation. Man sees two other figures, one on either side of *Conste*; one is *Speculatie*, the other is *Practycke*. Reason explains that *Speculatie* is a kind of wisdom, *scientie* or knowledge, while *Practycke* will lead to a work *lustich en net*. Both are necessary. The seven liberal arts then appear, and next a figure called *Poentratuere*, which the margin note glosses as two women, *Pictura* and *Statuaria*. They are present, Understanding explains, because they are founded upon Geometry. Perspective or other new findings make the results of these activities very artful and ornamental (‘constich en cierlijck’).³⁶

In Silvius’ 1562 publication of the *spelen van sinne* each chamber’s contribution was illustrated first by a woodcut of its device and next a theatrical scene which reflected some facet of the entry, usually from the *spel van sinne*, but

³⁴ In the invitation to the chamber and in his list of solutions, Silvius used the term *consten*, the arts, which is how most of the chambers answered the question. On the title page, however, the singular, *conste*, is used. Richard Clough, in his August 4, 1561 letter describing the *landjuweel* to Thomas Gresham translated the question in the second sense as ‘Whatte thinge doth most cause the sprette [spirit] of man to be desyrus of conyng [cunning]?’ (Burgon 1889: 379).

³⁵ For the most useful overview of the content of these plays, see L. Roose 1970.

³⁶ *Spelen van sinne* 1562: 3H i r-3I iii r. The Mechelen artist whose skill in perspective made him famous, Hans Vredeman de Vries, was a member of the Peony.

sometimes from the chamber's *punt*. Unfortunately, instead of depicting the complicated relationships among the arts set out by the *spelen van sinne*, both the woodcut for the Peony's contribution, as well as the one for the chamber from Liere, illustrate the *punt*. While none of the other woodcuts depict either *Pictura* or *Sculptura*, two address the relationship between the theory and practice of the arts in a manner that recalls the compositions by Floris, Dürer and Bruegel. The first is from the welcoming play staged by the Violieren who as hosts did not participate in the *spel van sinne* competition.

The play opened with three nymphs, each carrying a different colored violet: white, red and pear-colored, who find *Rhetorica*, alive but cold in the lap of the sleeping Antwerp. The accompanying woodcut depicts the nymphs gesturing to *Rhetorica*, who holds her treasure chest of figures in her lap (fig. 8). The arrows



Fig. 8. 'Antwerp Awakened', *Spelen van sinne vol scoone moralisacien vutleggingen ende bedienissen op alle loeflijcke consten*, Antwerp, 1562. Santa Monica, J. Paul Getty Museum.

which fall from the heavens above are *stralen*, or shafts of light from Pallas, who sends *sciencie*; Apollo, who sends *inuencie*; and Mercury, who sends *elo-quencie*, all of which warm *Rhetorica*. She stirs, but only speaks when one of the nymphs thanks God, without whom nothing can be gained. Declaring that she cannot be silent when someone praises God, *Rhetorica* realizes she has been gravely ill for twenty years, while Antwerp, who has awakened, says that she too has suffered much travail.

Unfortunately we are not certain of the precise relationship between the texts and images — whether the illustrations followed the staged scenes closely, or whether they were approximations. Nor do we know who was responsible for the images — no drawings for the designs are known to have survived, and all the woodcuts are unsigned. It is tempting to surmise, however, that Floris, who was a member of the organizing committee of the *landjuweel*,³⁷ had a hand in the staging of this play, for both text and image recall his *Awakening of the Arts*. Author and artist both communicated to their audience that during the past years of war and unrest, practice had continued unabated, but theory had been incapacitated. Visually, the figure of Antwerp asleep with the tools of Geometry (and a mallet for sculpture) at her feet is reminiscent of *Melencolia 1*. Textually the same dilemma is figured: Antwerp complains that she has been burdened with much work, as the tools at her feet show, but now it is time to discern which of the work to do is manual, and which requires wise understanding.³⁸

