



BY MARK B. N. HANSEN

Let me begin my exploration of the post-perceptual image with a hypothetical question: What if Gilles Deleuze had constructed his philosophy of cinema on the basis of Charles Sanders Peirce's phaneroscopic semiotics, and not Henri Bergson's ontology of pure perception? What, more specifically, would change in Deleuze's philosophy of the movement-image if he had thought the image through Peirce's understanding of signs, and not Bergson's anomalous concept of the image?

I propose this perhaps curious trajectory of exploration not out of mere academic or scholastic interest, though I would add that there is much to be learned about Deleuze's philosophy from such a comparison. Rather, I propose it because I believe that the continued relevance of, indeed necessity for, a philosophy of the movement-image in our world today hangs upon a certain coupling of the analysis of the image with a certain phenomenology, specifically with a *logical* or *objective* phenomenology that—following Peirce's governing insight—decouples appearance from any avatar of the subject, consciousness included. With the advent of digital imaging procedures, the image has attained a certain autonomy from synthetic operations that necessarily involve human forms of perception and sensation; in a world where images self-propagate, at the level of the pixel, following purely machinic protocols, what is needed is a theory of the movement-image that detaches the intensity of the image's content from the activity of its being

perceived. It is precisely such a theory that I plan to sketch in this article, by way of a critical consideration of Deleuze's complex conceptualization of the cinematic image. As shall become evident, I believe that today's digital images mark a certain break with the legacy of cinema. What is at stake in this break is nothing more nor less than the possibility for the presentation of worldly intensity—the pure quality or Firstness (following Peirce's conceptualization) of what is the case (the "phaneron")—independently of any act of perception by any being, human ones included.[1]

### Deleuze and Phenomenology

Some of Deleuze's commentators have insisted on the phenomenological basis of his project. For example, in her 2015 book, Anne Dymek states that: "It is evident that the Deleuzian cinema project consists fundamentally in a phenomenology of the image. The titles, *Movement-Image* and *Time-Image*, already clearly witness the Deleuzian belief in a possibility and necessity of a phenomenological conception of the (filmic) image" (24).[2] Such a remark seems to fly in the face of Deleuze's own differentiation of Bergson from Husserl, a differentiation that effectively positions Bergson in the role of anti-phenomenologist. For Deleuze, that is, while phenomenology is always a consciousness of something, for Bergson consciousness is something. Phenomenological intentionality renders consciousness a representational faculty, one that necessarily refers to an object other than itself, whereas Bergson's account of consciousness as pure perception makes it both presentational and material: as what Bergson calls a "center of indetermination," it is a concrete selection of the matter (images) constituting reality.

While Deleuze's own purported *aspiration* to a Peircean phenomenology is, in my opinion, debatable,[3] I want to argue that a Peircean phenomenology provides a better basis for a philosophy of cinema—and, more to the point, for a philosophy of the post-cinematic image—than Deleuze's Bergsonist ontology. In particular, I will claim that Bergson's ontology, despite its own pretensions to monism, ends by separating the human mind from the flux of matter and, as a result, cannot avoid installing human thought as the activity of

representing a reality outside of it. Because Peirce is committed to reality, or more precisely, to the reality of the “phaneron,” as that which is apparent independently of what we think of it, he puts something very different on the table. Specifically, he decouples the operation of representation from any necessary connection to human thought or mind, making it, instead, a semiotic operation that, far from being separate from reality, in fact belongs to it. Thinking Deleuze with Peirce would thus involve a break from Deleuze’s Bergsonism in favor of an embrace of phaneroscopic phenomenology with its fundamental postulate that appearing—the appearing of the phaneron or what is apparent—need not be an appearing *to a human mind*, need not be the prerogative of human thought.

#### Guattari and Material Intensity

Such a shift from Bergson to Peirce is imperative, as I have already announced and as I shall argue below in the second half of this chapter, for understanding the operability of contemporary imaging. For now, let me focus on Deleuze’s philosophy of the movement-image by recalling some facts about his *Cinema* volumes and their relation to his broader philosophical project—facts that will hopefully prove helpful as we pursue the thought experiment of thinking Deleuze with Peirce. *Cinema 1: The Movement-Image* was published in 1983 and its companion volume, *Cinema 2: the Time-Image*, two years later in 1985. These books constitute Deleuze’s first intellectual investment following the great collaboration with Félix Guattari that yielded *Anti-Oedipus* in 1972 and *A Thousand Plateaus* in 1980. I want to single out two significant, and interrelated implications of this situation. First, the ongoing influence of Guattari on Deleuze, an influence that (as we shall see) finds concrete expression in Deleuze’s confession to the students in his 1982 seminar that rather than the cinema itself, of which he had spoken so much, what he “had had in his mind” was “a classification of images and signs” (“Classification,” qtd. in Dymek 23). And second, the deep resonance of Deleuze’s cinema project with the overriding aim of *Capitalism and Schizophrenia* to construct an evolutionary cosmology rooted in the expression of the “plane of consistency.”

These two implications converge to the extent that it is Guattari's reading of Louis Hjelmslev's glossematics that stands behind and informs the conceptualization of the plane of consistency. Guattari turns to Hjelmslev as an alternative to Saussure: as is well-known, and in contrast to the binarism of Saussurean linguistics, glossematics works with a three-part account of sign function: an amorphous thought element named "purport"; a structure of expression named "form"; and the product of purport and form named "substance." It is the amorphous thought element of purport that appeals to Guattari for it seems to touch on what is material about the sign prior to the operation of form. As Gary Genosko points out, however, Guattari must submit Hjelmslev's "purport" to a critical modification (Genosko), for where Hjelmslev ties purport to form by conceiving it as "substance for a new form" and by linking its possibility for existence to its "being substance for one form or another," Guattari suggests that purport can be considered independently of form (Hjelmslev, qtd. in Dawkins 156). For Guattari, that is, while matter may be abstract, it is nonetheless real, and since it is real, it need not presuppose form for its expression. With Roger Dawkins, we could say that "the sign teases out of matter what is already real, yet abstract" (156).

For this reason, the plane of consistency as developed in *A Thousand Plateaus* can be understood to be a *generalization* of Guattari's attempt to locate a material element in glossematics that escapes from all pre-existing form: like this material element, the plane of consistency operates beneath formalized contents and comprises the materiality on which any and all stratification arises. Deleuze and Guattari describe it as a kind of cosmic dance: "The most disparate of things . . . move upon [the plane of consistency]: a semiotic fragment rubs shoulders with a chemical interaction, an electron crashes into a language, a black hole captures a genetic message, a crystallization produces a passion" (*Thousand*, qtd. in Dawkins 157). Whatever generalization is involved in the passage from Guattari's critical appropriation of Hjelmslev to the conceptualization of the plane of consistency is *per force* a transformative one. For not only does it vastly broaden the scope of materiality's abstract dance prior to any formalization, but it also recasts this materiality in a fundamental way, transforming it from something closely bound up with language into something co-substantial with the movement of life as such. The "purport" at stake here is the material element, not just of thought, but of all of life, of which thought is but one mode of expression.

