

## **ON REPRESENTATION :**

### **DESCARTES AND VERMEER**

I would like first to make my purpose clear: I do not intend to make any assertion on historical, personal involvement of Vermeer with Cartesianism (still less with Descartes himself). There is no evidence at all about that. We ignore what Vermeer's readings were, with whom he associated. The only known fact is that Descartes resided for a number of years in the Netherlands where Vermeer spent all his life, and that's all.

What I will talk about is the organization of pictorial space, in so far as it is homologous to some metaphysical structures. In the absence of any historically demonstrated relation between the philosopher and the painter, to bring together their two names is simply an invitation to reflect on the deep relations between thought and art, as signs of the 'spirit' of a period.

When I speak of the 'spirit' of a period, what do I mean? This concept may seem quite undetermined. But it is related to the type of analysis that I will use and which Aby Warburg and Erwin Panofsky have called "iconology".

#### **A. – THE ICONOLOGICAL METHOD**

A distinctive thesis of this method is the following: when an artist implements conceptions which are peculiar to his era, this implementation is not necessarily deliberate and conscious.

As a matter of fact, the ambition of the iconologic method is to situate an artwork in the whole of the culture to which it belongs.

In this respect, iconology conflicts with a trend of art history named 'formalism', which is a purely formal approach to an artwork. Formalism postulates a complete autonomy of the artwork regarding any non artistic data, and analyzes its internal characteristics: its technique, composition, style...

As much as it opposes formalism, iconology is however not a deterministic approach to art, which would aim at 'deducing' the artistic manifestations from extrinsic data (race, milieu...), as Taine wanted it. Iconology relies on an immanent analysis of the artwork itself. But it interprets the work as a sign which relates back to a referent: a given cultural complexity. The artistic vision carries out a function within the whole of civilization and, reciprocally, this vision does

not function independently of other representations, as religion, literature, myth, philosophy, science, etc.

None of these representations is a *cause* for the others; there only is a functional parallelism between all of them. An artwork is the witness of something which is summarized by the German word '*Weltanschauung*' (global 'vision or representation of the world'; often translated as "worldview"). It is structured by a "symbolic form".

By this expression of "symbolic form", Ernst Cassirer (whose theory inspired Panofsky) designated the modes of structuring experience, the functional models of integration of the manifold phenomena (there is of course a Kantian background to this concept). A symbol traditionally is a signification manifested through sensible appearances; a symbolic form is the cultural context in which a symbol can be understood and deciphered. An artwork, then, as a symbol, refers to this fundamental and general attitude of the mind regarding the world, which is called symbolic form.

Such is for Panofsky the intrinsic *signification* of the artwork: this signification manifests itself in a principle of unity which governs the conception of the whole; and this principle results from a *characteristic choice made among all sorts of other mental possibilities*.

What is of particular interest for me in this theory is that the *Kunstwollen*, the artistic intention which guides the realization of the work, is not, according to Panofsky, psychological and individual, but comes under the "transcendental" of a culture, the conditions of possibility of the products of this culture (there is again an obvious Kantian flavor to this concept). In other words, the artist is not necessarily aware of the signification of his or her work (in conformity to the sense of the term 'signification' we have just defined).

In order clearly to understand this point, we need to get back to what iconology calls the "content" of the work – in contrast with the formalist or stylistic analysis, and in contrast as well with the matter, or theme, or subject of the artwork, studied by iconography.

Admittedly, the iconographical description and identification of the subject is a necessary preliminary. It must certainly not be neglected. In plastic arts especially, and even in *figurative* art, the real subject is not always immediately obvious. Under the surface of appearances, which are susceptible to an immediate and naïve description, there is a primary signification (primary, in contrast with the deeper signification revealed by iconology) which requires a first deciphering, and which is deliberately set by the artist.

Let us take an example among Vermeer's works: the [\*Woman Holding a Balance\*](#).

A naïve approach consists in a pure and simple description of what is seen. As Panofsky phrases it, for doing so we only need to possess the practical experience shared by all humans, and to know how objects, persons, events are conventionally represented in a given period. Here, then, the painting depicts a woman, standing close to a table, who is weighing pearls (this is not yet the real subject of the work).

Then, one may analyze the style, and praise Vermeer's refinement, sense of intimacy, the charm and the elegance of the composition, and so on.

But at second sight, which is the moment of what Panofsky calls "iconography" (analysis of the significant elements of the work), we will note that the painting which is hanging behind the woman represents the Last Judgment. This clue guides us towards an allegoric interpretation of the work. An underlying moral signification must probably be brought out.<sup>1</sup>

Then, other concurring details will confirm this interpretation. Just in front of the woman, there is a mirror: a highly symbolical and ambiguous object. According to the iconographic tradition, it signifies either vanity, self indulgence, complacency; or it represents prudence, introspection, self-knowledge. Now, the woman's eyes are nearly closed: she is not indulging in the contemplation of her image in the mirror. The curtains are closed, as to allude to an introspective attitude. Symbol of the possible snares of narcissism, the mirror represents here at the same time just the opposite: a spiritual reflection. Having her head covered, the woman does not bear a single jewel. All the pearls are on the table: representations of the vanity of material wealth, which she is forsaking, or representations of spiritual treasures ?

