

The Art of Illusion and the Aesthetics of Reality

Abstract

This chapter focuses on the object, material, and metaphor of glass and glassmaking in the second part of the *Roman de la Rose* by Jean de Meun. It argues that in the later Middle Ages, the emerging material of glass becomes a means to reflect on epistemic, aesthetic and imaginative processes and their impact on artistic practices. Material knowledge, craftsmanship, and artistic skills intertwine with discursive knowledge (sciences, rhetoric, philosophy, theology, literature) and reflect a fundamental turn in understanding and shaping the social and epistemic relevance of art (*ars*). In its specific ability to entangle production with reception, material with form, craftsmanship with imagination, knowledge with science, and subject with society, glass becomes a central tool of human reflection. What had been a primarily symbolic and artistic material in the earlier medieval period becomes an essential *materia*, an instrument of scientific technologies, and a fascinating artifact in a time of radical change in philosophical, theological, and scientist thinking as well as in social settings.

Keywords

Materiality, Technology, Optics, Recognition Theory, Perception Theory, Imagination, Perspective, Reality, Glass, Craftsmanship, *artes*

The thesis of the following chapter is that in 13th-century Europe, interconnections between the knowledge of optics, discussions of cognitive theory and epistemology, and the development of artisanal technique enabled the appearance of a new aesthetics largely freed of transcendental connections.¹ In this interaction, one can see not only how modes of perception changed both in theory and practice and new artifacts shaped reflection on the perceiving subjects and their relationship to society, but also how scientific, philosophical, and theological discourses were reflected in such artifacts, thereby allowing their function to be newly negotiated. In what follows, the relevance of

* Translated by David B. Dollenmayer. Quotations for which no other translation is cited have also been translated by Dollenmayer.

1 On the parameters for a premodern aesthetics, cf. the contribution by Annette Gerok-Reiter and Jörg Robert in this volume, pp. 3–48.

the interaction between heterological and autological dimensions – in the sense of the theory envisaged as a different aesthetics – will become clear. Central to my study will be the *Roman de la Rose*, the courtly allegory begun circa 1240 by Guillaume de Lorris, and especially its continuation by Jean de Meun at the end of the 13th century. Challengingly allegorical, full of allusions to contemporary scientific discourse, and characterized by lush, descriptive language, the text itself is an example of this new understanding of art. Especially interesting is the way Jean de Meun takes up the production, fashioning, and use of glass as a means of treating the theme of art (*ars*) as theory, practice, and technique.² But Jean de Meun's text also stands on the cusp of a new conception of human cognitive and imaginative capability. In opposition to the idea that an intellectually concretizing perception of natural objects – which can be only vaguely grasped by the senses – is impossible without divine intervention, some thinkers in the second half of the 13th century began to maintain that such a perception is an immanent capability of the human intellect.³ The comprehending perception of the world, as well as the possibility of understanding and representing it, becomes the task of sensuous perception and intellection as part of human creatureliness.

My observation of an interaction between materiality, technique, and conceptualization of perceptive processes as the foundation of a specific aesthetics incorporates the central concept of the figure of aesthetic reflection of the Collaborative Research Center *Different Aesthetics* (CRC 1391), while also drawing on my earlier scholarship on astonishment as an epistemic concept and aesthetic attitude, as well as on illusion before 1800.⁴

1. Preliminary Note: *wân* and *wirkelîcheit* (illusion and reality)

The Middle High German word *wân* (hope, opinion, imagination, supposition) denotes an event that is realized in the mode of wishing and thus on the one hand connected to a subject (I), and on the other hand is enacted between an insecure present and an

2 Jean de Meun also chose a craft that was undergoing swift development in the second half of the 13th century.

3 E.g., Duns Scotus. Cf. Owens 1982, pp. 454f.

4 The research on astonishment can be found in two inter-philological and interdisciplinary Sinergia projects I directed, funded by the Swiss National Foundation: “Ästhetik und Poetik des Staunens” (Aesthetics and Poetics of Astonishment, 2014–2017) and “The Power of Wonder. The Instrumentalization of Admiration, Astonishment and Surprise in Discourses of Knowledge, Power and Art” (2018–2022). Cf. with a focus on the premodern era, i.a., Gess/Schnyder 2017; Schnyder/Gess 2019; Schnyder 2013; Schnyder 2020. On recent research on illusion before 1800, cf. Nowakowski/Schnyder 2021, and therein, Schnyder 2021.

uncertain future, between doubt and hope.⁵ Depending on the sensuous perception of the subject and on temporal and spatial conditions, *wân* is a deficient splinter of knowledge, an aspect or part of a never completely graspable whole. Thus, as knowledge, it is different than an actuality and a truth.⁶

The following discussion is an attempt to comprehend – with the concept of *wân*, the instrument of the mirror, and the phenomenon of the dream as mode, medium, and condition – a specifically premodern understanding of the perception and depiction of the world, an understanding to which the function and conception of aesthetic and artisanal representation are closely related. At stake is an aesthetics – in the sense of a practice of perception and presentation – based on a Christian understanding of the Creation, but instead of focusing on immanent transcendence,⁷ it focuses on the effect in the here-and-now on life in time and space and its artisanal apprehension and reflection, intellectually conceived and technically realized. This aesthetics will disclose not only the variability, doubtfulness, and evanescence of perception – and thus of the perceived – but also its diversity, colorfulness, flexibility, and changeability.

