

Technology and Desire

The Transgressive Art of Moving Images

Edited by Rania Gaafar and Martin Schulz



intellect Bristol, UK / Chicago, USA

No. 54, 2009.
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Chapter 5

Enfolding-Unfolding Aesthetics, or the Unthought at the Heart of Wood

Laura U. Marks

Imagine the realm of images that populates our world as a vast, variegated surface, containing everything: holiday snapshots, action movies, medical images, pictures of the surface of Jupiter, everything. This field contains sounds and smells and other perceptible, too, from chairs to music to the scent of vanilla, but let's bracket them out for now. Imagine that this field surrounds you like a bubble, translucent, and you are looking out through it. You look through the field of images to their sources, distant in time and space: the holiday afternoon, the movie set, the ultrasound of your internal organs (also distant in a certain way), the planet Jupiter. You realize that this source is infinitely vaster than the field of images that arose from it.

But some of the images do not come to you directly from the source. They seem to get twisted or caught on the way 'in' to your perception, for they reflect not a perceptible experience, but a calculation, a procedure. For example, the camera that took the snapshot was digital, and so the visible scene at the source has been assigned pixel values in order to be expressed as a snapshot. The action movie was shot against a blue screen and keyed in to a digital background; its star was chosen on the basis of a calculation of her audience appeal. The ultrasound consists of a translation of sound waves into visual information. The picture of Jupiter is an artist's rendering based on astronomical data. These calculations constitute an intervening layer between the world and the images that convey it to us. I am going to call that layer information.¹ Beyond it lies the infinite.

What is the infinite? Well, 'infinite' is a negative term: the not-finite; and most definitions of it are negative: limitless, boundless, uncountable, inconceivable. We cannot conceive of the infinite except as the ground from which we distinguish certain figures – or, the noise from which we receive certain signals.

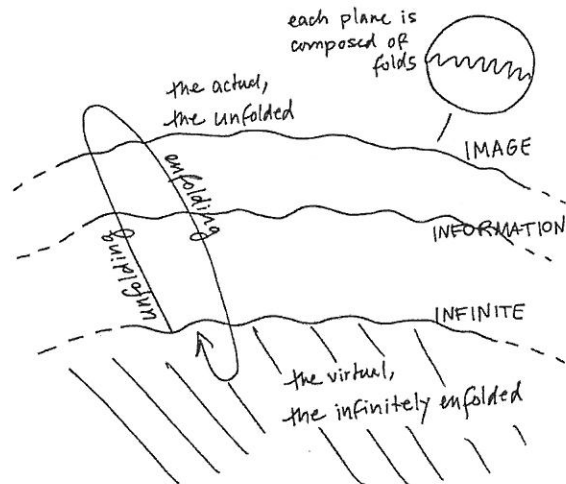


Figure 1: Enfolding-unfolding aesthetics. Diagram by Laura Marks.

But also I like to think of the infinite as constituted of innumerable folds; and when we perceive something, we unfold some small part of the infinite. Every perception is an unfolding.

Enfolding-Unfolding Aesthetics

An aesthetic, in its simplest and most old-fashioned guise, is simply an account of how we engage with the perceptible world. Baumgarten wrote in 1750 that aesthetics is the 'science of sensuous cognition.'² Enfolding-unfolding aesthetics deals with the coming and going of perceptibles, a kind of recycling or conservation of mass. It answers the question: where do images come from? Where do they go? By 'image' I mean not only the visible, but all that is perceptible: visual, audible, tactile, olfactory, etc. When I suggested this idea to artist/scholar Susan Schuppli, she grasped it instantly: 'I love the idea of a cosmic composite heap that is in active state of remolecularizing itself to create images yet-to-come.'

Enfolding-unfolding aesthetics starts from Deleuze's investigation, in the cinema books, into how certain images arise to us (or to the more disinterested perception of the cinema), by being selected from the infinite. Images that unfold directly from the infinite include our own perceptions, as well as things like photographs, brushstrokes and iconic images.³ Each line in the diagram represents a plane of immanence.

