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Non-Genericity as an Invariant of the Readability of Pictures¹

Starting from the semiotic analysis of a diptych by Cranach the Elder picturing Lucrece committing suicide and Judith after the murder of Holoferne (Gemäldegalerie Alte Meister of Dresden, Germany), we examine the plastic layouts that make those pictures readable.

It is a well-known fact that those two paintings are a pictorial conversion of legendary texts (respectively the book of Judith in the Old testament and Livy's mythical history of Rome). Particular interest is given to what interpretation of the texts is thus made visible – which provides a first level of readability.

But, more precisely, our aim is to highlight the adequacy and fruitfulness of the concept of “non-genericity” (put forward by Jean Petitot in his *Morphologie et esthétique*, 2004), as it may prove a valuable invariant of readability not only for 16th century works, but also in general, while being efficient even today to the extent that it “guides” the contemporary spectator's interpretive perception.

Indeed, a phenomenon as non-genericity, such as it is exploited by an artist in his work, can be seen as the point of origin of a whole new process that generates the signification of the artwork.

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The concept of non-genericity

We shall use the semiotic study of a well-known diptych by Cranach the Elder (Lucretia and Judith, Gemäldegalerie Alte Meister of Dresden), to show the full significance of the probability concept of *non-genericity*, originally introduced by Jean-Pierre Morel and his colleagues, in the processing of pictures. The key point in Morel and his colleagues' approach (Desolneux et al. 2000) is that shapes, spatial correlations can take on a non-conceptual signification on their own, i.e., independently of any knowledge of the shape itself. Such a meaningful purely spatial event is “an event that, according to probalistic estimates should not happen in the image and there therefore is significant” (Desolneux

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).

et al. 2000: 8). In other words, any sufficiently important deviation from a generic situation generates perceptual saliency (Petitot 2004: 82).

Within the frame of morphodynamic structuralism, which he champions and illustrates, Petitot introduces the notion of “intrinsic signification” defined in purely morphological terms: “The morphological and semiotic – gestaltist – phenomenon of the emergence of intrinsic significations is in fact manifest at the very first levels of perception and it is then possible to elaborate a precise abstract model (Petitot 2004: 80). But one realizes immediately that this notion of intrinsic signification implies that the signification is not already provided: “[...] *the task is not to conceptualize the interpretation of a given form, but to bring out in a non-conceptual way what is significant in it*” (Petitot 2004: 82).²

As mentioned above, preconceptual signification is determined in terms of a deviation from a statistical standard case. Thus, a non-predictable arrangement of elements in the picture makes it all the more intrinsically meaningful. Some unlikely alignments will be maximally perceptible. The question, in this case, is not to find an interpretative model of the image, but whether it is possible to extract from it morphological features that are intrinsically significant. Hence the efficiency of a “probability version of the opposition between generic and non-generic” (Petitot 2004: 83).³

The reader will be spared the difficult mathematical formulas in terms of which non-genericity is defined. However, a simple example may illustrate what is meant by “intrinsic signification” and enhanced “saliency” in the domain of vision. In figure 1, it is obvious that the statistically highly improbable alignment of segments induces an immediate perceptive *pop-up effect*. In other words, it is the very improbability of a given morphological constellation or configuration which constitutes its intrinsic signification.

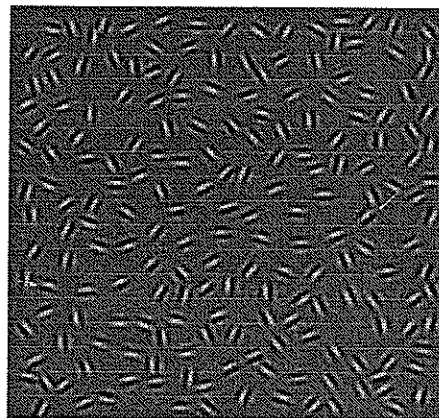


Figure 1. Petitot, 2004: 56.

2 In the original text: “[...] *il ne s’agit pas d’interpréter conceptuellement une forme donnée mais de dégager de façon non conceptuelle ce qui s’y trouve de significatif.*”

3 In the original text: “[...] *version probabiliste de l’opposition entre générique et non générique [...]*”

Finally, it is suggested that those non-generic morphological features can be the basic level of a new generative process leading, through articulation, to an upper level of meaning (conceptual, interpretative, mythical, etc.). In the conclusion of his semiotic re-reading of Goethe's analysis of the *Laocoon*, Petitot shows the existence of a new generative process of meaning which he calls "montée morpho-sémiotique" (Petitot 2004: 65) (morpho-semiotic "raising").