Finally, a closer observation (with a microscope) will reveal that the trays of the scales are empty.<sup>2</sup> Therefore, Vermeer does not depict here a prosaic action, the mercenary weighing of

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<sup>1</sup> Panofsky's principles have been applied to 17<sup>th</sup> C. Dutch painting by Eddy De Jongh (*Zinne- en Minnebeelden in de Schilderkunst van de Zeventiende Eeuw*, Amsterdam 1967). De Jongh's contribution to a better understanding of this art has recently been disparaged with utmost unfairness. Neither he nor Panofsky claim that iconographical explanations preclude or render useless other approaches; and it is utterly reductionist to label their method "emblematicist", as if all the purpose of painters, according to them, had been to color figures taken in moralizing *emblema* compendiums. In a more general way, it is deeply perplexing to see how many of the protagonists, in this debate, claim to have the last word on an artwork, as if its meaning could be enclosed in one formula, as if it were a univocal, unidimensional fact. Doesn't its richness consist in presenting an inexhaustible array of significations, offered to a multitude of possible viewpoints?

<sup>2</sup> Arthur K. Wheelock, Jr., *Dutch Paintings of the Seventeenth Century*, National Gallery of Art (The Collections of the National Gallery of Art Systematic Catalogue), Washington, 1995, p.372.

pearls, but a meditation on the weighing of souls, on the Last Judgment (the scales referring then to the painting behind the woman). According to Arthur Wheelock Jr., “The character of the scene <*Woman Holding a Balance*> conforms closely to Saint Ignatius of Loyola’s recommendations for meditation in his *Spiritual Exercises*, a devotional service with which Vermeer was undoubtedly familiar through his contacts with the Jesuits. Saint Ignatius urged that the meditator examine his conscience and weigh his sins as though he were standing before his judge at Judgment Day. Ignatius then encouraged that one ‘weighs’ one’s choice and choose a path of life that will allow one to be judged favorably in a ‘balanced’ manner: ‘I must rather be like the equalized scales of a balance ready to follow the course which I feel is more for the glory and praise of God, our Lord, and the salvation of my soul’ <*The Spiritual Exercises of St. Ignatius*, tr. A. Mottola, Garden City, N.J., 1964, 85>”<sup>3</sup>.

This interpretation seems to be furthermore confirmed when we contrast it with an other Vermeer, its counterpart: *The Woman with a pearl necklace*. The disposition is identical, but there is no painting hanging on the wall, the curtains are open, the woman is bare head, bearing jewels, observing herself in the mirror.

Thus, in this second step, the iconographic analysis reveals, beyond the appearances and the anecdote, the real subject of the painting: an allegory of self-examination. Regarding all of this, one may of course assume that Vermeer was perfectly aware of the signification he wanted to give to this scene.

But a next step is the *iconologic* analysis properly speaking, which deals with the cultural content of the work. Panofsky makes clear that there is the same relation between iconography and iconology than between ethnography and ethnology, or cosmography and cosmology, to wit between compilation of facts and observations and an attempt to systematize them.

This means that the iconologic analysis does not only try to bring out the particular content of the painting, its primary signification, but its cultural signification, namely its status as an expression of a culture to which it belongs, its emblematic character regarding other contemporary cultural functions.

This comes to consider the artwork not only as the allegory it deliberately is, but as a symbol with the sense that Cassirer gave to this word.

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<sup>3</sup> Arthur K. Wheelock, Jr., in Id. et al., *The Public and the Private in the Age of Vermeer*, Philip Wilson Publishers, s.l., 2000, p.184.

That is why Panofsky wrote:

“In this content the subject, involuntarily and without knowing it, reveals his comportment towards the world and the principles which guide it, this comportment being, and to the same degree, characteristic of each creator in particular, each epoch in particular, each people in particular, each community in particular.”<sup>4</sup>

To put it in another way, with the stage of the iconologic analysis, we reach a deeper signification, of which the artist was not necessarily conscious, inasmuch as it reveals some a priori forms of the representation and construction of the world – forms about which the artist had perhaps not reflected.

This is why putting together Descartes’ and Vermeer’s names does not come to postulate Vermeer’s first-hand knowledge of Cartesianism. It only comes to point out their proximity in a same mental sphere.

Now, a main feature of this common mental sphere is the organization of space.

What I call ‘organization of space’ is not the representation of spaciality. A same representation of spaciality is, roughly, shared by all the painters from the Renaissance until the end of the 19<sup>th</sup> C.: it’s the indication of the third dimension in a plane by the means of the linear perspective. This conventional representation is also a symbolic form, as Panofsky proved it, but it belongs to a long-term process of our civilization, as the historians would say.

The ‘organization of space’ I am going to talk about belongs to a shorter process, since it has varied within the same mode of representation of the three-dimensional space. The significant elements of space (for instance the opposition interior/exterior) can be displayed differently, and their disposition refers to the characteristic themes of a thought, of a certain vision of reality.<sup>5</sup>

As a matter of fact, the organization of space reveals an aspect of the deeper signification of an artwork in as much as it is governed by a principle chosen out of all the other possibilities the artist could have adopted. In other words, there is, in the space organization, something which is

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<sup>4</sup> “Le problème de la description d’œuvres,” in *La Perspective comme Forme symbolique* (Paris: Editions de Minuit, 1975), p. 251. The translation here is my own.

<sup>5</sup> Cf. Hollander.....

not accidental, but reveals an attitude of the mind in front of reality; more specifically: a scheme, a particular mode of the construction of reality by the mind.