There is no truth to be found in this perception of the world, but also no reality in the sense of facticity. Instead, it is being at the mercy of an operation of time and matter, a mutability in body and space, which can be felt in the cognitive process. The process itself becomes a mirror of what *wirkelicheit* denotes in Middle High German. It refers not to a facticity but is to be understood as a realization (*Verwirklichung*) that contains within itself the process of operation (*Wirken*) and “as relational concept of process [...] aims at the transition between two different modes of being, from ‘possible being’ (*mügelicheit*) to realization (Latin *actualitas*; Greek *energeia*).”⁸ The attention of this art of perception and presentation is not focused on transcendence but on “the things that are enclosed beneath the heavens,” to borrow the definition of *natura*’s sphere of activity in Jean de Meun’s continuation of the *Roman de la Rose*: *Nature, qui pensait des choses / Qui sont desouz le ciel encloses*.⁹ Or in other words, what is comprised and tied together by the golden

5 On *wân* cf. Götz 1957, pp. 164–172. The ambiguity of the concept is emphasized by, i.a., Köbele 2009, p. 298. On the other hand, especially in older scholarship, it is often reduced to deceit with a negative connotation, e.g., in Ruttmann 1964. Cf. on the concept and its poetological potential Schnyder 2021 as well as the chapters in Nowakowski / Schnyder 2021.

6 On the perspectivism and subjectivity of *wân* as knowledge, already discernable in Old High German, cf. Götz 1957, pp. 136–138.

7 This perspective is offered in the contributions by Annette Gerok-Reiter and Volker Leppin, pp. 177–226, as well as by Barbara Schellewald, pp. 289–332, in this volume.

8 Köbele 2021. This is the principle that in philosophical and theological discourse is called, according to one’s perspective, *actualitas* or *natura naturans*. The word *wirkelicheit*, which occurs in the later Middle Ages (i.a., in Eckhart), should be understood as a translation of *actualitas*. Cf. Köbele 2021, pp. 32f. and footnotes 5 and 7.

9 Guillaume de Lorris / Jean de Meun: *Rosenroman*, V. 15893f., cited in what follows with the abbreviation RR; English quotations are from the translation by Charles Dahlberg, unless stated otherwise.

chain of the elements (RR 16,786f.).¹⁰ And with that, we have already arrived at the text that is the basis of my analysis.

2. True Art (*art veritable*)

In the second half of the 13th century, Jean de Meun casts Nature allegorically as a great female artificer and – like all great artists and writers before him – is defeated by the topos (RR 16199–16209).¹¹ Art is on its knees before this indescribable Nature and begs her to be its teacher and show it how she creates (*euvre*, RR 16019–16030).¹² For although art can ape nature like a monkey, all its efforts – whether in painting, drawing, smithing, sculpting, coloring in abundance, in metal, wood, wax, or other material, in paintings or frescoes – cannot measure up to nature in her generating power that holds creation together (RR 16031–16064). Not even in comparisons, the instrument par excellence of visualization (*evidentia*) and comprehension, can she be grasped by humans (RR 16245–16248).

The reason for this categorical difference and absolute otherness of Nature and her works is exactly what is inherent in the concept of *wirkelicheit*: an immanent character of process, a dynamic and creative force for change and metamorphosis of the basic material (*matire prumeraine*, RR 16062–16072) as well as of its form (*fourme*, RR 16078). Only where a knowledge of hidden qualities and powers is present – in the “true art” (*art veritable*, RR 16084) of alchemy – can human art approach Nature and at least discover her marvels (*merveilles*, RR 16086).

True art, then, is not apish imitation or inadequate metaphor or ekphrasis but an informed engagement (*Qui sagement en ouverrait*, RR 16085) with objects (*singulieres pieces*, RR 16088). When an object is subjected to sensuous treatment (*sensibles euvres*, RR 16089), it is capable of mutating its appearance (*guises*, RR 16090) so much that it changes its physical characteristics (*complexions*, RR 16091) by various adaptations

The *Roman de la Rose*, was begun c. 1230 by Guillaume de Lorris (who composed more than 4,000 verses) and completed c. forty years later by the c. 18,000 verses of Jean de Meun.

- 10 On the source of this image (*In somnium Scipionis* by Macrobius) and its wider tradition, cf. Morton 2018, p. 53, footnote 70.
- 11 On the interesting list of unsuccessful predecessors – exclusively philosophers, mathematicians, and astronomers, and thus connoisseurs of nature’s laws, cf. Morton 2018, p. 49. Thus the description of nature is an art of abstraction, which in the allegory helpfully makes Nature visible without being able to describe her. The narrator is in the situation of art that, with the best will in the world, cannot depict nature. The topos of indescribability becomes an epistemological concept but also an aesthetic one.
- 12 On the proximity of *descriptio* and *pictura* (and also *imago* and even *figura*) cf. Carruthers 2013, pp. 140f., footnote 14.

(*diverses digestions*, RR 16092), to the point where these *changes* (RR 16093) make it into a completely different thing (*espies estranges*, RR 16094).¹³

Glassmaking is adduced as an example of this art. Master glassmakers (*Qui de veirrerie sont maistre*, RR 16098) convert ferns into ash and glass (*font [...] naistre*, RR 16097), something completely different. For “neither is the glass fern, nor does the fern remain glass” (*Si n’est pas li veirres fouchiere, / Ne fouchiere ne rest pas veirres*, RR 16100f). Here, “by means of a simple process of purification” (*Par depuracion legiere*, RR 16099), artisanal skill and knowledge alienate a thing (*piece*) from its original identity (*espiece*) and assign it as a new thing to another identity.¹⁴ The instrumentalization of a natural process by these practices is emphasized by comparison of this artificially induced transformation with hail, whose cause only “those who understand can know” (*quenoissierres de la cause*, RR 16106f.). Thus mastery consists not so much in imitation of individual objects (*singulieres pieces*, RR 16088) as in the imitation and adaptation of a naturally occurring process by which things (*espices*) can be changed or individual objects alienated (*estrangiees*) from their identities (RR 16096–16112).¹⁵ It is crucial that in the process, no fragmentation or new, artificial combination of existing things take place. Instead, naturally occurring processes (*digestions*, RR 16092) are set in motion, through which things change themselves. This art imitates Nature not as its object of representation but in the creative process.