In the *spel van sinne* presented by the second-oldest Antwerp chamber of rhetoric, the Goudbloem, or Marygold, text and image are as closely related as in the Violieren's opening play. Written by Cornelis van Ghistele who decided that 'honorable fame with honest profit' would best arouse men to the arts, the play opens with three of the allegorical figures, Reason, Understanding Spirit and Honorable Fame, describing what they see to a fourth, Man. The accompanying woodcut depicts Fortune, with one foot on her sphere and windswept veil, looking quizzically at Mercury seated upon his cubiform base (fig. 9). Honorable Fame explains that it is Mercury who sits there on a stone as big as a pillar. Opposite him, chimes in Reason, Fortune is balancing unsteadily on a sphere. The practice of the arts is secure and valiant, while fortune's gifts are fleeting. Yes, adds Honorable Fame, the accidents of fortune will destroy riches. Art, however, bestows its gifts and does not recall them.³⁹

As early as the second century A.D. the philosopher and physician Galen described in his *Exhortation to the study of the Arts* how the ancient painters and sculptors had given Fortune a spherical base beneath her feet and had given Hermes, the master of reason and the universal artist, a base in the shape of the most solid and stable of all forms, the cube.⁴⁰ Erasmus translated Galen's

³⁷ Van de Velde 1975: I, Doc. 16.

³⁸ *Spelen van sinne* 1562: Ci v.

³⁹ *Spelen van sinne* 1562: Pii r-Piii r.

⁴⁰ Galien 1854: I, 10-15.



Fig. 9. 'Honos alit artes', *Spelen van sinne vol scoone moralisacien vutleggingen ende bedien-denissen op all loeflijcke consten*, Antwerp, 1562. Santa Monica, J. Paul Getty Museum.

passage for his 1526 *Adagia*, and twenty years later in the 1546 Venetian edition of the *Emblemata*, Andrea Alciati drew upon Galen, probably via Erasmus, for his Emblem 98. The image was modified from a standing to a seated Mercury and an unsteadily balanced Fortuna in the 1550 Lyon edition of the *Emblemata*, and it is this latter version that inspired Van Ghistele and the anonymous artist even to the inclusion of the first two lines of the Alciati's Latin text.

But in the Goudbloem's woodcut there are two extra figures. Man is confused. Who are the man and woman who accompany Mercury? Understanding Spirit explains that the woman is Experience and the man is known as Labor. Diligence has, with the help of these two, made all of Mercury's arts esteemed. Honorable Fame offers her own admonition: no one can attain art without diligent labor, albeit concealed, and the mastery of experience.

The play then turns to the source of our knowledge of the divine and human realms: Philosophy. We learn Philosophy by means of Mercury's inventions, and here it develops that Mercury represents not only the seven liberal arts, but also poetry which, because it is aroused by divine inspiration, is associated with Music. Finally, Pictura, because it is like Poetry in that it can awaken the spirit and place wars and battles and all that occurred before the viewer's eyes, deserves to be raised above all the 'hantwercken'.⁴¹

How original was this entry, the sole *spel van sinne* which was written by the one author who could legitimately be characterized as a humanist? From the perspective of the position of painting among the arts, not very. Van Ghistele was by no means the only *spel* author to use the rather tired Horatian metaphor of painting as silent poetry. And while the Goudbloem's contribution is notable in that it makes use of Alciati's emblem, the unprecedented addition of the figures of Experience and Labor next to Mercury is of considerable interest precisely because of how conventional those two figures were. The necessity of diligence, hard work, application and industry surfaces continuously in the *spelen van sinne*. These civic virtues permeated public rhetoric in Antwerp in the period just following the peace at Cateau-Cambrésis; witness the question that the Brabantine chambers were assigned that year for their Prologues: 'How profitable to us are the industrious merchants?' It is a topic that F. Prims glossed accurately, if ironically, as 'Praise our businessmen'.⁴²

As a member of the organizing committee of the festival, Frans Floris was no stranger to this display of civic rhetoric. Slightly more than a year after the *landjuweel*, in October of 1562, Floris sold his house on the Meir and bought a parcel of land in the Arenbergstraat, near the Tapiessierspand.⁴³ He decorated the facade of the house he had constructed with a series of figures that proclaimed these very same public virtues. The most successful painter in Antwerp of his day subsumed those civic values, however, to the *scientia* of painting and sculpture.

