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Toward a Cognitive Semiotics of the Visual Artwork – Elements of a grammar of intuition[1]

In this paper I introduce some of the principles which rule meaning making in visual artworks – both in regard to construction and interpretation of meaning. The approach is naturalistic in that aesthetic meaning construction is claimed to rest on features and structures which are intrinsically significant for the visuo-cognitive system in plain, everyday perception: the artist exploits such features, and so doing he transforms the automatisms of perception into a rhetoric of aesthetic intuition. Section 1 of the paper consists of a phenomenological characterization of the aesthetic object as such (in its difference from everyday objects). In the core of the present work, section 2, I give concrete examples (with a general import) of the meaning making tools used in visual art and their roots in everyday perception. The central concern here is to show how purely spatial relations can become significant, or, in other words, how conceptual meaning can be anchored in perception, or, finally, how artists can encode meaning in shape. The final section discusses the general principles ruling the semiotics of the visual artwork and addresses a couple of methodological issues.

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0. Introduction

As addressed here, the semiotics of visual artworks has a limited scope. Its concern is how meaning making takes place in paintings (or whatever visual art work) and if this meaning making is sufficiently principled to sustain or justify a theory aiming at defining the laws or principles ruling meaning making in art. The semiotics of the artwork is therefore not (directly) concerned by value, nor by beauty (in whatever conception), nor by, say, the empathy system (the emotional response patterns) activated in the experience of an artwork, even though this may actually play a crucial role in aesthetic experience. In fact, the

1 Full color reproductions of all images and paintings can be found online at http://www.cognitivesemiotics.com (click on "issues overview" in the sidebar and scroll down to #5 to access image files for individual contributions).

genuine object of the present study is not aesthetic experience proper, but the possibility of pictorially constructing meaning in experience.[2]

Restricting the scope of an investigation tends, in general, to ease things. In the present case, however, this is far from self-evident. Indeed, if the claim is that meaning making really does take place in art – i.e., that the artist expresses himself in this and that way with the purpose of obtaining this and that meaning effect – then, obviously, a semiotics of the visual artwork cannot content itself with talking in general terms of artworks and aesthetic experience, it is also, and critically, committed to capturing meaning making such as it takes place in a particular piece of art. The difficulty then consists in developing a general characterization of meaning construction in visual artworks which rests on principles that can be applied to the concrete analysis of a particular painting.

The aim of this paper is to present a couple of these principles for meaning making. It will do so within a naturalistic conception of aesthetic experience; i.e., one according to which aesthetic experience is not a mental activity involving modes of cognitive processing foreign to everyday cognition: on the contrary, most of the principles ruling the shaping of meaning in the artwork and triggering the correlative meaning effect in the beholder are rooted in or exploit plain properties of the visuo-cognitive system.[3] Yet, the fact that all processing of visual stimuli, aesthetic or not, is taken in charge by one and the same cognitive system or subsystems does, of course, not imply that aesthetic objects are objects just like any other objects (similarly, aesthetic experience is not, as regards its relation to the object, just like any other experience). The first section of this paper is therefore devoted to a brief phenomenological description of the aesthetic object. The second, and most substantial section, will present certain principles of meaning making, defined in terms of the *exploitation of the automatisms of perception*: each of these will be illustrated by concrete analyses, some of which will show how the artist's meaning intentions can be read off the painting as such. In the third section I will explicitly state the methodological principles governing the present approach and tentatively touch upon the relation between everyday and aesthetic cognition as regards the relation between signification and value.

1. The aesthetic object: aesthetic intentionality

Aesthetic objects are intentionally *shifted* object (as the Polish phenomenologist Roman Ingarden (1985) has remarked). Our attitude toward (or "intentional

2 The exact phenomenological account for aesthetic experience is, of course, most valuable. It is just not the central topic of the present paper. I have dealt with the issue, in an Ingardian vein, in Bundgaard 2002 and 2004, cf. also Ingarden (1969, 1985, 1989) – and I shall briefly touch upon it below.

3 In this respect and in others, which soon will be made clear, the present approach is deeply indebted to Rudolf Arnheim's psychology of art (Arnheim 1954, 1969).

set", as phenomenologist use to put it) is not the same as towards everyday objects. In natural or normal experience, i.e., in the ordinary way of intending an object in perception, whatever qualities of the object we perceive will be perceived as aspects specifying the object as a thing, as the physical kind of thing appearing in my perception such as it appears. All color qualities belong to the thing, all qualities pertaining to texture and shape determine that thing: they are indexes of its reality. In an aesthetic attitude, this no longer holds true. Something blue on a painting, or some textural property of it, is not perceived as belonging to the canvas. It is not the canvas which is blue, it is, for example, the sky painted on the canvas. Qualities of entities perceived in an aesthetic mode of perception do not determine a thing, they participate in the presentation of an object (a concrete or an abstract motif). In short, in one set, qualities are accidents on a 2-dimensional plane, in another set, they may be properties of objects displayed in a 3-dimensional represented space (if the painting is figurative).

It goes without saying that no matter what artwork and no matter what qualitative property of that artwork can be intended within both the natural and the aesthetic intentional set, and be so by one and the same person. Thus, a conservator can in one moment be rather concerned by a partially detached or otherwise deteriorated quantity of pigment, and in the next moment take one step back and appraise the object presentified[4] by that very amount of pigment (thus not seeing pigment, but, say, a hand or a face).

The different ways of being intentionally related to the object give rise to Ingarden's distinction between the artwork as a physical thing (*Gemälde*), and the artwork as a pure intentional object or picture (*Bild*).[5] Here is not the place to address the intricate issue concerning the relation between the pure intentional, and therefore mind-dependent aesthetic object (which is relative to a certain type of intentional act), or the physical thing on which it is ontologically founded. Rather, the above distinction serves the purpose of introducing yet another distinction. Obviously, the intentional picture-side of the artwork can be divided into two phenomena or, as we shall see, into two intentional objects: one, which is the *motif* or the object represented in the painting; another which is the painting as a representing, depicting object.

Edmund Husserl (1980) introduced this distinction in his phenomenology of picture consciousness (refining beforehand, as it were, Ingarden's analysis). He

4 The term "presentify" has roots in Edmund Husserl's phenomenology (*vergegenwärtigen*) and means here: "make present" (display before the eyes).

5 The differences between the two exceed what I have just mentioned above. For example, the painting, the physical thing, can be accessed and its reality attested through several senses, the picture only through the eyes. The painting can be carried around, the picture cannot. The painting can be seen and recognized as such from any point of view, the picture cannot. Any partial perception of the painting, for example partially covered by a cloth, gives rise to a genuine experience of it; not so for the picture which requires complete perception.

points to the existence of three objects (that is, three levels at which one and the same thing can be constituted as an object of consciousness):

> When we distinguish between object and picture, we soon remark that the concept of picture is here two-fold. The depicted object has indeed a double counterpart: 1) the picture as a physical thing, as this painted and framed piece of canvas, this printed piece of paper, etc. [...]; 2) the picture as the *pictorial object* [*Bildobjekt*] which appears through this particular bundle of colors and shapes. Hereby we do not mean the depicted object, the *pictorial sujet* [*Bildsujet*], but rather the exact analogon to the fantasy picture, that is to say the appearing object, which is the representative of the pictural *sujet* (Husserl 1980: 19).

