

# The *Night* of Michelangelo: Animism, Empathy, and Imagination<sup>1</sup>

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**Abstract:** This study investigates aesthetic responses to Michelangelo Buonarroti's sculpture *Night* with a focus on the concepts of animism and imagination. Accounts left by Giovanni di Carlo Strozzi (1517–1570), Giorgio Vasari (1511–1574), and Michelangelo Buonarroti himself (1475–1564) describe this statue as if it were a living human. These reactions not only exemplify the phenomenon of animism and the notion of the “power of images”, but also highlight the role of the beholder's imagination in aesthetic response. In this sense, this study analyses the correlation between the aesthetic features of *Night* and Strozzi, Vasari, and Michelangelo's responses to the sculpture, offering a fresh interpretation of this interaction from a neuroaesthetic perspective. Recent neuroscientific and neuroaesthetic research on the perception of human figures in movement – both in person and in depictions – may shed new light on the way we engage with figures such as Michelangelo's *Night*, identifying the brain areas that may be involved in this type of contemplation and the role of the beholder's imagination in these responses.

**Keywords:** Animism, ekphrasis, embodied simulation, empathy, imagination, naturalism, power of images, rhetoric, theory of response.

## Introduction

In *Moses of Michelangelo*, Sigmund Freud (1914, 221) writes about his personal experience with works of art:

Works of art do exercise a *powerful* effect on me, especially those of literature and sculpture.... This has occasioned me, when I have been *contemplating* such things, to spend a long time before them trying to *apprehend them in my own way*, i.e. to explain to myself *what their effect is due to*...some rationalistic, or perhaps analytic, turn of mind in me rebels against *being moved* by a thing without knowing *why I am thus affected* and *what it is that affects me*.<sup>2</sup>

In this passage, Freud touches on an important aspect of art perception: the aesthetic experience and enjoyment that follows the observation of artistic forms. Today, modern neuroscience techniques can shed light on the way viewers process works of art, and this makes Freud's idea worthy of pursuit. Therefore, this study aims to answer the following questions: (i) Why do works of art exercise power over their beholders? (ii) What are the effects of works of art due to? and (iii) Is it possible to comprehend works of art by pure contemplation?

The phenomenon of the power of images in visual works of art has a long history and has emerged in different contexts and time periods with similar modalities. Many cases of powerful images have been explored by scholars, but one in particular has been overlooked: the attribution of life to *Night* (Figure 1), a marble sculpture created by Michelangelo Buonarroti between 1525 and 1531.<sup>3</sup> This case has particular historical relevance, involving a member of an influential Florentine family, Giovanni di Carlo Strozzi, and two preeminent Renaissance artists, Giorgio Vasari and Michelangelo himself. The three beholders under examination in this study are a

useful source through which to investigate the power of Michelangelo's *Night*, the phenomenon of animism (that is, the tendency to attribute life to statues), and the role of empathy and imagination in aesthetic response. In this study, I will consider two specific subjects: (i) the formal appearance of the work in question and (ii) the human brain-body system that is affected in one way or another by the power of the images observed by the viewer and that responds to this in a particular way. In this sense, I will analyse the aesthetic responses to Michelangelo's *Night* by focusing specifically on animism, the power of images, naturalism, empathy, and imagination – also considering the sub-personal implications of such responses.



Fig. 1. Michelangelo Buonarroti, *Night*, 1525–1531, marble (155 x 150 cm), New Sacristy, Basilica of St Lawrence, Florence.

### 1. The Case of Michelangelo's *Night*

An excellent yet overlooked case study through which to examine the phenomenon of animism is the aesthetic responses to Michelangelo's marble statue *Night* – placed in the New Sacristy of the Medici Chapel in the Basilica of St. Lawrence in Florence, Italy – from Strozzi, Vasari, and Michelangelo himself.

Michelangelo designed and largely executed the sculptural programme of the Medici Chapel. The tombs and statues of Dukes Giuliano and Lorenzo de' Medici are located at the chapel's east and west walls, respectively, along with the four *Times of Day* – *Night*, *Day*, *Dawn*, and *Dusk* – with one pair of figures reclining on each tomb. This study focuses on *Night*, which is located atop Giuliano's tomb.<sup>4</sup> The statue depicts a nude woman lying, almost sitting, on an irregular support. The figure's left leg and right arm form two tangent triangles that have the function of supporting the reclined head, lost in a deep sleep, and frame a third triangle formed by the midsection. It is this third triangle – positioned in the middle of the figure – that is the focal point on which the beholder is meant to concentrate, given the recumbent position of the figure and the triangle's location slightly above the average height of an observer.

In addition to its posture and closed eyes, other elements indicate that this sculpture depicts a sleeping woman. The statue is surrounded by a series of symbols including an owl under its left leg, representing the night; a wreath under its left foot, representing sleep; and a mask under its left shoulder, which may signify the dream state.<sup>5</sup>

Since their creation, or perhaps even during their design, Michelangelo referred to the four *Times of Day* statues as living beings, as illustrated by the following inscription written on one of his plans for the Medici Chapel's sculptural programme, a red-chalk sketch of three pilaster bases:

Night and Day speak, and they say: We have with our swift course led Duke Giuliano to his death, and it is only just that he has his revenge for it, as he does. And the revenge is this: that we, having brought about his death, he, thus dead, has taken the light from us, and with closed eyes, has sealed our own, which no longer shine upon the Earth. What would he have done with us then while he lived?<sup>6</sup>

In these lines, Michelangelo refers to the sculptures *Day* and *Night*, adopting a literary *topos*, namely that of the “speaking” sculpture.<sup>7</sup> The allusion to *Night* as a “living” sculpture also clearly emerges in Vasari's description of the statue in the *Lives of the Most Eminent Painters, Sculptors and Architects* (1550 and 1568):

In that statue is infused all the somnolence that is seen in sleeping forms; wherefore many verses in Latin and rhymes in the vulgar tongue were written in her praise by persons of great learning.<sup>8</sup>

In stating that *Night* possesses the same somnolence of sleeping people, Vasari refers to a short poem by Giovanni di Carlo Strozzi, written around 1545 after Strozzi observed the statue:

The Night that you see sleeping  
In such loveliness, was by an angel carved  
In this rock; and by her sleeping she has life;  
Waken her, if you disbelieve; and she will speak to you.<sup>9</sup>

In these verses, Strozzi describes the sculpted figure as if it were a living being. He does so by attributing it life on the basis of it being dormant. Furthermore, he encourages the sceptical beholder – who may not believe in the “liveliness” of the statue – to wake it up, stating that, once awake, the statue will respond. It is likely that Strozzi was unaware of Michelangelo's statement written on the red-chalk drawing. However, there is a curious uniformity between their responses – as well as Vasari's – in considering the statue animate. Moreover, continuing Strozzi's dialogue, Michelangelo replied with a second rhyme, speaking this time as if he were the *Night*:

I prize my sleep, and more my being stone,  
As long as hurt and shamefulness endure.  
I call it lucky not to see or hear;  
So do not wake me, keep your voice down!<sup>10</sup>

In this passage, Michelangelo again confirms *Night*'s “living” status by identifying himself with the statue and asking Strozzi not to disturb his (or her) sleep with his flattery.<sup>11</sup> For the sake of clarity, it is worth noting that Vasari, Strozzi, and Michelangelo did not describe the sculpted figure as a living being in the biological sense but as a “living” sculpture, as the words “statue”, “rock”, and “stone” in the three passages suggest. In this way, the human qualities are only transferred – or projected – onto the inanimate object metaphorically.