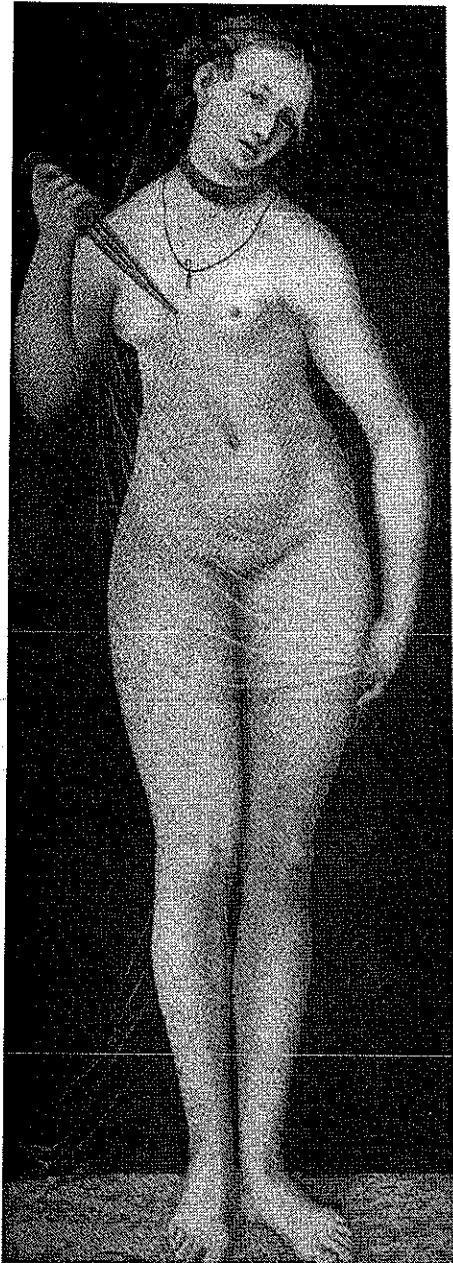
The concept of non-genericity and its importance for perception is well-known (cf. for example Hoffman 1998, Ramachandran & Hirstein 1999). Its import on aesthetic meaning construction has, in contrast, only rather recently been foregrounded. We owe these developments to Jean Petitot and his semiotic analyses of Piero della Francesca, Raphael Mantegna, and Poussin (Petitot 2004, 2010 and more particularly of sculptures, for instance the famous *Laocoon*, whose analysis by Goethe, according to Petitot's demonstration, is the first structural analysis in history; cf. Petitot 2001). Bundgaard (2009, 2010) has also demonstrated the semiotic function of non-generic spatial configurations in art. The analysis below follows the principles in Petitot's claim to the effect that non-generic structure is exploited as a means of meaning making in art; the key idea being that when an artist introduces non-generic (critical, statistically improbable) relations in an image he thereby selects certain *spatial* structures or relations and qualifies them as *semantically* relevant: in other words, he exploits what is inherently significant for the human eye in order to semiotize space in a specific way.