When Deleuze explicitly models the Bergsonian plane of movement-images, as expressed in cinema, on the plane of consistency—literally describing it as a plane of consistency—he makes a big conceptual leap. For not only does he move from the materiality of life itself to the in some sense more restricted domain of movement-images, but in so doing he cashes out a highly differentiated and heterogeneous, if still abstract, materiality in favor of a resolutely abstract and formally homogeneous modeling of matter as the flux of images. Beyond simply carrying over the fruits of his collaboration with Guattari—and specifically the generalized understanding of the priority of the material element over form—from one domain to another, Deleuze was in actuality trading in a Hjeltmølle-, and, I would add, Peirce-inspired semiotics for a distinct ontology of images. That these two conceptual bases diverge in some important ways is not in question; what we must ask is whether they are in the end compatible with one another. This question of compatibility is, ultimately, the question of the coherence of Deleuze’s philosophy of cinema, and it is also the key, as we shall see below, to the potential to expand Deleuze’s philosophical approach to the image in a way that can confront the image in its contemporary form.

#### Deleuze’s Peirce

To begin to address this question, let me turn to Deleuze’s deployment of Peirce. Most of the commentators who have discussed Deleuze’s use of Peircean semiotics concur that it is a piecemeal one, or what I would prefer to think of as an instrumental one. Rather than taking genuine philosophical inspiration from Peirce’s phaneroscopic semiotics—as he does in the case of his readings of Bergson, Nietzsche, Spinoza, Hume, Leibniz—Deleuze appears to discover in Peirce’s typology of signs nothing more nor less than a scaffold for a typology of images that can be applied to his Bergsonian account of the movement-image. The fact that Deleuze consulted only a single volume of selected writings of Peirce on signs edited by Gérard Deledalle, and that he remained unaware of Peirce’s contributions to phenomenology (which Peirce called phaneroscopy), serves only to make the instrumentalist nature of his deployment of Peirce more evident.

Expanding on this line of thought, let me propose that Deleuze's recourse to Peirce serves to suture the "big leap" that, as we saw above, is at stake in his characterization of the flux of movement-images constituting cinema as a plane of consistency. Recourse to Peirce's typology of signs, that is, allows Deleuze to inject difference into an ontology—Bergson's account of the movement-image in Chapter 1 of *Matter and Memory*—that is, by itself, abstract and largely undifferentiated. What results is a certain mélange of Peirce and Bergson that produces bastard offspring on several grounds. First, Deleuze's conflation of Peircean sign types with images as such cuts against Peirce's own differentiation of signs and images, or rather, his specification of three kinds of images (icon, index, symbol) as object signs. Second, and more consequentially, Deleuze reduces Peirce's phaneroscopic categories—Firstness, Secondness, Thirdness—to three, or ultimately four, kinds of image: the affection-image, the perception-image, the action-image, and the mental- or relation-image. In so doing, Deleuze reduces what are in Peirce *categories of reality*, ultimate categories from which Peirce is able to bootstrap the very inauguration of his philosophy, to variant forms of the Bergsonist movement-image.

Deleuze's bastard mixing of Bergson and Peirce, and the bastard offspring it produces, are not in themselves a problem; indeed, Deleuze himself openly acknowledges that his semiotics of cinema does not coincide with Peirce's, and Deleuze's philosophy, as we all know so well, is everywhere characterized by the kind of transformative appropriation we see at issue here. Where this mixing does become a problem is in the incompatibility between the Bergsonist ontology of Deleuze's cinema project, and specifically of the flux of movement-images *as plane of consistency*, and *the ontological implications of the semiotic phaneroscopy* that Deleuze seeks to appropriate instrumentally.

### Bergson and Cinema

Before elaborating further on the nature and consequences of this incompatibility, let me refresh our memories concerning Deleuze's claim about Bergson and the cinema. You will recall that Bergson himself famously attacked the cinema in Chapter 4 of *Creative Evolution*

for being an exemplar of the reduction of duration to spatiality. For Bergson, the “cinematographical mechanism of thought,” like other forms of instrumental measurement, could not capture duration and could not enter the intuitive domain of inner life, or as Bergson put it: “rests placed beside rests will never be equivalent to a movement” (340). Here we can see that what Bergson objected to in particular was the discretization that he felt was constitutive of the mechanism of cinema: no sequence of discrete images can ever produce a duration, and whatever movement is involved had to be imposed mechanically and from the outside by the film projector.

In his commentary on Bergson’s denunciation of the cinema, Deleuze first notes the limited validity of Bergson’s critique: insofar as it applies to the “primitive state of the cinema,” which would certainly be that of the cinema circa 1907, Bergson would seem to be right. For in this primitive state, “the image is in movement rather than being movement-image.” It was, Deleuze concludes, “at this primitive state that the Bergsonian critique was directed” (*Cinema 1* 24). However, once the cinema refined its techniques for producing the illusion of mobility—techniques that include the moving camera, montage, the emancipation of viewpoint, and even the shift from 16 to 24 exposures per second—Bergson’s indictment could no longer hold, and indeed a deeper, nonintentional and certainly unrecognized affinity between Bergson’s movement-image and cinema could be discerned. Thus the “cuttings” that Bergson denounced—once reframed within the montage aesthetic of post-primitive cinema—become strikingly equivalent to the “mobile sections” of reality that Bergson described in *Matter and Memory*. Deleuze can accordingly conclude by emphasizing Bergson’s prescience in spite of himself: “Even in his critique of the cinema Bergson was in agreement with it, to a far greater degree than he thought . . . Bergson is startlingly ahead of his time [with his conception of] the universe as cinema in itself, as metacinema” (*Cinema 1* 58-59).

In appropriating Bergson’s conception of duration and movement-image as the ontological basis for his philosophy of cinema, Deleuze takes on board Bergson’s fundamental distinction between intelligence and intuition. This distinction appears concretely in Deleuze’s distinction between “natural perception,” characteristic of practical human experience, and the form of artificial perception that cinema affords. In cinema, Deleuze

clarifies, it is a question of “attaining a pure perception, as it is in things or in matter” (84); in this sense, cinema embodies “that very movement-image of the first chapter of *Matter and Memory*” (3) and has the important philosophical task of *discovering* “the movement-image, *beyond* the conditions of natural perception” (*Cinema 1 2*, emphasis added). As these passages make clear, Deleuze’s distinction between natural and artificial perception coincides with Bergson’s distinction between representation and pure perception. For both philosophers, the properly philosophical question is how to move from representation, which, as Bergson’s critique of spatializing reason makes clear, denatures the flux of inner life, to a mode of perception capable of coinciding with that flux. For Deleuze, cinema is at once a vehicle or technique to accomplish this shift of perceptual modality and a concrete opportunity to theorize about it.

