

## The Generalized Image

Imagery Beyond Representation in Early Avant-Garde Film

Schmidt, Ulrik

*Published in:*

Artifact: Journal of Design Practice

*DOI:*

[10.14434/artifact.v4i1.13371](https://doi.org/10.14434/artifact.v4i1.13371)

*Publication date:*

2017

*Document Version*

Publisher's PDF, also known as Version of record

*Citation for published version (APA):*

Schmidt, U. (2017). The Generalized Image: Imagery Beyond Representation in Early Avant-Garde Film.

*Artifact: Journal of Design Practice*, 4(1), 6.1-6.8. <https://doi.org/10.14434/artifact.v4i1.13371>

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain.
- You may freely distribute the URL identifying the publication in the public portal.

### Take down policy

If you believe that this document breaches copyright please contact [rucforsk@kb.dk](mailto:rucforsk@kb.dk) providing details, and we will remove access to the work immediately and investigate your claim.

## The Generalized Image

### Imagery Beyond Representation in Early Avant-Garde Film

Ulrik Schmidt,

Roskilde University, Department of Communication and Arts

#### ABSTRACT

**How could we think of images that are neither figurative nor abstract, or perhaps are both at the same time? How could we think of images that are not either signifying and representational or non-signifying and non-representational but rather *a-signifying* and *a-representational* in the sense that they operate and find expression beyond the very question of signification and representation? The aim of this text is to explore the key elements in such imagery beyond representation. I will investigate the issue by revisiting a series of iconic images in early 1920s avant-garde film by the artists Man Ray and Fernand Léger. On this background, and in dialogue with film theorists and philosophers such as Malcolm Le Grice and Gilles Deleuze, I outline the basic properties and aesthetic potentials of what I term the *generalized image* as an imagery that operates and affects beyond the very question of representation.**

Keywords: image theory, abstraction, representation, avant-garde film

The dichotomy between the figurative and the abstract has often been evoked as a key element in the understanding of modern images. It was the cornerstone in Wilhelm Worringer's highly influential dissertation on *Abstraction and Empathy* (1908), in which he directly opposed naturalistic representation to geometric abstraction as two basic stylistic attitudes toward artistic practice throughout the history of Western art. A few decades later, in a somewhat similar—and similarly influential—argument, Clement Greenberg opposed modern abstraction with the representational forms of earlier periods and notoriously claimed that modern painting is modern first and foremost because it is abstract (2003a/1940; 2003b/1965). Old figurative painting mimics the world, he argued, whereas abstract painting engages the medium's specific properties in pure, sensuous imagery.

However, if such a rigid opposition between the abstract and figurative has ever been qualified, an unlimited number of images after 1900—whether painted, printed or screen-based—have significantly obscured any clear distinction between the two. This is especially the case in today's digitally reproduced, filtered, manipulated and multi-layered images. Their pixel-based, composite and mixed nature—where geometric figures and abstract patterns may ceaselessly and seamlessly substitute figurative depictions and vice versa—has made it ever more apparent that it is seldom neither possible nor meaningful to maintain a simple distinction between what is abstract and what is figurative. The predominant styles of our contemporary image culture—e.g. composite web pages, music videos, vector-based motion graphics, photoshopped ads, multi-layered windows on a computer screen, computer generated imagery (CGI) of a recent blockbuster movie—all have one thing in common. They make it difficult, perhaps even irrelevant, to distinguish between the figurative and the abstract.

Hence, if one wishes to understand the very nature of modern images it is indispensable to ask what it could mean to conceive of images beyond the opposition between the abstract and the figurative: How could we think of images that are neither figurative nor abstract, or perhaps are both at the same time? How could we think of images that are not either signifying and representational or non-signifying and non-representational but rather *a-signifying* and *a-representational* in the sense that they operate and find expression beyond the very question of signification and representation?