Based on Strozzi's, Vasari's, and Michelangelo's responses – alongside some naturalistic features of *Night* – it is worth addressing the following questions: (i) Why do viewers react to this sculpture as if to a living being? (ii) What do observers mean when they describe the statue as alive? (iii) Do viewers really experience the same empathetic engagement with this work of art as they would with a living person? These subjects will be discussed in the following sections.

## 2. The Concept of Animism

The tendency to attribute life to inanimate objects in general and pieces of art in particular has a long tradition dating back to classical antiquity.<sup>12</sup> For example, Virgil wrote about “breathing” sculptures both in *Georgics* (29 BC) – “Here in Parian marble shall stand statues breathing life”

(III, 34)<sup>13</sup> – and in *Aeneid* (29–19 BC) – “Others, I doubt not, shall with softer mould beat out the breathing bronze, coax from the marble features to the life” (VI, 847).<sup>14</sup>

The *topos* of “living” statues is also present in Pliny the Elder’s *Natural History* (77 AD). In one passage, Pliny describes a bronze statue of a hound, writing that its naturalism is so impressive that the dog seems alive:

The art rose to incredible heights in success and afterwards in boldness of design. To prove its success I will adduce one instance, and that not of a representation of either a god or a man: our own generation saw on the Capitol, before it last went up in flames burnt at the hands of the adherents of Vitellius, in the shrine of Juno, a bronze figure of a hound licking its wound, the miraculous excellence and absolute truth to life of which is shown not only by the fact of its dedication in that place but also by the method taken for insuring it; for as no sum of money seemed to equal its value, the government enacted that its custodians should be answerable for its safety with their lives.<sup>15</sup> (XXXIV, 38)

The literary *topos* of “living” sculptures experienced a revival in the Late Middle Ages – when classical rhetoric was taken as a model by the humanists – becoming a recurring element of the ekphrasis.<sup>16</sup> For instance, Petrarch adopted this *topos* several times in his texts. In his *Letters on Familiar Matters* (1325–1361) – specifically the one addressed *To Francesco, of the Church of the Holy Apostles, on the preciousness of time* – Petrarch describes statue of St. Ambrose (located in the Basilica of St. Ambrose in Milan) as almost alive and breathing:

Meanwhile I am living in the western outskirts of the city near the basilica of St. Ambrose. My dwelling is very comfortable, located on the left side of the church, facing its leaden steeple and the two towers at the entrance; in the rear, however, it looks upon the city walls and in the distance fertile fields and the Alps covered with snow, now that summer is past. Nevertheless, the most beautiful spectacle of all, I would say, is a tomb which I *know* to be that of a great man, unlike what Seneca says of Africanus, “I believe it to be the grave of a great man”. I gaze upwards at his statue, standing on the highest walls, which it is said closely resembles him, and often venerate it as though it were alive and breathing. This is not an insignificant reward for coming here, for the great authority of his face, the great dignity of his eyebrows and the great tranquillity in his eyes are inexpressible; it lacks only a voice for one to see the living Ambrose.<sup>17</sup> (*Fam.* XVI, 11)

In another letter – the one addressed *To his Lelius, that one must not seek false glory, just as one must not scorn true glory* – Petrarch mentions the representation of the breathing face of Caesar Augustus on a coin:

I gave him as a gift some gold and silver coins bearing the portraits of our ancient rulers and inscriptions in tiny and ancient lettering, coins that I treasured, and among them was the head of Caesar Augustus, who almost appeared to be breathing.<sup>18</sup> (*Fam.* XIX, 3)

Petrarch also makes use of the *topos* of “living” statues in his *Letters of Old Age* (1361–1374). In the letter addressed *To Pietro Bolognese [da Muglio], rhetorician, on the Venetian victory*, Petrarch writes that the hooves of the bronze horses of the Basilica of St. Mark in Venice can be heard clattering:

By this time the doge himself [Lorenzo Celsi] with a huge retinue of nobles had taken his place before the church facade above the vestibule; from this marble dais everything was beneath his feet. It is the place where those bronze and gold horses stand, as though copied from life and stampeding from above, of ancient workmanship by a superb artist, whoever he was.<sup>19</sup> (*Sen.* IV, 3)

Given the widespread use of the *topos* of “living” statues from classical antiquity to the Late Middle Ages, Strozzi’s, Vasari’s, and Michelangelo’s verses must be interpreted in light of the revival of classical rhetoric in the humanistic tradition, which attributes life to naturalistic representations of humans and animals.

The significance of the phenomenon of animism is reflected in the special attention it has been granted by two more modern thinkers: David Hume and Sigmund Freud. In *Natural History of*

*Religion* (1757), Hume (1889, 11) recognises that animism is a universal phenomenon that emerges not only in real life but also in literature:

There is a universal tendency amongst mankind to conceive all beings like themselves, and to transfer to every object those qualities with which they are familiarly acquainted, and of which they are intimately conscious. We find human faces in the moon, armies in the clouds; and by a natural propensity, if not corrected by experience and reflection, ascribe malice and good will to everything that hurts or pleases us. Hence the frequency and beauty of the *prosopopoeia* in poetry, where trees, mountains, and streams are personified, and the inanimate parts of nature acquire sentiment of passion.

According to Hume, the tendency to regard objects as living beings is mainly due to the human inclination to extend human qualities to things we encounter, a process often referred to as anthropomorphism. It follows that the way Strozzi, Vasari, and Michelangelo responded to the figure of *Night* is deeply rooted and meaningful, in the sense that it derives from an innate human tendency to anthropomorphise.

In the chapter “Animism, Magic and the Omnipotence of Thoughts” in *Totem and Taboo*, Freud (1913, 75) offers the following definition of animism:

Animism is, in its narrower sense, the doctrine of souls, and, in its wider sense, the doctrine of spiritual beings in general. The term “animatism” has also been used to denote the theory of living character of what appear to us to be inanimate objects, and the terms “animalism” and “manism” occur as well in this connection.

Therefore, animism refers to something (or someone) that is alive and gifted with the ability to move independently. The meaning of the word has subsequently been extended to signify any (inanimate) object regarded as alive, a practice that dates back to primitive times:

What led to the introduction of these terms was a realisation of the highly remarkable view of nature and the universe adopted by the primitive races of whom we have knowledge, whether in past history or at the present time. They people the world with innumerable spiritual beings both benevolent and malignant; and these spirits and demons they regard as the causes of natural phenomena and they believe that not only animals and plants but all the inanimate objects in the world are animated by them. (Freud 1913, 75-6)

As Freud (1913, 77) indicates, the attribution of life to inanimate objects may coincide with the formation of early speculations about the existence of the soul:

It has been regarded as perfectly natural and not in the least puzzling that primitive man should have reacted to the phenomena which aroused his speculations by forming the idea of the soul and then of extending it to objects in the external world.