But the text notes that this is something the Sophists will never be able to achieve, no matter how hard they try (RR 16145f.). This disparaging comment, inserted into a description of alchemical procedures, is a surprise. Its allusion to Alain de Lille’s *Anticlaudianus*, however, is a further argument for the proximity of ‘true art’ to nature, as presented here. For Alain describes the walls of the Palace of Nature thus:

O nova picturae miracula, transit ad esse
Quod nihil esse potest! picturaque simia veri,
Arte nova ludens, in res umbracula rerum
Vertit, et in verum mendacia singula mutat.
Sic logicae vires artis subtiliter huius
Argumenta premunt, logicae sophismata vincunt.

- 13 On this idea, cf. also Albertus Magnus: *Mineralia*, in: *Opera omnia* I. 3 tr. 1 c. 9 (Ed. Par. t. 5 p. 71b): “And this is because, of all the operations of alchemy, the best is that which begins in the same way as nature” (*Propter quod omnium operationum alchimicorum melior est illa quae procedit ex iisdem ex quibus procedit natura*). Albertus Magnus: *Ausgewählte Texte*, pp. 88f., Albertus Magnus: *Minerals*, p. 179. But whoever changes only the appearance without transforming the material is a fraud. *Ibid.*
- 14 Just as, in what one might call alchemy’s central concern, those who have the knowledge can purify and recombine metals so that precious metals and even gemstones are produced (RR 16113–16144).
- 15 The proximity of glassmaking to alchemical practices and their reflection in (rare) treatises on the subject is also mentioned in Haynes 1959, p. 47.

Oh painting with your new wonders! What can have no real existence comes into being and painting, aping reality and diverting itself with a strange art, turns the shadows of things into things and changes every lie to truth. Thus this art's power subtly checks logic's arguments and triumphs over logic's sophisms.¹⁶

Painting as the imitator of truth trumps the arguments and sophisms of logic by making things out of the silhouettes of things and transforming individual parts that fool the senses into truth. Painting, which according to myth arose from skiagraphy (shadow drawing), thus becomes the "new art" of concretization and, at the same time, of the verification of individual things.¹⁷ And thus it trumps the arguments of the Sophists, to which it responds with functioning – i.e., also realizing – activity,¹⁸ against which the arguments of the Sophists, evoking superficial connections and new constellations, are helpless and not part of *wirkelîcheit*. Thus, by way of the intertextual reference, Jean de Meun draws a parallel between glass production and the objectifying and coloring, and thereby truth-producing, paintings on the walls of the Palace of Nature.¹⁹

3. Dense Bodies and Reflections

In Jean de Meun's continuation, Nature has control over the elements as well as everything enclosed by her 'golden chain'.²⁰ And everything must follow her rules (RR 16785–16788), as do the sky and the planets – radiant, clear, and pure (*Cleres e reluisanz e netes*, RR 16834). The moon, which to the human eye seems to be a slightly dirty exception to

- 16 Alanus ab Insulis: Anticlaudianus, I, 4, 122–127. PL 210, 491 A–B; trans. Sheridan, p. 49. Cf. Morton 2018, p. 45.
- 17 Thus the 'ape of nature' would have the same position as Jean de Meun's 'priest' Genius (cf. below, section 4). One can speak of a sort of *trompe l'œil* without the deceit taking place in the human eye. On the significance of shadows in *trompe l'œil* theory, cf. Robert 1998, pp. 20–27, which also contains further information on the myth of the origin of painting in skiagraphy as described by Pliny among others.
- 18 Thus painting is contrasted to rhetoric, whose influence is less powerful than art, which makes visible 'real' worlds in which color, line, wall, etc. mutate into new things, something the constellation-art of sophistry cannot accomplish.
- 19 Morton reads this passage as a reference to Aristotle's *De sophisticis elenchis*, where the Sophists are compared to fool's gold in contrast to the true gold of philosophical argument. As 'good alchemy,' glassmaking becomes a practice that is hard to classify and frees itself from the dichotomy of good and evil. Morton 2018, pp. 46–48. In Jean de Meun, in relation to the example of glassmaking, alchemy is not introduced as a false art (in contrast to the production of gold and gemstones, which is kept in the subjunctive in the realm of the possible). It seems to me that what is at stake here is not only a contrast between philosophy and sophistry, but between art and sophistry.
- 20 On the tradition of this image and the direct source for Jean de Meun, cf. Morton 2018, p. 53, footnote 70.

this luminous order, serves to explain why the shine does not indicate transparency and clarity but is instead an effect of opacity. For the moon – partly transparent (*clere*) – only reflects light from the locations that are dense (*espesse*, RR 16842). Correspondingly, it only shines at those locations, while the others appear dark. The paradox of this perception is underscored by the misleadingly placed rhymes, since the density of the lunar substance rhymes with the lusterlessness, while the shining of the other locations is paired with transparency – ahead of the explanation that then resolves the paradox:

D'une part luist, d'autre part cesse
 Pour ce qu'ele est clere e espesse
 Si li fait sa lueur perir
 Ce que ne peut pas referir
 La clere part de sa sustance
 Les rais que li solauz i lance,
 Ainz s'en passent par mi tout outre;
 Mais l'espesse lueur demoutre,
 Qui bien peut aus rais contrestreter
 Pour sa lumiere conquerer.
 (RR 16842–16850)

[It appears] shining in one part and ceasing to shine in another, because it is both clear and opaque [dense]. Thus what makes its light fail is the fact that the clear part of its substance cannot reflect the rays that the sun throws out toward it; instead they pass on through and beyond. But the opaque [dense] part, which can resist the rays well and overcome its light, shows the light.²¹

To explain the phenomenon of the bright and dark locations in the moon, glass is again adduced. Transparent glass, when it contains nothing opaque within or behind it, does not show the figures (*figures*, 16859), “since the eye-beams cannot encounter there anything that may retain them, by which the form (*fourme*) might come back (*reviegne*) to the eyes”²² (RR 16860–16862). However, as soon as one places lead or something else opaque behind it, the form will immediately return (*la fourme retournerait*, RR 16866), and the same with a bright object that can reflect light, so that the glass by itself or via something else will be opaque (RR 16,855–16,870). Important here is prevented or absent transparency as a condition of light reflection and thus the production of an image – more precisely, as a condition of light reflection, by means of which form becomes perceptible and, as a

21 RR, trans. Dahlberg, p. 283.

22 RR, trans. Dahlberg, p. 283. On this idea of the mechanics of seeing, in which the sight ray carries the image of an object back to the seer as a sort of copy, cf. Schleusener-Eichholz 1985, p. 53, footnotes 164 and 165, as well as pp. 69f. On the connection between sight ray and transmitted light from the object in Roger Bacon, in the tradition of Al-Hazen, cf. Schleusener-Eichholz 1985, pp. 71–75.

consequence, figures can show themselves. Thus the moon is an example of the density of an object necessary for its form to be perceived via the reflected light.

Conversely, the rainbow is adduced as an example of an object whose *figure* – caused by the sun – and colors can only be understood by deep knowledge of optics (RR 18023–18043). Via the conceptual definition, the allegorical depiction of the phenomenon as a wild hunt of the clouds who hold in their hands various bows is yoked to the idea of a painting sun:

Qui sont apelez ars celestres,
 Don nus ne set, s'il n'est bons maistres
 Pour tenir des regarz escolle,
 Coment li solauz les piole,
 Quantes couleurs il ont ne queles,
 Ne pour quei tant ne pour quei teles,
 Ne la cause de leur figure.
 (RR 18023–18029)

These are called celestial bows [rainbows], and no man, unless he is a master good enough to teach optics, knows how the sun varies their colors, how many or what colors they have, nor why there are so many and these particular ones, nor the cause of their shape.²³

The word *ars* in the name of the phenomenon connects the figure of the bow to art, and the celestial bow (*ars celestre*) is also celestial art. Correspondingly, the masters of optics are also connoisseurs of this art of sun-painting. And it is also they from whom one can learn the strengths of mirrors (*les forces des miroers*, RR 18045) and their marvelous powers (*merveilleus poers*, RR 18046).²⁴ They can make the smallest and most distant things appear large and near²⁵ and shrink and make distant the largest and nearest things (RR 18153–18162), or simply reflect what one sees in the mirror accurately and truthfully (*par veritez*; RR 18163–18166). While burning glasses, when properly aligned, ignite what looks into them (RR 18167–18172), with the correct sequence and application of various mirrors, the masters of mirror art can duplicate, distort, or reverse images (RR 18173–18180). Or for those who look into a mirror, they cause very lifelike phantoms (*fantosmes*, RR 18181)²⁶ to appear between the eye and the mirror, which one

23 RR, trans. Dahlberg, p. 300.

24 On the tenets of optics invoked here, cf. Akbari 2004.

25 Various optical phenomena of reflection are included under the rubric of the mirror (*miroer*), including lenses. These passages depend heavily on Roger Bacon. Cf. Morton 2018, pp. 152f.

26 On the meaning of *fantosme* here, cf. Morton 2018, p. 153. He points out that in the passage on optics quoted here, Bacon is not speaking of *phantasma*, but at the beginning of *De multiplicatione speciorum*, in the context of a list of synonyms, of concepts for 'sensuously perceivable image.' Morton 2018, p. 153, footnote 37.

can see playing (*joer*, RR 18185) there because of the difference in the angle of viewing. For in passing through the middle (*li meiens*, RR 18188) – the space between eye and mirror – the form reverses and duplicates itself according to the various rays reflecting in the intermediate space (RR 18194). Thus that space deceives (*deceit*, RR 18196) observers²⁷ (RR 18181–18196): “In short, mirrors, if they have no impediments, make many miracles appear” (*Briement, mirail, s’il n’ont ostacles, / Font apareir trop de miracles*, RR 18207f.).²⁸ These ‘miracles’ are part of an art of mirrors whose masters not only know the laws of optics and the rules of perception, but with that are also experts in Nature’s own art of representation (the colors painted by the sun).

For the reflection through which the form of something first becomes perceptible, dense material – corporeality – is necessary. On the other hand, the art of controlling the intervening space (and thus also the world of concrete figures) is dependent on knowledge, technique, and skill. This difference is the point in the examples of the moon and the rainbow: on the one hand, artless light reflections of a creaturely thing and thereby, fundamental production of form; on the other artful, (artificial) products of diverse, changeable, and mobile figures.