> We have three objects: 1) the physical picture, the thing made out of canvas, marble, etc.; 2) the representing or depicting object; and 3) the represented or depicted object (*ibid.*).[6]

We recognize a painting as a Picasso (or a Rembrandt, a Mondrian, etc.) even though we have never seen that specific item. In that case, we of course recognize a general manner of representing, depicting or presentifying things. In short, we recognize a kind of *Bildobjekt*. This relative autonomy of the presentational layer of the artwork relative to its motif is key to the present approach for several reasons:

- The difference between *Bildobjekt* and *Bildsujet* is what immediately makes the object appear as an eminently intentional object, that is: as expressing a meaning intention: the motif is not simply given, but given in a specific way, with this and that shape (partially distorted as in El Greco or in Bacon), through these colors, in this configuration, by means of these strokes, framed in this and that way, etc. The fact that this difference constitutes the artwork as a semiotic object whose meaning is not coextensive with the motif, but also relative to its way of representing it, may explain why we do not spontaneously reject paintings with disgusting motifs (as Aristotle observed it),[7] or, inversely, why we may find it exciting to contemplate artworks representing dead dull things (Cézanne's apples, Monet's ponds, etc.).

6 Also quoted by Stjernfelt 2007, chapter 14. This chapter is an enlightening critical discussion of Husserl's picture theory. Cf. also Bundgaard 2002 and 2004.

7 This point is not dealt with by Freedberg and Gallese (2007) in their plea for a mirror-neuron system support (or an embodied empathy support) for aesthetic experience. Aesthetic experience may – perhaps should – also be characterized in terms of the emotional arousal triggered by, for example, the objects represented in a painting. This arousal can arguably be said to be underpinned or reinforced by the mirror neuron system. But why then doesn't our brain instruct us to take off like a bat out of hell when we look at mutilations of bodies, putrefying pigs, battle field scenes, cannibalism or whatever disturbing images painters through the ages have found it interesting to depict and museums pleasing to expose?

- The difference between *Bildobjekt* and *Bildsujet* allows the painter to encode all sorts of signification, to shape all sorts of meaning intentions or to create all sorts of rhetorical effects in the painting. Let me just mention one well-known example (Figure 1): Gombrich (1950) and Arnheim (1974) have remarked, if, in Grünewald's crucifixion, Jesus appears as unnaturally tall, this probably does not reflect Grünewald's personal assumptions as regards the real size of the represented person, but rather the importance he assigned to him. Similarly, it is probably not a coincidence that the five pillars of Christianity are all painted in white, and thus pictorially and perceptually grouped even before they are conceptually assembled (Arnheim 1954: 89 – Mary: virginity; the inscription on the cross: kingship; the Bible: revelation; the lamb: sacrifice; the loin cloth: chastity). In section 2, we shall go through a number of examples which illustrate important ways in which painters obtain meaning effects by correlating design features of the presentational, depicting level of the *Bildobjekt* with conceptual motif-meaning represented at the level of the *Bildsujet*.

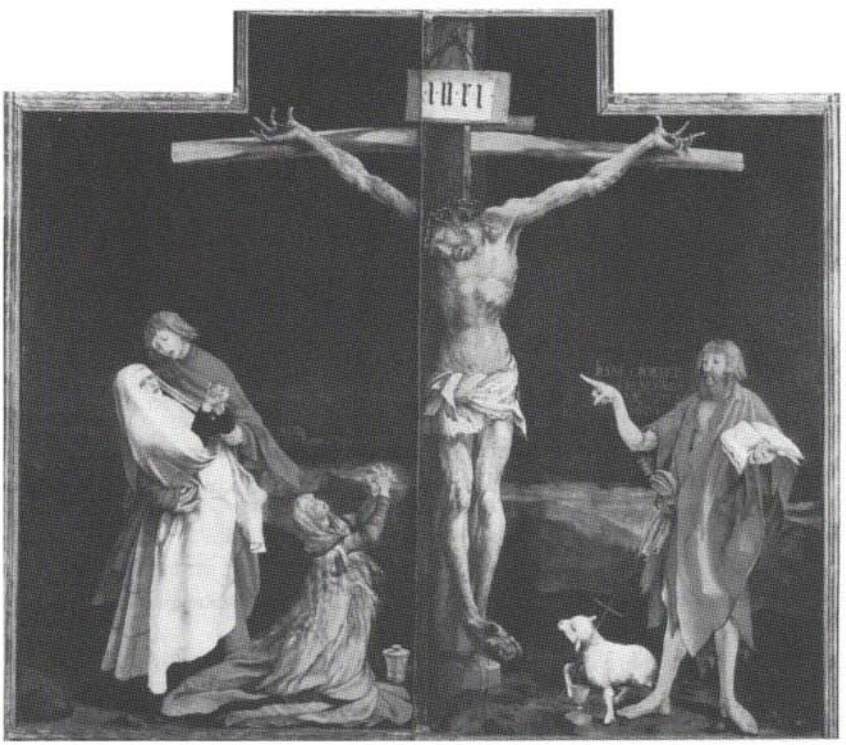

Figure 1. Grünewald. 1506–1515. Rhetorical effect obtained by amplification at the depicting level.

- The difference between *Bildobjekt* and *Bildsujet* implies that the depicting layer of the painting can be perceived (and appraised) *per se*, relatively (and sometimes entirely) independent of the things it represents. This is what is at stake in the aforementioned type-inclusive case where we recognize a painting as an "Italian Renaissance painting", "a Renoir", "a Malevich", etc. It is also what happens when we judge one caricature to be better than another. However, the autonomy of the presentational, depicting layer is stronger than suggested by the above examples. There are, indeed, cases where we do not simply appreciate or recognize some characteristic presentational style, but where the depicting layer is perceived as such, with its own inherent Gestalt-structure which displays an organization and order that contradicts the one manifested by the motif, the *Bildsujet*. In such cases one and the same artwork may, as a *Bildobjekt*, present two autonomous, equally consistent and ordered, but incompatible objects (to the extent that they alternate in perception). A clear case in point is Monet's painting below.[8] For reasons discussed in Section 2, an immediate, and probably unavoidable way of perceiving this painting is as a plain figure-ground structure with an abstract grid-like purple configuration on a somewhat orange background. However, the motif requires another way of parsing the perceptual matter. According to the represented structure, the upper part of the purple grid-structure is made out of trees (which, then, are not really purple), whereas the lower part of it represents the reflections of the trees in the pond, and so on. In short, the painting can, as one and the same *Bildobjekt*, presentify two *Bildsujets*: an abstract, gestaltic, purely presentational one, and a concrete, representational one with a recognizable motif. Each of these obtain different, mutually exclusive structures, and the aesthetic experience can thus be described as one of a bi-stable object, flipping forth and back between presentational order and represented layout.

8 Monet, particularly the later Monet, epitomizes this fact. Cf. Bundgaard (2002) for other examples (Turner, Hammershøi) and a more thorough discussion of the presentational and the representational strata in artworks. That analysis owed much to Per Aage Brandt's lectures on that issue. For a more recent development, cf. Brandt 2006.