In this sense, “animism came to primitive man naturally and as a matter of course” (Freud 1913, 91).

On these grounds, we can posit that Strozzi, Vasari, and Michelangelo projected living characteristics onto a marble sculpture because of a natural instinct that is distinct to human beings. The nature of animism may explain the empathic engagement that beholders establish with human figures depicted in works of art, as illustrated by the responses to *Night* by Strozzi, Vasari, and Michelangelo. This has also been suggested by David Freedberg (1989, 191), who, in *The Power of Images*, states that “we empathise with an image because it has or shows a body like the ourselves; we feel close to it because of its similarity to our own physique and that of our neighbours”.

### 3. On Naturalism

Certain naturalistic features of Michelangelo’s *Night*, such as the face and folds of the belly, may be related to the aesthetic responses of Strozzi, Vasari, and Michelangelo to this statue. In this sense, it is worth mentioning an episode described in antiquity that is analogous to the



aesthetic responses of Strozzi, Vasari, and Michelangelo to *Night*. In *Silvae* (c. 89–96 AD), Statius (2003, 126–7 (Il. 2. 64)) employed the verb “to animate” (*animare*) to praise Apelles’ craftsmanship, which was so masterful that it seemed as though he was able to give a soul to the figures depicted in his paintings. It is in this light that Strozzi’s, Vasari’s, and Michelangelo’s responses should be interpreted, in connection to Michelangelo’s extraordinary artistry in rendering naturalistic figures. In claiming that the statue *Night* possesses attributes of life or alluding to such details, it seems that they wanted to emphasise the greatness of Michelangelo’s artistic ability to render a figure in a realistic manner, in a way that the viewer is led to imagine the statue sleeping, dreaming, and living.

It follows that the power of *Night* lies in some of its naturalistic features. In art, power can be defined as a force that acts on beholders by means of specific forms. This force may elicit an empathic response in the beholder, who may automatically and internally mirror the motions or emotions represented in the figures – a phenomenon that has been observed by the activation of specific brain networks in beholders.<sup>20</sup>

In this sense, the corporeality of *Night* may elicit an empathic response in the viewer, similar to the one that (s)he would feel in front of a living presence. As Nelson Goodman (1976, 34) states in *Languages of Art*: “What counts here is not how closely the picture duplicates an object but how far the picture and object...give rise to the same responses and expectations”. Addressing this same issue, Thomas Puttfarcken (1985, ix) expresses the necessity of a distinction “between the way we perceive pictures (and the effect they have on us) and the way we perceive and are affected by the real world around us”. In this matter, Freedberg (1989, 438) echoes Puttfarcken, saying that “to respond to a picture or sculpture ‘as if’ it were real is little different from responding to reality as real”. I add further nuance to this view by arguing that this difference would be minimised – but not reset – by the automatic activation of the beholder’s imagination, as the embodied simulation theory seems to suggest.<sup>21</sup> According to this theory, when a beholder contemplates the representation of a suggested goal-directed movement, (s)he is potentially able to imagine, by a process of embodied simulation, the entire movement, starting from the single fraction of time represented in the picture. It is in this sense that responses to reality and to the representation of reality are similar – though not the same – inasmuch as the activation of the imagination would be stronger in the latter case.

The fact that responses to naturalistic representations are similar to responses to real situations does not mean that beholders truly believe that the works of art they are observing are living beings. To Strozzi, Vasari, and Michelangelo, for instance, the marble figure is not a sleeping woman, but a sculpture that depicts a sleeping woman with extreme accuracy. It is precisely here that imagination comes into play. Perception is not just a matter of observing or sensing, but also a matter of imagining: When someone observes a sculpture representing a sleeping woman, as in this case, (s)he is led to imagine a real woman who sleeps and breathes.

#### 4. From *Einfühlung* to Empathy and “Feeling-into”

In the previous section, I stated that the power of an image is revealed by the empathic relationship that beholders establish with the work of art they are observing. The subject of this section reviews this relationship, termed *Einfühlung* during the nineteenth-century German movement of psychological aesthetics, *Kunstwissenschaft*.<sup>22</sup>

In *On the Optical Sense of Form* (1873), Robert Vischer (1994) was one of the first to theorise the notion of *Einfühlung* (literally, “feeling-in”). In 1908, Edward B. Titchener (1908) translated the German term *Einfühlung* as “empathy”. In the same year, James Ward also suggested “empathy” as a translation of *Einfühlung*.<sup>23</sup> Subsequently, the term “empathy” became accepted by the academic community as the translation of *Einfühlung* – meaning the capacity to “feeling-into” observed forms, both in art and in nature (Lanzoni 2018, 9).

In commenting on a section of Albert Scherner's book, *The Life of the Dream*, Vischer (1994, 92) formulates his own definition of empathy as the projection of one's own bodily form into an object's form:

Particularly valuable in an aesthetic sense is the section on *Die symbolische Grundformation für die Leibreize* (*Symbolic Basic Formation for Bodily Stimuli*). Here it was shown how the body, in responding to certain stimuli in dreams, objectifies itself in spatial forms. Thus, it unconsciously projects its own bodily form – and with this also the soul – into the form of the object. From this I derived the notion that I call “empathy” [*Einfühlung*].

Therefore, in empathy, the beholder extends him- or herself into the contemplated object. According to Vischer (1994, 104), to contemplate an object means to “mediate its size with my own, stretch and expand, bend and confine myself to it”.

However, the term *Einfühlung* originated with Arthur Schopenhauer and Johann Herder.<sup>24</sup> In the 1870s, Vischer brought the notion of *Einfühlung* into aesthetic discussion.<sup>25</sup> Then, in *Empathy, Inner Imitation, and Sense-Feelings* (1903), Theodor Lipps adopted Robert Vischer's notion of *Einfühlung*. Lipps (1979, 374-5) described *Einfühlung* as the projection of one's own self into the perceived figure, to the point of experiencing the movement performed by that figure:

The *object* of my activity is not my own activity, which is different from the observed one, but only this activity which I behold. I feel active in the movement or in the moving figure, and through projecting myself into it I feel myself striving and performing this same movement.

Another idea is that standing in a large space makes one feel expansive:

In viewing a large hall, I feel an inner “expansion”, my heart “expands”: I have this peculiar sense of what is happening within me. Connected with it are muscle-tensions, perhaps those involved in the expansion of the chest. To be sure, they do not exist for my consciousness, so long as my attention is directed to the spacious hall. (Lipps 1979, 377)

One of the most important achievements in the study of the *Einfühlung* response, or the ability to feel-into objects, is the concept of embodiment – that is, the way the observer's body is affected by the perceived object. From Vischer's passages it is possible to deduce a clear definition of embodiment – that is, a bodily sensation felt as a consequence of a visual experience fulfilled in a given context. To Vischer, the object is perceived not so much with the eyes but with the senses. In other words, it is perceived with a specific part of the body that corresponds to what one observes:

We can often observe in ourselves the curious fact that a visual stimulus is experienced not so much with our eyes as with a different sense in another part of our body. When I cross a hot street in the glaring sun and put on a pair of dark blue glasses, I have the momentary impression that my skin is being cooled off. Similarly, we speak of “loud colours” because their shrillness does indeed induce an offensive sensation in our auditory nerves. In rooms with low ceilings our whole body feels the sensation of weight and pressure. Walls that have become crooked with age offend our basic sense of physical stability. The perception of exterior limits to a form can combine in some obscure way with the sensation of my own physical boundaries, which I feel on, or rather with, my own skin. (Vischer 1994, 98)

Thus, according to Vischer, a person's experience of certain situations may elicit discordant responses from the body depending on the context. For instance, the response to a sunny view on a hot day through a pair of sunglasses (which produce a visual illusion) may correspond to a feeling of freshness in the body; in some instances, the vision of colours may affect the auditory nerves. However, other responses may be possible. Inside a restricted space, one may have a sensation of weight and pressure; inside a misshapen environment our physical stability could be compromised; the observation of the exterior limits of a form may have some implications for our sensations of our own bodily boundaries. In short, Vischer (1994, 99) argues that in perception “the whole body is involved; the entire physical being is moved”.

