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## **The magic of projection : augmentation and immersion in media art**

Ernst, S.J.G.

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**Author:** Ernst, Sophie

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# Conclusion

## The Magic of Projection

Image 80: Anonymous, towncrier with magic lantern (Ausrufer mit Laterna magica), oil painting (18th century).

*Hecate:*

*And that distilled by magic sleights,  
Shall raise such artificial sprites,  
As by the strength of their illusion,  
Shall draw him on to his confusion.*

*Shakespeare, Macbeth, 3.5.25*

“Oh, Kitty! how nice it would be if we could only get through into Looking-glass House! I’m sure it’s got, oh! such beautiful things in it! Let’s pretend there’s a way of getting through into it, somehow, Kitty. Let’s pretend the glass has got all soft like gauze, so that we can get through. Why, it’s turning into a sort of mist now, I declare! It’ll be easy enough to get through——”.<sup>354</sup> To exit the real world Alice steps ‘through the looking glass’. In a much darker way Neo, the protagonist of *The Matrix* (1999) touches the mirror-glass interface which becomes liquid. And rather than entering the mirror space, the mirror enters Neo.<sup>355</sup> Neo wakes up at the other side and finds ‘reality’; he learns that his previous reality was only a projection. He sees how in real life all humans are unknowingly tied down in a gigantic machine while being immersed in imaginary worlds. These stories, of projected illusions which replace reality in one way or other, gesture towards Plato’s allegorical cave. They display immersion as childlike innocence or ignorance.



There is another story. It is the story of a sage and a hunter and tells how the sage borrowed other people’s dreams by entering their head. “Once the sage entered the head of a hunter. He saw a whole universe complete with stars, people, oceans, mountains, cities and the sun. When darkness fell, the hunter slept, the sage slept too. A fire overwhelmed the hunter’s world, but nothing happened to the sage because he realized ‘this is just a dream.’”<sup>356</sup> By immersing himself in other people’s dreams the

354 Carroll (1871).

355 ‘*The Matrix*’, dir. by The Wachowski Brothers (USA, Warner Bros., 1999).

356 Doniger O’Flaherty (1995) p. 10.



sage was able to enter many life-worlds and gain understanding. We might conclude from these stories that, knowingly or ignorant, when immersed in a projection we gain experiences through *empathy*. We identify with what happens on screen; we ‘weep when they weep,’ we ‘laugh when they laugh.’<sup>357</sup>

Stories on augmentation work slightly different, they tend to show projection as a magical effect. In the case of the projection at *Belshazzar’s Feast* (chapter 4) could be told as a story of a magical deception. Similarly, in a Brothers Grimm fairy tale a soldier wants to light his pipe with the blue light but the light turns into a manikin that grants wishes.<sup>358</sup> Another familiar ‘smoke projection’ is the djinn in the oil lamp who expands Aladdin’s reality when he appears from a billow of smoke. Stories on augmentation don’t take their protagonist to another reality in another world, rather they tell about *magical encounters* in this world.

What these stories suggest is that we can think of projections as magic. In the 21st century we do not believe in ‘magic’. Yet, I assert projections have a magical effect. In the previous chapters I have suggested a distinction between projections in which we immerse ourselves and projections which augment our surroundings. I have shown how some images are staged *on* a screen and others are performed *by way of* a screen. I have illustrated these points with examples from a long tradition of projection art. In this chapter I want to recapitulate these points and examine what is the ‘magic’ in projection.

An augmentation, whether it is a projection, a deception, or only imagined, makes ‘reality as it is’ look strange. That is what a projection can do; “[t]his mere change of lighting was enough to destroy the familiar impression I had of my room ...”<sup>359</sup> Marcel Proust describes the change he observed when his childhood room was filled with projections from a magic lantern that someone had gifted to him. He notes how the projected figures merge with objects and sounds in the room making it look disturbingly unfamiliar. The childhood room looked strange. Augmentation can ‘make strange’. These virtual layers to reality are persuasive because we could *imagine* them as real.<sup>360</sup>

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357 Brecht (2014) p. 111-112 .