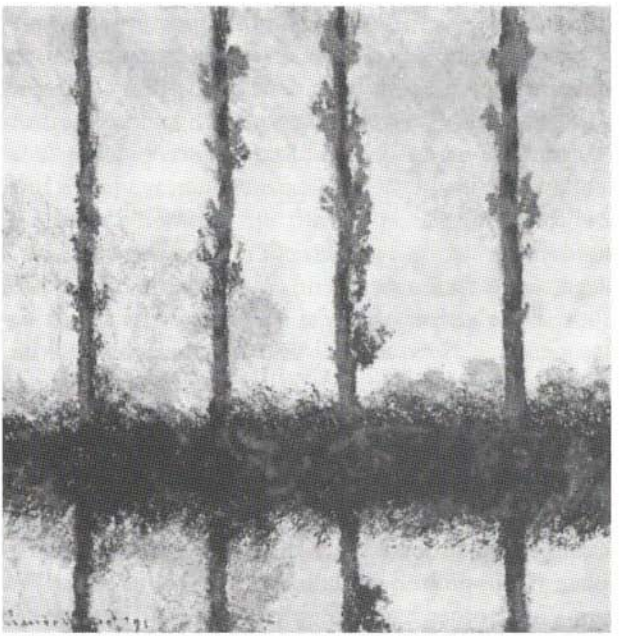

Figure 2. Claude Monet, Four Poplars (Metropolitan Museum of Modern Art, New York). The double structure of the artwork. At a presentational level, we see a grid-like abstract Gestalt in a 2D space; at a representational level, we see four trees, a pond, the reflection of the trees, etc. in a 3D space. In Husserlian terms, the Bildobjekt presentifies two Bildsujets; an abstract and a concrete one.

- Finally, the difference between *Bildobjekt* and *Bildsujet* reveals an essential feature of the aesthetic object. Aesthetic objects are not only shifted intentional objects, in the sense that their qualities do not specify a thing, but rather presentify an object. There is indeed more to it: while qualities sensed in everyday perception pertain to *one* thing and give access to *one* thing, qualities of an aesthetic object (which make out the presentational *Bildobjekt*) may perfectly well presentify and give access to two or more perfectly consistent objects. This is what we have just seen in the Monet-case where the object of perception is either an abstract Gestalt or a natural scenery with each their structural basis. So, what characterizes aesthetic objects is not simply the physical thing (*Gemälde*)/aesthetic object (*Bild*) divide, nor the fact that paintings are amenable to different coherent perceptual interpretations, but also that one and the same set of qualities – contrary to everything we know about physical qualities and physical things – can presentify several, equally consistent, but different objects which are genuinely autonomous (they are not just aspects of the same object, or the same object seen from different points of view). This is obvious in one of the *Eleven Configurations* by Jean Arp (analyzed by Arnheim (1974: 235) (Figure 3).

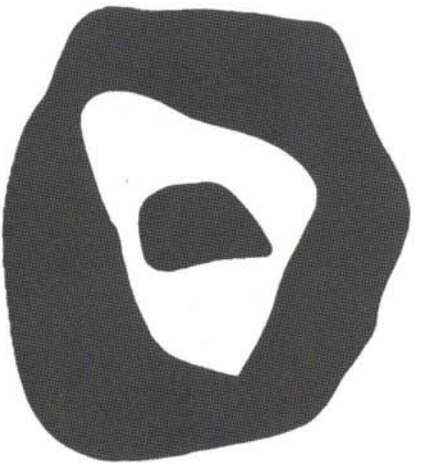

Figure 3. Jean Arp, woodcut from Eleven Configurations. © Jean Hans Arp / billedkunst.dk. As Arnheim has shown the object is amenable to different, all equally consistent representations of the spatial layout of the presented object.

As Arnheim remarks, this lithograph is amenable to several (5) interpretations according to which it shows so many different objects. It can, for example, be considered as showing a three-layered configuration with a large black shape below, a medium-sized white shape upon it and then a small black piece on top of the white one. It can also be interpreted as showing a two-layered configuration with a large black shape below (as in the first case), and then a white shape with a hole in it on top of the black one (in this case the small black piece in the center is part of the large black piece). Or, as another possibility, the object may present a one-layered configuration with a large black shape with a hole in it (through which appears the white ground) and then a small black piece as an island in that hole).

Notice that this is not simply an issue about perceiving the same object in different ways as when we perceive or conceive of one and the same thing as, say, either a bowl or a cup. The following *Gedankenexperiment* shows this. If a thing can be intended in different ways, as a bowl or a cup, and if this thing fell to the ground, then only one thing would actually hit the ground (regardless of the different ways in which it had been intended). Now, if we imagine that the objects presented by Arp's woodcut were to fall to the ground, then very different things would hit it: in the first case we would have to pick up three full pieces, in the second case one full black piece and one white with a hole in it, and in the third case, one large black piece with a hole in it and one small black piece. Therefore, aesthetic objects may presentify several objects in a non-ambiguous way.[9]

9 The presentation is non-ambiguous in the sense that it is not an either-or affair, nor something that is supposed to be settled after more scrutiny. This, of course, makes a huge

To summarize:

1. Aesthetic objects are intentionally shifted objects: their qualities do not specify a thing (the canvas), but presentify a represented object.
2. There is an essential difference between the represented level of the aesthetic object and its presentational level; between what it shows, and the way it shows it, or between *Bildobjekt* and *Bildsujet*. Meaning effects and aesthetic effects can be encoded at the presentational level.
3. The aesthetic objects can be perceived and appraised both at the presentational and the represented level. Each level can possess its own structure which is perceivable and conceivable in its own right.
4. One and the same picture can presentify different objects in a consistent and non-ambiguous way.

I shall now corroborate these claims with a description and a semiotic analysis of a sample of pictures.

2. Means of meaning making: the exploitation of the automatisms of perception

The principles governing the automatisms of perceptions are pre-conceptual and pre-reflective. They precede and further object recognition and higher order categorization of shapes as forms, but they are, or course, not themselves tokens of perceptual judgments: they organize the visual matter, thus facilitating the constitution of a perceptual judgment on the basis of a structured percept. What, then, qualifies as a principle ruling of the organization of the visual matter? Among the evident candidates we find Max Wertheimer's different Gestalt laws of form organization (Wertheimer 1923): the grouping of qualitative elements by virtue of their resemblance along a given qualitative dimension (e.g., resemblance in color, local shape, orientation) or grouping by virtue of proximity, symmetry, or construction of shape by virtue of the law of possible continuity. As is clear from the examples in Figure 4, these laws apply on visual matter as such pure shapes, independently of these shapes being or not being recognizable shapes.

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difference with respect to everyday perception where simultaneous interpretations of one and the same set of perceptual data are known to be mutually exclusive. Ambiguity results from the incapacity of fulfilling a perceptual judgment on the basis of a given percept. In the aesthetic case, there is no problem in fulfilling perfectly consistent perceptual judgments on the basis of one and the same percept, and therefore no ambiguity.