Van Mander tells us that the figures were painted yellow, as if they were made of copper. The Dutch chronicler identified the subject as Pictura and the other liberal arts, but surviving evidence makes us reasonably certain that Van Mander was again mistaken.⁴⁴ Although the house was demolished in the early nineteenth century, and the paintings were in disrepair long before, a drawing of the facade from about 1700 by one Jan van Croes survives (fig. 10). Furthermore, a series of engravings by the Monogrammist TG were published in 1576 with no indications of the source of the images, but comparison with Van Croes' drawing clearly indicates that the prints were based on the facade of Floris' house (fig. 11). On the second story, below the cornice, Floris had painted a series of single figures in niches, while directly above the portal a gathering

⁴¹ *Spelen van sinne* 1562: Qiii v-Qiv v.

⁴² *Antwerpiensia* 1940: 21.

⁴³ Van de Velde has discussed this project most recently in 1985: 127-134.

⁴⁴ Waterschoot [Van Mander] 1983: 153.

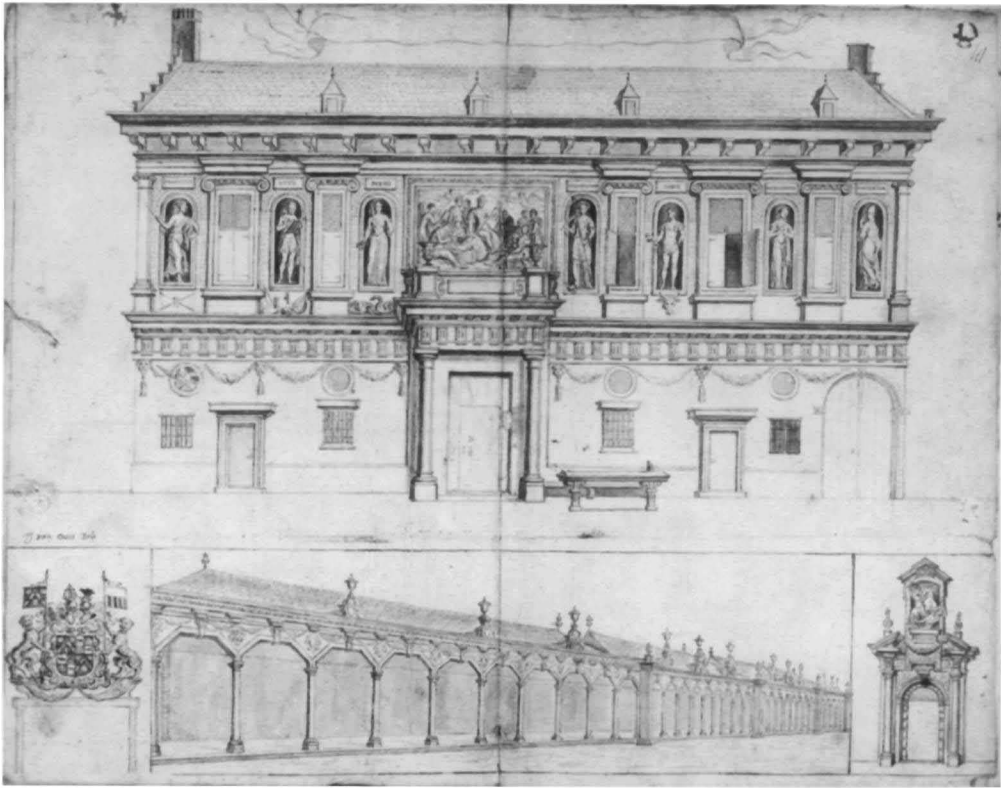


Fig. 10. J. van Croes, *Facade of Floris' house in Antwerp*, Brussels, Koninklijke Bibliotheek.