358 ‘*The Blue Light*’ (AT: 562) in German: ‘*Das Blaue Licht*’, KHM 116 (1857).

359 Proust (2005) p. 9 .

360 Doniger O’Flaherty (1995) p. 28.

As I already suggested in the prologue, with Esche I see art as “a speculative tool for rethinking current social and political conditions”.<sup>361</sup> Projection, I think, could be a ‘speculative gesture’.<sup>362</sup> I am interested in those instances of projection art where the virtual image is not staged on a screen for us to immerse ourselves in, rather I ask how can we perform projections creating an *analogical demonstration*, i.e. magic? With the word magic I am not referring to the supernatural; magic, as I see it, is something far more rational. In early modern times, however, magic had fallen into disrepute. How we perceive magic is closely related to how we understand reality and illusion.

### Enchantment and enlightenment

In Europe, ideas such as image space as frame, window or door, *poetic faith*, and *willing suspension of disbelief* bridge the contradiction between appearance and material reality. Do we not assume screen reality is distinct from material reality surroundings? Wendy Doniger compares how distinctions are made between reality and illusion in Indian and European stories. She quotes a question Gombrich asked concerning visual error: “Do [all cultures] accept the demand that contradictions must be ironed out and that all perceptions that clash with beliefs must force us either to change our views of the ‘objective world’ or declare the perception to have been a subjective experience – an illusion?”<sup>363</sup> Doniger shows how Indian texts may distinguish between appearance and reality, however leaving the contradiction in tact: “if two ideas clash, both may be true”.<sup>364</sup> Doniger says about the Western reader: “we think that if the going gets rough, we can always fall back and say ‘this is just a story – and even less, a story about a dream’”.<sup>365</sup> She concludes that the Western spectator relies on frames and lenses through which to read stories and myths.

Frames put us at a safe distance from illusion. To come back to the ideas of Tolkien and Coleridge I mentioned in chapter 1, when we engage with fiction we tend to ‘willingly suspend our disbelief’ and give the illusion (the secondary world) our ‘primary belief’. The ‘reality’ of illusions seems to rely on a separation between a primary and a secondary world. We enter from a realm of belief into a realm of disbelief

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361 Esche (2005) p. 3.

362 Ibid.

363 Doniger (1986) p. 11.

364 Ibid.

365 Doniger (1986) p. 303.

giving it *poetic faith*. *Poetic faith, willing suspension of disbelief*, but also constructions such as image space as frame, window or door, iron out contradictions between appearance and material reality. It is one of the Enlightenment's achievements to dispel the supernatural and to identify invisible spirits as superstition. It was during the Enlightenment that the attitude towards illusion and magic changed.<sup>366</sup> Not during the Middle Ages, but in the late 16<sup>th</sup> century magic, sorcery, and witchcraft became punishable crimes.<sup>367</sup> Magic became associated with trick and superstition and was seen as foolish, even dangerous.<sup>368</sup> To read things into the clouds was a matter of confused identity; clouds should be seen as clouds.<sup>369</sup>

Eckartshausen contested the notion of magic as deception and superstition; we depend on our senses to perceive the world, our experience is not absolute but an appearance. As such, he argued, imagination is a reality.<sup>370</sup> There are quite rational arguments to 'believe' in the effects of magic. Eckartshausen demonstrated how illusions could have the same physical effects as sense perception. In his treatise he divides ghost apparitions into three categories: '*Einbildung*' (impressions), referring to the recollection of memory; '*Täuschung*' (deceptions), artificial image creations frequently optical illusions; and '*Vorstellung*' (imagination) that only appears in front of the inner eye.<sup>371</sup> Essentially, magical illusions make the invisible visible, though this is by no means supernatural.