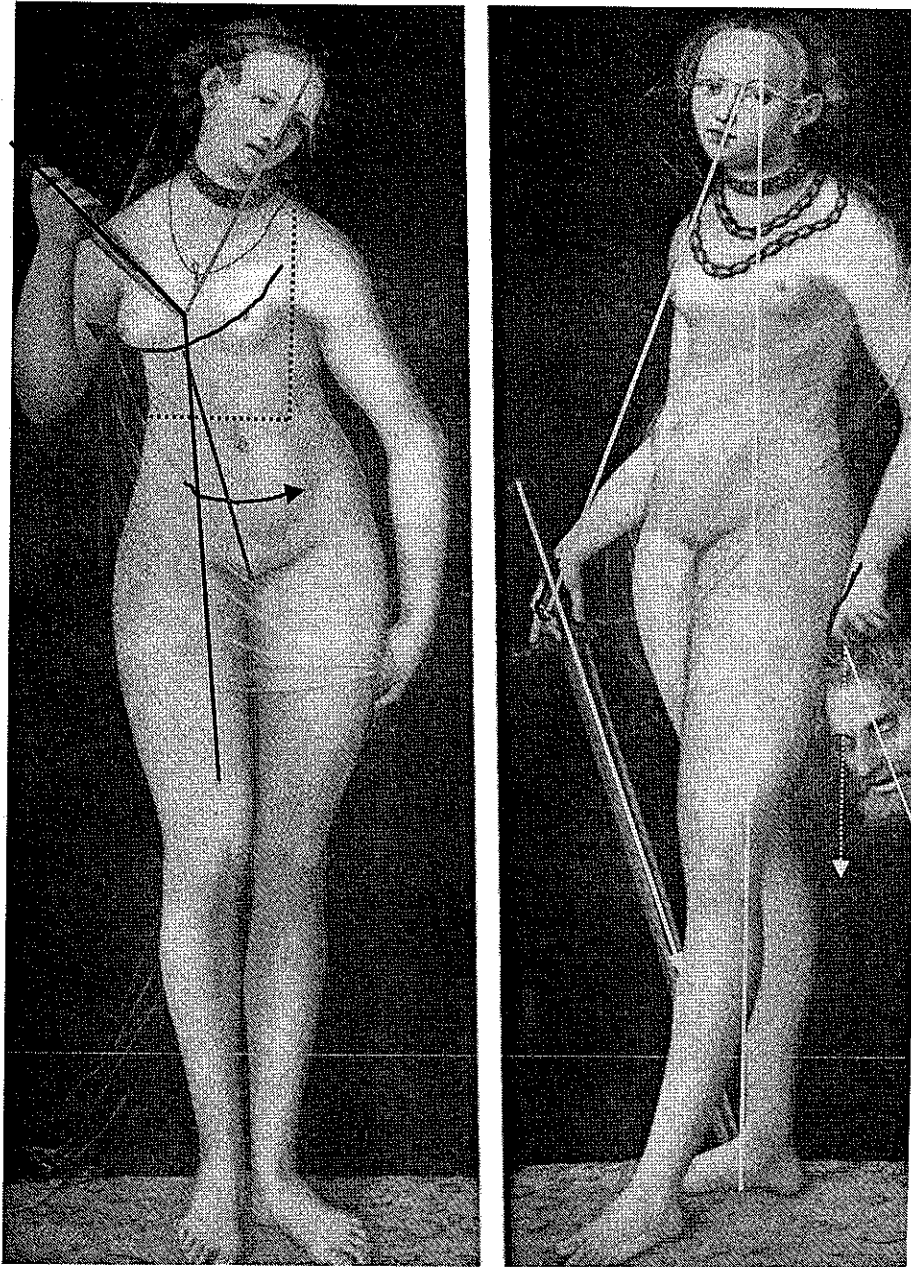
The diptych

This diptych (painted around 1525 by *Cranach the Elder* (1472–1553)) represents, in two matching parts, Lucretia committing suicide and Judith carrying Holophern's severed head. Cranach is known to have painted many representations of these legendary characters, not counting those which, most probably, remain forever unknown to us (cf. Schade 2003).

We reproduce here the diptych as seen by Michel Leiris:⁴

4 The French writer Michel Leiris was fascinated by the diptych when he first saw it. Indeed, it sparked off his début in writing with the production of his autobiographical masterpiece *L'Âge d'homme* (The Age of man). We thank the Pr. Herman Parret (University of Leuven) for his help to find again the genuine reproduction of the diptych.





Let us start with the case of Lucretia. The story of her rape and suicide is told by Livy (*History of Rome*, The Rape of Lucretia, Book I, 57–60, translation by B. O. Foster. London: William Heineman, 1919). We give here a brief summary of the text with some important quotations:

During the war between Rome and the Rutuli, after an attempt to capture the town of Ardea, some young princes are drinking and speaking about their wives. Collatinus, the husband of Lucretia, proposed to ride a very long distance until Rome to verify the excellence of the behavior of their wives. Lucretia is discovered, though late in the night, "engaged upon her wool". The other women attend a luxurious banquet. "The prize of this contest in womanly virtues fell to Lucretia. As Collatinus and the Tarquinius approached, they were graciously received, and the victorious husband courteously invited the young princes to his table.

Collatinus and the princes return to the camp but "Sextus Tarquinius was seized with a wicked desire to debauch Lucretia by force.

A few days after, Sextus Tarquinius returns secretly to Collatia, to Lucretia's house, is kindly welcomed. After the dinner, "he came to the sleeping Lucretia. Holding the woman down with his left hand on her breast, he said, "Be still, Lucretia! I am Sextus Tarquinius. My sword is in my hand. Utter a sound, and you die!" When he found her obdurate and not to be moved even by fear of death, he went farther and threatened her with disgrace, saying that when she was dead he would kill his slave and lay him naked by her side, that she might be said to have been put to death in adultery with a man of base condition. Lucretia is so obliged to give up.

Lucretia asks her father and the husband to come quickly, "for a frightful thing had happened." So speaks her: "The print of a strange man, Collatinus, is in your bed. Yet my body only has been violated; my heart is guiltless, as death shall be my witness. But pledge your right hands and your words that the adulterer shall not go unpunished. Sextus Tarquinius is he that last night returned hostility for hospitality, and brought ruin on me, and on himself no less – if you are men – when he worked his pleasure with me.