of figures was visible. From left to right the single figures were *Diligentia* and *Usus*, both turned slight to the central scene, and *Poesis* who is relatively frontal, then on the other side of the main group *Architectura* twists slightly towards *Labor* while *Experientia* and *Industria* face one another. The central scene depicted the personification of *Pictura* on the right, and *Sculptura* on the left, reversed of course in the Monogrammist TG's engraving. Between them Floris placed a woman seated on a sphere, holding a large compass and wearing a turreted crown on her head.

For this scene above his portal, Floris turned to the engraving he had made use of once before, Cornelis Bos' *Ingenuity rewarding Labor and Punishing Sloth* (fig. 3). In both Bos' engraving and the facade composition (as opposed to the reversed engraving) a pair of figures sits on the right in front of a tablet/easel. The resemblance is less marked on the other side where in Bos' engraving one of the figures representing Indolence leans over her partner, while in Floris' composition *Sculptura* leans over the statue she is carving. In sum, the familiar Bos engraving provided only the most rudimentary of figural guidelines. The notional content comes from elsewhere: Floris was inspired by an author who



Fig. 11. Monogramist TG, *Humanae Societati Necessaria*. Florence, Uffizi.

was attracting considerable attention in the Antwerp painter's circle in just these years, Giorgio Vasari.⁴⁵

On October 30, 1564 Dominicus Lampsonius had written to Vasari for the first time, explaining that he had been studying the *Vite*, first published in 1550, for the past four years. By the end of April of the following year the two had evidently corresponded several times. In response to Vasari's apparent request for 'qualche trattatello degli artefici nostrali' Lampsonius confesses that he cannot provide a small treatise about Netherlandish artists beyond the particulars he had imparted in previous letters (nonetheless it is in this letter that he includes the life of Lambert Lombard).⁴⁶ Lombard himself, who was Floris'

⁴⁵ Unfortunately, we know virtually nothing about Floris' trip to Italy between 1541 and 1547, but judging by Vasari's tone in his soon-to-appear second edition of the *Vite*, where he will take pains to note that it is 'according to the Netherlanders' that Floris is the premier living painter in the Low Countries, the two had never met.

⁴⁶ Vasari 1982: II, 161.



Fig. 12. 'Painting, Sculpture and Architecture', Giorgio Vasari, *Le Vite de' più eccellenti architetti, pittori, et scultori italiani*, Florence, 1550. Santa Monica, J. Paul Getty Museum.

teacher, indicated in his own letter to Vasari that he was well acquainted with the 1550 edition of the *Lives*.⁴⁷ How carefully, if at all, Floris read the 1550 *Vite* is not documented. But he certainly studied the images.

Vasari's text ends with a woodcut of the three 'arte dei disegno' — the personifications of *Sculptura* to the left, *Pictura* on the right, and *Architectura* in the center are watched over by *Fama* with her flaming torch (fig. 12). This plate is the conceptual inspiration for the group of figures painted above Floris' portal. The Fleming too places *Fama* above, *Pictura* to the right, and *Sculptura* to the left. But Vasari's central figure, his much beloved *Architectura*, is relegated to one side of the central scene on the Antwerp facade; instead of forming part of the hieratically positioned triumverate, she now occupies a position opposite

⁴⁷ *Ibid.*, 163.

and equal in value to *Poesis*. That deliberate displacement was made possible by Northern antecedents.