We will see below that this division of two kinds of perception—natural and artificial—is wholly untenable in the context of Peirce’s phaneroscopic semiotics. Representation for Peirce, far from being an inferior mode of access to reality, is the *only mode of access* to it; everything is given in signs, including our own “intuitive” knowledge of our inner life and its duration. Moreover, since representation is natural for Peirce, and since representation is not different in kind from perception, his philosophy has no room for any artificial mode of perception. This distinction will prove decisive when we come to assess the value of Peirce’s philosophy for a philosophy of the contemporary image. For the moment, however, let us stick with the Bergsonist foundation of Deleuze’s cinema project in order to pinpoint precisely where it hampers his own aim to position cinema as a plane of immanence radically divorced from any anthropocentric point of view.

In her recent study of Deleuze and semiotics, semiotician Anne Dymek identifies the Bergsonist foundation of Deleuze’s cinema project as its fatal flaw. According to Dymek, Bergson’s central distinction between representation (artificial perception) and pure perception or the pure image-movement dooms his project to failure, in the sense that it harbors an irrepressible dualism that is fundamentally at odds with Bergson’s aspirations to monism. Dymek’s reading begins by recognizing a shared investment on the part of both Bergson and Peirce in an *a-representative image*; such an image lies at the basis of perception for both philosophers. Where Bergson and Peirce begin to differ is in their



respective accounts of what happens when this basal a-representative image becomes the object of a practical or pragmatic point of view—when, as Dymek puts it, “perception is irrevocably transformed into conscious and representative perception” (31). The two philosophers accord starkly different significance to this “quasi immediate, omnipresent and especially non-controllable” transformation (31): for Bergson, it is the operation of human memory that introduces representation into the process of perception; for Peirce, by contrast, it is a logical structure of semiosis—and the necessary mediation of the a-representative image by signs—that does so. This stark difference between Bergson and Peirce is crucial for our appreciation of the different ontological scopes of their respective approaches to the a-representative image: for Bergson, the transformation by human memory *denatures* the image by making it something relative to the practical demands of life; for Peirce, by contrast, this transformation is nothing more nor less than a part of the natural process whereby the world makes itself known through semiosis. More simply put, what for Bergson is a negative and restricting betrayal of the image is for Peirce part of the natural process of reality with no necessary connection to narrowly human modes of memory or cognition.

This distinction concerning the question of access to the a-representational image ultimately yields a stark polarization between the respective ontologies of Bergson and Peirce. Bergson’s denunciation of representation, despite his own characterization of it, cannot in the end avoid instituting a dualist structure. On this structure, the brain operates according to *different laws* than the universe of images, and representation must be opposed to a reality that lies beneath or outside of it. The result is, as Dymek explains, the introduction of a fissure or separation of representation from the pure image: in contrast to Peirce, who “conceives representation not only as a natural process but also as the condition for all knowledge,” Bergson “unequivocally abandons his initial anti-dualist approach and falls into a skeptical dualism. This is because, in Bergson, representation, belonging as it does to the human sphere, only *refers* to the pure image that belongs to the sphere of reality, rather than mixing in with it. This meta- or degenerate level of human cognitive perception clearly marks an epistemological dualism in Bergson” (44). Insofar as it takes root in a Bergsonist semiotic of the image inspired by *Matter and Memory*, Deleuze’s cinema project cannot but run smack into this “conceptual impasse” (Dymek 44); notwithstanding his own intention to

conceptualize cinema as a plane of immanence, Deleuze's project simply cannot avoid inheriting this epistemological dualism. It is this inheritance that ultimately accounts for the above announced incoherence of Deleuze's bastard mixing of Bergson and Peirce.

### Peirce and the Cinematic Image

To grasp why Deleuze's Bergsonist ontology contradicts the ontological implications of phaneroscopic semiotics, and to prepare for a properly Peircean account of the objective image, let us delve further into some specifics of Deleuze's deployment of Peirce. At the heart of Deleuze's appropriation of Peirce is a fundamental miscomprehension and/or reduction of the ontological dimension of Peirce's phaneroscopic semiotics. Itself the direct result of Deleuze's fidelity to Bergson and his ensuing inheritance of Bergson's fall into epistemological dualism, this miscomprehension/reduction comes into play in Deleuze's analysis of the crisis of the action-image that yields the transition from the movement-image to the time-image.

Let us recall Deleuze's instrumentalist deployment of Peirce's semiotics as an account of three or perhaps four fundamental types of images: the affection-image, the perception-image, the action-image, and the mental- (or relation-) image. At the same time as it manifests his desire to find a conceptual bridge between the image and the sign capable of differentiating his Bergsonist ontology of images, Deleuze's instrumentalist deployment of Peirce's semiotics comes with an acknowledgement that his classification of images "does not coincide" with Peirce's "grand classification" of signs (Deleuze, qtd. in Dymek 65), "even at the level of the particular images he [Deleuze] picks out" (Dymek 65). Indeed, we can see more clearly now than before, that Deleuze's typology of images involves something other than a correspondence with Peirce's typology of signs, for it equates image types—and the concept of the image itself—with the phaneroscopic categories themselves. This equation, which is responsible for the reduction of ontology to epistemology in Deleuze's appropriation of Peirce, informs and indeed *facilitates* Deleuze's understanding of the crisis of the action-image as a crisis of Thirdness, along with his portrayal of *The Time-Image's*

break with the semiotics of *The Movement-Image* as being due to the intrinsic insufficiency of Peircean semiotics. What the crisis of the action-image, and the resulting shift to the time-image, makes clear is that, in Deleuze's words, "we could no longer consider the thirdness of Peirce as a limit of the system of images and of signs" (*Cinema 2* 33).

Now this reading of Thirdness as a limit is not only a fundamental misunderstanding of Peirce's phaneroscopic synechism (synechism being Peirce's term to designate his philosophy as one of continuity), but it manifests the massive reduction Deleuze performs when he assimilates Peirce's phaneroscopic categories (Firstness, Secondness, Thirdness)—which are, we must emphasize, the fundamental categories of reality, the "real constituents of the universe"—to mere sign types (Peirce, *Collected Papers* 5.82, qtd. in Dymek 73). For Peirce, these categories, and Thirdness in particular, cannot be reduced to or equated with a type of sign, such that it might be judged insufficient to describe the inventory of time-images characteristic of post-war cinema; rather, Thirdness is both the core of semiosis for Peirce and the ontological relation that allows his philosophy to include all more complex relations. In his so-called "reduction thesis," Peirce proves that all relations involving more than three terms can be mathematically reduced to a triadic relation, and that triads cannot, in turn, be reduced to monadic or dyadic relations (Burch 1991). Triadicity or Thirdness, then, furnishes the conceptual basis for thinking the continuity of the universe and the connectedness of things in it. Far from being a limit, then, Thirdness would seem to be the *exact opposite of a limit*: it never reaches a culmination but instead arises on the basis of and as the expression of the ongoing continuity of the universe.