Similar considerations are advanced by Friedrich Nietzsche in *Daybreak* (1881). Nietzsche (2019, 89) examines the notion of sympathy as it relates to the phenomenon of inner imitation – that is, the sensation that often occurs when one observes someone else doing something:

To understand another person, that is, *to imitate his feelings in ourselves*, we do indeed often go back to the *reason* for his feeling thus and thus and ask for example: *why* is he troubled? – so as then for the same reason to become troubled ourselves; but it is much more usual to omit to do this and instead to produce the feeling in ourselves after the *effects* it exerts and displays on the other person by imitating with our own body the expression of his eyes, his voice, his walk, his bearing (or even their reflection in word, picture, music). Then a similar feeling arises in us in consequence of an ancient association between movement and sensation, which has been trained to move backwards or forwards in either direction. We have brought our skill in understanding the feeling of others to a high state of perfection and in the presence of another person we are always almost involuntarily practising this skill. (II. 142)

Therefore, according to Nietzsche, what we call empathy may occur either consciously – that is, when we ask ourselves the reason for someone else’s sadness – or unconsciously – when one does not wonder about others’ emotive states but just feels them as a consequence of an (inward) imitative faculty that appears to be natural and automatic.

It is in conceiving this process of perception that Vischer, Lipps, and Nietzsche introduced, without mentioning the term, the idea of embodied simulation, which has been developed recently in cognitive neuroscience.

## 5. Embodied Simulation and Mirror Neurons

Since the 1990s, embodied cognition has occupied scholars from different disciplines ranging from philosophy to cognitive neuroscience to artificial intelligence. In neuroscience, the notion of embodied cognition came to prominence with the work of Francisco Varela, Evan Thompson, and Eleanor Rosch (1991). The principal idea behind embodied cognition is that perception involves the motor system and reflects our body-based interactions with the environment.

From neuroscientific studies, it emerges that the whole-body expression of emotions regulates social interactions (De Gelder 2015). To perceive a bodily expression of an emotion means (most of the time) to react or to prepare to react to it. For this reason, the human ability to understand the meaning of the actions performed by others is the foundation of social life. As Beatrice de Gelder (2015, 81) stated:

The meaning of the action is what the agent has in mind when intending, planning, and performing the action... To understand an action means to understand it in relation to the intention of the agent in planning and performing that action.

Humans continuously and automatically absorb a wide range of social signals including facial expressions, gaze signals, head movements, gestures, postures, body shape, whole-body movements, and the use of personal and shared space. At first, the brain processes these signals at an unconscious level, after which point the signals are consciously recognised and reflected on (De Gelder 2015). Empirical research has pointed to the brain’s network of mirror neurons as the underlying neural basis for the production and perception of social signals. Functional magnetic resonance imaging (fMRI) studies indicate that mirror neuron activity is connected to the ability to represent others’ goals by observing their motor actions (Gallese 2014; Gallese 2007; Gallese, Keysers and Rizzolatti 2004; Gallese et al. 1996; and Rizzolatti et al. 1996). Mirror neurons are increasingly thought to be relevant to the explanations of a number of other perceptual phenomena including perception of speech, music, and visual works of art, and this may shed light on a broad range of abilities and deficits, including empathy, altruism, emotion, theory of mind, imitation, and autism spectrum disorder.



Observation of an action, via activation of the brain's parietal and premotor cortices, triggers a representation of that action. This suggests that the mirror neuron system underlies observers' ability to understand the intentions and emotions of others. For this reason, mirror neurons play a core role in mediating human intentions, actions, and movements (executed, imagined, and perceived) and the relationship among them. This realisation has led to the formulation of several theories with mirror neurons as a foundational component: simulation, theory of mind, embodiment, and direct perception theories.

There are some iconic body postures and movements, most of which have also been depicted in the visual arts. For example, raised arms are often associated with grief and desperation. When a figure's arms are pointed skyward, we expect other body parts to be in specific configurations. This ability to predict – which is rooted in the concept of empathy – has a scientific foundation. Understanding empathy and intersubjectivity requires understanding that “highly developed animals have adapted to living in social groups with very complex patterns of social interactions and that they depend on these stable interaction patterns for survival” (De Gelder 2015, 83). Comprehending the meaning of other people's behaviour is a fundamental aspect of group communication. Our day-to-day observations mainly concern the actions and interactions of other people (Barresi and Moore 1996). In fact, a relevant portion of daily life is spent watching, interpreting, and reacting to the motions and emotions of others.

The discovery of mirror neurons allowed scholars to understand the means by which humans can understand each other's minds. People understand the actions that they observe in others by activating the neural network of those actions themselves. In other words, human capacity for social interaction has its roots in the process in the brain by which people automatically mirror the actions of others. Vittorio Gallese (2019, 115) explained this mirror mechanism in terms of motor simulation: “In many circumstances, we do not explicitly ascribe intentions to others; we simply detect them by means of motor simulation, that is, by activating part of the motor system without moving”. In observing (or imagining) a subject performing a goal-oriented action, the observer inwardly simulates this action him- or herself. This is why, in these cases, Gallese speaks about embodied simulation.

It is in this light that the ideas of Vischer, Lipps, and Nietzsche assume a new and deeper meaning. As these thinkers predicted, the self and the other mirror one another. Moreover, as neuroscientific data shows, this mirroring relates directly to the ongoing emotional states of the observer: the motions and emotions observed in the perceived subject or object (as in the case of works of art) act as stimuli that modify the beholder's corporeal and emotional states (Gallese 2019; and Gallese and Cuccio 2015).

## 6. Sleep and Breath

In Michelangelo's *Night*, the midsection of the figure is likely to be the focus on which the viewer concentrates. This is due to the recumbent position of the sleeping woman and the fact that the midsection is located slightly above the average height of an observer. The folds in the abdomen – created in a naturalistic way by the awkward position of the figure – could further draw the observer's attention.