4. Collections of Figures

At least according to Jean de Meun and his role models,²⁹ creative Nature has a helper: Genius. A sort of sacerdotal bookkeeper of nature,³⁰ Genius registers in his book (*livre*) all transitory things (*choses corrompables*, RR 16282), just as Nature has delivered them to him (*livre*, RR 16279–16284). The fact that Genius’s book and Nature’s production of things overlap in a homophonic rhyme (*livre* – *livre*) despite their semantic and grammatical difference raises in the text the unsettlingly invisible difference between *wirkelicheit* and materiality.³¹ Genius’s book contains nothing but what Nature supplies: material, transitory things that can be apprehended by the senses (phantasms).³²

27 The reflective effects between form and eye allow various figures to arise. Cf. Bacon: *Perspectiva*, III, 1, 4 (pp. 270–275).

28 RR, trans. Dahlberg, p. 302.

29 Cf. Knowlton 1920; Morton 2015.

30 Morton 2018, p. 55, calls Genius Nature’s ‘*alter ego*’ (my emphasis), which does not seem quite right to me, given his administrative and communicative functions.

31 This also refers to Avicenna’s concept of *natura communis*: “The nature of each being, *natura communis*, is neither individual nor universal, and this nature is contained in each individual being in its pure state, without any individuation.” Kuksewicz 1982, p. 626. The things recorded in Genius’s book – between things supplied by Nature and the figures that Genius utters – are precisely in this state between the individual and the universal.

32 On the concept of ‘phantasms’ and the task of the active intellect to abstract from them recognizable forms, cf. Mahoney 1982, i.a. p. 604. Cf. also above, footnote 26.

But the Genius-priest not only writes down all the things of Nature in his book; in his mass, which is anything but ‘new,’ he again and again recalls them (*recordait*, RR 16280) as representable figures (*figures representables*, RR 16281). In this ritual promulgation, individual things fit into an overarching order and the abstraction of a general idea.³³ Thus the corporeal things Nature constantly produces in order to preserve the species receive from Genius their identity as *figures*. This identity contains the basic form (*fourmes*, RR 16792)³⁴ they received from Nature at the behest of God, but as a perceivable figure is also a means of knowledge (RR 16272–16284). Genius, whom Nature addresses as “god and master of places” (*Qui des leus estes deus e maistres*, RR 16286), integrates the things produced by Nature into topoi (*loci communes*) in order to put them fully to work (*Trestouz en euvre les metez*, RR 16288) according to their properties (*proprietez*, RR 16287).³⁵ That is, he realizes the figures according to the *modi essendi*, their accidental idiosyncrasies, as they were under intense discussion in Paris in the second half of the 13th century.³⁶ Thus, Genius is also importantly cast as a wise rhetor in whose speeches natural things receive not just their figure but also their validity and efficacy.³⁷

33 At stake is the ability of humans to infer the universal from the individual phenomenon. While many thinkers of the time could not imagine this process without divine help, Duns Scotus considered it a capability immanent to the intellect. Cf. Owens 1982, pp. 454f. Duns Scotus’s concept of intellect and its activities corresponds almost exactly to the structure of what is portrayed here. Cf. Kuksewicz 1982, pp. 626–628. “Since the quiddity (neutral nature) existing in particular things is not particularized, there is no need to free it from individual conditions, and no abstraction effected by the active intellect is necessary. The presence of the nature in the phantasma joined to the illumination of the potential intellect by the agent effects the intelligible species. The agent intellect is therefore the real cause of the species, but the phantasma collaborates in this act, determining its content.” Kuksewicz 1982, p. 627. Also, Williams 2019, p. 246, defines ‘intellect’ in Duns Scotus in Genius’s sense.

34 Here *fourme* can be understood, following Duns Scotus, as the necessary formal distinction of every natural thing, independent of the individualized entity. “This way of regarding the specific nature as common in reality to the singulars was a remarkable innovation with Duns Scotus. It did not involve a plurality of forms, for the common nature pervades the forms themselves as well as the matter and the composite; nor did it make possible the real existence of a non-individuated nature.” Owens 1982, p. 456. On the fundamental separation of natural and rational powers in Duns Scotus, cf. also Williams 2019, i.a. pp. 245f.

35 On this conflation of logic and philosophy of language in Paris in the second half of the 13th century, cf. Schulthess/Imbach 1996, pp. 220f. On the importance of expression and the voice for the attribution of significance, i.e., the human practice of speech, cf. in reference to i.a. Petrus Hispanus (d. 1277): De Rijk 1982, p. 169. Interesting and probably crucial for the passage is the fact that in his epistemology, Duns Scotus defines general forms as “*opinio communis*,” as pure truth. Owens 1982, p. 457.

36 Cf. Pinborg 1982, pp. 262f.

37 The processes of natural creation presented here and their realization by Genius can also be read against the backdrop of questions being discussed in Paris in the second half of the 13th century

However, this work of Genius that makes transitory natural things intelligible, perceivable, and representable is neglected by Art, which is on its knees before Natura, seeking to learn the secret of her creative productivity (RR 16027).

Art has no interest in the memorizing, repetitive promulgation, directed toward the *opinio communis*, by means of which what is individual fits into what is universal and can be recognized only in the universal. Yet for the imitation of natural activities and the imitative production of true forms (*fourmes veraies*, RR 16015, 16018), Art lacks precisely knowledge and understanding (*Povre de science e de force*, RR 16023 / *Mais tant est ses sens nuz e linges / qu'el ne peut faire choses vives*, RR 16032 f.). Moreover, contrary to Genius's book, Art has only a pattern book, a poor imitation of an imitation (RR 16017). Consequently, the figures (RR 16038) that Art wants to represent – however beautifully and artfully they may be depicted (RR 16056, 16061) – cannot live on their own (RR 16063 f.).