.....  
366 The word magic as such is an ambivalent term. 16<sup>th</sup> century scholar and playwright Giambattista Della Porta pointed out that the Persian word 'magic' means nothing less than wisdom. Della Porta (1658) Chap. I. Magus is an Old Persian designation for members of the priestly cast. Encyclopaedia Iranica, online edition, New York, 1996-2016.

367 The English witchcraft act of 1563 was repealed in 1735 and replaced by an act that was to implement enlightenment by law. With this act it became punishable to pretend to be a witch, a spirit medium, or tell fortunes. Ironically, the witchcraft act evolved into the current consumer protection regulation that potentially makes sorcery and fortune-telling prosecutable as unfair sales practice. Wrightson, Keith E., *Witchcraft and Magic*, Yale courses, Early Modern England: Politics, Religion, and Society under the Tudors and Stuarts (HIST 251) 2011. <http://www.youtube.com/watch?v=1rHSu2oDZXE> (accessed: 3.6.2013). The new act: <http://www.legislation.gov.uk/uksi/2008/1277/contents/made> (accessed on 5.6.2013)

368 Bekker (1691) p. 1-4, Heyd (1997) p. 161-162.

369 This was the advice of 17<sup>th</sup> century painter and art theorist Samuel van Hoogstraten. Alpers (1984) p. 72, 77.

370 Eckartshausen (1790) p. 65-90.

371 Ibid.



In the meantime magic has migrated from reality, the disenchanted world, into art and literature (i.e. *magical realism*). It is there that magic can show the strangeness of reality; or rather the complexness and layeredness of our experience of reality. And it does so by way of mimetic sympathy.

### Mimetic sympathy

As we have seen in the previous chapter, projection machines were used in all sorts of ‘magic’ acts; the machines were useful to frighten the enemy with illusions or to observe the invisible spirit world. Some projectionists would illuminate the depth of contemplation or maybe just perform delusions and treachery. Projections facilitated recording what the ‘faithful eye’ had witnessed, they might even have a direct impact on material reality. The magic lantern does not concur with Marcel Mauss’ definition of magic, as it is not part of a recognised and repeated ritual. However, Mauss’ definition of magic and mimetic sympathy might help to understand how the lantern could create illusionary wonders with an impact even when the technical ‘trick’ was revealed.

Mauss tells us, the representational nature of images follows the ‘laws of sympathy’.<sup>372</sup> In a magical sense, an image could be as potent as the object itself. As mentioned earlier, in Buddhist philosophy a reflection of an object has the equal amount of agency as the object itself, since they are both figments of our imagination.<sup>373</sup> A variation on this idea is the ‘*Scheinbuße*’, which was a mediaeval punishment where the shadow of a person, who was found guilty of a small misdemeanour, was beaten. In *Scheinbuße* the honour of a person is equated with his or her shadow.<sup>374</sup> Mauss explains how *mimetic sympathy* can be understood in the way that “similarity equals contiguity”; the image is in ‘direct contact’ and takes on the properties of that what is represented.<sup>375</sup>

The idea of mimetic sympathy compares to Koen Vermeir’s term *analogical demonstration*, which I mentioned in chapter 1. An analogical demonstration is a magical symbol.<sup>376</sup> A magical symbol visualises the invisible and hidden processes in nature by *mimetic sympathy*. The magic lantern, for instance, would show the invisible as an analogy. Psychophysiological space extended with ‘analogical demonstrations’ might create an experience of ‘magical space’. This idea could imply that magic is not inane trickery, rather a psychological device.

With this in mind we could look at virtual reality experiments with *tactile immersion* as experiences of mimetic sympathy. Our sense of touch is stimulated while we look at projected images. This is how a mirror box works: place one hand into the box, one alongside it – the mirror reflection replaces the hand in the box. Such boxes, as already mentioned earlier, are used to treat phantom limb symptoms. The patient sees the existing limb doubled and experiences his completed symmetry



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372 Mauss (2005) p. 15.