To emphasize this disposition of the pictorial space is to realize this part of the program of the iconologic analysis, namely to comprehend the formal factors of an artwork as the “documents of an homogeneous sense of *Weltanschauung*”, because, as Panofsky put it:

“in a work of art, the form cannot dissociate itself from the content: the distribution of colors and lines, of light and shadows, of sound and layouts, all deliciously representing the visual spectacle, must also be understood as representing more than the visual.”<sup>6</sup>

## **B. – MEMLING AND NEO-PLATONISM**

Before analyzing more deeply Vermeer, I shall first give with Memling a token of the iconological signification of space organization, taken as the materialization of a vision of the world. Moreover, the structural opposition that we will note between Memling’s and Vermeers’ spaces will bring out more clearly the particularities of each of them.

When looking at Memling’s religious paintings (specifically, the Holy Virgins with child and the Nativities, that is to say scenes of contemplation, not of action, for example *the Nativity at the Wallraf-Richartz Museum in Köln*, *The Holy Virgin with child* which is at the Uffizi of Florence and the *Holy Virgin in London, whole and detail*), one cannot but be struck by the consistency of their layout: properly speaking, the scene is carefully enclosed in a defined space, delimited by architectural elements (walls whole or in ruins, colonnades) or natural ones (a hedge). This distribution creates two zones clearly heterogeneous:

– the “mystical” space, interior, self-sufficient, detached, where the contemplative vision takes place, and where nothing comes to pass except a serene and mute adoration, suspended in time;

– the “profane” space, which is outside the previous one and surrounding it: a landscape, a countryside or a village with well-marked temporal characteristics (a castle, a farm, a mill), where diverse actions unfold (a knight riding his horse, men working) performed by people who are totally ignorant of the mystical scene, “passing it by” as they are absorbed in their own

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<sup>6</sup> *Ibid.*, 252; my translation.

“mundane” occupations – a dichotomy which symbolizes the Word who came to the world and whom the world did not know.

Nevertheless, Memling’s universe isn’t structured only by this split between the mystical space folded on itself and the profane space radically estranged from it. Some figurative elements assure a transition between one and the other, being at the edge, in tension between the two. As in *The Madonna and Child on the Throne at Bruges* (Hans Memlingmuseum): alone, not diverted by the tumultuous of the world, a small individual stays in the distance, between the columns that delimit the sacred space, and observes the mystical scene. He turns away from the world, is con-verted, and appears as an intermediary figure between the sacred and the profane.

If this individual were a self-portrait of Memling (but this is questioned), one could think that, capturing well-known Platonic aesthetic themes (primacy of the intelligible model over the sensible, of the interior vision), Memling wanted to point out in which direction the painter must gaze in order to accomplish the function of art: to contemplate the spiritual and not the material, to indicate the passage from the profane to the sacred (such as it appears clearly at least in *Roger Van der Weyden’s St. Luke drawing a portrait of the Virgin Mary* at the Groeningmuseum of Bruges).

Sometimes, another transition is ensured between profane and sacred: this one of the patron saint who inserts, literally, his devotees in the mystical space (*The Virgin and Child in Ottawa*, National Gallery of Canada). It is a scenic arrangement of which the signification is prominently found in the medieval theology of the intercession of the saints.

Thus, in spite of the total heterogeneity of the two spaces that divide these paintings, Memling appears less as the painter of the transcendence, the absolute division, than as the one of the mediation.

But some others of his works bring us to connect this mediating function not only to the history of the conceptions of art and of religious beliefs, but to the history of thought, to a certain “vision of the world” (which precisely founds the spiritual function of art and intercession).

In the *diptych of the Alte Pinakothek* in Munich: *The Virgin and child with donor and St. Georges*, we find the characteristic elements of the previous paintings: a mystical scene separated of the profane world (town, countryside and mountains) by a rosebush and a hedge, and, mediating between the two spaces, a saint (who, furthermore, has just brought down the dragon) introducing a devotee.

But the *breastplate of St. Georges* permits Memling to add a supplementary element, an optical effect: he paints there the reflection of the mystical scene. The mediating function of the

saint is thus reinforced: not only is he the link for the passage of the profane to the sacred, but he is also the link for the reverse passage from the sacred to the profane, because, thanks to the luminous reflect, the spiritual penetrates some small bit of the material, in order to illuminate it.

An other reflection in Memling has the same remarkable signification. In *The Last Judgment at Gdansk* (Museum Pomorskie) the armored angel who weighs the resurrected stands exactly at the centre of the painting (intersection of vertical line and horizon). *On his chest*, at the level of the horizon that separates heaven and earth, is mirrored the division of the elect and the damned, manifesting the divine victory, the judgment pronounced from on high by Christ reigning in majesty, and executed by the angel.

The significance of such reflections is to be referred to a neo-Platonic conception of the degrees of being. The reflection is the attenuated presence of the superior order in the inferior order. Specifically, one can decipher in this pictorial arrangement the theory of the “first being in a genus” (*primum in aliquo genere*). The universe is hierarchically divided into strata and at the superior limit of each layer stands a prime being who receives as a reflection, that is to say with a diminution, the perfections of the stratum immediately above. Then, the top being imparts these already weakened properties to its subordinates within this stratum or genus, but with more diminution and loss, so that the lower levels receive only an impoverished version of the initial perfections. The first being has therefore a different quality than the last beings in the same genus. Though, such a construction avoids gaps between the different strata: they are linked each to the other (however diminished the perfections received by the lowest beings in one genus may be, they will be transmitted by them to the next stratum) and the whole order of the universe suffers no discontinuity.

For example, in the soul stratum, superior souls are endowed with intelligence because they retain something of the superior hypostasis, that of the pure Intellect (they resemble it in a certain manner); but the inferior souls are not intellective, they just take in the vital functions which were also contained in the intellective nature. All the properties are thus handed down, as if by waterfall, from the absolutely first (primary) principle.