As in the *Typus geometricis*, as in the *Melencolia 1*, as in Bruegel's *Temperantia*, the woman astride the globe governs what surrounds her. She is *theoria*, the precept of measure that forms the foundation of painting and sculpture.⁴⁸ Moreover, unlike the *Margarita Philosophica* woodcut and Dürer's engraving, in this very public monument the surrounding figures are no longer to be relegated to the realm of practical application. Floris' own *Awakening of the Arts* had already distinguished between Painting, Sculpture and the Liberal Arts on one hand and *Usus*, or application on the other. The same hierarchical relationship is visible on the facade. Labor, diligence, industry, experience and application are necessary, but positioned as these personifications are on the lower register, those values are subservient to the *scientia* found in Painting and Sculpture.

Thus it was that in the short seven years between the Peace at Cateau-Cambrésis and the Iconoclastic Troubles of 1566 Pieter Bruegel the Elder and Frans Floris asserted the position of the maker of images as a practitioner of the precept of 'measure' in Antwerp. It might have been a heady experience for those members of the Guild of St. Luke; it was certainly not to last. The ravages of Iconoclasm destroyed this self-referential discourse, in spirit if not in matter. Within four years both Bruegel and Floris were dead, and the mantle passed northward. No more graphic nail in the coffin to that spirit exists than an engraving after Maarten van Heemskerck of the *Children of Mercury*. Published by Hieronymus Cock, it is undated, but preliminary drawings for the series as a whole place the execution in 1568. The activities Heemskerck depicts are clearly derived from Beham/Pencz woodcut (although the painter and his assistant are placed further into the background). The inscription, which describes the characteristics of the Children of Mercury, indicates that the author of the text knew Bruegel's engraving, since prior to that composition Temperance was not associated with the Children of Mercury. This Temperance, however, has nothing to do with the precepts of painting:

Mercury makes intelligent, discerning, ambitious and generous children, good in mathematics, and masters of their desires. They are seers, slim in body, pale, honest in glance, and marvelous in their temperance concerning drink [*potus temperantia mirabiles*].⁴⁹

Davidson College

⁴⁸ There has been considerable discussion as to who this central figure is supposed to represent. Van de Velde tentatively identified her as *Architectura* (1985: 130). J. Becker first proposed *Geometria*, and then in a note suggested the woman represented theoretical knowledge (1972-73: 126); Z. Filipczak concurred with Becker's second suggestion (1987: 38) while C. King proposed that she represents the Liberal Arts (1989: 241). In the context of the evolution of images I am discussing here, the identification seems unproblematic.

⁴⁹ Reproduced in Veldman 1986: 85.