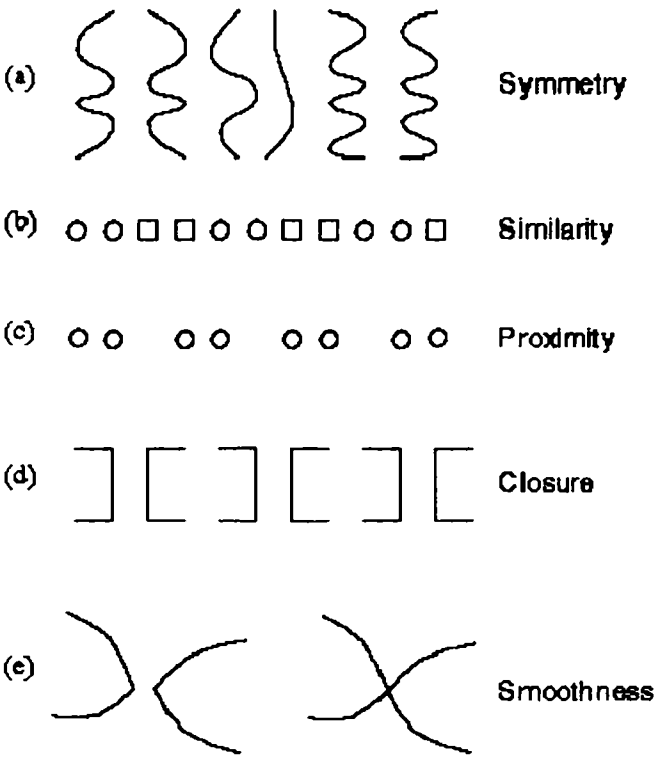

Figure 4. Principles ruling the organization of form perception according to Wertheimer 1923. The simple point is that physically speaking it is possible to group line 2 and 3 in row (a), or the circle and the square in row (b) than line 1 and 2 or circles/squares in row (b). Now, we don't, and this points to the existence of higher order principles (Gestalt laws) constraining the construction of percepts on a precategorical basis. Such constraints can be exploited by artists. Thus, in the Monet painting above (cf. Figure 2), the experience of a pure grid-like Gestalt is furthered by the laws of symmetry, similarity, proximity, and continuity/smoothness.

This obviously explains why the above Monet painting lends itself to a double perceptual experience; one representational in terms of trees, pond, reflection of trees, sky, etc., and another presentational, in terms of purple grid Gestalt on a more or less orange background. The latter obtains immediately from straightforward Gestalt processing and grouping of qualities in terms of resemblance of color, proximity and continuity (of the vertical purple lines) as well as symmetry. All in all, everything in Monet's pictorial set-up prompts the eye to consistently organize the visual scene in such pure Gestalt terms, which of course runs counter to the objective space represented in the picture.[10]

10 See also that the 3D ⇒ 2D collapse is further, and remarkably, prompted by the non-generic alignment of the tree shapes and their reflection in the water. Non-genericity is meant as highly unstable and statistically improbable configurations ("suspicious coincidences") of

Notice that the tension between the presentational and the representational organization of the perceptual matter is not one that in any satisfactory way can be characterized in terms of '(pleasing) recognition of objects in perceptually noisy environment.' The situation is not a one layered one with certain recognizable objects plus some amount of visual noise.[11] It is rather a genuinely two-layered one with two equally well structured organizations of the visual matter. Hence the fundamental claim to the effect that paintings may, occasionally, presentify two different objects in a non-ambiguous way.

2.1. Grouping as a means of encoding meaning in shape and color: constructing semantic relations by means of perceptual correlations

The most arduous task of a semiotics of the visual artwork possibly consists in developing conceptual tools to capture the encoding of meaning in the artwork. This problem is of critical importance for figurative paintings with rich motifs. Rich motifs are simply those which represents scenes or characters which are naturally carry meaning for humans, either for biological or emotional reasons (scenes of death, joy, love, sexual arousal, conflict, distress, despair, anxiety, and the like) or for cultural reasons (scenes representing founding religious or historical events, etc.). Within this framework, 'encoding meaning in the artwork' implies constructing a visual or pictorial counterpart to the conceptual issue addressed (or the emotion displayed, the valorization effectuated) by the painting at the representational level. To use Rudolf Arnheim's admirable expression, the problem consists in showing that "an abstract pattern organizes the visual matter in such a way that the intended expression is directly conveyed to the eyes" (Arnheim 1954: 152). In short, what is told to the mind should also

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figures or lines in space. Such non-generic configurations often only obtain from one extremely singular point of view and do not resist the slightest variation. Non-generic configurations are intrinsically significant for the perceptual system (they are rare and therefore perceptually salient); this is, indeed, why artists make use of them as means of meaning making (cf. below, and Petitot 2004, 2009). In the above Monet painting, the law of continuity of course forces, the eye to group these elements, but applies only because such an alignment has been produced thanks to a non-generic point of view. As shown in Petitot (2009, the present volume), this 3D $\Rightarrow$ 2D collapse is morphologically analogous to the one experienced in Necker cubes represented from a non-generic point of view.

11 This is what Ramachandran and Hirstein (1999) seem to suggest in their naturalization of aesthetic experience. I am sympathetic with their attempt to establish the close connection between everyday and aesthetic perception. I do think, however, that they go astray in trying to establish this link in terms of *value*, i.e., on their view, what is valuable in everyday perception transposes to art. Thus, elements disliked in everyday perception (asymmetry, non-genericity, etc.) are claimed to be avoided by artists. As regards their claims about symmetry and non-genericity, this is plainly wrong. The idea I marshal here is rather that the naturalization of aesthetic experience should be established in terms of *significance* (not value). Thus, what is intrinsically significant in everyday perception transposes to art (where it can be exploited to trigger certain meaning effects).

be shown to the eyes, and this is what should be developed theoretically. Notice that this idea bears consequences for the interpretation of artworks at large (while being the condition sine qua non for a genuine semiotics of the visual artwork): it is only by pointing at the formal procedures by means of which an artist concretely organizes the visual matter that it can be claimed that his meaning intention can be read off a painting.

A major methodological caveat should be made in that the theoretical tools intended to capture the correlation between organization of visual matter and conceptual representations do not make out some sort of semiological code book assigning this and that pre-established signification to the use of this and that symbolic forming tool. The grammar of aesthetic intuition aims at establishing the means thanks to which meaning can be shaped and encoded in the artwork. It does not make any claim to the effect that a specific meaning effect should follow from the use of a given meaning shaping means. The only claim is that those structures or features which are intrinsically significant to the eye can be used as a support for the representation of higher order semiotic objects and their correlations: by exploiting them in his creative work, the artist elevates the automatisms of perception into a rhetoric of aesthetic intuition.

The easiest –and only – way to show this is by proceeding by means of examples. Since it is impossible here to even suggest the range of the possible correlations between perceptual and conceptual organization,[12] I have chosen to concentrate on a couple of pictures with a religious motif that address the conceptual problem concerning the relation between contrary terms (for example, the divine vs. the human domain, the infinite vs. the finite, etc.). The point is then that the articulation, and even the transition, between the two contrary domains – a transition or correlation that can only be suggested conceptually – is exactly the problem that the painting solves pictorially.

Consider Vermeer's painting *Woman Holding a Balance* (already analyzed in Bundgaard 2009) (Figure 5).