In the same way, according to Memling, certain creatures, first in their order, like the angels or the saints, situated at verge of the profane space, wear the reflection of the divine world, and assure communication with the mystical space.

The ontology of participation, light, and reflection may therefore be considered as the symbolic form that governs Memling’s hierarchical world. Memling distributes his pictorial space in heterogeneous zones between which there is, nevertheless, circulation.

Such a supposition is not an arbitrary one, like those which would see in his paintings a figure of Kantianism or of Zen Buddhism. According to Panofsky, as a method of verification of the iconological analysis, one has to check the compatibility of the symbolic form with “that which would be possible for a certain epoch and for a certain cultural circle on the blueprint of the *Weltanschauung* [worldview].” The history of types permits the rejection of a subject identification by informing on what it was possible to represent at a given moment; in the same way, the history of ideas control iconological interpretation by indicating those elements which are susceptible to constitute the mental world of a painter in that same moment. It is impossible that the spirit of Memling had been structured by Zen Buddhism; on the other hand, it is quite possible that it was structured by neo-Platonism. Admittedly, Bruges is not Florence, but neo-Platonism did not return abruptly to the surface with the rediscovery of Plato and Plotinus by the Italians. By diverse channels it had also since the Middle Ages impregnated Nordic culture, especially mystics. It is not impossible that, in the country of Beguine convents, in Ruysbroeck’s sphere of influence, it was this spiritual vision of the world. that shaped Memling’s mind.

### C. – VERMEER AND THE CLOSED SCENE

With Vermeer, the separation interior / exterior is not *in* the painting. It is the whole painting which is considered as an interior space, and its relation to the exterior, the “outside” of the picture, is questioned. Such a research on the relation of the painting with the “outside” seems to be a specialty of Dutch art, since the “primitives” were already attempting to bring answers to this question.

In the *Portrait of a couple and St. Eligius* by Petrus Christus, and *The Money Lender and his wife* by Quentin Metsys, space is homogeneous : the characters are displayed in a unique interior space. But a figurative element brings about an opening of this closed space: a mirror reveals what the painting does not frame, namely the space outside the room where the characters are.

It is certainly tempting for a painter to exceed the limits of his canvas so as to achieve the program of his art: to re-create a whole world. The central represented scene has to be set into the wider space which includes it. Or, inversely, the all-embracing space has to be brought back into the canvas, breaking the arbitrariness of its limits. To put it differently again, the pictorial space has to be fictionally extended to the out-of-shot comprehensive space where the scene takes place. It has to indicate its connection to this exterior space which is invisible and nevertheless contiguous and undoubtedly present.

Hence the device used by Christus and Metsys: a figurative element shows more than what is represented on the canvas: ‘the wings on the stage’, so to speak. Far from framing only a few square inches, the painting suggests a whole world. Such is here the function of the mirror.

However, thanks to this artifact, we *do see* the exterior in the interior. But Vermeer, who deals with the same problem of the relation of the painting with what is outside the painting, comes to a radically opposed solution: he establishes a complete rupture, a total incommunicability between interior and exterior.

As a matter of fact, when we consider the whole of Vermeer’s work, we may observe that none of his paintings displays any communication between interior and exterior – neither thanks to a classic disposition: for instance a front view of a window opening on a landscape; nor thanks to a less classic disposition, as for instance a reflection in a mirror. Vermeer paints either outdoors that are exclusively outdoors, or interiors that are exclusively interiors.

Actually, there are only two outdoor paintings: *The Lane* and *Sight of Delft* (letting apart the mythological representations). All the other paintings depict interiors in which the windows, laterally seen, do not allow us to see anything through them: they uniquely let light penetrate into the room. Never does an interior scene offer a glimpse on a cloud or a passer-by. This is an intriguing fact. Why did Vermeer use such a disposition?

We can be sure that this peculiarity does not result from an ‘internal constraint’, nor from an external, academic, stylistic constraint:

1) Not an ‘internal constraint’: this arrangement is not a way out of some technical inability: Vermeer was definitely able to paint outdoor scenes: *The Lane* and *View of Delft* are quite rightly two of his most famous paintings.

2) This arrangement was not a convention, a stylistic constraint of his time. It is true that many contemporary paintings have the same composition as Vermeer’s. But it is also true that many others paintings (by the same painters) depict an interior from which we can see outside. For instance these *paintings by Pieter De Hooch (3 slides)*, a painter who worked in Delft also and was Vermeer’s exact contemporary (whom he probably influenced).<sup>7</sup> His interiors are no

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<sup>7</sup> See A. Blankert, “Vermeer’s Work”, in A. Blankert et al., *Vermeer*, New York 1988 p.92-93. De Hooch, three years older than Vermeer, trained in Harlem under Nicolaes Berchem, settled in Delft about 1653 (in December of this year Vermeer registered as master painter in Guild of Saint Luke). His production reached his qualitative peak between 1658-1660, and he soon after died, in 1662. His *Interior Scene (Woman Drinking with Two Men and a Serving Woman)* of the National Gallery, London, is dated from

less Dutch than Vermeer's, but they do not preclude a glimpse of the outside. Had a stylistic constraint hung over Vermeer, the same necessity would have been exerted on De Hooch.