Although every body seeks to comfort her, "it is for you to determine," she answers, "what is due to him, for my own part, though I acquit myself of the sin, I do not absolve myself from punishment; nor in time to come shall ever unchaste woman live through the example of Lucretia.

Taking a knife which she had concealed beneath her dress, she plunged it into her heart, and sinking forward upon the wound, died as she fell. The wail for the dead was raised by her husband and her father.

If we look for non-generic morphological features in Cranach's representation, we find indeed a most unlikely disposition of Lucretia's body:

- The whole lower part of the body from the waist down, including the left arm, is shown facing the spectator: the left hand holds the veil which hides, indeed imperfectly, the pubis;

- The face is not shown frontally; it is tilted to the right of the picture and bent backwards: the eyes look upward;
- The torso, together with the right arm in the act of stabbing, shows a pronounced twist towards the left of the picture, as indicated by the right breast seen in profile (blue line).

The spectator is confronted with a strange, incoherent, three-party body and this strange unlikelihood is a powerful fact of non-genericity. This fact, simply perceived, is going to appear later as a favored place of semiotic investment.

Moreover, the central axis of the face, if continued downward, meets the exact point where the dagger enters the chest (green line); the blood trickling from the wound, if continued, meets the pubis (red line): so appears a link between the rape as act of bloody penetration and the act of stabbing oneself, repetition of and redress for the rape. It can also be noticed that the axis of the dagger meets the axis of the face at an almost right angle (black line): that right angle is a fact of non-genericity, place of an important meaning, the non-assumption of the mortal gesture.

These morphological features constitute so many immediately perceptible intrinsic significations because of their saliency. Crucially, they can be related to higher order conceptual significations.

The case of Lucretia (much debated at the time) presented the Renaissance theologians with a considerable problem: on the one hand, suicide was a sin of extreme gravity (forbidding religious burial), while, on the other hand, Lucretia represented the humanistic value of individual freedom, much valued at the time. It should be remembered that Cranach was on friendly terms with Luther, of whom he painted many portraits.

What the artist proposes is more or less a formal, pictorial resolution of this powerful contradiction, based on the manifestation of non-generic features that summon up our perception of the artwork. Lucretia is not one, but threefold: the frontal view is that of the modest Lucretia, offended by Tarquinius, the aggressor; the bent face is that of Lucretia submitting to God, towards whom she humbly looks; only the strongly twisted torso, a minor part of the body, assumes the responsibility of the suicidal act: the angle of the dagger with the axis of the face and the direction of the eyes, clearly tells the non-responsibility of the act.

The representation of Lucretia stabbing herself carries on mobilizing the contemporary spectator. Cranach has used that powerful means of composition, which is non-genericity, as a permanent mean supported with the natural tropism of human eye for unlikely formal facts.

We have tried to develop the interpretation of the legend that the painter wanted to illustrate, updating the story of Lucretia in his time where tensions between religion and humanist values are strong. The invented solution is remarkable: the replication of Lucretia's body and the division of responsibilities. But the non-generic organization of the painting can also generate other

lectures by the contemporary spectator. It is enough to modify the values interplaying. The painting remains, nevertheless, a morphologic device for the resolution of contradictions.

Judith and Holophern⁵

Below is the extract of the book of Judith with the story of Holophern's murder (Chapter 13, 1–10):

1 When the evening was come, his servants made haste to depart, and Bagoas shut his tent without, and dismissed the waiters from the presence of his lord; and they went to their beds: for they were all weary, because the feast had been long. 2 And Judith was left alone in the tent, and Holofernes lying along upon his bed: for he was filled with wine. 3 Now Judith had commanded her maid to stand without her bedchamber, and to wait for her coming forth, as she did daily: for she said she would go forth to her prayers, and she spake to Bagoas according to the same purpose. 4 So all went forth and none was left in the bedchamber, neither little nor great. Then Judith, standing by his bed, said in her heart, O Lord God of all power, look at this present upon the works of mine hands for the exaltation of Jerusalem. 5 For now is the time to help thine inheritance, and to execute thine enterprizes to the destruction of the enemies which are risen against us. 6 Then she came to the pillar of the bed, which was at Holofernes' head, and took down his fauchion from thence, 7 And approached to his bed, and took hold of the hair of his head, and said, Strengthen me, O Lord God of Israel, this day. 8 And she smote twice upon his neck with all her might, and she took away his head from him. 9 And tumbled his body down from the bed, and pulled down the canopy from the pillars; and anon after she went forth, and gave Holofernes' head to her maid; 10 And she put it in her bag of meat: so they twain went together according to their custom unto prayer: and