12 Cf. Petitot (2009), Wildgen (2009), both in the present volume, for more examples.

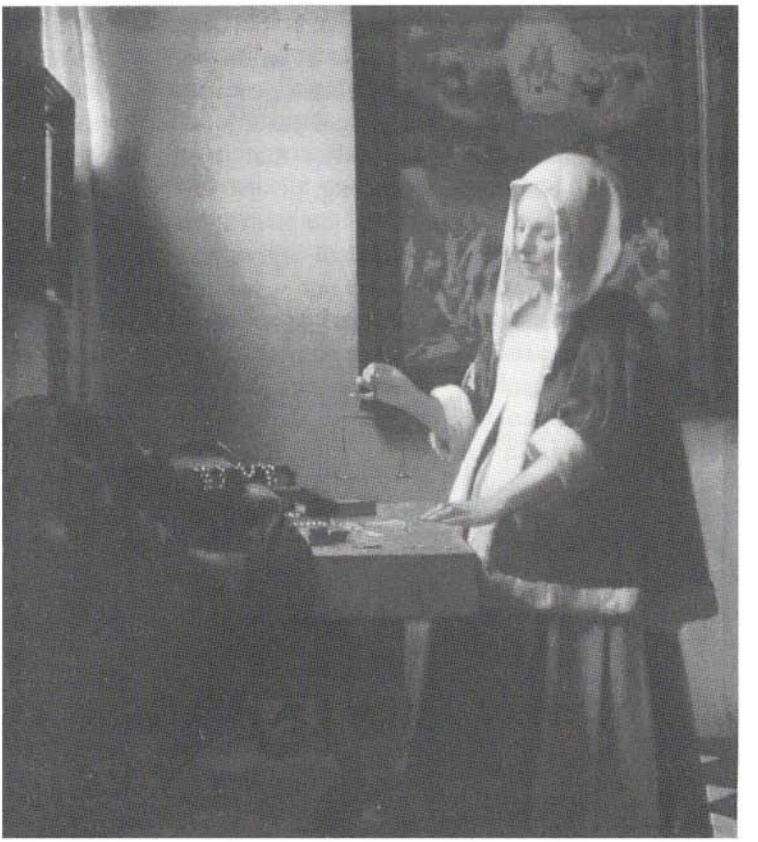

Figure 1. Jan Vermeer. Woman Holding a Balance.

Arguably, the motif is a reprise of the Annunciation theme with a young pregnant woman gazing downwards while her womb is illuminated by the light from above. The religious motif is profiled by the fact that while she's weighing material goods in the foreground and the lower part of the picture, the painting in the background and the upper part of the picture represents Jesus weighing souls on Doomsday. If this is so, the set-up is the following: the lower part and the represented foreground of the painting constitute the "earthly" domain (epitomized by the action of weighing pearls), whereas the upper part and represented background of the painting represent the "heavenly" domain (epitomized by Jesus' weighing the souls). Moreover, as an Annunciation, the motif of the painting is evidently the impossible, but nevertheless real continuous passage between the heavenly and the earthly domain (i.e. God's becoming flesh, etc.). Conceptually, this founding mystery of Christianity is easily done with: the case is stated in a book, and then it is up to you to believe in it or not. But how do you "paint" the state, as it were, how is the impossible

transition or articulation constructed in vision? What is the pictorial counterpart to the conceptual issue in this case?

Granted, in the organization of the painting the problem to be solved consists in articulating the lower and the upper part (or foreground and background of the picture). Vermeer effectuates this in three ways: (a) chromatically, (b) morphologically, and (c) compositionally.

(a) Chromatically. The robe covering the pregnant womb and the curtains through which the light from above shines (a conventional symbol in many Annunciations) are colored in exactly the same red-golden hue (which again by convention is considered the divine color). The key point here is (just as in the Grünewald example mentioned above) that by virtue of the principle of grouping, these elements are visually correlated thus suggesting an essential correlation between womb (below) and curtain-light (above). Hence the principle, what fires (qualitatively) together, wires (conceptually) together.

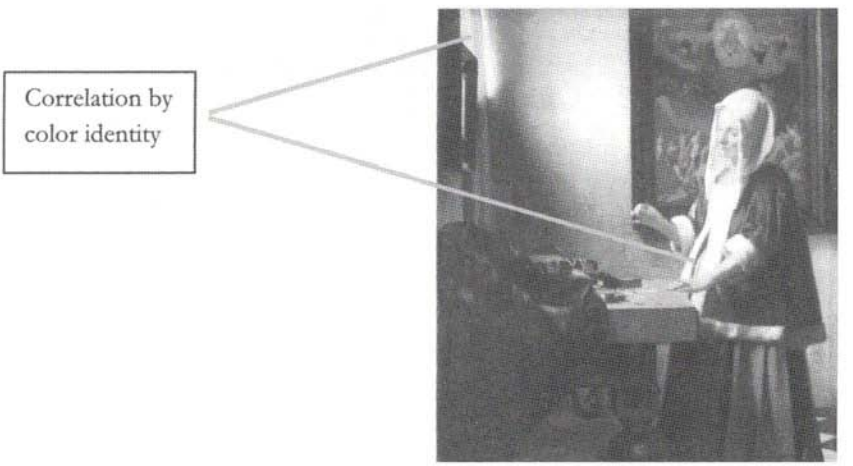

Figure 2. Jan Vermeer, Woman Holding a Balance. Correlation of top and bottom, background and foreground: curtain above and robe below have exactly the same color. They are, thus, correlated in vision by virtue of the principle of grouping (similar qualities).

(b) Morphologically. The young woman's weighing is not only conceptually reproduced by the motif of the painting in the background. Also, the very shape of the visible part of the painting reproduces the shape of the balance in the foreground. The correlation here is constructed in vision by means of morphological resemblance.

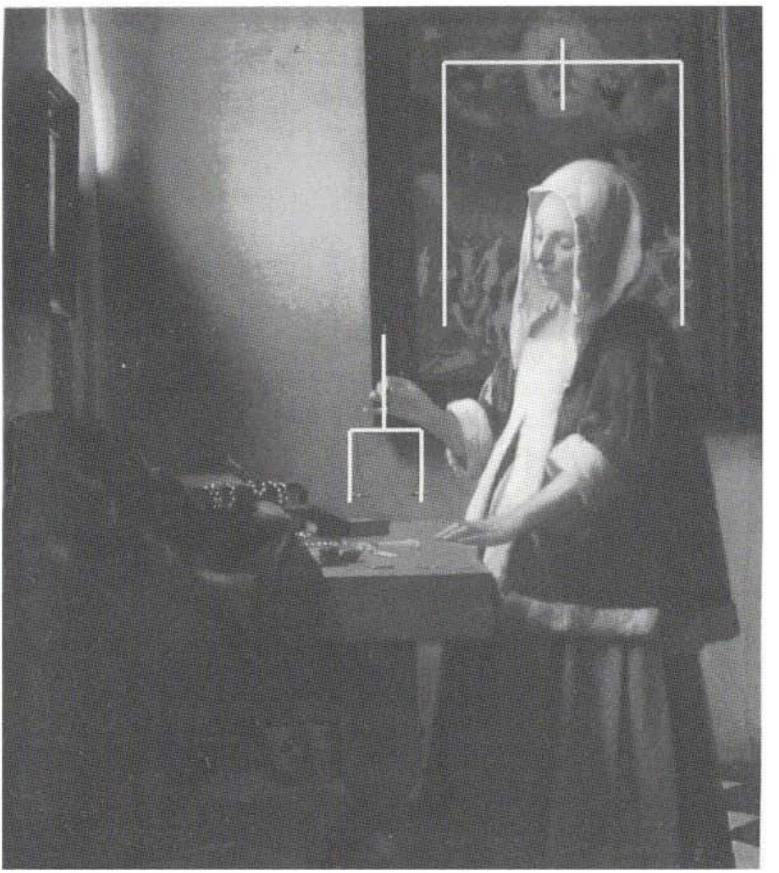

Figure 3. Jan Vermeer, Woman Holding a Balance. Morphological correlation: the shape of the balance is reproduced in the visible part of the painting in the background. Foreground and background are correlated in vision by means of grouping by shape resemblance.