I am not here saying that only Vermeer painted in such a way. One finds in De Hooch some views of interiors which are "vermeerian", that is: enclosed, e.g. his *Woman Drinking with Two Men and a Serving Woman* (National Gallery, London), *The Visit* (Metropolitan Museum of Art, New York). But Vermeer is completely systematic (maybe Gabriel Metsu also), so that he represents the extreme point, the ideal-type, of this trend in the organization of space. Compare with De Hooch's *Two Soldiers Playing Cards*, where one sees bricks of an outside wall, and *Paying the Hostess* (private coll.), very characteristic with its frontal window occulted by a drapery, through which however is peeping something of the outside. See also the *Woman Plucking a Duck* (Philadelphia Museum of Art) by Nicolas Maes, where the exterior is shown at least sidelong.

Therefore, Vermeer's peculiar way of painting is a fact that cannot be explained by a mere formal, stylistic analysis. Here then an iconologic approach must be employed, in order to bring out a symbolic form which governs this organization of the pictorial space.

A new observation will lead us on the trail. As a matter of fact, if Vermeer abolishes any direct communication of the interior with the exterior, he nevertheless does not give up tackling the inside/outside problem. We may note that in most of his interior scenes, an element does not *show*, but *represents* the outside. It is either a letter, main subject of the painting, or a map hung on a wall (or a terrestrial or celestial globe).

1) The letters: among the six paintings that deal with this subject, the most characteristic are:

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1658. It achieves a remarkable synthesis between Delft's tradition of illusionistic space (church interiors of De Witt, for instance) and the "genre" painting of lively scenes found in ter Borch, van Loo and others. "De Hooch was the first to place figures in interior space with perfect 'truth of life'" (ibid. p.93). In this respect, as Blankert points it out, he most certainly was a decisive inspiration for Vermeer (compare with the latter's *Girl Asleep at a Table*, Metropolitan Museum, probably around 1657, which is still mainly represented in a plane). Hooch's above mentioned works are contemporary of the first works in which Vermeer plays with windows, if accepted datings are true: the *Girl Reading a Letter at an open Window* (about 1659) or the *Young Woman and an Officer* (ca.1658, which seems to Blankert to be directly inspired by De Hooch's *Woman Drinking* left central section: "The woman in front of the table has exchanged places with the man behind it, but otherwise the general composition is identical – even the map on the wall charts the same regions", op. cit. p.94. But still more convincingly, compare Vermeer's painting with ).

*A Lady Writing a Letter with her Maid*: the maidservant openly looks through the window, to this outside that we cannot see, and with which the scene is only in an indirect, epistolary relation.

*Girl Reading a Letter at an open Window* (whole and detail): the maiden is standing in front of a window which is widely open, but nonetheless conceals the outside. On the window-panes, the only reflection comes from inside: it is a reflection of the maiden.

Here are some more examples of letters: 5 slides

2) The maps: they are quite “authentic”, they are copies of real maps<sup>8</sup>. Scholars have been able to determine their models: date, cartographer, printer, content<sup>9</sup>. Among the nine paintings that display maps, let us mention:

*Woman with a Lute*: the woman looks towards the window

*Young Woman with a Water Pitcher*: the maiden opens the window

*Young Woman and an Officer*

*Woman in Blue Reading a Letter* (we have both a letter and a map)

*The Art of Painting*, remarkable for his huge and centered map.

*The Geographer* (1669) (whole and detail): the most emblematic painting, in our point of view.

*The Astronomer* (1668) (whole and detail): the twin painting of *The Geographer*.

Maps are a very familiar object of Dutch interiors in the 17<sup>th</sup> century. They are not at all peculiar to Vermeer, they appear in many contemporary paintings, for the simple reason that maps were an usual decorative item in well-to-do households, exactly as paintings and prints: inventories of estates bracket them together. Historians of cartography call the period from ca. 1550 to 1675 “The Golden Age of Dutch Cartography” or “The Netherlands period in cartography”. Maps were of course essential sources of information for trade, management, engineering (hydraulics, notably important in the Netherlands), political and military operations.

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<sup>8</sup> Vermeer probably possessed these wall maps, or had easy access to them, since one finds the same ones throughout his work. The same terrestrial globe appears also in two paintings: the allegory of faith and the geographer.

<sup>9</sup> Van Berckenrode’s map of the Netherlands in three paintings, and a map of the Seventeen Provinces by Visscher in two paintings.

Mapping the world was a natural consequence of the age of the great travels of exploration. The development of new maritime roads, and western settlements in America or Asia, ever growing trading corporations as the Dutch East India Company, fostered the demand for cartography. The entire decorative program of the new city hall in Amsterdam, in 1655, was designed to convey the message that Amsterdam was the center of the universe. The floor of the “Citizens’ room” had two inlaid marble maps of the Eastern and Western hemispheres. The mastering of the geographical space through its representation was obviously not independent of a project of political and commercial domination<sup>10</sup>. But besides the commercial, political, military needs for exact cartographic information, maps trade has been soaring because some buyers wanted to express their social status. They could point at the owner’s involvement in the administration of his province or in overseas trade. Also, the prosperous middle class purchased atlases and wall maps as educational aids to geography and history for themselves and their children, like Constantin Huygens Sr. did for his sons, the famous scientist Christiaan Huygens and Constantin Jr. He used a terrestrial globe, and the front part of his house was hung with four wall maps of the four continents.

But, although it was fairly common practice to include maps in Dutch 17th century paintings, because they so frequently were displayed in homes, Vermeer’s exceptionally exact and large-scale rendering of maps indicate that he may have been a connoisseur of cartography. And this close attention he pays to maps suggests they have a role more than decorative<sup>11</sup>.