#### Deleuze's Error

What, we must ask, motivates Deleuze to contend that we can no longer consider Thirdness as the limit of the system of images and of signs? Deleuze's claim, it would seem, involves a two-part reduction of Peirce's category of Thirdness and of his phaneroscopic semiotics more generally: first, Deleuze equates Peirce's phaneroscopic category of Thirdness with a

specific type of sign-image, “the mental- (or relation-) image”; and second, he indicts that sign-image for its incapacity to grasp the relational complexity of the post-war cinema of the time-image. What motivates this reductive account of Thirdness, together with the idea that Thirdness marks a limit in Peirce’s system, is Deleuze’s fundamental miscomprehension of Thirdness’s role as the source for representation. For as a general form of relationality—the very operation that generates representation as *the* irreducible element of any access to reality—Thirdness cannot be reduced to one kind of sign. It is, instead, *the mode in and through which reality appears as such*, which is to say, as semiosis. In contrast to Deleuze’s reductive view of it, representation for Peirce cannot be a *product* of the human mind (though it may certainly characterize the operation of human thought); indeed, it can only result from the operation of Thirdness, understood as a fundamental category of reality, and as such, must be held to be fully real. Like Thirdness, whose product it is, representation belongs to reality and not just to the realm of thought; with its capacity to generate representation, Thirdness is nothing more nor less than the vehicle by which reality expresses itself.

Because Deleuze simply fails to comprehend the role of such an “objective” account of the “natural” origin of representation in Peirce’s phaneroscopic semiotics, he can only see Peirce’s categories as dogmatic presuppositions that, far from providing the basis for a presuppositionless construction of the real, are themselves in need of deduction. In his critical engagement with Peirce in *Cinema 2*, Deleuze accordingly accuses Peirce of “claim[ing] the three types of images [by which he means, the three phaneroscopic categories] as a fact, instead of deducing them” (31). Let me reiterate why this is such a catastrophic reduction of Peirce’s philosophy. Simply put, it evacuates the core commitment to realism that lies at the heart of all of Peirce’s diverse philosophical contributions, and with it the radicality of Peirce’s project, namely, to derive the basic categories of reality solely on the basis of “experience, in the sense of whatever we find to have been forced upon our minds” (Peirce, Carnegie Application Statement, Ms. L 75, qtd. in Rosensohn 37). In the words of one commentator, this radical beginning serves to differentiate Peirce from his noteworthy predecessors, Aristotle and especially Kant, as well as from his contemporary, Husserl: “Peirce’s derivation of the basic categories, by going ‘back to the things themselves,’ involves no presuppositions, no prejudgments about ‘things’ in the

external world (whether *noumena* or ‘unknown causes’ originary of sensation), or transcendental egos ‘doing’ the thinking. . . .” (Rosensohn 30).

Beyond the misreading just described, what results from Deleuze’s failure to comprehend the ontological scope of Peirce’s project is the above mentioned relapse back into epistemological dualism. Lacking a vehicle for the “natural” origin of representation—which is to say, a proper understanding of the role of Thirdness—Deleuze is compelled to deduce it himself, and to deduce it moreover on the basis of the philosophical resources available to him, namely, his Bergsonist ontology of the movement-image. In a development that reinforces Deleuze’s erroneous accusation regarding the limit of Peirce’s thought, this imperative results in Deleuze’s postulation of a fourth category—Zerone—*Zerone*—that would lie beneath the three Peircean categories and, in particular, would come before Firstness. “If the movement-image is already perception,” he writes in *Cinema 2*, “the perception-image will be perception of perception, and perception will have two poles, depending on whether it is identified with movement or with its interval. . . . The perception-image will thus be like a degree zero in the deduction which is carried out as a function of the movement-image: there will be a ‘zerone’ before Peirce’s firstness” (31-32).

With this identification of the perception-image (“perception of perception”) as *Zerone*, Deleuze effectively bolsters the Bergsonist dualism between the a-representative image and representation and situates it at the heart of his account of time-image cinema. On this account, the cinema can find expression in image categories—whether the three or four of the movement-image (perception-image, affection-image, action-image, relation-image) or the six categories of the time-image (in addition to these four, the pulsion-image and the reflexion-image)—*only because of the mediation of one of these image categories*, namely the perception-image or *Zerone*. Put another way, the special images of Deleuze’s cinema only come to be representations of the a-representative image because the perception-image acts as a rule for their deduction. As Dymek puts it in her analysis of Deleuze’s account of the perception-image, the latter is “perception of perception” only “insofar as the human mind has already begun to relate itself to itself. It is a stage that is still perceptual, but also already a bit cognitive, capable of connecting the two worlds of objective perception (movement-image) and subjective perception (the special image [i.e., the image

categories of Deleuze's cinema])" (Dymek 75).

If Dymek is right here, we can see clearly and unequivocally that Deleuze's proffered deduction of the image-categories finds its source in human perception of the a-representative movement-image. Just as the human brain, for Bergson, must operate according to different laws than those governing the universe of images (despite being an image among images and despite the fact that it receives or selects objective images), so too must the special image categories of the cinema operate according to different laws than those governing the movement-image (again despite being variations of the movement-image and despite the fact that they are the products of perception of perception, of perception of the movement-image).