One significant fact that emerges from studies of mirror neurons is that, when in the presence of others, observers tend to synchronize their movements to match those of the person being watched (Oberman and Ramachandran 2007, 312). For instance, individuals are inclined to mimic the gestures, body postures, facial expressions, tone of voice, and pronunciation patterns of others (Oberman and Ramachandran 2007). Mirror neurons can also shed light on the relationship between the breathing patterns of the observer and the observed (Oberman and Ramachandran 2007; McFarland 2001; and Paccalin and Jeannerod 2000). If an observed subject is breathing

quickly and heavily, for example, the observer will likely mirror that breathing pattern (Oberman and Ramachandran 2007; McFarland 2001; and Paccalin and Jeannerod 2000). On this basis, I argue that mirror neurons may also be activated during the observation of *Night's* midsection, as an attempt to detect movement in the abdomen of the sculpture that originates from breath.

Given that the ability to predict future events is a fundamental part of human cognition, we may suppose that the beholder observing *Night* would be inclined to look for abdominal or diaphragmatic swelling and deflation in connection with breathing.<sup>26</sup> In the process of perceiving a sleeping figure, the detection of breath-related movements is of crucial importance, inasmuch as it indicates to the observer that the person in front of him or her is not deceased but simply sleeping. In Michelangelo's sculpture, the abdomen serves as a main focal point, causing the viewer to imagine – consciously or unconsciously – that the marble figure is breathing and sleeping, and therefore alive.

Considering the neuroscientific research on the role of mirror neurons and prediction error minimisation in visual perception, the beholder would respond to the folds of the abdomen of *Night* as they would to a human breathing pattern. It is in this sense that Strozzi, Vasari, and Michelangelo, we may assume, experienced the living presence of an inanimate figure, possibly by imagining its diaphragm moving in accordance with the activity of breath. After all, in his psychoanalytic interpretation of Michelangelo's *Moses*, Freud already recognised the role of the beholder's imagination in responding to the actions of immobile figures. By referring to the gesture of *Moses's* right arm, Freud (1914, 224) states: "In imagination we complete the scene of which this movement, established by the evidence of the beard, is a part".

Neuroscientists have conducted experimental studies demonstrating that imagining a movement, observing a movement (both in artistic depictions and in reality), and executing a movement all activate, to some extent, the same patterns of neural activity.<sup>27</sup> These results contribute further to this paper's argument – namely that the contemplation of a figure (or specific parts of that figure) such as Michelangelo's *Night* tends to make the beholder forget, if only momentarily, the demarcations between inanimate art and life.

### Conclusion

In this study, I focused on the aesthetic responses and the attribution of life to Michelangelo Buonarroti's *Night* by three well known figures of the Italian Renaissance: Giovanni di Carlo Strozzi, Giorgio Vasari, and Michelangelo himself. I accomplished this task by analysing written records of the reactions of those who described Michelangelo's *Night* as a living being in connection with the rhetorical tradition of attributing life to inanimate objects. Then, I connected these responses to the nature of animism, a phenomenon with ancient origins that has maintained similar characteristics across different historical contexts. As described by Hume and Freud, beholders respond to inanimate objects as if they were alive, projecting uniquely human characteristics onto them. In this sense, I identified the power of Michelangelo's *Night* in the naturalistic representation of sleep, which caused (and still causes) viewers to establish an empathic relationship with *Night*. Finally, exploring the concept of embodied simulation and the function of mirror neurons, I provided insight into the neuroscientific research on action and emotion perception in order to explain what may happen in the brain-body system of a beholder focused on the breathing pattern of another person. Specifically, beholders tend to mirror the breathing patterns of the perceived subjects because of the activation of mirror neurons. On this ground, I propose that the beholder tends to attribute life to the marble figure *Night* for at least four main reasons: (i) because of the natural human tendency to project human features onto inanimate objects; (ii) as a result of Michelangelo's virtuosity in rendering the somnolence of this statue; (iii) due to the activation of specific neural networks (such as the mirror neuron system) devoted to

the perception of bodies in motion even in static images and faculties (such as prediction error minimisation and imagination); and (iv) because of the capacity to relive, while gazing at the statue, earlier experiences with living beings.

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### Notes

- <sup>1</sup> I would like to express my gratitude to Professor David Freedberg (Columbia University, New York) for his thoughtful comments on this text.
- <sup>2</sup> Emphasis added.
- <sup>3</sup> The first and most comprehensive study on the power attributed to images in history is Freedberg 1989. The same phenomenon has also been explored, under the concepts of animism and agency, by numerous other scholars, such as Bredekamp 2017; Eck 2015; Papapetros 2012; Bussels 2012; Kessel 2011; Eck 2010; Mitchell 2006; Maniura and Shepherd 2006; Campbell 2002; Barkan 1981; and Hale 1976. See also Matthew Rampley’s review of Horst Bredekamp’s *Image Acts*, Rampley 2019; and Rampley 2021.
- <sup>4</sup> The identity of the figure represented in this sculpture is provided by Michelangelo’s note on a study in red chalk for the pilaster bases in the Medici Chapel, which specifically mentions Duke Giuliano in conjunction with the allegories of *Day* and *Night*. For the red-chalk drawing, see Pöpper and Thoenes 2007, 641, fig. 365.
- <sup>5</sup> The owl as a symbol of night is mentioned by Borghini 1967, 65; and Condivi 1927, 64; whereas the wreath as a symbol of sleep and the mask as a symbol of dreaming is supported by Zöllner 2007a, 397; and Steinmann 1907, 86–7.
- <sup>6</sup> On the red-chalk drawing the inscription reads: “El Dì e la Notte parlano, e dicono: Noi abbiamo col nostro veloce corso condotto alla morte el duca Giuliano; è ben giusto che e’ ne facci vendetta come fa. E la vendetta è questa: Che avendo noi morto lui, lui così morto a tolto la luce a noi e cogli occhi chiusi ha serrato e nostri, che non risplendon più sopra la terra. Che arrebbe di noi dunche fatto, mentre vivea?”. Translated in Zöllner 2007b, 233. For the drawing, see fn. 4.
- <sup>7</sup> On this type of *topos*, see Burzer et al. 2010; Spagnolo 2006; Land 1986; Alpers 1960; Naselli 1952; and Ragghianti 1933.
- <sup>8</sup> Vasari 1966, 58: “Nella qual figura quella sonnolenza si scorge che nelle immagini adormentate si vede. Per che da persone dottissime furono in lode sua fatti molti versi latini e rime volgari”. Translated in Vasari 1915, IX, 46. On Vasari’s *Lives*, see Agosti, Ginzburg and Nova 2013; Gregory 2012; Pozzi and Mattioda 2006; and Rubin 1995. On Vasari’s biography of Michelangelo, see Barocchi 1984, 35–52.
- <sup>9</sup> Vasari 1966, 58: “La Notte, che tu vedi in sì dolci atti / Dormir, fu da uno Angelo scolpita / In questo sasso: e, perché dorme, ha vita. / Destala, se nol credi, e parleratti”. Translated in Zöllner 2007b, 236.
- <sup>10</sup> Vasari 1966, 59: “Grato mi è il sonno, e più l’esser di sasso, / Mentre che il danno e la vergogna dura. / Non veder, non sentir, m’è gran ventura; / Però non mi destar: deh, parla basso”. Translated in Zöllner 2007b, 236.
- <sup>11</sup> On these verses, see Zöllner 2007b, 236.
- <sup>12</sup> On this *topos* in light of rhetoric, see, among others, Baxandall 1971, 51–120; Lee 1967; and Spencer 1957.
- <sup>13</sup> Virgil 1999a, 178: “stabunt et Parii lapides, spirantia signa”. Translated in Virgil 1999a, 179.
- <sup>14</sup> Virgil 1999b, 592: “excudent alii spirantia mollius aera (credo equidem), vivos ducent de marmore vultus”. Translated in Virgil 1999b, 593.
- <sup>15</sup> Pliny the Elder 1938–1967, IX, 156: “Evecta supra humanam fidem ars est successu, mox et audacia. in argumentum successus unum exemplum adferam, nec deorum hominumve similitudinis expressae. aetas nostra vidit in Capitolio, priusquam id novissime conflagraret a Vitellianis incensum, in cella Iunonis canem ex aere volnus suum lambentem, cuius eximium miraculum et indiscreta veri similitudo non eo solum