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<sup>10</sup> René Huyghe says about the representations of towns and countries in maps and paintings, that this “catching in a trap” of the world in a painting a symbol of the “dream of the West”: to act upon the world and conquer it (“La poétique de Vermeer”, *Jan Vermeer de Delft*, Paris, P. Tisné 1948, p.85). quoted by P. Dumont, op. cit., p.89 n.1.

<sup>11</sup> Of course, this interest may be in the first place artistic and professional. The skills required of a cartographer partly overlap with those of a painter: mathematical, but also drawing and calligraphy. There was no clear dividing line between the two professions (see Svetlana Alpers, *The Art of Describing. Dutch Art in the Seventeenth Century*, The University of Chicago Press, 1983, p.126-133). A number of cartographers were enrolled in the Saint-Luke’s guild. The map makers needed to be able to engrave and color their maps, and to design and draw decorations on them. It is obvious that the gorgeous maps hung on the walls are artistic works.

Very often, the maps have a narrative function. For instance, regarding girls reading letters, one may imagine, because of the maps, that these missives came from a far-away fiancé, traveling on behalf on a trade company.<sup>12</sup>

Also, *The Geographer* and *The Astronomer* depict scientists whose explorations of the world are not only based on study of maps, atlases, literature, but on observation as well. As a matter of fact, some of the instruments depicted, like the “Jacob’s staff” and compasses, were practical instruments: it seems that Vermeer did not intend to paint an “armchair scientist”.<sup>13</sup>

But we can try to find a more philosophical signification to the presence of maps, or at least something similar to a symbolic form.

Vermeer’s interiors, to recapitulate, are not like Leibniz’s monads: without doors nor windows. There are indeed windows. But we do not see the external world through these windows. Yet, an inner element represents the external world: a letter or a map is a sign of this world, giving us an indirect knowledge of it.

Now, what is the first example of a sign that Arnauld and Nicole offer in their Cartesian *Port-Royal Logic* or *Art of Thinking* ? Maps, precisely. Following this clue, I will then try to compare the Vermeerian pictorial space with the Cartesian theory of representation, the new philosophy of a mind having no open windows on reality, but corresponding with it by the means of signs. What we directly know are not the things in themselves, because of the radical distinction of the thinking substance and the extended substance that prevents a direct contact between the two. What we are directly aware of are our ideas, made of “mental material”, which are the representatives of the things.

This parallel between Cartesianism and Vermeer lies on something more precise than the general notion of an interiority having no direct access to exteriority. Descartes described the very modalities of the correspondence between the soul’s ideas and the external world in terms

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<sup>12</sup> Contrary to S. Alpers’ thesis, I cannot imagine a second that in paintings such as *A Lady Writing a Letter with her Maid* or *Woman in Blue Reading a Letter* Vermeer is not telling us a story, in addition to all the rest he conveys in his descriptive art.

<sup>13</sup> Some have suggested that the model here was Anthony Van Leeuwenhoek. The famous fellow citizen and contemporary of Vermeer was a licensed surveyor, before he became the well-known microscope observer. There is a certain resemblance (not according to all, but to me it is a clear one) between Vermeer’s character and an engraving portraying Leeuwenhoek; and the latter appears in a document concerning Vermeer’s succession. In his book on perspective (French edition 1648, Dutch edition 1664), the French writer Gérard Desargues recommended painters to consult surveyors for perspective drawing.

of regulated and conventional *dissimilarity*. The same relation of *instituted deformation* is precisely figured in Vermeer's works.

Take the letters, first: they are messages, codes, systems of signs, which do not figuratively resemble the reality they describe. Because of the arbitrary relation between the sign and the signified thing, the word does not signify as being an imitation of the thing: it is not a similitude, but a conventional substitute.

The maps, then: the ones used by Vermeer represent the territory of the Netherlands, or of Europe in two cases. So as to refer to this external area that surrounds and includes the interiors he depicts, Vermeer did not display on the walls pictures (paintings in the painting), imitations of this external reality, for instance a view of Delft (there are in his works some representations of landscapes, but they are quite undetermined, imaginary). He *could* perfectly have done so; but he didn't. He exhibits conventional representations of reality, codes and systems of signs too, that is: *modern* maps.

So as better to understand this point, let us contrast modern maps with more ancient ones. As a matter of fact, Roman and Medieval cartography was mainly descriptive: it indicated a set of qualitative landmarks (towns for instance were represented by their main monuments), displayed according to their relative orientations along travel roads, itineraries, not along their true disposition in geographical space.

Most of the ancient maps have been lost, but a characteristic Roman map of the 4<sup>th</sup> C. A.D., drawn for practical travel purposes, survived thanks to a copy made in Middle Ages (in 1265 by a monk of Colmar, Alsace): the "**Peutinger's map**" (this slide is not a view of the Medieval copy, but of a 16<sup>th</sup> edition of it). It is actually a roads atlas (no less than 200.000 km of Roman highways). It provides itineraries and distances in Roman miles between towns. Its designer did not try to display places within a fixed frame (the north is not always indicated in the same direction). Nor did he try to represent places and distances at the same scale (we have to rely on the **figures that are written next to the places' names**). The map reflects the subjective point of view of a traveler following reaching one city after another and counting paces.

The fall of the Roman western empire curtailed geographic thought and research, and the Middle Ages did still worse, in terms of cartography. The standard representation of Earth used the disk shape model of world, which dates back also to Roman times, top oriented to East, with the two axes of, vertically, the Mediterranean sea, and, horizontally, the Nil and Don/Black Sea; a type of map known as "the T in the O". Here is an example: a drawing in the **Chronicles of St Denis** (1364-1372).