(c) Composition. Finally, the painter has succeeded in concretely fusing fore- and background in vision. By choosing a non-generic, structurally unstable, and therefore visually significant point of view, the handle of the balance in the foreground is perfectly aligned with the ledge of the frame in the background–indeed to the extent that handle and ledge are locally merged and perceptually inseparable from the each other. The mystery of the continuous passage from the heavenly to the earthly is constructed in vision by means of continuous qualitative passage between fore- and background (cf. Arnheim 1969 for a similar conclusion).

Figure 4. Jan Vermeer, Woman Holding a Balance. Non-generic alignment of handle in foreground and ledge of the frame in the background. The non-generic alignment creates a local fusion of fore- and background, a visual pathway between the two.

It is worthwhile noticing that such morpho-qualitative correlations seem to be standard (but not for that matter trivial) means of pictorial meaning making. In Mantegna's *La Madonna della Vittoria* (analyzed in detail by Petitot 2009, present volume) the same triad of chromatic, morphological, and compositional correlations can be observed: (a) morphological duplication of the cusp-like shape of Mary's coat below and the festoon above (cf. Petitot 2009: 35); (b) chromatic duplication of the golden-red color of Mary's coat below and the festoon above; (c) compositional correlation by means of the complex (and in a sense contradictory) mediating shape, namely Longinus' lance, which is both connected to the regicide and to the very master plan: in dying, Christ is indeed supposed to enable the very transition between earth and heaven which is the underlying theme of the painting. This complex mediating role of the lance is

further emphasized by the fact that it shares exactly the same (divine) chromatic value as Mary's coat and the festoon.

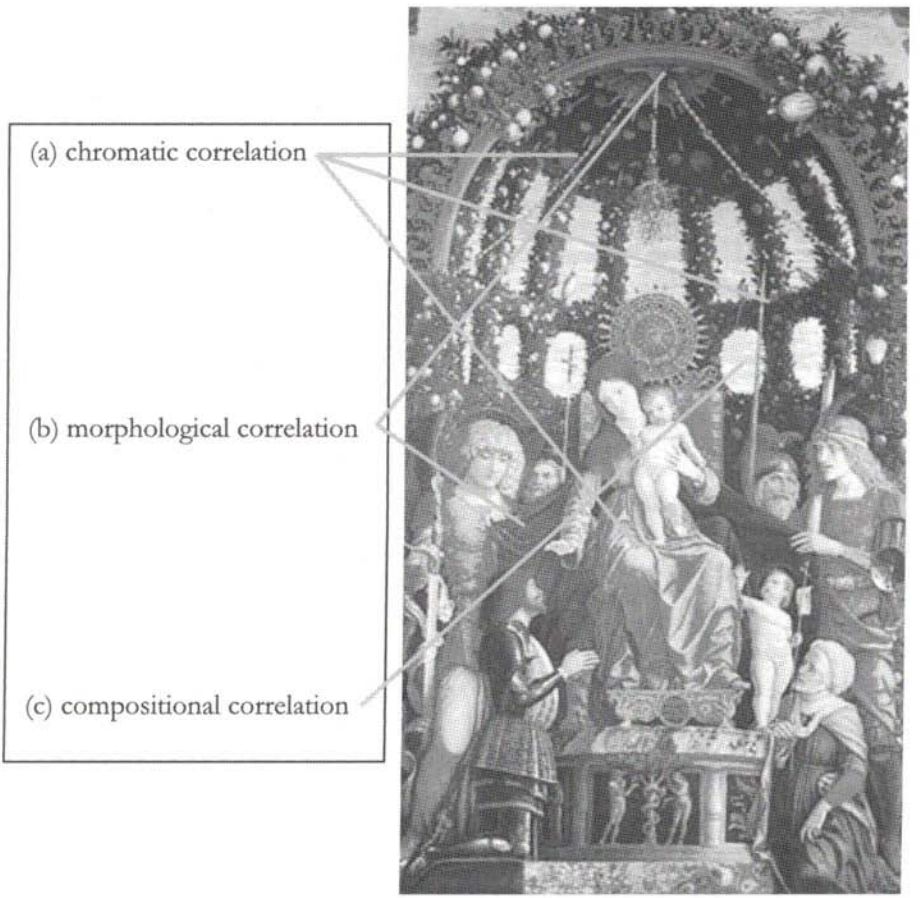

Figure 5. Andrea Mantegna, La Madonna della Vittoria (1496). Three morpho-qualitative correlations between semantically specified spatial domains (bottom: earthly domain; top: heavenly domain). The procedure is the same Vermeer resorts to.

The above are examples of how semantic relations are constructed in vision as perceptual correlations. As already suggested, they do not exhaust the list of formal procedures by way of which painters organize visual matter with the purpose of obtaining either a pictorial counterpart structure to the represented motif (as Grünewald, Vermeer and Mantegna) or an independent Gestalt-configuration which can be appraised independently of the represented scenery (as in Monet). To mention one other procedure, it may operate solely on the level of shape and encode given semantic value at this level. Hoffman (1998; Hoffman and Singh 1997) has remarked (as to the saliency of parts and the

reconstruction of depth in vision) that convex points on 2D-contours are computed as saddle points (with two directions of curvature) on 3D volumes. Convex points thus encode depth and volume, and the sharper, more cusp-like they are, the more volume do they encode (and the more salient or protruding are the represented parts). Arguably, this is what Picasso exploits when expressing physical exhaustion and existential hardship (in his paintings from the "blue" period) by diminishing the saliency of body parts and thereby proposing a distorted representation of the human body from which the original layout is difficult to retrieve (as in figure 10). Or, on the contrary, when he exalts the vitality and sexuality of the female body by maxi- and magnifying the saliency of its parts (as in figure 11).[13]