- intellegitur, quod ibi dicata fuerat, verum et satisfactione; nam quoniam summa nulla par videbatur, capite tutelarios cavere pro ea institutum publice fuit”. Translated in Pliny the Elder 1938–1967, IX, 157.
- <sup>16</sup> On rhetoric in the humanistic tradition, see Cast 2009; and Goldstein 1991.
- <sup>17</sup> Petrarca 1933–1942, III, 203–6 (205): “Habito interim in extremo urbis ad occiduam plagam secus Ambrosii basilicam. Saluberrima domus est, levum ad ecclesie latus, que ante se plumbeum templi pinnaculum geminasque turres in ingressu, retro autem menia urbis et frondentes late agros atque Alpes prospicit nivosas estate iam exacta. Iocundissimum tamen ex omnibus spectaculum dixerim quod aram, quam non ut de Africano loquens Seneca, ‘sepulcrum tanti viri fuisse suspicor’, sed scio, imaginemque eius summis parietibus extantem, quam illi viro simillimam fama fert, sepe venerabundus in saxo pene vivam spirantemque suspicio. Id michi non leve precium adventus; dici enim non potest quanta frontis autoritas, quanta maiestas supercilii, quanta tranquillitas oculorum; vox sola defuerit vivum ut cernas Ambrosium”. Translated in Petrarca 1975–1985, II, 317–19 (319).
- <sup>18</sup> Petrarca 1933–1942, III, 311–18 (315): “aliquot sibi aureas argenteasque nostrorum principum effigies minutissimis ac veteribus literis inscriptas, quas in delitiis habebam, dono dedi, in quibus et Augusti Cesaris vultus erat pene spirans”. Translated in Petrarca 1975–1985, III, 77–82 (79).
- <sup>19</sup> Petrarca 2002–2013, II, 57–69 (65): “Iam dux ipse cum immenso procerum comitatu frontem templi supra vestibulum occuparat, unde marmoreo e suggestu essent cuncta sub pedibus; locus est ubi quattuor illi enei et aurati equi stant, antiqui operis ac preclari, quisquis ille fuit, artificis, ex alto pene vivis adhinientes ac pedibus obstrepentes”. Translated in Petrarca 1992, I, 132–6 (135).
- <sup>20</sup> On the empathic responses of viewers to works of art, see, for instance, Tononi 2022; Tononi 2021; Tononi 2020a; Tononi 2020b; Tononi 2020c; Gallese 2019; Freedberg 2017; Freedberg 2014; Freedberg 2010; and Freedberg and Gallese 2007.
- <sup>21</sup> On the embodied simulation theory, see § 6.
- <sup>22</sup> On the *Kunstwissenschaft*, which investigated empathy and felt emotions in art, see Mallgrave and Ikonomou 1994.
- <sup>23</sup> See Lanzoni 2018, 9; and Lanzoni 2017.
- <sup>24</sup> See Lanzoni 2018, 32.
- <sup>25</sup> See Lanzoni 2018, 32.
- <sup>26</sup> On prediction in visual perception, see Hohwy 2014; Clark 2008; and Helmholtz 1855.
- <sup>27</sup> See, among others, Filimon et al. 2014; Decety and Grèzes 1999; Hari et al. 1998; Decety 1996; and Decety et al. 1994.

### Works Cited

- Agosti, Barbara; Ginzburg, Silvia; Nova, Alessandro (eds) (2013). *Giorgio Vasari e il cantiere delle Vite del 1550*. Venice: Marsilio.
- Alpers, Svetlana (1960). “*Ekphrasis* and Aesthetic Attitudes in Vasari’s *Lives*”. *Journal of the Warburg and Courtauld Institutes*, 23, 190–215.
- Barkan, Leonard (1981). “‘Living Sculptures’: Ovid, Michelangelo, and the Winter’s Tale”. *ELH*, 48, 639–67.
- Barocchi, Paola (1984). *Studi vasariani*. Turin: Einaudi.
- Barresi, John; Moore, Chris (1996). “Intentional Relations and Social Understanding”. *Behavioral and Brain Sciences*, 19, 107–21.
- Baxandall, Michael (1971). *Giotto and the Orators: Humanist Observers of Painting in Italy and the Discovery of Pictorial Composition 1350–1450*. Oxford: Clarendon Press.
- Borghini, Raffaello (1967). *Il Riposo*. Milan: Labor riproduzioni e documentazioni.
- Bredenkamp, Horst (2017). *Image Acts: A Systematic Approach to Visual Agency*. Translated by Elizabeth Clegg. Berlin and New York: Walter de Gruyter, 2010.
- Burzer, Katja, et al. (eds) (2010). *Le Vite del Vasari: genesi, topoi, ricezione*. Venice: Marsilio.
- Bussels, Stijn (2012). *The Animated Image: Roman Theory on Naturalism, Vividness and Divine Power*. Berlin and Leiden: Akademie Verlag and Leiden University Press.
- Campbell, Stephen J. (2002). “‘Fare una cosa morta parer viva’: Michelangelo, Rosso, and the (Un)Divinity of Art”. *The Art Bulletin*, 84, 596–620.