My intervention in Deleuze's theory of signs is to insert another image-plane between images and the infinite, namely information: a plane through which the semiotic process passes before images can arise. This information layer is most evident in digital and other quantified media, where there is a layer of code underlying the perceptibles we see, hear

and touch – like the holiday snapshot I mentioned earlier. But it is also evident in anything industrially produced, anything whose physical being is the result of research that has been quantified. Gregory Bateson famously defined information as ‘the difference that makes a difference’; that is, a meaningful organization of noise into a signal.⁴ In information theory, those aspects of the infinite that do not interest us – that is, almost all of it – are ‘noise’.

Note that unfolding requires a certain force, a desire to bring something into actuality. Some things resist unfolding. To emphasize that resistance – and that images are the manifest, outer layer of a deeply enfolded source – I introduce two terms used in Islamic thought, principally in Shi‘ism and Sufism, to describe manifest and latent states: *zâhir* and *bâtin*. ‘Zâhir’ implies outer forms, a surface, that which is manifest and explicit; it is used to describe the meanings of the Qur‘an that are available to all. ‘Bâtin’ signifies enfoldedness, and the deeper, implicit meanings that may potentially be explicated. In enfolding-unfolding aesthetics, images are relatively *zâhir*, or manifest; the infinite is relatively *bâtin*, or latent; and information has both qualities. As an imam can reach into the words of the Qur‘an and unfold latent meanings (some Muslims believe), so we can reach into an image and unfold, bring out onto the surface, some of its latent contents.

Information thus organizes noise into something considered meaningful. Information is a quantitative unfolding from the infinite that precedes our perception. Information is what has been selected from the infinite as valuable and unfolded. The rest (so, almost everything) remains enfolded. In turn, what we finally perceive with our senses, in many cases, is unfolded from information. In our society, much of what we deal with first-hand has already been encoded as information. When you drink Starbucks coffee, you’re drinking information. When you smell Chanel or Bounce Dryer Sheets on a passer-by, you are smelling information. When you sit in a moulded plywood Eames chair (or a copy of one), you’re sitting on information.

Enfolding-unfolding aesthetics is useful for critical thinking: what is deemed useful information, what is forgotten as mere matter? What continues to be taken up, to generate new signs as it circulates? Enfolding-unfolding aesthetics is useful for thinking about art, in particular, because it helps us observe how artworks select certain elements to unfold (from the infinite or information), or will certain elements to remain latent. A triadic aesthetics, it informs the way an artwork makes a viewer/participant aware of the relationships between the image/object and information, and between information and the world, or it obscures those relationships. And enfolding-unfolding aesthetics emphasizes that, even in this world so oversaturated with images, it is still a creative struggle to pull images into being.

Things are Hardened Information

Sometimes it seems our universe consists entirely of the smooth, designed, commodified surfaces of information-based media. This is especially so for people who live in urban and suburban environments in the post-industrial world. It seems we are trapped in a world not of our invention.

However, remember that the information level is not the fundamental source of images. It is a filter. It forms an interface to something else: the world in which programmers write code, artworks are dreamed up, coffee is picked and roasted, perfumes are distilled, profits are reaped or lost – and infinitely more. This world is what I call the infinite. In enfolding-unfolding aesthetics, image is an interface or filter to information, and information is an interface, or filter, to the infinite. To figure out where an image comes from, we need to find out how it arose from the infinite; and, often, we need to find out how it arose from information, too – information that itself arose from the infinite.