Can we not then bring our discussion of Deleuze to a culmination by concluding that his fundamental misunderstanding of and failure to appreciate the ontological aspirations of Peirce's semiotic phaneroscopy compels him to conflate two distinct operations of Peirce's categories, on the one hand as ontological, and on the other, as epistemological or gnoseological? It is none other than Gérard Deledalle, the editor of the very edition of Peirce's writings that Deleuze consulted for his cinema project, who insists on such a distinction. For Deledalle, this distinction necessarily follows from an understanding of Peirce's phenomenology as *logical* and not *psychological*, as a *logic of the phaneron*, understood (in contrast to the phenomenon) simply as what is apparent, independently of its appearance to anyone or anything: "The ontological categories are logical," Deledalle writes, whereas

the gnoseological categories are psychological, just as the objects of physics, though non-psychological, are conscious when a physicist theorizes or experiments with them. Which explains the distinction between phaneron and phenomenon, not because they are two different things, but because there are two different approaches: one logical (phaneron), the other psychological (phenomenon). . . . as thought gnoseologically [the categories] are conscious and then Third, as ontological they are real, that is to say, according to Peirce's definition of reality, either a possibility, or a fact, or a law. A logician as a human being deals, like a physicist, with objects completely different from

the consciousness he may have of them. But he *cannot* think them without “instances,” or “occurrences,” or, to use the Peircean neologism, *replicas* of which he is aware and of which he has “in his mind” an image or icon. . . . (72)

Bearing this distinction in mind, we can now understand precisely why Deleuze’s development of Peirce goes astray. Because he has no appreciation for the primary, ontological operation of Peirce’s categories, Deleuze can only view them as gnoseological, as modes in which the movement-image expresses itself *to us* and can be known *by us*. Moreover, because he can see in Thirdness nothing more nor less than one category of image, and one moreover incapable of grasping the multiplication of images constitutive of the cinema of the time-image, Deleuze is unable to appreciate how Thirdness constitutes the mode by which reality can be expressed in signs, and can thus become available to human cognition. Motivated, as it were, by these blindnesses, Deleuze is ultimately compelled to offer a deduction of the image categories—one capable of generating new categories *ad infinitum*—on the basis of perception of the movement-image, which is to say, the “perception of perception” that only human minds can introduce.

#### From Perception to Perceptual Judgment

On Peirce’s account, the equivalent of Deleuze’s perception-image is the perceptual judgment, which is a relation of Thirdness. Taking stock of the fundamental differences between these two concepts—Deleuze’s perception-image and Peirce’s perceptual judgment—will turn our attention back to the rationale for thinking Deleuze with Peirce: namely, to answer to certain transformations of the image since the time of Deleuze’s writing. For both Deleuze and Peirce, the perception-image or perceptual judgment is in a certain sense mid-way between reality or the a-representative image (Deleuze’s movement-image, Peirce’s Firstness) and human cognition of it, since it serves to transform what is fundamentally inaccessible and without relationality whatsoever into something that can be experienced by human minds. From there, however, the similarity begins to break apart. For unlike Deleuze’s perception-image, which is a “perception of perception” that renders

the a-representative movement-image cognizable by humans, Peirce's perceptual judgment is a semiotic relation of Thirdness between a percept, which is a Second, and some qualities, i.e. instances of Firstness that it captures. Perceptual judgments, to say it another way, are generated from the relation of a sign-element, what Peirce calls "qualities of feeling," with an indexical object or percept, the actualization of these qualities via the sensations they provoke. In this scheme, qualities are Firsts—aspects of the phaneron—while the sensory actualizations of these qualities as percepts are Seconds, that is, elements of actuality. The perceptual judgments or interpretants generated by the relation of qualities and their sensory actualizations are Thirds in the sense that they establish a lawlike relationship between sign-element and object, qualities and percept.

The crucial point here is that the perceptual judgment is not an act of human mind, but a semiotic relation that expresses an objective connection between an unknowable reality, Firstness, and an object, or percept, that places them into a dyadic relation with one another. If the perceptual judgment is the sign relation through which human minds experience reality as something knowable, that is not because these latter *create* the perceptual judgment, as they do the perception-image; rather, it is because they experience the perceptual judgment as a "replica," which is to say, they "host" the objective perceptual judgment as their inner mental content or thought. In this respect, the relation between the human mind thinking the perceptual judgment and the perceptual judgment itself is not different in kind from the relation, introduced by Deledalle in the above citation, between the physicist having a consciousness of his object of study and that object in itself. In both cases, the object—whether perceptual judgment or physical phenomenon—is what it is, independently of whether and how it is conceived by human consciousness.

Indeed, this independence of the perceptual judgment from any subsequent consciousness that may be had of it is precisely what accounts for the fact that we are able to perceive it at all. It is, in other words, only because Peirce's categories are *in* the things constituting reality, and are not products of our perceptual/cognitive activity, that they can be perceived, and indeed, can be perceived as what they are independently from what we think of them. This independence of the perceptual judgment from any subsequent human thinking of it institutes what I would be tempted to call a feed-forward structure of perception (Hansen).



As an objective semiotic relation of Thirdness, the perceptual judgment operates—and can only operate—to catalyze a *future* perception on the part of an individual mind, whether human or otherwise. Peirce captures this perfectly: “In a perceptual judgment,” he writes, “the mind [i.e., the world mind, MH] professes to tell the mind’s future self [i.e., a specific consciousness of world mind, MH] what the character of the present percept is” (*Collected Papers* 5.544, qtd. in Dymek 29).

Now this operation of the perceptual judgment as a hypothesis about the world (as opposed to a hypothesis about human cognition) serves to render perception an abductive activity, an activity that proceeds by guesswork on the basis of a certain familiarity with reality but without direct access to it. Abduction is a three-part process in which, first, a hypothesis or *possible* explanation is made concerning specific facts in an observation; second, predictions are deduced that would hold if that hypothesis were true, and third, the probable truth of the hypothesis is evaluated by induction. As a result, in abduction, as Peirce puts it, the reasoner has “the thought that the inferred conclusion is true because *in an analogous* case an analogous conclusion *would be true*” (*Collected Papers* 5.130, qtd. in Tiercelin 398). To say that perceptual judgments are forms of abduction simply means that they operate in a similar manner to the three-stage process just explicated: perceptual judgments constitute “the starting-point or first premiss of all critical and controlled thinking” (*Collected Papers* 5.181, qtd. in Turrissi 479) and, as such, are in effect hypotheses or possible explanations of the “character” of a percept.

Every particular perceptual judgment, moreover, includes, with its singular subject, a general element in its predicate, which permits the deduction of a universal proposition. For this reason, as Patricia Turrissi explains, “the distinction between an abductive inference and a perceptual judgment is *not* absolutely definite; an ‘abductive inference shades into [its first premise, which is a] perceptual judgment.’ And a perceptual judgment shades into an abductive inference.” Or, more succinctly put, “a perceptual judgment, the first premiss of an abduction, is, on its own, an ‘extreme’ instance of an abduction, an origination of a new idea.” In contrast to the three-staged abductive inference, a perceptual judgment *qua* extreme instance of abduction is “not susceptible of either a correction or a refutation on the basis of the principles of logic. Each such abductive judgment, of what one perceives, is

a plausible but fallible (neither deductively necessary nor inductively probable) hypothesis, a synthetic 'act of *insight*' into a really operative and perceptually apprehensible 'general element' in nature" (Turrisi 480).