References

- Becker, J., 'Zur niederländischen Kunstliteratur des 16. Jahrhunderts: Domenicus Lampsonius.' In: *Nederlands Kunsthistorisch Jaarboek* 24, 1973, 45-61.
- Burgon, John William, *The Life and Times of Sir Thomas Gresham (etc)*. London: R. Jennings, 1839.
- Dürer, Albrecht, *Vnderweysung der messung* (1525). In: Albrecht Dürer, *The Painter's Manual*. Ed. Walter L. Strauss. New York: Abaris Books, 1977.
- Filipczak, Zirka Zaremba, *Picturing Art in Antwerp 1550-1700*. Princeton: Princeton University Press, 1987.
- Galien, *Œuvres*. Trans. Charles Daremberg. Vol. 1. Paris: J. Bailliere, 1854.
- Held, Julius S., *Paintings of the European and American Schools*. Ponce: Museo de Arte de Ponce, 1965.
- The Kalendar of Shepherdes* [1503, 1506]. Ed. H. Oskar Somer. London: Kegan Paul, Trench, Trubner, 1928. French ed.: *Compost et Kalendrier des Bergers*. Troyes: Nicolas Le Rouge, 1529. Dutch ed.: *Der Scaepherders Kalengier*. Antwerp: Vosterman, 1516.
- King, Catherine, 'Artes Liberales and the mural decoration on the house of Frans Floris, Antwerp, c. 1565.' In: *Zeitschrift für Kunstgeschichte* 52, 1989, 239-256.
- Klibansky, Raymond, Panofsky, Ernst, and Saxl, Fritz, *Saturn and Melancholy* [1964]. Nendeln: Kraus, 1979.
- Lampson, Dominique (Lampsonius), 'Lamberti Lombardi [...] Vita.' In: *Revue belge d'archéologie et d'histoire d'art* 18, 1949, 53-78.
- Leonardo da Vinci, *The Literary Works of Leonardo da Vinci*. Ed. Jean Paul Richter. 2 vols. London: Phaidon, 1970.
- De Mirimonde, A. P., 'Les Allégories de la musique.' In: *Gazette des beaux-arts* 73, 1969, 343-362.
- Ordnantie van den Besnijdenis Ommeganck van desen teghenwoordighen Jaer. md ende LIX*. Antwerp: Hans de Laet, 1559.
- Prims, Floris, 'De Lof van den Koopman in de Prologen van het Landjuweel.' In: *Antwerpiensia* 14, 1940 (1941), 21-28.
- Reisch, Gregor, *Margarita Philosophica* (1517). Ed. Lutz Geldsetzer. Düsseldorf: Stern Verlag Janssen, 1973.
- Roose, L., 'Dwelck den Mensche Aldermeest tot Consten Verwect: De Poetica der Brabantse Rederijckers in 1561.' In: *Hulde-Album Prof. Dr. J.F. Vanderheyden*. Langemark: Vonksteen, 1970, 91-108.
- Schéle, Sune, *Cornelis Bos: a study of the origins of the Netherland grotesque*. Stockholm: Almqvist & Wiksell, 1965.
- Spelen van sinne vol scoone moralisacien vvtleggingen ende bediendenissen op alle loeflijcke consten*. Antwerp: Willem Silvius, 1562.
- Tuve, Rosemond, 'Notes on the Virtues and Vices.' In: *Journal of the Warburg and Courtauld Institutes* 24, 1963, 264-303.

- Van de Velde, Carl, *Frans Floris (1519/20-1570): Leven en Werken*. 2 vols. Brussels: Koninklijke Academie voor Wetenschappen, Letteren en Schone Kunsten van België, 1975.
- Van de Velde, Carl, 'The painted decoration of Floris's house.' In: Gorel Cavalli-Björkman, ed., *Netherlandish Mannerism*. Stockholm: Nationalmuseum, 1985, 127-134.
- Van de Wetering, Ernst, 'Verdwenen tekeningen en het gebruik van afwisbare tekenplankjes en "tafeletten"'. In: *Oud Holland* 105, 1991, 210-227.
- Vasari, Giorgio, *Der literarische Nachlass*. Vol. II. Eds. K. Frey and H.-W. Frey. Hildesheim: Georg Olms Verlag, 1982.
- Veldman, Ilja M., 'Images of Labor and Diligence in sixteenth-century Netherlandish prints: the work ethic rooted in civic morality or Protestantism?' In: *Simiolus* 21, 1992, 227-264.
- Veldman, Ilja M., *Leerrijke reeksen van Maarten van Heemskerck*. 's-Gravenhage: Staatsuitgeverij, 1986.
- Viator [Jean Pelerin], *De artificiali perspectiva* (1505, 1509). In: William M. Ivins, Jr., *On the Rationalization of Sight*. New York: Da Capo, 1973.
- Waterschoot, W., ed., *Ter liefde der Const. Uit het Schilder-Boeck (1604) van Karel van Mander*. Leiden: Martinus Nijhoff, 1983.
- Wegg, Jervis, *The Decline of Antwerp under Philip of Spain* (1924). Westport, Conn.: Hyperion Press, 1979.
- White, Lynn, Jr., 'The Iconography of *Temperantia* and the Virtuousness of Technology.' In: Theodore K. Rabb and Jerrold E. Seigel, *Action and Conviction in Early Modern Europe: Essays in Memory of E.H. Harbison*. Princeton: Princeton University Press, 1969, 197-219.