I like to use the most material examples here. Certainly we can consider the ways in which images are encoded, or the news is encoded, or the stock market encodes material processes. The latter is an example of information that is dense with meaning yet yields almost nothing in the way of image. But let's think about how socks are encoded. A sock is quite material. If you knit the sock yourself, the sock is the direct actualization of a virtuality that starts with you: the time spent knitting, the source of the wool, the factory where the wool was spun...an ever-expanding field of virtualities whose actual outcome is your home-made sock. Most of us buy our socks in a store, though. And here we confront the paradox that socks are made of information. In its colour, texture, pattern and packaging, a sock encodes branding and market research. Logos are images that encode information quite densely, for they embody thousands of hours and millions of dollars of research: the Calvin Klein logo, for example. On the diagram on page 152, you can see that socks are an 'image of information', which in turn draws on cotton, wool, elastic, machines, labour, factories, marketing, etc. – an infinite number of variables: from infinite, to information, to image.

So now you are looking at my Calvin Klein socks. You can kind of perceive the relationship between image – the logo, colour, and trendy stripes – and information, right? Do they look

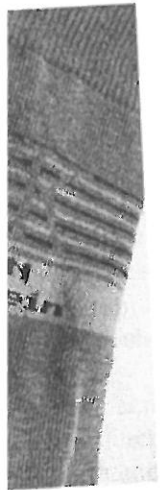


Figure 2: Calvin Klein socks. Photograph by Laura Marks.

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a little off? Yes. The socks are knock-offs, made in Syria. The colours are not quite right, the knit type looks wonky, and inside there is tight, uncomfortable elastic. Also, they have holes in them. If the real Calvin Klein sock was the source image, then it is an image that has rolled back around into the infinite, and a new image or sign has been produced from it. Somebody carried it in their suitcase to Damascus. The Syrian knock-off factory (which also makes shirts with a Calvin Klein logo and a Nike swoosh) modelled a new sock on it. But their equipment is not perfect, and also the knock-off designers had ideas about beauty and rightness: these circumstances are all part of the infinite from which the new, knock-off sock arose.

I bought the socks and wore them for years and now they are slowly returning to the infinite, and eventually they will be decomposing in a landfill. Another cycle around the diagram.

The Virtual, the Unthought at the Heart of Wood

Ultimately, the enfolded model of the image does not distinguish between material and immaterial. All of these levels – image, information and infinite – are real, in Deleuze's sense that the real encompasses the virtual and the actual. The actual is what exists – a thing, an event or a concept. The virtual is that which conditions the emergence of the actual. The virtual is the truly infinite ground against which the fewest actual entities emerge. It consists of all that cannot presently be thought; it is an asymptote for thought: 'the powerlessness at the heart of thought.'

Most materiality is virtual, too. Things exist physically while remaining mostly virtual. As Elizabeth Grosz writes, philosophers who are sympathetic to matter (i.e. don't see it as something to dominate), such as Bergson, (Peirce,) Henry James and Deleuze, argue that we 'carve out' things in experience. So most of what exists in the world does not exist as things for us. Simple experiments bear this out. Other people's experience is mostly virtual to us. But there are ways we can make their experience more actual for ourselves if we want to. The Calvin Klein sock is real, but the machine on which it was knit is an inaccessible part of the machinic phylum, thus in some way virtual, as far as we're concerned; its molecular structure is similarly virtual; the tightness of the elastic is virtual to you, but not to me.

I have suggested that the infinite can also be considered the Earth.⁵ Materially, the Earth is what precedes all things and to which all things return. The objects that cycle through our lives return to the Earth in a literal sense. Thinking of the Earth as the virtual is compatible with Bergson's concept of the virtual, for Bergson argued that matter is composed by duration – the way it persists, decays, and transforms: 'Matter is [...] an infinitely dilated past.'⁶ And it helps us consider that the virtual lies in matter.