### Post-Perceptual Images

Stated in the terms of this at least partial identity between perceptual judgment and abduction, the question that post-cinematic images raise is this: can the Firstness of the image made available or indeed produced by digital media, a Firstness which following Peirce's understanding constitutes a perceptual hypothesis about an unknowable, directly inaccessible reality, lead to new kinds of perception? Moreover, given the fact that all perceptual judgments "constitute a hypothesis concerning the reality of one or more qualities," i.e., concerning the reality of Firstness, can the perceptual judgments catalyzed by post-cinematic images be said to differ in kind from properly cinematic images, including the time-image, in the sense that, far from constituting perception-images, they yield perceptual judgments about a realm of reality that cannot, strictly speaking, be perceived?

Let me begin to answer these difficult questions by explicating Peirce's category of Firstness, and what I judge to be its special affinity with digital imaging processes. Firstness is the pure quality of a thing that is separate from its existence. The domain of Firstness is thus the purely possible, "the immediate as it is in its immediacy," "the present in its direct positive presentness." Instances of Firstness, to cite one of Peirce's enumerations, include "the color of magenta, the odor of attar, the sound of a railway whistle, the taste of quinine, the quality of the emotion upon contemplating a fine mathematical demonstration, the quality of feeling of love, etc." (*Collected Papers* 1.301). In his account in *Eco Media*, Sean Cubitt puts his finger on what, for me, is certainly the most important characteristic of Firstness: its independence in relation to the object to which, at the level of existence or Secondness, it will be coupled: Firstness, Cubitt underscores, "names the perception of a phenomenon before its source is separated out as an object ('secondness') and named ('thirdness')" (49).

Because—following Peirce’s generalized semiotics—a phenomenon can only be known when it is presented as an object to another mind (interpretant), this autonomy of Firstness effectively coincides with its unknowability, its opacity to any intentional grasping. As such, it would seem to render it outside or beyond the realm of what can be experienced phenomenologically, even if this is understood broadly, without any overly restrictive correlation with consciousness. This extrusion from the domain of phenomenality will prove to be precisely what makes Firstness so interesting and so promising for revitalizing phenomenology.

Recent efforts to link Peirce’s categories to cinematic and media images pursue a fundamentally different project than Deleuze’s. Where Deleuze sought to apply Peirce’s categories to generate a basic typology of images, as we have seen, critics like Adrian Ivakhiv and Cubitt locate the categories in the complex relationality linking spectator and image. For Ivakhiv, Firstness “would be the image itself. Secondness would be the impact of that image on the viewer—for instance, the way it arouses me, elicits shivers down my spine, or reminds me of some specific previous event. Thirdness would be the mediation of that impact through an interpretation of the film” (54). For Cubitt, Peirce’s categories designate, respectively, three technical elements of the digital image: pixel, cut, vector. On this account, Firstness, or the pixel, is a “directionless flux of pure movement” (*Cinema* 66), the immediate felt quality of the image but in the absence of any actual feeling or feeler. In quite similar, if more general terms, Shane Denson characterizes the post-cinematic image as “affect without feeling,” precisely because the “transformation at stake here pertains to a level of being that is . . . *logically prior* to perception, as it concerns the establishment of a new material basis upon which images are produced and made available [or, we might add, *not* made available] to perception.”

### The Post-Cinematic Image

I shall come back to this link of Firstness to a new material basis of the image, and specifically to the logic of the pixel, precisely because it introduces a technical equivalent of

my above claim regarding the extrusion of Firstness from the domain of the phenomenal; the pixel is the operator, in our 21st-century media culture, of a fundamental transformation of the image that, I shall argue, begins to operate *without being phenomenally apprehended*. First, however, I want to invoke Steven Shaviro's recent discussions of the post-continuity style of contemporary filmmaking, which provide a useful context for appreciating the transformation at issue here. In post-continuity style, Shaviro claims, "a preoccupation with immediate effects trumps any concern for broader continuity—whether on the immediate shot-by-shot level, or on that of the overall narrative." Shaviro suggests that today's filmmakers and film viewers are simply not interested in continuity and, indeed—and more provocatively—that narrative continuity has *never been important in itself* but has functioned, in classical cinema no less than that of the avant-garde, as "one of the ways in which we are led into the spatiotemporal matrix" through which "we experience the film on multiple sensorial and affective levels." This positions him to suggest that what is at stake in post-continuity cinema is a fundamentally new articulation of space and time which "have become relativized or unhinged." In post-continuity films, "we enter into the spacetime of modern physics; or better, into the 'space of flows,' and the time of microintervals and speed-of-light transformations, that are characteristic of globalized, high-tech financial capital."

While Shaviro's focus on "immediate effects" would seem to resonate with the newly apparent prominence of Firstness in contemporary technical media and media culture, his primary concern with cinema as an aesthetic form—and his guiding mission to develop a "critical aesthetics" of contemporary culture—restrict the value of his analysis for this purpose. Here we can begin to discern a disjunction between Denson's interest in theorizing a "post-cinematic image" and Shaviro's interest in articulating a "post-continuity cinema": in the latter, the aesthetic operation and expressive function of cinema remain unchanged and unchallenged by the technical transformations of the image and of the processes of image production that are central to Denson's account.

What Denson sees in the images characteristic of post-continuity style filmmaking—one paradigmatic example being the "hyperinformatic" transformation-images of Michael Bay's *Transformers* films—is something other and, I would suggest, something more than a focus

on immediate visual effect. These images, he observes, “overload our capacities, giving us too much visual information, presented too fast for us to take in and process cognitively—information that is itself generated and embodied in informatic technologies operating at speeds well beyond our subjective grasp.” And their visualization of technical transformation, Denson further specifies, operates through a mode of failure: specifically, their “*failure* to coalesce into coherent objects.” This failure, Denson continues, “defines these images as metabolic ‘spectacles beyond perspective’—as ostentatious displays that categorically deny us the distance from which we might regard them as perceptual objects. It is the processual flow and speed of algorithmic processing that is put on display here, and indeed *put into effect* as the images are played back on our computational devices.” This last point will prove decisive once we turn to the technical infrastructure of contemporary digital images, for it underscores the generativity-in-itself of the image that correlates with its autonomy and its Firstness.

This description perfectly captures how the extra-perceptual status of these transformation-images effectively wrenches them out of any cinematic function, whether in the service of continuity or of post-continuity. They constitute moments when the sensory perception constitutive of the experience of cinema—and of the spacetime matrix that, on Shaviro’s account, it serves to express—is interrupted, or perhaps more precisely, gets supplemented by an extra-perceptual expression of Firstness. Focusing on these moments of Firstness requires us to step outside of the institutional frameworks of cinema studies—a move that, I would suggest, is in perfect accord with the broader changes in the cultural logic of images in our 21st-century media world. Contextualized in this way, the category of Firstness offers nothing more nor less than a means for liberating the image—the cinematic image included—from its overdetermination by the institution of cinema.