- 5 The book of Judith is a deuterocanonical book, which means it can only be found in the Greek Bible. It is an edifying narrative that tells the adventures of a courageous woman by the name of Judith. The historical frame of the adventure is totally fictitious. In the introduction itself, Nabuchodonosor is said to be the king of Assyrians and the king of Ninive, which is a double mistake: he was king of the Babylonians and Ninive was destroyed before he came to power. This is as strange as if we opened a book that read: "This story took place when Napoleon, king of Russia, lived in London..." It is very likely that the author was well aware of the historical facts and thus made these mistakes intentionally. His purpose is to get his readers interested, not in historic truth, but in the moral value of the story. The king of "Ninive" sends his general Holophern to wage war against Israel. Holophern, who is shown as a bloodthirsty tyrant, eventually lays siege to the little town of Bethulia. The citizens are desperate but Judith draws up a plan: she decides to go the enemies' camp by night and seduce Holophern. Once the general is asleep in a state of drunkenness, she murders him and brings his head back to Bethulia. Seeing that their chief has died shamefully, the enemies give up the siege and go home. The purpose of the story is to enhance Jewish resistance, and the heroine's name is quite symbolical on that respect since Judith means "the Jewess"

when they passed the camp, they compassed the valley, and went up the mountain of Bethulia, and came to the gates thereof.

A similar examination for non-conceptual significations brings out the following features:

- The backward tilt – quite prominent – of Holophern's head is in obvious contradiction with the laws of gravity, well represented by the vertical axis of Judith's body. It is also noticeable that the axis of the severed head is strictly parallel to the axis of the sword, whose point is next to Judith's right foot (yellow lines). We show with the yellow dotted line the axis of the gravity which should be respected by the representation of Holophern's head. The unbroken yellow line is the axis of the head escaping the rules of gravity and parallel to the axis of the spade.
- Although the axis of the face meets Judith's right hand, the eyes are dreamy, unfocused.
- The left hand holds the head by the hair, an exact illustration of the text: "she took hold of the hair of his head".
- The fingers of the right hand – in complete contrast with the left – have a definitely non-generic arrangement: the sword is not seized (as the hair is), but delicately held by fingers in diverging position (whereas the fingers of the left hand converge in their contracted grip).

How can those non-generic features be linked to higher-order significations?

Contrary to what is assumed by the representation of Lucretia – whose action, as mentioned, raises a difficult issue, generating a strong contradiction – Cranach here, in our opinion, seems to act both as an illustrator and an exegete of the biblical text: it is not just Judith chopping off Holophern's head, it is Judith receiving, in the instant of the act, the strength that she has prayed God to give her.

It is then possible to articulate and link the elements of non-genericity with the interpretation, looking further back in the process that generates the meaning of the artwork. If the sword and the severed head are clearly associated in space – perceptibly – in what can be interpreted as a *cause-effect* relation, the arrangement of the fingers of the right hand, the hand that has severed Holophern's head, clearly indicates that Judith, now devoid of the divine strength, can no longer grab hold of the weapon as an executioner, but only touch it with the tip of her fingers. Thus she regains her status as a woman, albeit inspired by divine vengeance for a short while. The non generic position of the fingers (Lucretia's right hand) constitutes the morphologic place of an important meaning: she has not assumed the horrible act (for a woman) of beheading: God has guided her arm. Here Cranach follows exactly the text.

By contrast, as is indicated by the position of the fingers of the left hand, she fully assumes the possession of the trophy which will cause the terrified enemies to leave the siege of Bethulia immediately.

We realize that the proximity of Lucretia and Judith is far from being fortuitous. Both women have committed an act that is incompatible either with religion or with their woman status. The problem clearly lies in their responsibility, in the extent of their involvement in those acts.

The task of solving this problem is set by Cranach the Elder first of all at the first level of the pictorial meaning, where the non-conceptual, intrinsic significations can appear.

The question of picture variability which is at the center of this issue may find here an original approach, taking into account the different levels at which such variability may take place in the process that generates the meaning of the picture.

What we propose amounts to this: not only the perceptive organs are universal; so is the phenomenon of non-genericity which generates perceptive prominences and leads the spectator – any spectator – to immediately select formal dispositions that make sense in a non-conceptual way.

Seen from this angle, variability is to be found further up, at the higher levels of the generative process, where spiritual and mythical meanings are greatly influenced by culture.

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