Materialistically, we could call the virtual 'thought's powerlessness at the heart of wood.' In fact, this is an ancient idea. Since the ancient Greeks philosophers have used wood as the ideal of something means little in itself, but is full of potentiality. The tenth-century Shi'ite theologian Abu Ya'qub al-Sijistānī argued that the Qur'anic revelation

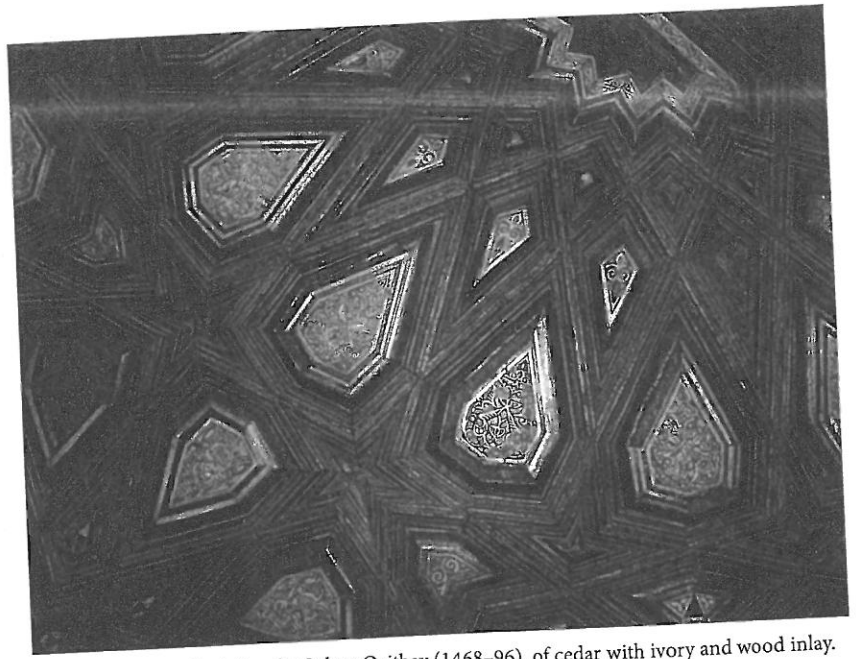


Figure 3: Detail of minbar for Sultan Qaitbay (1468–96), of cedar with ivory and wood inlay. Victoria and Albert Museum. Photograph by Laura Marks.

required interpretation, comparing it to wood that must be worked in order to be made into something useful.⁷ St. Thomas Aquinas wrote that a piece of wood was a finite form containing infinite potential, in that an infinite number of forms could be potentially carved from it.

This detail of the minbar of Sultan Qaitbay mosque suggests the infinity internal to wood. It also indicates the cooperation between the carver's ideas about form and the wood's material. So, again, my notion of materiality is not exactly Marxist materialism, but closer to Deleuze and Guattari's characterization of the *machinic phylum*⁸ as that material that, like the grain of wood, guides the artisan to invent and to come up with thoughts that she would not have had in the absence of this obdurate, densely enfolded material.

Bergson, in *Creative Evolution* (1998), pointed out that, far from being the rational masters who should dominate dumb creatures, we humans are more similar to animals and plants than we are different from them. He wrote: 'Our intellect [...] is intended to secure the perfect fitting of our body to its environment, to represent the relations of external things among themselves – in short, to think matter.'⁹ We humans are not so different from the things we think about, and that is why we are able to think (alongside) them. That's why we can anticipate their reactions: from massaging a dog based on where you think it might ache, to sectioning the muscles of a slaughtered animal, to responding mimetically to a potato plant infested with bugs, and calling on our plant nature to find a way to cure it. (Though if we

responded mimetically to the bugs we would behave differently.) This response to the world, according to Bergson, is instinct: what we have in common with animals and plants.¹⁰ So, when we get in touch with the heart of wood, we are using our instinct to call on our internal cellulose-like nature.

Most philosophy privileges what actually exists, and who can blame it? However, Deleuze and Guattari emphasized again and again, using many different metaphors, that the relevant category is not Being – what exists, but Becoming – what changes.¹¹ This can be traced to the influence of Bergson, and Bergson's emphasis that all things change in duration, become something else, evolve in unforeseen ways. The moment of becoming is what fascinated Deleuze and Guattari, so they were interested in phenomena just when they are getting started: like the 'free marks'¹² with which Francis Bacon began a painting in order to ward off clichés. These are all moments where the virtual becomes actual; where something entirely new comes into the world. For these thinkers, the virtual is the engine of change, and of life itself. Hence the paradox of privileging the virtual, or what does not actually exist, over the actual.