- Cast, David (2009). *The Delight of Art: Giorgio Vasari and the Traditions of Humanist Discourse*. University Park, PA: Pennsylvania State University Press.
- Clark, Andy (2008). *Supersizing the Mind: Embodiment, Action, and Cognitive Extension*. Oxford and New York: Oxford University Press.
- Condivi, Ascanio (1927). *Vita di Michelangelo Buonarroti*. Florence: Rinascimento del Libro.
- Decety, Jean (1996). "Do Imagined and Executed Actions Share the same Neural Substrate?". *Cognition Brain Research*, 3, 87-93.
- Decety, Jean, et al. (1994). "Mapping Motor Representations with Positron Emission Tomography". *Nature*, 371, 600-2.
- Decety, Jean; Grèzes, Julie (1999). "Neural Mechanisms Subserving the Perception of Human Actions". *Trends in Cognitive Science*, 3, 172-8.
- De Gelder, Beatrice (2015). *Emotions and the Body*. Oxford and New York: Oxford University Press.
- Eck, Caroline van (2010). "Living Statues: Alfred Gell's Art and Agency, Living Presence Response and the Sublime". *Art History*, 33, 642-59.
- Eck, Caroline van (2015). *Art, Agency and Living Presence: From the Animated Image to the Excessive Object*. Boston and Leiden: Walter de Gruyter and Leiden University Press.
- Filimon, Flavia, et al. (2014). "Observed, Executed, and Imagined Action Representations can be Decoded From Ventral and Dorsal Areas". *Cerebral Cortex*, 25, 3144-58.
- Freedberg, David (1989). *The Power of Images: Studies in the History and Theory of Response*. Chicago and London: University of Chicago.
- Freedberg, David (2010). "Movement, Embodiment, Emotion". Dufrière, Thierry; Taylor, Anne-Christine (eds), *Cannibalismes Disciplinares. Quand l'histoire de l'art et l'anthropologie se rencontrent*. Paris: Musée du quai Branly, 37-61.
- Freedberg, David (2014). "Feelings on Faces. From Physiognomics to Neuroscience". Campe, Rüdiger; Weber, Julia (eds), *Rethinking Emotion. Interiority and Exteriority in Premodern, Modern, and Contemporary Thought*. Berlin: Walter de Gruyter, 289-324.
- Freedberg, David (2017). "From Absorption to Judgment: Empathy in Aesthetic Response". Lux, Vanessa; Weigel, Sigrid (eds), *Empathy: Epistemic Problems and Cultural-Historical Perspectives of a Cross-Disciplinary Concept*. New York: Palgrave MacMillan, 139-80.
- Freedberg, David; Gallese, Vittorio (2007). "Motion, Emotion and Empathy in Aesthetic Experience". *TRENDS in Cognitive Sciences*, 11, 197-203.
- Freud, Sigmund (1913). "Totem and Taboo". Strachey, James (transl. and ed.), *Sigmund Freud: The Standard Edition of the Complete Psychological Works of Sigmund Freud: Totem and Taboo and Other Works (1913-1914)*, 24 vols. London: Vintage Books, The Hogarth Press and the Institute of Psychoanalysis, 2001, XIII, 1-161.
- Freud, Sigmund (1914). "The Moses of Michelangelo". Strachey, James (transl. and ed.), *Sigmund Freud: The Standard Edition of the Complete Psychological Works of Sigmund Freud: Totem and Taboo and Other Works (1913-1914)*, 24 vols. London: Vintage Books, The Hogarth Press and the Institute of Psychoanalysis, 2001, XIII, 207-38.
- Gallese, Vittorio (2007). "Before and Below Theory of Mind: Embodied Simulation and the Neural Correlates of Social Cognition". *Philosophical Transactions of the Royal Society of London B*, 362, 659-69.
- Gallese, Vittorio (2014). "Bodily Selves in Relation: Embodied Simulation as Second-Person Perspective on Intersubjectivity". *Philosophical Transactions of the Royal Society B*, 369, 1-10.
- Gallese, Vittorio (2019). "Embodied Simulation. Its Bearing on Aesthetic Experience and the Dialogue Between Neuroscience and the Humanities". *Gestalt Theory*, 41, 113-28.
- Gallese, Vittorio, et al. (1996). "Action Recognition in the Premotor Cortex". *Brain*, 119, 593-609.
- Gallese, Vittorio; Keysers, Christian; Rizzolatti, Giacomo (2004). "A Unifying View of the Basis of Social Cognition". *Trends Cognitive Sciences*, 8, 396-403.
- Gallese, Vittorio; Cuccio, Valentina (2015). "The Paradigmatic Body: Embodied Simulation, Intersubjectivity, the Bodily Self, and Language". Metzinger, Thomas; Windt, Jennifer M. (eds), *Open MIND*. Frankfurt am Main: MIND Group, 1-23.
- Goldstein, Carl (1991). "Rhetoric and Art History in the Italian Renaissance and Baroque". *Art Bulletin*, 73, 641-52.
- Goodman, Nelson (1976). *Languages of Art: An Approach to a Theory of Symbols*. Indianapolis: Hackett.



- Gregory, Sharon (2012). *Vasari and the Renaissance Prints*. Farnham, Surrey: Ashgate.
- Hale, John R. (1976). "Art and Audience: The Medici Venus c. 1750–1850". *Italian Studies*, 32, 37–58.
- Hari, Riitta, et al. (1998). "Activation of Human Primary Motor Cortex during Action Observation: A Neuromagnetic Study". *Proceedings of The National Academy of Sciences of the United States of America*, 95, 15061–5.
- Helmholtz, Hermann von (1855). "Über das Sehen des Menschen". Helmholtz, Hermann von, *Vorträge und Reden von Hermann Helmholtz*, 2 vols. Braunschweig: Friedrich Vieweg und Sohn, I, 85–117.
- Hohwy, Jakob (2014). *The Predictive Mind*. Oxford: Oxford University Press.
- Hume, David (1889). *The Natural History of Religion*. London: A. and H. Bradlaugh Bonner.
- Kessel, Elisabeth Johanna Maria van (2011). *The Social Lives of Paintings in Sixteenth-Century Venice* [PhD Dissertation]. Leiden: University of Leiden.
- Land, Norman E. (1986). "Ekphrasis and Imagination: Some Observations on Pietro Aretino's Art Criticism". *Art Bulletin*, 68, 207–17.
- Lanzoni, Susan (2017). "Empathy's Translations: Three Paths from *Einfühlung* into Anglo-American Psychology". Lux, Vanessa; Weigel, Sigrid (eds), *Empathy: Epistemic Problems and Cultural-Historical Perspectives of a Cross-Disciplinary Concept*. New York: Palgrave MacMillan, 287–315.
- Lanzoni, Susan (2018). *Empathy: A History*. New Haven: Yale University Press.
- Lee, Rensselaer W. (1967). *Ut pictura poesis: The Humanistic Theory of Painting*. New York: W.W. Norton.
- Lipps, Theodor (1979). "Empathy, Inner Imitation, and Sense-Feelings". Rader, Melvin (ed.), *A Modern Book of Aesthetics*. New York: Holt, Rinehart and Winston, 374–82.
- Mallgrave, Harry Francis; Ikonomou, Eleftherios (eds) (1994). *Empathy, Form and Space. Problems in German Aesthetics 1873–1893*. Los Angeles: University of Chicago Press.
- Maniura, Robert; Shepherd, Rupert (eds) (2006). *Presence: The Inherence of the Prototype within Images and Other Objects*. Aldershot and Burlington, VT: Ashgate.
- McFarland, David H. (2001). "Respiratory Markers of Conversational Interaction". *Journal of Speech, Language, and Hearing Research*, 44, 128–43.
- Mitchell, W.J.T. (2006). *What Do Pictures Want? The Lives and Loves of Images*. Chicago: University of Chicago Press.
- Naselli, Carmelina (1952). "Aspetti della lingua e della cultura del Vasari". *Studi Vasariani*. Florence: Sansoni, 116–28.
- Nietzsche, Friedrich Wilhelm (2019). *Daybreak*. Translated by R. J. Hollingdale; edited by Maudemarie Clark and Brian Leiter. Cambridge: Cambridge University Press.
- Oberman, Lindsay M.; Ramachandran, Vilayanur S. (2007). "The Simulating Social Mind: The Role of the Mirror Neuron System and Simulation in the Social and Communicative Deficits of Autism Spectrum Disorders". *Psychological Bulletin*, 133, 310–27.
- Paccalin, Chantal; Jeannerod, Marc (2000). "Changes in Breathing during Observation of Effortful Actions". *Brain Research*, 862, 194–200.
- Papapetros, Spyros (2012). *On the Animation of the Inorganic: Art, Architecture, and the Extension of Life*. Chicago and London: University of Chicago Press.
- Petrarch (1933–1942). *Le Familiari*. Edited by Vittorio Rossi and Umberto Bosco, 4 vols. Florence: Sansoni.
- Petrarch (1975–1985). *Letters on Familiar Matters (Rerum familiarium libri)*. Translated by Aldo S. Bernardo, 3 vols. Albany, NY, Baltimore and London: State University of New York Press and Johns Hopkins University Press.
- Petrarch (1992). *Letters of Old Age (Rerum senilium libri)*. Translated by Aldo S. Bernardo, Saul Levin and Reta A. Bernardo, 2 vols. Baltimore and London: Johns Hopkins University Press.
- Petrarch (2002–2013). *Rerum senilium*. Translated by Frédérique Castelli et al.; edited by Elvira Nota and Ugo Dotti, 5 vols. Paris: Les Belles Lettres.
- Pliny the Elder (1938–1967). *Natural History*. Translated by Harris Rackham, 10 vols. Cambridge, MA, and London: Harvard University Press and William Heinemann.
- Pöpper, Thomas; Thoenes, Christof (2007). "Catalogue of Drawings". Zöllner, Frank; Thoenes, Christof; Pöpper, Thomas (eds), *Michelangelo: Complete Works*. Cologne: Taschen, pp. 458–717.
- Pozzi, Mario; Mattiotta, Enrico (eds) (2006). *Giorgio Vasari: storico e critico*. Florence: Leo S. Olschki.
- Puttfarcken, Thomas (1985). *Roger de Piles' Theory of Art*. New Haven: Yale University Press.