This is a point made—as it were, by negation—by film scholar Martin Lefebvre, who in an evaluation of Peirce’s contribution to cinema studies, underscores the lack of interest autonomous images hold for the film theorist:

one of the effects of a film, one of its qualities, is to permit us to see and identify a vast set of photographed objects. It is evident that, considered in itself, each of the

perceptive hypotheses [understood following Peirce's expanded semiotic notion of perception] directed to these objects—the majority of which are nonconscious—offer very little interest for cinema studies. . . . In effect, cinema studies valorizes hypotheses—ultimately conscious and controllable ones—that aim to determine (that is to say, to render less vague) the symbolic dimension of a film, in order to perceive there an argument capable of “attracting” towards it or of associating the largest number of perceptions (of “individual,” non-associated qualities) in the form of interpretants. More simply: cinema studies valorizes hypotheses capable of *explaining* or *unifying* the largest number of qualities of a film. (175)

Taking up the position proffered by Lefebvre, I want to suggest that the liberation of the pure image or image-as-Firstness from its cinematic overdetermination opens up an asubjectal field of experience where images operate precisely as “perceptive hypotheses” in the Peircean sense discussed above. (It is important to remember that perceptive hypotheses are, for Peirce, in no way equivalent to perceptions, and need not involve perception at all: their name notwithstanding, they are hypotheses concerning Firstness.) As Lefebvre explains, “every perceptive judgment (including those that issue from the sensory perception of existent things) constitutes a hypothesis concerning the reality of one or more qualities, a hypothesis concerning the fact that they are not a projection of our consciousness into the world” (163). These qualities are precisely Firsts: considered from the logical (not psychological) point of view, they are “possibles” that need not be actualized—which is to say, that *need not be perceived by a perceiver*—to be real.

### Datamoshing and the Non-Perceptual Image

Returning now to the technical transformation of the image at issue in our culture today, let me focus on one recent aesthetico-technical procedure that will serve to highlight the pixel-centric logic of digital images as images of Firstness, and of the technique of digital compression that informs them. This procedure is datamoshing, the process of bending one digital image by submitting it to the instructions for the on-the-fly rendering of another.

Datamoshing takes advantage of what is in essence a glitch in digitally compressed images, namely the fact that most frames of compressed video are simple repetitions of a previous frame with instructions concerning only what changes in the image. These compressed frames are called “P-frames” (past frames or predictive frames) and they contain a vector map of the pixels that change in the image; they are literally blueprints for re-rendering the image with certain modifications. In contrast to these P-frames are “I-frames” (image frames) that are non-compressed images composed of all the pixel information that makes up the image. I-frames introduce new images and P-frames operate on them in order to generate modifications of a given image. Datamoshing is a technique for manipulating this process by bending an I-frame using the vector instructions, or P-frames, of a different image. What results is a situation in which one image (one I-frame) specifies the content of the pixels and another specifies their movement from one frame to the next.

Most of the few critics who have discussed datamoshing focus on its aesthetic properties. With a nod to the predictive algorithms that inform the vector maps of P-frames, Tom Levin has dubbed it a “predictive aesthetics of the absent image.” And Brown and Kutty speak of datamoshing as “colors becoming in time,” a new type of aesthetic “order” that “challenges and allows our conceptions of ‘beauty’ to evolve” (173). It is undeniable that datamoshing does hold aesthetic interest, as a piece of video art like Takeshi Murata’s *Monster Movie* certainly demonstrates (see Figures 1 and 2), and it is also the case that it has a relation to aesthetics more generally understood as *aisthesis*, the production of the sensible materiality of experience.

### 6.3 Algorithmic Sensibility: Reflections on the Post-Perceptual Image





### 6.3 Algorithmic Sensibility: Reflections on the Post-Perceptual Image

Figure 1 - Frame grab from Takeshi Murata's MONSTER MOVIE (2005)

### 6.3 Algorithmic Sensibility: Reflections on the Post-Perceptual Image



### 6.3 Algorithmic Sensibility: Reflections on the Post-Perceptual Image

Figure 1 - Frame grab from Takeshi Murata's MONSTER MOVIE (2005)

But to my mind, any analysis that does not consider the radical transformation to which datamoshing submits the image fails to grasp the “onto-technico-aesthetic” significance of digitally compressed images, which as Levin astutely notes, have more than eclipsed

traditional cinematic images in their dissemination and ubiquity. *These* are the images that are informing our everyday experience and are producing the sensible materiality of space and time, and it behooves us to make good on their potential to broker a new cultural logic of *post*-cinematic continuity that operates at the level of the pixel and not of the shot or sequence of shots. I want to suggest that the pixel-based logic of digitally compressed images displaces the operation of continuity to a more “elemental” level than that of inter-image relations (continuity or post-continuity in cinema). In digital compression, as procedures like datamoshing reveal, we can no longer speak of a relationship *between* images, but rather of an ongoing modulation of the image itself that is effectuated by contaminating the image with instructions for its own continuous self-modification, and crucially, that operates through continuous transformation at the level of the pixel. Compression images are, as Levin states, “catalogues of pure differentiability,” for what they index is nothing more nor less than the self-difference of the image itself in all its potentiality. Compression images introduce a processual logic at the level of pixel, the qualitative thisness or Firstness of the image, that differs categorically from cinematic continuity and televisual flow.

### The Pixel and Firstness

This shift to the pixel as the operator of continuity correlates with the Peircean category of Firstness for the following, specific reason: just as Firstness constitutes the pure quality, or better the field of pure qualitative difference, prior to the separating out of an object of perception, so too does the pixelated field of the image constitute a qualitative continuum that possesses a certain autonomy in relation to perception. We can discern this, as it were negatively, via the aesthetico-perceptual effects of datamoshing: namely, the genesis of blurring that precisely marks the incapacity of perception (Secondness) to grasp the transformations that are occurring at the level of pure quality or Firstness.[4] The blurring of datamoshed images exemplifies how the pixel, or better transformations at the level the pixel, constitute something that cannot be experienced directly, but that nonetheless does inform experience precisely as the qualitative element that gives rise to perceptual

hypotheses. In these images, blurring itself constitutes a “perceptual hypothesis” about a domain of quality that cannot appear as such to human perceivers.