Now the question is: what is the difference between virtual immaterialities, such as potential concepts, and a materiality that is also somehow virtual in that it is inaccessible, inconceivable to us? What is virtual and yet material? Deleuze and Guattari deal with these in various ways. In *A Thousand Plateaus* (1987) and *Cinema 1 – The Movement-Image* (1983), the monism of Bergson permits a material definition of the universe: the plane of immanence is 'flowing-matter', adding Peirce's concept that the universe is composed of signs, flowing-signs. However, these are fairly dematerialized ideas of matter: Bergson's universe is composed of light, Peirce's signs are ultimately composed in the mind.

Deleuze and Guattari's concept of the *machinic phylum* dignifies matter by recognizing that it too is infinite, and thus in a way virtual. The machinic phylum is 'the flow of matter in continuous variation [this is Bergson], conveying singularities and traits of expression.' It is 'a destratified, deterritorialized matter': matter that is not yet formed.¹³ Certain aspects of this flowing-matter are taken up by humans (I will say for now, though want to keep open to other agents) as an *assemblage*, 'a constellation of singularities [...] deducted from the flow – selected, organized, stratified – [...]':¹⁴ All human culture is assemblage, invention: identifying aspects of the machinic phylum to take up, refine, discover, invent: metal, wood, clay, plants, electrons.

Here is the heart of wood of my title. Matter, Deleuze and Guattari write, is 'an entire energetic materiality in movement, carrying *singularities* or *haecceities* that [...] combine with the forces of deformation: for example, the variable undulations and torsions of the fibers guiding the operation of splitting wood.'¹⁵ Plus variable intensive effects, e.g. the wood's porosity, resistance: 'At any rate, it is a question of surrendering to the wood, then following where it leads.'¹⁶

So the radical materiality of the machinic phylum is the unthought at the heart of wood. When we think about where images come from, I want us to be thinking about the virtual, the infinite, and also something so physically real that it is utterly unknowable to us.



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What happens when we impose laws on matter; for example, in computer-aided design? Deleuze and Guattari write:

One may link the materiality's power of variation to laws adapting a fixed form and a constant matter to one another. But this cannot be done without a distortion that consists in uprooting variables from the state of continuous variation, in order to extract from them fixed points and constant relations.¹⁷

Matter is forced to act like an idea and loses its singularity and internal energy. So a question for genetic modification, AI algorithms, and additive manufacturing or 3D printing is: do they impose form on matter or go within matter and let matter inform them? When calculations are imposed on matter, how does matter resist and contribute?¹⁸

Connective Tissue: The Virtue of Mediation

Now I draw your attention in the diagram to the way images cycle from infinite, to (the optional step of) information, to image, and then back to infinite. We can look at the life cycle of an image in terms of how many times it cycles around, changing as it goes. This process is very much like Peirce's semiotic process, whereby signs necessarily mutate as they circulate; they still reference their source, but it becomes more and more distant. The most interesting kinds of image are those that bear the traces of their own unfolding.

This cycling is what we usually call mediation. For example, here's a still from DVD of *Christ Stopped at Eboli* (Francesco Rosi, 1979), based on the 1945 book by Carlo Levi.