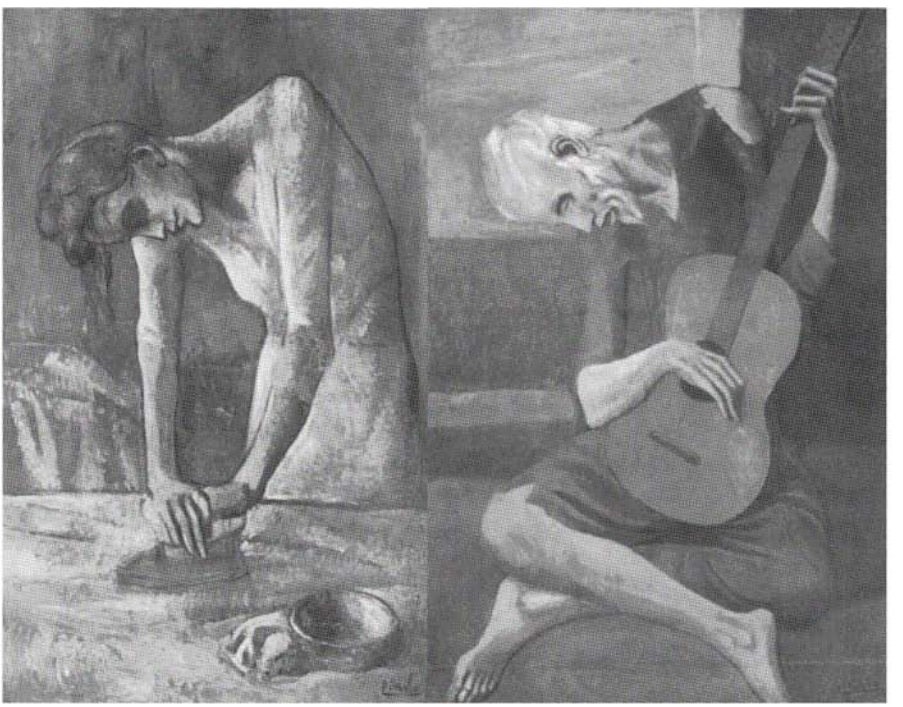

Figure 6. Pablo Picasso, Woman Ironing, and The Old Guitarist. © Succession Picasso / billedkunst.dk. Deletion of part saliency obtains through reduction of convex points, smoothening of concavities (both of which encode volume) and creation of unnatural salient body segments (e.g. the section leading from upper left shoulder to the neck).

13 Cf. also Leyton (2006) for an original theory of the encoding of meaning in shape.

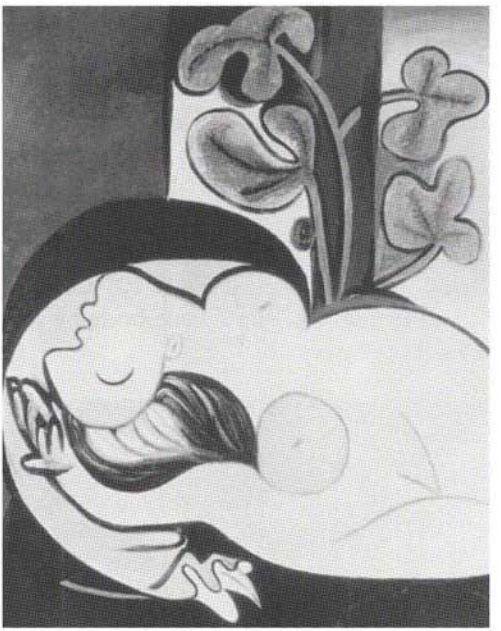

Figure 7. Pablo Picasso, Nude in a Brown Armchair (1932). © Succession Picasso / billedkunst.dk. Maximization of part saliency and body volume by means of sharpened concavities. It is worthwhile noticing that the volume engendering procedure outweighs, at first glance, the unnaturally flattened, compressed 2D means of depiction. The paintings in figure 10 and the one here are thus duals in a stronger sense: the pictural object (the manner of depiction) in figure 10 is realistic, but it conveys an unnaturally meager 3D body, whereas the pictural object in figure 11 is absolutely unnatural and unrealistic while nevertheless triggering a realistic full-fledged 3D representation of the female body.

3. Concluding remarks: principles governing the semiotics of the visual artwork

In conclusion, I shall briefly state some of the principles on which the present outline of a cognitive aesthetic semiotics rests.

1. Painting is an activity which consists of constructing meaning in vision, that is, in presenting shapes (and relations between shapes) with qualitative properties which are perceptually (pre-conceptually) significant. Meaning making in visual art is primarily fulfilled at the presentational level in the *Bildobjekt* as defined above, or to use Brandt's felicitous expression (Brandt 2006) in terms of what happens *on* the canvas, not simply in terms of what is represented by the painting. A major task in figurative art thus consists in creating perceptual counterparts to the conceptual relations or representations represented in the motif of the painting.

2. We do not have different visuo-cognitive systems, say, one for plain perception and another for aesthetic perception. If painters are to construct meaning in vision, then it follows that they can exploit only those features which are intrinsically significant for the visuo-cognitive system as such, or they can exploit only those principles of form organization which govern perceptual form organization at large (grouping).
3. The grammar of aesthetic perception consists of such features and principles of form organization which allow many devices for possible meaning making.[14] In the present paper we have seen meaning effects which rest on the pre-conceptual Gestalt principles of form organization; the exploitation of the signification inherent in non-generic point of views or configuration; and the encoding of meaning in pure shape.
4. We have seen, following Husserl, that it is an *ontological* property of any visual sign (any icon in Peirce's sense) that it consists of a presentifying stratum (the *Bildobjekt*) and a reference or a representing stratum (the *Bildsujet*). Pictures represent something and do so in some specific manner. This holds true for all pictures of whatever sort. Now, even though meaning making in visual art essentially takes part on the level of the *Bildobjekt* (correlated with the *Bildsujet*, the motif), this does not obtain automatically, necessarily or for any, say, a priori reason. Pictures may perfectly well be flat representations: pure illustrations or just bad or uninteresting pictures. Only when painters give pictorial shape to their (aesthetic) meaning intentions (with tools as the above) does the presentational layer of the painting become semiotized, as it were. The painter's craftsmanship is in the semiotic shaping of the *Bildobjekt*, not (only) in the skilled drawing of the *Bildsujet*.
5. Similarly, the constitution in perception of the painting as a pure piece of presentation (irrespective of what is represented), and the ensuing alternation between 2D and 3D interpretations of it (as in Monet), is not something that obtains automatically. The depicting stratum of the painting, the *Bildobjekt*, must be organized in a principled way in order to give rise to an experience of a detached, autonomous Gestalt presentation. So the same chorus from above can be sung with respect to this: only when painters organize the depicting matter of the painting in certain ways (with tools as the above, and first and foremost "qualitative grouping" in terms of stroke, color, proximity as well as "non-genericity"), does an autonomous presentational Gestalt structure detach itself from the *Bildobjekt*.

14 This, of course, does not imply that the semiotics of the visual artwork is reducible to such features and principles (or to the identification of the way they are used in a given painting). It may take a considerable amount of background knowledge (religious and cultural frames, etc.) to get the interpretation of a picture right; still the meaning intention of a painter is in general not encapsulated in the motif, but in his way of reactivating the motif.

6. Moreover, if it can be assumed that the semiotic (and aesthetic) impact of the painting depends on the way in which the painter organizes the presentational layer of the artwork, it is also evident that there is not just one type of interaction between presentation and representation in the work of art. A possible task for future research in this domain would consist in typologizing the prototypical relations between presentation and representation. In need of mention are two possible extremes of the typological continuum and one intermediary case. On the one side, we'll have the pure alternation between autonomous Gestalt presentation and representation (i.e., fully counter-structural exploitation of the automatisms of perception) as in Monet or Turner. Here, the meaning effect is probably purely aesthetic, pertaining to the ordered bi-stability of the object. At the other end of the continuum we will have paintings which exploit the two-dimensionality of the medium to establish significant spatial relations which pertain only in perception (i.e. relative only to what happens on the canvas), not in the space represented by the painting. This is obviously the case in Raphael's St. George (analyzed by Petitot 2009, this volume), in the Vermeer and in the Mantegna, both commented above (figures 5 and 9). In these three cases, as well as in countless others, a spatial or chromatic relation, which exists only as a "phenogram" *on* the canvas (i.e., as a perceptual event which only obtains on the surface of the picture), not as an "ontogram",[15] a real relation represented by the painting, figurativizes or gives pictorial shape to a conceptual correlation. This way of operating on the *Bildobjekt* in order to create significant spatial relations clearly does not fully detach the presentational layer of the painting as a Gestalt per se, and the 2D-3D alternation does not obtain. Without wanting to inflate the amount of concepts unnecessarily, one could nevertheless suggest that whenever we obtain a perceptual correlation between elements located on the surface which arguably supports or pictorially rearticulates the meaning conveyed by the motif, we have a phenogram that functions as a *semiogram*, i.e. a significant perceptual correlation. Part of the task of the semiotics of the visual artwork is to conceptually determine or motivate the conversion of phenograms into semiograms – both in general and in a concrete artwork.