Like Firstness *per se*, and indeed as instances of Firstness, the continuous transformations of the image at the level of the pixel cannot be directly perceived, but they can become the basis for perceptual hypotheses capable of bringing them to expression, albeit in the form of the general, as Thirdness. This, as I see it, is the crux of Peirce’s potential contribution to contemporary media theory, for as Roger Dawkins astutely notes:

Peirce’s appeal to direct experience suggests not only that thought (as well as the sign and language) is a product of experience but also that the nature of this experience is to articulate what is given *but not known*. In other words, the nature of thought is to articulate what is real, present and observable, but abstract. . . . For Peirce, all thought and formalised expression is based on the interpretation of an existing stimulation. Yet this stimulation is *never known*, it is only given, meaning simply that what we know is based only on what we get. In so far as it is abstract, we can call this stimulation a material intensity only. (160, emphasis added)

As images of Firstness, the blurred digital images of datamoshes like Murata’s *Monster Movie* are nothing but that: non-perceptual images of material intensity that can only be known via their aesthetic effects.

---

#### Works Cited

Bergson, Henri. *Creative Evolution*. 1907. Trans. A. Mitchell. New York: Dover, 1998. Print.

Brown, William, and Meetali Kutty. “Datamoshing and the Emergence of Digital Complexity from Digital Chaos.” *Convergence: The International Journal of Research into New Media*

*Technologies* 18.2 (2012): 165-76. Print.

Burch, Robert. *A Peircean Reduction Thesis*. Lubbock: Texas Tech UP, 1991. Print.

Cubitt, Sean. *The Cinema Effect*. Cambridge: MIT P, 2004. Print.

—. *Eco Media*. Amsterdam: Rodopi, 2005. Print.

Deledalle, Gérard. *Charles S. Peirce's Philosophy of Signs: Essays in Comparative Semiotics*. Bloomington: Indiana UP, 2001. Print.

Dawkins, Roger. "The Problem of a Material Element in the Cinematic Sign: Deleuze, Metz, and Peirce." *Angelaki* 8.3 (2003): 155-66. Print.

Deleuze, Gilles. *Cinema 1: The Movement-Image*. Trans. Hugh Tomlinson and Barbara Habberjam. Minneapolis: U of Minnesota P, 1986. Print.

—. *Cinema 2: The Time-Image*. Trans. Hugh Tomlinson and Robert Galeta. Minneapolis: U of Minnesota P, 1989. Print.

—. "Cinema: Classification des signes et du temps." *La Voix de Gilles Deleuze en Ligne*. Université Paris 8. 23 Nov. 1982. Web. Transcript.

<[http://www2.univ-paris8.fr/deleuze/article.php3?id\\_article=182](http://www2.univ-paris8.fr/deleuze/article.php3?id_article=182)>.

Denson, Shane. "Crazy Cameras, Discorrelated Images, and the Post-Perceptual Mediation of Post-Cinematic Affect." In this volume.

Dymek, Anne. *Cinéma et sémiotique: Deleuze en question*. Lormont: Le Bord de l'Eau, 2015. Print.

Genosko, Gary. "Guattari's Schizoanalytic Semiotics: Mixing Hjeltmølle and Peirce." *Deleuze and Guattari: New Mappings in Politics, Philosophy, and Culture*. Eds. Eleanor Kaufman and

Kevin Jon Heller. Minneapolis: U of Minnesota P, 1998. 145-74. Print.

Hansen, Mark B. N. *Feed-Forward: On the Future of Twenty-First-Century Media*. Chicago: U of Chicago P, 2015. Print.

Ivakhiv, Adrian J. *Ecologies of the Moving Image: Cinema, Affect, Nature*. Waterloo: Wilfrid Laurier UP, 2013. Print.

Lefebvre, Martin. "Théorie, mon beau Souci." *CiNéMAS* 17.2-3 (2007): 143-91. Print.

Levin, Thomas. "Datamoshing as Syntactic Form." 11 Nov. 2011. *Princeton-Weimar Summer School for Media Studies*. 14 May 2015. Video.

<<http://german.princeton.edu/ssms/2011/11/11/thomas-y-levin/>>.

Peirce, Charles Sanders. *Collected Papers of Charles Sanders Peirce*. 6 vols. Eds. Charles Hartshorne and Paul Weiss. Cambridge: Harvard UP, 1932-1935. Print.

Rosensohn, William L. *The Phenomenology of Charles S. Peirce: From the Doctrine of Categories to Phaneroscopy*. Amsterdam: B. R. Grüner, 1974. Print.

Shaviro, Steven. "Post-Continuity: Full Text of My Talk." Web.

<<http://www.shaviro.com/Blog/?p=1034>>. Accessed 3/12/15. Reprinted as "Post-Continuity: An Introduction" in the present volume.

Tiercelin, Claudine. "Abduction and the Semiotics of Perception." *Semiotica* 153.1 (2005): 389-412. Print.

Turrisi, Patricia A. "Peirce's Logic of Discovery: Abduction and the Universal Categories." *Transactions of the Charles S. Peirce Society* 26.4 (1990): 465-97. Print.

Notes

[1] I develop the concept of “worldly intensity” (and the broader concept of “worldly sensibility”) in *Feed-Forward: On the Future of Twenty-First Century Media*, especially Chapter 2.

[2] All quotations from Dymek are my translation.

[3] Indeed, as I see it, Dymek’s characterization of Deleuze’s project as a phenomenology of the image expresses more about her own position than it does about Deleuze’s intentions. This can be seen from the sentence that follows the above, where she distinguishes a Peircean phenomenology from the standard phenomenology of consciousness invoked critically by Deleuze; Dymek’s text continues thus: “a *Peircean semiotic* phenomenology of filmic images, *to which Deleuze aspires*, naturally implies a ‘surplus’ in relation to a phenomenology of images that is not Peircean” (24).

[4] I want to thank Nicolas Oxen for making clear to me the role played by blurring as an aesthico-perceptual effect (or symptom) of digital, and specifically datamoshed, images.

---

Mark B. N. Hansen teaches in the Literature Program and in Media Arts & Sciences at Duke University. His work focuses on the experiential and nonrepresentational effects of technologies. Hansen is author of *Embodying Technesis: Technology Beyond Writing*, *New Philosophy for New Media*, and *Bodies in Code*, as well as numerous essays on cultural theory, contemporary literature, and media. He has co-edited *The Cambridge Companion to Merleau-Ponty*, *Emergence and Embodiment: New Essays on Second-Order Systems Theory*, and *Critical Terms for Media Studies*. His book, *Feed-Forward: The Future of Twenty-First-Century Media*, was published by Chicago in 2015. His current projects include *Designing Consciousness*, *Logics of Futurity*, and *Topology of Sensibility: Towards a*



*Speculative Phenomenology.*

---

Mark B. N. Hansen, "Algorithmic Sensibility: Reflections on the Post-Perceptual Image," in Denson and Leyda (eds), *Post-Cinema: Theorizing 21st-Century Film* (Falmer: REFRAME Books, 2016). Web. <<http://reframe.sussex.ac.uk/post-cinema/6-3-hansen/>>. ISBN 978-0-9931996-2-2 (online)