The image we see is the most recent iteration of a life cycle that has taken several turns around the diagram. A 35mm film (adaptation of book); subtitled in English; transferred to DVD (with unsettling Doppler effect in sound); a scratch on one frame of the film; that

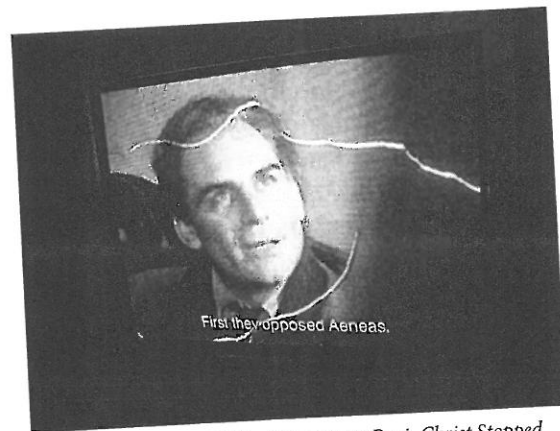


Figure 4: Still from DVD of Francesco Rosi, *Christ Stopped At Eboli*, 1979.

scratch, translated into digital scratch, becomes an entirely new shape. While all these new turns block our access to the original text, they thicken the mediating space, allowing the material history of the image to speak.

Obviously, there is only so far that we can go in celebrating decay before image gives way entirely to noise; returns to an entirely undifferentiated state; dies. I have celebrated decaying images a lot in my work, but obviously this can be a rather romantic and defeatist gesture. Nevertheless, it is also exciting and productive to consider mediation as the life cycle of the image. Thinking of mediation as thickening allows us to consider it not a block between us and the source, but as a new source.

Thus, I argue that mediation is not a block to the infinite but a fold between the infinite and our perception. Many scholars argue that digital media are independent of technology, because their foundation is a non-physical array of numbers of signals. But as you know this is not true, for every digital medium rests on an analogue base. In practice, digital media are always and entirely physical. Those numbers, or on-off impulses, are usually carried by electrons, which are as physical as can be and rife with unpredictable effects. Data compression, software conventions, software mistakes, hardware qualities, transmission properties, all of these processes are entirely physical and historical properties of digital media. And the remote servers that hold all our data, giant warehouses in the desert, account for 2 per cent of the world's energy use. That's a lot of coal powering our non-physical media. All these real phenomena leave their traces on the image. The great thing is the image itself sometimes allows us to detect them.

Mediation does not destroy 'nature' but is part of it; it is an extra set of folds, a surface complication, codifying and altering nature, and contributing its own materiality.

Images constitute a connective tissue between their perceivers and their source. Mediation connects us even further – to the image and to the human actions that modified it. I am suggesting, in the exact opposite of Baudrillard's argument about the simulacrum, that the more images circulate, the realer they get. Peirce argued that a sign becomes stronger as it 'spreads among the peoples.'¹⁹ The more an image is seen, passed on, commented upon, even parodied, the more it exists (the more times it spins around the diagram). So-called 'viral media' exult in the endless reproduction of images. How much an image has circulated – for example, how many times a video has been viewed on YouTube – becomes part of the image, the thick folds of the information layer. Where an image has circulated constitutes its information folds.

In June 2009, following Ahmadinejad's re-election, Iranians posted hundreds of videos and photographs of demonstrations to YouTube. They may be small files, but they are dense with reality. In fact these cell-phone photographs' 'pixelly' look, as well as the blurring and shaking of the camera, attested to the fact that they have had to be pulled from the source event, with strong will and against strong resistance – pulled through information in order to reach existence as image. The Iranian demonstration videos asked us viewers, in turn, to make our eyes and ears bear witness, and feel that we are part of a chain of witnessing. Since March 2011, Syrians have been uploading videos that document government

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attacks on civilians. These images also witness their own struggle to be born and make strong demands on viewers. In talking about where images come from, in desiring to know their source and how they got the way they are, we strengthen their bond with their object – with, in this case, clear political effects.

The creative struggle to pull images into being creates thick folds in the connective tissue between the beholder and the beheld, between us and the infinite. I would also include the agency of non-human perception, and also non-animal, organic perception, and even the perception of non-organic entities. For, of course, there are always plenty of beings to ‘hear’ when a tree falls in the forest.

All this is to emphasize the thickness of communication among entities of all sorts. And the purpose of that is to underscore how important it is that we perceptually unfold the most pressing and meaningful parts of the world to respond to. Rather than what has been unfolded for us.