Actually, beforehand the Greeks had produced maps more mathematically designed: Eratosthenes (around 250 BC) measured the circumference of the Earth with great accuracy and made an important contribution to cartography by introducing a grid to locate positions on the Earth. Ptolemy (c.100-168 BC), the famous Greek astronomer, was also the author of a *Geography*, and invented around 150 BC methods for projecting the spherical surface of the Earth on a plane; this enabled him to draw a world map, also using a system of gridlines – longitude and latitude. But his work was not widely spread outside specialized scientific circles, and Romans were less interested in mathematics and theory and more focused on military and administrative needs.

However, at the beginning of the 15<sup>th</sup> C., Ptolemy's *Geography* was rediscovered, thanks to a Byzantine manuscript, and cartography enjoyed a renaissance. Different attempts were made to reconstruct Ptolemy's maps (which were lost) by applying his methods (which were preserved). Here is a **representation of Europe**, which is far more accurate. This all the distance there is between a pictorial/picturesque view of the world and a mathematically oriented one, which does not seek immediate resemblance, but representative accuracy.

Some progresses had still to be made. The great exploration travels added more information, but at the beginning of 15<sup>th</sup> C. the projection still used Ptolemy's method: see **Waldseemuller map, 1507**. The major breakthrough was achieved by the Belgian geographer Mercator who invented a new system of projection (1569). The exact relations between geographical places, the curved distances and angles, are mathematically reported on a plane, with an apparent deformation that actually gives more exactness: **two examples of Mercator's maps** and **Hondius' map, 1630**, a classical one in Vermeer's days.

With these modern maps, then, cartography evolved towards more accurate and mathematical representations of the world than figurative ones. Ptolemy defined geography as a “mimesis dia graphês”, “an imitation through drawing <of the whole known world, together with the phenomena contained therein>”; but “graphein”, “to draw”, is also the term used for “writing”<sup>14</sup>. As S. Alpers notes it<sup>15</sup>, the corresponding Latin word for naming modern maps will be

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<sup>14</sup> « Hê geôgraphia mimêsis esti dia graphês tou kateilêmmenou tês gês merous holou », quoted by S. Alpers, p.133. “an imitation through drawing of the whole known world, together with the phenomena contained therein”. As Alpers points it out, p.133-134, Ptolemy had already distinguished “the measuring or mathematical concerns of geography (concerned with the entire world) and the descriptive ones of chorography (concerned with particular places)”.

<sup>15</sup> Alpers ; *ibid.*p.135-136.

*description* (*beschryving* in Dutch), from the verb *scribo*, to write, which is the exact equivalent of *graphô*. This is the title we can glimpse on the map of Vermeer's *Art of painting*. Actually, *descriptio* (Greek *ekphrasis*) was a term used in rhetoric for designating "the verbal evocation of people, places, buildings, or works of art", and as such referred to the suggesting power of words rather than of images<sup>16</sup>. As S. Alpers again remarks it, a map is fundamentally different from a picture built according to the laws of perspective: "what is called a projection in this cartography context is never visualized by placing a plane between the geographer and the earth, but rather by transforming, mathematically, from sphere to plane. Although the grid that Ptolemy proposed, and those that Mercator later imposed, share the mathematical uniformity of the Renaissance perspective grid, they do not share the positioned viewer, the frame, and the definition of the picture as a window through which an external viewer looks. (...) The projection is, one might say, viewed from nowhere. Nor is it to be looked through. It assumes a flat working surface."<sup>17</sup>

Now, Vermeer hangs on his walls these modern maps, which are far less "similar" to reality, from a figurative point of view, than pictures, but which have a superior objective value thanks to their geometrical transformations, their ordered, regulated dissimilarity – and this is exactly why the map is in the *Logic of Port-Royal* the first example illustrating what a sign is.

The same way, according to Descartes' theory of perception, there is an essential dissimilarity between the thing and what the mind perceives of the thing. Descartes reiterates this point several times in the *Optics*:

"...there is no need to suppose [...] that there is something in the objects which resembles the ideas or sensations that we have of them."<sup>18</sup>

"We must take care not to assume – as our philosophers commonly do – that in order to have sensory perceptions the soul must contemplate certain images transmitted

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<sup>16</sup> Alpers, p.136. Her analysis is very valuable, but I do not agree with her conclusions, which tend to assimilate Dutch paintings and maps. On the contrary, I believe there is an essential difference between those two sort of representations, the second one being more of a sign than the former can ever be.

<sup>17</sup> Op. cit., p.138. Here again, these considerations on the specificity of cartography are very acute, but I cannot subscribe to her next step, which is to make Dutch paintings, as "surfaces on which to inscribe the world", equivalent to a mapping. It seems to me obvious that Vermeer's paintings, if not to the Albertian one, obey to a determined perspective: see Jorgen Wadum, "Vermeer and spatial illusion", in Ton Brandenburg (ed.), *The Scholarly World of Vermeer*, Waanders Publishers, Zwolle, 1996, p.31-50. A

<sup>18</sup> Descartes, *Oeuvres complètes*, éditions Adam-Tannery [=A.T.], t. VI, p. 85. Taken here from Rene Descartes, "Optics", trans. By Robert Stoothoff in *The philosophical Writings of Descartes* Volume 1, ed. John Cottingham et al. (Cambridge University Press, 1985), 152-176; 153.

by objects to the brain (...) Their sole reason for positing such images was that they saw how easily a picture can stimulate our mind (...). We should, however, recall that our mind can be stimulated by many things other than images – by signs and words, for example, which in no way resemble the things they signify.”