By contrast, the art of the mirror-masters, which rests on knowledge, technique, and craft, can produce with the *fantomes* (RR 18181) a kind of figure that is completely alive (*Touz vis*, RR 18184). Their art does not imitate nature, but it can manipulate the perceptible and representable figures by deceiving the perception of those looking into the mirror and thus create their own reality of metamorphosing, reproducing, inverting figures – the world of human art. In this way, both in its production and its use, glass becomes the epitome of a new art. On the one hand, it imitates natural processes in the practical technical knowledge with which it produces its material. On the other, with its theoretical knowledge and artistic craftsmanship at manipulating the field of perception, it can visualize moving figures.

Natura supplies her creations for Genius's book so that, promulgated as figures, they become perceivable and also active – in topical realization, relevant to practice. For their part, the glass and mirror artists bring things into the mirrors so that through the reflecting light they become visible as *images* (RR 18254) and active as *fantomes* between the eye and the mirror.³⁸ In this process, the subjective perspective of the kind of perception of mirror images and their figures of reflection plays an important role. They come correspondingly close to the images of the imagination. And so Nature – who names all these mirror reflections – also counts vision, optical deceit, sleepwalking, madness, exaggerated study causing melancholy, overwrought sanctimoniousness, and dreams among these mirror phenomena (RR 18247–18286). All together she calls them deceit and falsehood (*trufle e mençonge*, RR 18363), like the case of a dreamer who thinks he sees

concerning the relationship of essence and existence (*essentia* and *existentia*) as well as the closely related question of potentiality and actuality. Cf. Wippel 1982, pp. 396–410.

38 The question of localizing these images – a discussion of the time – as well as lengthy explanations of the causes of misleading reflections and other optical illusions are explicitly omitted in the text.

spiritual things as present (*Qui veit, ce cuide, en leur presences / Les esperitueus sustances*, RR 18365 f.).³⁹

Even though the misleading images of the imagination are generated differently from the phantasms of mirror reflections (RR 18351–18353), both have in common that they deceive and are also figures of self-deception. For if enough knowledge were present, one would know about mirror art and would not be fooled by its distortions. Equally true is that if enough *ratio* were in play, one would not be seduced by affect-led longings and fantasy images, nor think they were genuine (RR 18355 f., 18362).⁴⁰

5. *wân*: hope, opinion, desire, and will

The reaction of the observer to such phantasms is wonder and amazement.⁴¹ That can clearly be seen in the story of Pygmalion, who is seized by an overwhelming, shocked amazement at his own work – the statue of a beautiful young woman – because she is as beautiful as if she were alive: *Touz s'esbaïst en sei meïsme / Pygmalions quant la regarde* (RR 20836 f., 'He was astonished within himself, Pygmalion, when he looked at her', trans. Dollenmayer). This amazement opens a space in which not just Amor can lay his snares (RR 20838–20840), but where Pygmalion can also reflect on this terrible and unnatural love (RR 20862 f.). In a monologue, he compares himself to other lovers with absurd desires: among them Narcissus, who fell in love with his own *figure* (RR 20878)⁴² in a clear fountain, had a worse time of it than he, since Pygmalion can touch his beloved. But all the unanswered lovers in the world had it better, since at least they could still hope (RR 20889–20897).⁴³

As Pygmalion's emotional state is in constant change (RR 20933–20936), he transforms his statue by constantly dressing her in new clothes and tortures himself, the deceived (*li deceüz*, RR 21067), with foolish thoughts. But even when Venus brings the statue to life, Pygmalion – who perceives it with all his senses and feels it move (RR 21131–21139) – still cannot know for sure whether it is a lie or the truth (*Ne set se*

39 On imaginative power as a newly composing potency, which in Avicenna is called *virtus imaginativa*, in contrast to the idea of a reservoir of images from which *phantasia* or *imaginatio* can draw, cf. Teuber 2002, p. 32, footnote 29.

40 On the remarkable recurrence of the concept of *deceit* in this section, cf. Morton 2018, p. 154.

41 The powers of the mirror are repeatedly called 'wonderful' (*merveilleus poers*, 18,046) or one sees 'wonders' in them (RR 18208).

42 Characteristic is here the concept of the *figure*. In the first part of the novel by Guillaume de Lorris, Narcissus sees his face in detail: *Si vit en l'eve clere e nete / Son vis, son nes e sa bouchete* ('Then he saw in the clear, pure water his face, his nose, and his mouth', RR 1483 f., trans. Dollenmayer).