373 Westerhoff (2010) p. 162.

374 Carlen (1993) p. 10. At the time of Emperor Maximilian I (15th century) to cut of someone’s shadow was a punishment connected with banishment. Cutting off the shadow of a wrongdoer was considered taking away his ‘Schutzgeist’, his guardian spirit, and the person was consequentially outlawed. Wolf (1852) p. 347-348.

375 Mauss (2005) p. 84.

376 See chapter 1.

as if regaining the missing limb. The mirror box is an analogue version of computer software involving *natural user interfaces* (NUI) used in phantom limb treatment but also in video gaming.<sup>377</sup> As the mirror box exemplifies, the ‘magical’ projection can have a causal effect onto the material world.

We tend to approach immersive projections like Alice looked at the mirror. If we suspend our disbelief, we could enter the looking glass house which is staged on the mirror-screen. Since Enlightenment magic is often understood as pseudo-scientific supernatural or reduced to a bunny-and-hat-trick. However, if we understand magic as an analogical demonstration, we could look at a projection as a magical encounter. *By performing something absent as present, the projection might expand what we know as ‘real’.* To put it differently: in a speculative gesture a projection could make what is familiar look strange. This may well be true for magic lantern projection, but what does this mean for projection now and its use in contemporary art?

### Strange projections

As I have tried to show, augmentations in art can ‘*make strange*’. Augmenting projections are persuasive, not because they are materially ‘real’, rather because they make visible what we could *imagine* as real. To repeat Eckartshausen’s understanding of ghosts, projections play on our ‘*Einbildung*’ (impressions) and ‘*Vorstellung*’ (imagination), and at times deceive us. It compares to what Wendy Doniger says about myths.<sup>378</sup> Myths are stories about actions. The action in the story may not be physically possible, yet when described to us in detail we can picture it happening, which enlarges our sense of what could be conceivable.<sup>379</sup> This, as I have set out at the beginning of the thesis, is how I approach art making. I understand art as a technique to produce awareness. In the words of Victor Shklovsky: “[t]he technique of art is to make objects ‘unfamiliar’ to make forms difficult”.<sup>380</sup> To make objects unfamiliar and to enlarge our sense of what could be conceivable are ways we distance ourselves from simple reality or from our direct and intuitive impression of it.

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377 Jan Westerhoff describes the mirror box and other cognitive constructions. Westerhoff (2010) p. 172. Computer generated simulations are a more interactive way of the mirror box used with patients who wear a prosthesis. Bohil, Alicea, Biocca (2011) p. 759.

378 Doniger O’Flaherty (1995) p. 28.

379 Ibid.

380 Shklovsky (2006) p. 778.

As the stories at the beginning of this chapter suggest, projections can create (conscious or unconscious) understanding through empathy or distancing. Plato's cave shows immersion as ignorance; however, the story of the sage and the hunter does the opposite. The sage gains understanding and *becomes* a sage by immersing himself in people's dreams. Augmentations can create meaning through distancing, yet Belshazzar the Chaldean king was deceived by it. How does it work when we are dealing with contemporary projections? The premise under which we experience illusions today often depends on a *screening* of reality. Projections are staged on a canvas. By containing illusion on a screen – within a frame, the magical is separated from the real. To engage with the magical other, we suspend our disbelief, our rationality. Today we are seeing a paradigm shift where projections are layered into space, not as immersive experiences but as augmentations of our everyday.<sup>381</sup> I argue, despite rationalisation of sight, projection can have an impact on its material surroundings in *mimetic sympathy*. Augmentations are layers in space which create *situations*.

Let me return to the question at the beginning of this text: are projections '*speculative tools*' or pure magic? *To me magic and strangeness are vital dispositions of projection*. Magical and critical augmentations differ in the sense that the former are our everyday interactions with virtual images on mobile devices and the likes, and produce what Bloch describes as the evil mode of 'an existence of selling-and-being-sold'.<sup>382</sup> The latter are projections which make our everyday strange and make 'the beholder look up'.<sup>383</sup> I see augmentation as a technique in art to 'make strange' and create a distance that can be either pleasant or unsettling. The technique of distancing is far from new, but is an essential method in art making. It lets us imagine things differently. Augmenting projections are persuasive, not because they are materially 'real', rather because they make visible what we could *imagine* as real.