- Ragghianti, Carlo Ludovico (1933). "Il valore dell'opera di Giorgio Vasari: note per un giudizio critico". *Rendiconti della R. Accademia Nazionale dei Lincei*, 9, 758-826.
- Rampley, Matthew (2019). "Theories of Agency in Art: Horst Bredekamp, *Image Acts: A Systematic Approach to Visual Agency*. Translated by Elizabeth Clegg. Berlin and New York: Walter de Gruyter, 2017". *Journal of Art Historiography*, 20, 1-6.
- Rampley, Matthew (2021). "Agency, Affect and Intention in Art History: Some Observations". *Journal of Art Historiography*, 24, 1-21.
- Rizzolatti, Giacomo, et al. (1996). "Premotor Cortex and the Recognition of Motor Actions". *Cognitive Brain Research*, 3, 131-41.
- Rubin, Patricia Lee (1995). *Giorgio Vasari: Art and History*. New Haven and London: Yale University Press.
- Spagnolo, Maddalena (2006). "Poesie contro le opere d'arte: arguzia, biasimo e ironia nella critica d'arte del Cinquecento". Damianaki, Chrysa; Procaccioli, Paolo; Romano, Angelo (eds), *Ex marmore. Pasquini, pasquinisti, pasquinate nell'Europa moderna*. Rome: Vecchiarelli, 321-54.
- Spencer, John R. (1957). "Ut rhetorica pictura. A Study in Quattrocento Theory of Painting". *Journal of the Warburg and Courtauld Institutes*, XX, 26-44.
- Stattius (2003). *Silvae*. Translated and edited by David R. Shackleton Bailey. Cambridge, MA, London: Harvard University Press.
- Steinmann, Ernst (1907). *Das Geheimnis der Medicigräber Michel Angelos*. Leipzig: K. W. Hiersemann.
- Titchener, Edward B. (1908). *Lectures on the Elementary Psychology of Feeling and Attention*. New York: MacMillan.
- Tononi, Fabio (2020a). "Aesthetic Response to the Unfinished: Empathy, Imagination and Imitation Learning". *Aisthesis: Pratiche, linguaggi e saperi dell'estetico*, 13(1), 135-53.
- Tononi, Fabio (2020b). "Andrea Mantegna and the Iconography of Mourners: Aby Warburg's Notion of *Pathosformeln* and the Theory of Aesthetic Response". *IKON: Journal of Iconographic Studies*, 13, 79-94.
- Tononi, Fabio (2020c). "Intermediality and Immersion in Gaudenzio Ferrar's *Adoration of the Magi* in Chapel V of the Sacred Mountain of Varallo". *PsicoArt: Rivista di Arte e Psicologia*, 10, 1-18.
- Tononi, Fabio (2021). "The Aesthetics of Freud: Movement, Embodiment and Imagination". *Reti, saperi, linguaggi: Italian Journal of Cognitive Sciences*, 8(1), 125-54.
- Tononi, Fabio (2022). "Aby Warburg, Edgar Wind, and the Concept of *Kulturwissenschaft*: Reflections on Imagery, Symbols, and Expression". *The Edgar Wind Journal*, 2, pp. 38-74.
- Varela, Francisco; Thompson, Evan; Rosch, Eleanor (1991). *The Embodied Mind: Cognitive Science and Human Experience*. Cambridge, MA: MIT Press.
- Vasari, Giorgio (1915). *Lives of the Most Eminent Painters, Sculptors and Architects*. Translated by Gaston du C. De Vere, 10 vols. London: Macmillan and The Medici Society.
- Vasari, Giorgio (1966). "Vita di Michelagnolo Buonarruoti Fiorentino". Bettarini, Rosanna; Barocchi, Paola (eds), *Giorgio Vasari: Le vite de' più eccellenti pittori scultori e architettori: nelle redazioni del 1550 e 1568*, 6 vols. Florence: Sansoni, VI, 3-141.
- Virgil (1999a). "Georgics". Fairclough, H. Rushton (transl.); Goold, G.P. (ed.), *Virgil: Eclogues. Georgics. Aeneid*. Cambridge, MA, and London: Harvard University Press, 97-259.
- Virgil (1999b). "Aeneid". Fairclough, H. Rushton (transl.); Goold, G.P. (ed.), *Virgil: Eclogues. Georgics. Aeneid*. Cambridge, MA, and London: Harvard University Press, 261-597.
- Vischer, Robert (1994). "On the Optical Sense of Form: A Contribution to Aesthetics". Mallgrave, Harry Francis; Ikonomou, Eleftherios (eds), *Empathy, Form and Space. Problems in German Aesthetics 1873-1893*. Los Angeles: University of Chicago Press, 89-123.
- Zöllner, Frank (2007a). "Catalogue of Sculptures". Zöllner, Frank; Thoenes, Christof; Pöpper, Thomas (eds), *Michelangelo: Complete Works*. Cologne: Taschen, pp. 366-403.
- Zöllner, Frank (2007b). "The Sculptor: 1513-1534". Zöllner, Frank; Thoenes, Christof; Pöpper, Thomas (eds), *Michelangelo: Complete Works*. Cologne: Taschen, pp. 212-237.