43 Interesting here are the thematic differences in media evident in the concepts *figure* for mirror image and *image* for the statue (RR 20826, 20851, 21068), which are subordinate to ideas of hope (*esperance*, RR 20896) as a part of the phantasms that are the theme of mirror art.

c'est mençonge ou veir, RR 21140), whether he is under a spell (RR 21143) or is dreaming (RR 21145), whether a *fantosme* (RR 21149) or the devil (*anemis*, RR 21149) has brought his statue (*image*) to life (RR 23149f.).⁴⁴

Pygmalion's amazement in Jean de Meun's continuation repeats Narcissus's amazement in Guillaume de Lorris's first part of the novel. When the thirsty Narcissus sees his face reflected in the water, he freezes in amazement (*E cil maintenant s'esbaï*, RR 1485). His shadow deceives him (*ses ombres [si] le traï*, RR 1486) so that he thinks he sees the shape (*figure*, RR 1487) of a beautiful boy and falls so deeply in love that when he learns that his beloved is unattainable, he goes mad and dies.⁴⁵

The first-person narrator recalls this story when he comes to the spring of Narcissus and therefore hesitates before gazing into the spring himself. It is filled with clear, running water, has a bed of bright, silvery sand, is fed in its depths by two tributary streams, and is bordered by grass eternally green. There are two crystals on the bottom (RR 1523–1538), on which a hundred colors appear (*parent*, RR 1546) when the sun shines on them. Thanks to the power (*force*, RR 1550) of these stones and their miraculous character (*merveilleus*, RR 1549), the entire environment becomes visible (*i pert*, RR 1552) to the person who gazes into the water.⁴⁶ Just as a mirror reflects everything that is in front of it, the crystals reflect everything unchanged and without deceit (*senz decevoir*, RR 1560), according to the text. And yet, the narrator is deceived by his gaze into the mirror spring (*Cil miroers m'a deceü*, RR 1609). For the pleasant sight of the crystals that show him a hundred thousand things (RR 1605f.) becomes a trap when the powers of this mirror (*force [iert] e [sa] vertuz*, RR 1611) lead him to focus his gaze on the rose bushes, and he is overcome with desire (*grant envie*, RR 1619).⁴⁷ For whoever sees himself in this dangerous (*perilleus*, RR 1571) mirroring spring is seized by a new frenzy (*novele rage*, RR 1583) for which there is no cure; it is the pure will to love (*d'amer volenté pure*, RR 1586). Here, the observer is not fooled by the phantasm of mirror reflections but by an influ-

44 All this takes place in a space of expectation of wonders (RR 21075, 21129, 21149, 21160).

45 It is interesting that in this passage by Guillaume de Lorris, the space of astonishment becomes only a space of desire without Narcissus reflecting on his own foolishness as Pygmalion does.

46 Whoever hears that thinks it is something miraculous (*merveille*, 1541). There is a remarkable difference from the astonished listener to the story of Pygmalion. If there, it is something terrible; here, it is something wonderful.

47 The theme here is seeing from a perspective that detaches the gaze from harmonious indifference and guides it toward a specific goal. In this context, it would be an endangering seeing, if not a perhaps already deceived gaze – in contrast to an indifferent seeing that is not affectively judgmental. On what lies behind such considerations, cf. Carruthers's chapter on "Polyfocal Perspective" in: Carruthers 2013, pp. 151–164. What is crucial, then, is also the *intentio* that breaks through this indifference, as the power of specifying the object and focusing the subject (willpower). Cf. Carruthers 2013, pp. 167–172.

ence that coerces his willpower. This is what distinguishes the reflections in the spring from the mirroring effects discussed above in the continuation of the novel.

While the image in the natural mirrors of the spring and the crystals is as if painted (*Con s'ele iert es cristaus portraite*, RR 1570) on the surface of the mirror, Jean de Meun's perceptible reflections occur between mirror image and eye, so that the deceit lies not in the affective gaze of the observer but in the space of perception, which determines their appearance. Here, it is not natural objects that reflect things but lenses produced by 'true art' and instrumentalized by those who know the rules of optics and by skillful (artistic) craftsmen. At the same time, in these reflections epistemology and the theory of perception are coupled with art and technology.⁴⁸ Sensuous perception is freed from facticity, and reality's world of figures (in the sense of a constantly renewing actuality) makes possible an independent world of ideas and phantasms, enabled by the intellect and the imagination, as well as by technical and artistic manipulations of perception.

6. The Aesthetics of Reality

While the art of glassmaking consists in imitating and – just shy of heretical, magical manipulations – instrumentalizing natural processes, the art of those who know how to use the reflecting glass consists in producing new figures by changing the reflective space. However, "new" means reproduced, distorted, or inverted in perspective. The figures this mirror art reflects into the sensuously perceptible world belong – from the perspective of Nature – with the image of desire engendered in the astonished eyes of lovers and also with a dream image or a vision evoked by the emotions (RR 18247–18286).⁴⁹ Both mirror figures and the figures of imagination are deceitful and fraudulent, but not in a religious, moral, or ethical sense, but epistemically and aesthetically. The production of figures of imagination is viewed as independent of divine influence; the production of mirror figures, independent of the natural production of 'forms'.⁵⁰ In these arts, the connection to 'form' for which Natura is responsible is not foremost,

48 Only the face of reason, "the daughter of God, the sovereign father" (*Fille Deu le souverain pere*, RR 5816), in which the lover should reflect himself (which he does not do), is not integrated into this vitreous world by Jean de Meun: *Regard ci quele fourme a, / E te mire en mon cler visage* ("See here His form, and see yourself in my clear face," RR 5818). On the technique of producing glass and mirrors, cf. i.a. Baltrušaitis 1996; Jaritz 2002; Weiß 1966; Miller 1998.

49 Cf. above, footnote 25.

50 On the separation of imaginative power from divine influence (illumination) in the epistemology and theory of imagination in the late Middle Ages, cf. above, footnote 31. On developments in this direction in Paris at the end of the 13th century, cf. Kuksewicz 1982, esp. pp. 626–628, where in reference to Duns Scotus the author writes: "And the intellect as a whole became the sole cause of the act of cognition. The separation of the material from the spiritual was once more deep and unbridged." Kuksewicz 1982, p. 628.

but rather the aesthetic realization of the 'figures' arising and depicted in intellectual actualization.