Notes

- 1 This initial explanation and some following points also appear in Laura U. Marks, ‘Noise in Enfolding-Unfolding Aesthetics’, in Amy Herzog, John Richardson and Carol Vernallis (eds), *The Oxford Handbook of Sound and Image in Digital Media*, Oxford: Oxford University Press, 2013.
- 2 Wolfgang Iser, ‘Aesthetics Beyond Aesthetics’, in Francis Halsall, Julia Jansen and Tony O’Connor (eds), *Rediscovering Aesthetics: Transdisciplinary Voices from Art History, Philosophy, and Art Practice*, Stanford: Stanford University Press, 2009, p. 178.
- 3 Though the latter, insofar as they are conventional images, are relayed through information. I discuss this kind of image in ‘Experience – Information – Image: A historiography of unfolding. Arab cinema as example’, in *Cultural Studies Review*, Vol. 16, No. 1, March 2007, pp. 85–98; ‘Enfolding and Unfolding: An Aesthetics for the Information Age’, an interactive essay produced in collaboration with designer Raegan Kelly, in *Vectors: Journal of Culture and Technology in a Dynamic Vernacular*, Vol. 1, No. 3, 2006, <http://vectors.usc.edu/projects/index.php?project=72>, accessed 30 September 2012; and ‘Invisible Media’, in Anna Everett and John T. Caldwell (eds), *New Media: Theories and Practices of Digitextuality*, New York: Routledge, 2003 pp. 33–46.
- 4 Gregory Bateson, *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology*, Chicago: University of Chicago Press, 1972, p. 315.
- 5 Cf. Laura U. Marks, ‘Information, Secrets, and Enigmas: An Enfolding-Unfolding Aesthetic for Cinema’, in *Screen*, Vol. 50, No. 1, Spring 2009, pp. 86–98.
- 6 Gilles Deleuze, ‘Bergson, 1859–1941’, in David Lapoujade (ed.), *Desert Islands and Other Texts*, New York: Semiotext(e), 2004, p. 31. It also helps consider that what was once conceivable becomes inconceivable.
- 7 Paul E. Walker, *Early Philosophical Shiism: The Ismaili Neoplatonism of Abū Yaʿqūb al-Sijistānī*, Cambridge: Cambridge University Press, 1993, p. 27.

- 8 Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia* (trans. Brian Massumi), Minneapolis: University of Minnesota Press, 1987, p. 409.
- 9 Henri Bergson, *Creative Evolution* (trans. Arthur Mitchell), Mineola, NY: Dover, [1911] 1998, p. ix.
- 10 *ibid.*, pp. 182–87.
- 11 Becoming was already a subject for the ancient Greek philosophers. Plato privileged Being, and all idealisms tend toward it. But Being is too easily set against Nothingness, and establishes the fiction of identity and the reactive category of resemblance. Cf. Deleuze, 2004.
- 12 Gilles Deleuze, *Francis Bacon: The Logic of Sensation*, (trans. Daniel W. Smith), London & New York: Continuum, 2003, p. 66.
- 13 Deleuze and Guattari, 1987, p. 407.
- 14 *ibid.*, p. 448.
- 15 *ibid.*, pp. 408–09.
- 16 *ibid.*
- 17 *ibid.*, p. 408.
- 18 I hazard an answer in Laura U. Marks, 'Thinking like a Carpet: Embodied Perception and Individuation in Algorithmic Media', *Deautomatization*, ed. Annette Brauerhoch Paderborn: University of Paderborn Press, 2013.
- 19 C. S. Peirce, 'The Nature of Symbols', in *The Collected Papers of Charles Sanders Peirce*, Volume 2 'Elements of Logic', Book 2 'Speculative Grammar', Chapter 3, 'The Icon, Index, and Symbol', Cambridge, Massachusetts: Harvard University Press, 1931–1958.