381 Elsaesser observes how "our embodied relation to data-rich simulated environments" is changing. See chapter 1.

382 "Alienation, estrangement: the terms are bound together by the alien, the external; yet in them evil and beneficent modes of experience can be distinguished in specific, very particular ways." Alienation (*Entfremdung*). Bloch (1970a) p. 121-122. *Verfremdung* and *Entfremdung* are words without a perfect match in English, also *ostranenie* is apparently difficult to translate.<sup>33</sup> Key ingredient is the word 'strange' or alien. Berlina (2016) p. 14.

383 Making strange (*Verfremdung*). Bloch (1970a) p. 123.





ANTRVM PLATONIS







In my artistic work, experiments with light projections are part of the creative process. I use both immersive and augmenting projections. Even so, I am interested in advancing a space based projection praxis, i.e. augmentation. This text is intended to research how projections are experienced and to analyse the image traditions in relation to that. I set out to study records of the history of projection as a medium. The vast number of examples I found have led me to consider their various approaches to reality.

Immersive illusion seem to have been dominant in European representation. Devices such as frame, window, or door, poetic faith, and willing suspension of disbelief bridge the gap between illusion and material reality. Immersive projections stage virtual images on a screen and solicit an empathic response. In contrast to this, augmentations are space based and perform a virtual image to an audience. Indeed, when applied in art, both immersion and augmentation can be used critically; however, in immersions the moment of critical reflection is postponed. Augmentation on the other hand may trigger a direct awareness, as I have experienced most immediately in the work *Silent Empress*.







# ICONOCLASM projected:

## Silent Empress

Augmentation does not imply image projection. Augmentation of space can also be auditive or tactile. The project *Silent Empress* is an example of an extension of reality by means of sound. *The Silent Empress* was a sound tag on the statue of Queen Victoria on Castrop Rauxel Square in Wakefield, 2012. The audio 'graffito', was temporarily attached to the statue of the Empress, making her speak. "*Council chiefs not amused by art installation. A DUTCH artist has been slammed for strapping a megaphone to a statue of Queen Victoria*" was the subsequent headline in the Sun.<sup>384</sup> The Council of Wakefield had given permission to an art project commissioned by one of Yorkshire most popular contemporary art institutions. The work was intended to highlight British history of Imperialism. The audio monologue was a quasi apology for colonial times, and was a collage of quotes from journals and letters of Queen Victoria as well as speeches and texts by Gordon Brown, Tony Blair, David Cameron, Lin Zexu, William Gladstone, Lord Salisbury, Winston Churchill and Somerset Maugham.

The statue spoke for less than half an hour before the council decided it was an inappropriate action and at the request

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<sup>384</sup> The Sun, 2 July, 2012.



of the local police needed to come down. *The Silent Empress* addresses the question of commemoration and post colonial identities in Europe by example of the United Kingdom. Questions of restitution and apology for wrongdoings during the colonial period have been going through the news media in Europe. I was asking myself the question what meanings do public statues of the colonial period hold for different groups in society? The provocation is acted out by means of a media extension in a social space; the static queen appears to magically speak to her people. Albert Camus once said that the imaginary world art creates is based on changes to the actual world.<sup>385</sup> And it is through augmentation that fiction can be acted out in reality.

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385 Camus (1957) p. 326.

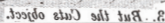
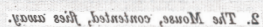
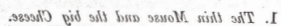




VICTORIA REG. ET IMP.  
1837 — 1901

THIS STATUE WAS ERECTED BY THE CITIZENS OF WAKEFIELD  
AS A MEMORIAL TO THEIR GREAT AND GOOD QUEEN  
1904





A. And are furrows at hand done.