And Descartes develops his idea by referring to artworks:

“Indeed the perfection of an image often depends on its *not* resembling its object as much as it might. You can see this in the case of engravings: consisting simply of a little ink placed here and there on a piece of paper, they 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 engravings represent to us bodies of varying relief and depth on a surface which is entirely flat.”<sup>19</sup>

To look at engravings is more an exercise of reading than a spontaneous perception<sup>20</sup>. What is true of engravings is even truer of maps. For Descartes, our sensations are like mappings of objects. Representation does not function as a similitude but as a translation. The dissimilarity which mingles with the similarity does not manifest a failure of our knowledge. Quite the contrary, it makes thinkable the possibility of our sensitive cognition. The sensation is intelligible precisely because it can be analyzed as a purely geometrical composition, having no likeness to the sensible qualities. Such is the paradox of representation: at the same time identical to, and different from, what is represented.

As a matter of fact, for Descartes the *medium* of knowledge is the *figura*, the geometrical figure, which is both distinct from the thing and revealing its true nature. The 12th of the *Rules for the direction of mind* affirms that the sensation results from the reception of a figure which imprints itself in the sensitive organ, like a seal in wax. But the *figura* is not here the *eidolon* (*simulacrum*) of the ancient atomism. It is not the peel of the thing, a similitude, but a geometrical figure, to which the sensitive objects are reduced. This figure is not a sensitive object like the others, but a universal mediator of all the sensitive objects. It performs a transcription of what is not geometrical in the thing, its sensitive qualities. Actually, one cannot represent directly this or this color, or this or this shade of a color. But one can represent

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<sup>19</sup> A.T., t. VI, p. 112; *Philosophical Writings of Descartes*, 165.

<sup>20</sup> P. Dumont, p.83.

geometrically the *difference* between two shades, or two sounds, because these differences, as ratios, are not sensitive qualities. Thus, a regulated relation of dissimilarity between the felt thing and the sensation is established:

Descartes applies this method in the *Treatise on Man* for explaining the physiological mechanism of perception. He states that, from the rays of light coming from an object ABC “a figure is traced on the back of the eye corresponding to that of the object ABC”<sup>21</sup>, i.e. which is its geometrical projection. The same figure is transferred by the nerves on the “internal superficies of the brain”, the one of the cavity which contains the pineal gland. And finally, it is reproduced on the pineal gland itself (drawn there by the set of points where the flow of animal spirits is accelerated). By means of this figure, the totality of the object is restored: the geometrical projection which travels all across the body, does not only give an account of the apprehension of the spatial configuration of this object, but also of all its non-spatial qualities (color, sound, etc.)<sup>22</sup>.

Therefore, it is a sort of cartography of the perception of external objects that Descartes undertook. The world is reduced by definite projections to figures which express it with exactitude. This geometrization enables Descartes to criticize the ancient theory of perception being a relation of similarity, and to reject the metaphor of the image or picture which underlies it:

“Now, when this picture thus passes to the inside of our head, it still bears some resemblance to the objects from which it proceeds. As I have amply shown already, however, we must not think that it is by means of this resemblance that the picture causes our sensory perception of these objects...”<sup>23</sup>

“But in all this there need be no resemblance between the ideas which the soul conceives and the movements which cause these ideas.”<sup>24</sup>

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<sup>21</sup>A.T., t. XI, p. 175. Descartes, *Treatise on Man* trans. By Robert Stoothoff, in *The Philosophical Writings of Descartes Volume 1*, 99-110; 105.

<sup>22</sup> Cf. Pascal Dumont, *Descartes et l'Esthétique. L'art d'émerveiller* (Paris. PUF, 1997) : « la glande pinéale n'est donc pas le lieu où le monde se révèle à nous, mais celui d'une image de synthèse où un codage précis a permis de faire aboutir un ensemble d'informations » (p.85).

<sup>23</sup> A.T., p. 130; *Philosophical Writings of Descartes*, 167.

<sup>24</sup> A.T., p. 131; *Philosophical Writings of Descartes*, 167.

A figure, then, a modified, distorted, figure, expresses all the properties of the thing. Still better than the copperplate printing mentioned by Descartes, a map describes a landscape by the sole mean of its geometrical ratios, not by an imitation but by a transformation.

#### **CONCLUSION:**

Maps or letters, not pictures or reflections – that is: signs, abstract representations, not similarities or images: such is the impact of Vermeer's choice for the elements that represent the exteriority in his paintings. He has excluded other possibilities. He could have directly shown the external space. He didn't do so. Why? He could have indirectly shown the external space through a figurative element, a painting on a wall, a reflection in a mirror. Neither did he do this. Why? If one admits the explanation of cultural phenomena through symbolic forms, one will recognize here the trace of one of these symbolic forms. One can relate the peculiarities of this organization of space to a cultural environment. What would otherwise be in Memling a pointless technical fancy (why a small figure, why a reflection?) is made intelligible when related to a hierarchic and continuist view of the world. What would otherwise be in Vermeer an arbitrary choice, pure contingency, is made intelligible when related to the Cartesian, representational, theory of knowledge: cognition as a process of transcription, of dis-figuration and figuration, of encoding, which is the language of Nature itself. Vermeer's intellectual world was not Memling's, and it is through the differences of these intellectual worlds that one can understand the differences in their way of representing the real world.