In between the two extremes, different types of significant relations between the pictorial organization of *Bildobjekt* and the semiotic/conceptual import of the *Bildsujet* may be captured. A remarkable case is the Constable example below[16] where the painter – from the preceding study to the actual painting –

15 The concepts of phenogram and ontogram are due to the German Gestalt theoretician Edwin Rausch and quoted by Arnheim 1954: 419.

16 Example from Svend Østergaard.

changes the position of a tree with respect to a leaping horse in the represented landscape, arguably because the tree, as a shape and in virtue of its *location* right next to the leaping horse is automatically, preconceptually interpreted as a barrier, as something that blocks the *élan* of the horse. The case is of course complex because one element (the tree) is interpreted as a pure, schematic 2D Gestalt blocking the 3D represented leaping horse. In short, something happening on the canvas has import on the interpretation of what is represented by the painting; therefore Constable changed its location, and straightened, thus strengthening the contrast between the horizontal momentum of the figure and the verticality of the ground.

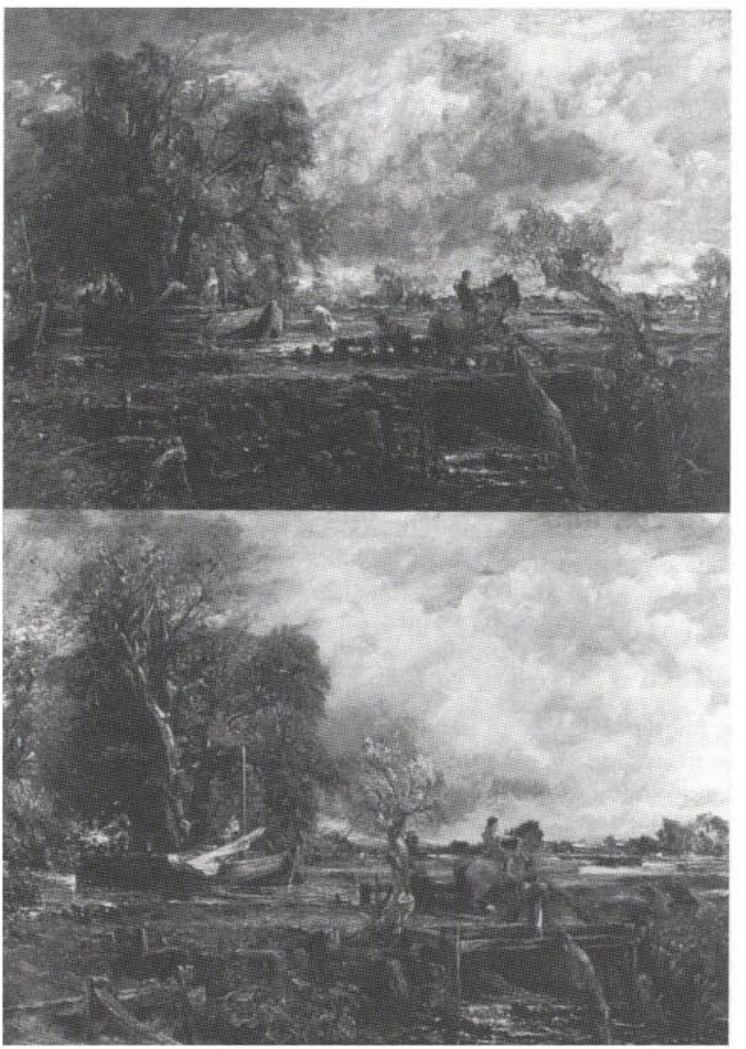

Figure 8. John Constable, study and original version of Leaping Horse. Constable chooses to displace the tree from the study and to place it behind the leaping horse in the original. Probably because the tree,

as a pure 2D Gestalt is automatically interpreted as blocking the movement of the horse. This is an example of a case where a pure phenogram (the position of a shape (the tree) with respect to another shape (the horse)) carries a meaning (in this case an unwanted one). Notice also how Constable in the final version chooses to straighten out the tree, thus producing a salient contrast between the static verticality of the tree shape and the dynamic horizontality of leaping horse.

7. Finally, the present approach calls for one major clarification: what about the alleged grammar, what is its status? How is it to capture meaning making in artworks at large, not only in chosen samples? Well, in a sense it is not because its scope is restricted. The present approach, the elements of a grammar of aesthetic intuition in general introduced here, do not *rule* meaning making in visual art or delimit the domain of possible meaningfulness in art from the domain of senselessness or aesthetic ungrammaticality. They are introduced as pertaining to a *weak* semiotic system: they are not presented as constituting a closed list of meaning making tools which are necessarily, fully or partially, instantiated in a given artwork. Rather, they are considered as pictorial symbolic forming devices (cf. Bundgaard 2009) at the disposal of any given art maker who may choose to make use of them or not.

The binding element of this weak semiotic system of meaning making devices is the fact that all elements of this type of grammar[17] are elements rooted in everyday perception. To use Patrick Colm Hogan's expression (Hogan 2003), they are "maximized patternings" of features, relations that are intrinsically significant in everyday perception, or they are maximized exploitations of principles ruling the organization of the perceptual matter in everyday perception. As such, they are good tools when it comes to theoretically establishing how meaning can actually be articulated *in* the visual medium (and not simply referred to, allegorically, conventionally, symbolically, by the elements represented by the medium); i.e., they are good means to constitute the visual artwork as a genuine type of semiotic object with its own organizational principles.

Now, the semiotic system is *weak* – it does not claim to be exhaustive – but it follows from the above that it defines *strong* constraints on interpretation, i.e., on any local semiotics of a work of art. The constraint is such that whenever an artwork is claimed to mean something, express some signification, trigger some meaning effect or have some purely aesthetic effect, it must be possible to show, with reference to publicly accessible features of the painting and knowledge about human perception, cognition, or culture, how such meaning effects are constructed in vision. Any element that meets this strong condition, by means of which this correlation is established, qualifies as an element of the

17 Nota bene: a grammar which does not exclude other structures or elements likely to trigger other types of meaning effects: if I paint the Pope as a punk, this is a straightforward thing to do from a purely visual point of view, not so from a cultural point of view.

weak semiotic system of the artwork. In this paper, I have focused on elements like "qualitative grouping", "non-genericity", "part saliency", and in general on the *Bildobjekt-Bildsujet* interaction.

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