Thanks to the sunlight penetrating into its depths (*E la clarté aval descent*, RR 1545) and independent of the condition of the space, the spring of Narcissus, created by Nature, reflects without distortion what appears (as if painted) on the surface of the crystals. The learned master of mirrors, on the other hand, influences with his vitreous instruments the space of perception so that the mirror image transforms into deceitful figures. In these fantastic figures, the sensuous world is perceivable as the space of mutable, moving pictures, and only in these figurations can it be communicated. It is this sensuous human thinking – an integral part of man's corporeality guided by knowledge, determined by his position, and limited by temporality – that apprehends itself in *wân* as hope, desire, opinion (*opinio*), and intention (*intentio*), and in which a specific aesthetics of figures and colors appears as artistic effects of light reflexes and techniques of material transformation. In the process, light images separate from their object and become a play of figures in the subjective space of perception. The mirror world of Guillaume de Lorris, engendered by sunlight on the crystals and appearing there as detailed, miniature painting, becomes a constantly self-realizing, mutable, and unstable world of light reflections as figures of subjective perception and imagination.

What glitters here is the ephemeral, decaying world of things engendered by the interplay of matter that reflects light and radiates species (color, taste, composition), the modifying space of perception, and perception from a subjective perspective.⁵¹ Glass, whose production and processing attracted new interest in the second half of the 13th century,⁵² is the epitome of a newly blossoming art form at the time and in the context of an aesthetics of temporality that makes the space between perceiving subject and object into a theater of reflected figures (*fantosmes*, RR 18181, or *fantasie*, RR 18267), whether they come from the imagination or the mirror arts. For they are all marvelous phenomena and a marvelous seeing (*visions merveilleuses*, RR 18263), wonderful and wild (*merveilleuses e fieres*, RR 18288), thanks to the wonderful powers (*merveilleus poers*, RR 18046) of the mirror that enable 'true art.'

In Jean de Meun's continuation, the *Roman de la Rose* becomes a systematic presentation of the powers of human imagination and its effect in the transitory – and thereby visible, palpable and thus representable – world. The continuation manifests

51 This also refers to the (Aristotelian) idea, authorized by Grosseteste and Bacon, that objects can be perceived by our organs of sense thanks to the species emanating from them, which include i.a. color, taste, and composition. Cf. Morton 2018, p. 153.

52 In France in the second half of the 13th century, the first glass producers, glassworks, and studios are documented, as well as the more general use of drinking glasses. Cf. Foy 1988, pp. 63f., 103–105, 109, 220. On the spread of drinking glasses as well as a new technology of glass production in this era, cf. Foy 1988, pp. 220f. Weiß 1966, p. 91, points out that toward the end of the 13th century, glass production became less and less dependent on the monasteries.

an aesthetics of reality – the world of things forever renewing itself, in motion, changing, and variable – that leads to an art of hoping, imagining, subjective seeing, and visionary or imaginative communicating.⁵³ The essence of this art is not mimesis, but knowledge of natural processes of change (*wirklichkeit*) and their technical exploitation on the one hand, and on the other, knowledge of the rules of their theoretical deception of sensuous perception and the bravura play of figures in the space of performance and perception.

It is clear that in this aesthetics, the point is not an idea of truth or transcendence of the temporal world. Instead, it is an art of reflection through which functionality, transformation, perspectivity, and subjectivity are on display. Thus this aesthetics is also different from the religious idea of the world as a mirror in which one seeks God with one's senses.⁵⁴ For the optical knowledge of the time opens up a space between the physical – and thus also the natural – world and the human eye, a space for the play of figures dependent on physical conditions and perceptual perspectives. No longer is it a miraculous crystal (RR 1549) onto which the sun paints the world, but mirrors that enable the 'wonders' and 'marvelous apparitions' (RR 18208, 18263).⁵⁵

Both in its fabrication and its everyday and scientific uses, glass can be understood as a figure of reflection for an aesthetics that is different to the extent that it frames the knowledge of perceptive, imaginative, and cognitive processes as the precondition for thinking about the arts and artistic products, thus locating them in a this-worldly communicative space. In other words, the idea of divine transcendence – whose concentrated radiance is reflected in temporal presence – is shattered on the glass of the late Middle Ages. Shattered too is the claim of modern aesthetics to an authenticity that confirms its truth.

53 It is interesting that Nature interrupts her confession to the Genius-priest with three digressions. The first is devoted to free will, the second to optics, and the third to dreams. These are the aspects here brought into play with reference to perspectivizing perception. In this context, more research is needed on free will in particular.

54 However, Bonaventura's *Itinerarium mentis in Deum* is impressive evidence that in spiritual practice, the idea of the world as a mirror in which one seeks God with the senses was still present. Cf. also Teuber 2002, pp. 20–24. Cf. also the essay by Largier 2007, i.a. p. 53. He shows for processes of religious reading and reception a new, aestheticizing conception of sensuous experience, through which a "denaturing" takes place via processes of medialization.

55 The theme here is a decisive difference to religious art and its aesthetics. For not only is glass hardly present before the 16th century except in windows, but the costliness of the material is also emphasized. Gold, silver, crystal ... And reflection is not the theme, but the blinding radiance as a sign of God's radiance. Cf. i.a. Suger: *De administratione* 33, pp. 64f., ll. 9–31. See also the thematic of light in the contributions by Annette Gerok-Reiter and Volker Leppin, pp. 177–226, as well as by Barbara Schellewald in this volume, pp. 289–332, esp. section 3.

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