The aim of this text is to explore some of the key elements in such imagery beyond representation. I will investigate the issue by revisiting a series of iconic images in early 1920s avant-garde film by the artists Man Ray and Fernand Léger. Many of the technical

and stylistic innovations that were first developed in these classic films have become pervasive features in today's digital and screenbased image culture (Manovich, 2001), indicating, among other things, a strong historical continuity of stylistic and aesthetic principles that go beyond the common technological distinction between the analogue and the digital image. But what is most important in this context, the early avant-garde films and their visual aesthetics are also among the first profound examples of an a-signifying imagery. For this reason they provide an exemplary, well-defined material for a more general investigation of what it means to produce and experience images beyond representation.

### ANOTHER DIRECTION IN FILMIC ABSTRACTION

As it is often suggested by early film historians, it is possible to distinguish between two basic tendencies in 1920s avant-garde cinema (Le Grice, 1977; Wees, 1992; Rees, 1999): First, there is a strong surrealist trajectory, represented by film-makers such as Luís Buñuel, René Clair and Germaine Dulac. And second, there is what Rees calls abstract "cine-poems" (1999, p. 34) and Malcolm Le Grice (1977) simply refers to as "abstract film". Indeed, in his classic study of experimental film, *Abstract Film and Beyond* from 1977, Le Grice employs this abstract tendency in 1920s avant-garde to show how abstraction became a key component in experimental film on a much broader scale after the 1920s.

Despite his strong claim for abstraction, Le Grice's arguments are highly relevant for a deeper understanding of the nature of the a-signifying film image beyond the opposition between abstraction and figurativity, which also applies to technical images and image-making on a much more general level. One of the reasons for this is that Le Grice further distinguishes between two "basically "abstract" tendencies" (1977, p. 32) in early avant-garde film. Abstract imagery, Le Grice argues, is not only manifest in non-figurative, animated films by Hans Richter, Walther Ruttmann, Oskar Fischinger, Len Lye and others—films often referred to as "absolute film" or "visual music." It also includes a number of seminal films using "figurative" live-action footage by artists and filmmakers such as Man Ray, Fernand Léger, Marcel Duchamp, László Moholy-Nagy, Dziga Vertov, Henri Chomette and others.

Hence, despite their figurative character, Le Grice argues, these live-action films still produce a number of essentially abstract filmic effects, but they do so by means of an essentially reproductive filmic material. As such they suggest "another direction" in cinematic abstraction that is "not necessarily

non-representational in the photographic sense" (Le Grice, 1977, p. 32). As we shall see shortly, this other direction in abstract film on the contrary produces abstract images precisely because it operates independently of whether the filmic material is based on reproductive live-action footage or animated passages. It is abstract because it acts and affects beyond the very question of representation.

### ABSTRACTION AS GENERALIZATION

How could we, more precisely, describe the abstract tendencies in this other direction in experimental live-action film? In a short passage from the beginning of his analysis, which in a precise manner sums up his whole argument in one single and simple idea, Le Grice points out how this other direction in abstract cinema, in all its different manifestations, basically involves a separation of "qualities, aspects or generalizations from particular instances" (1977, p. 32). The abstract image of experimental live-action film thus becomes abstract not because it reduces the mimetic elements in the image (i.e. abstraction as non-figurativity), but because it prevents from displaying any *particular qualities* in the image. Although he never uses the term himself, the other direction in filmic abstraction that Le Grice proposes is basically a production of what you may call a *generalized image*.

Le Grice indicates a number of properties and techniques in the live-action film of the 1920s, which carry a particular potential for producing effects of abstraction as a form of generalization. Films such as Man Ray's *Le retour à la raison* (1923) and Léger's *Ballet mécanique* (1924, made in collaboration with Dudley Murphy), he argues, bring up several "possibilities of essentially "cinematic" abstraction relating to mechanics, materials, chemistry and techniques of cinematography" (Le Grice, 1977, p. 34). More specifically, effects of filmic abstraction emerge as the result of a "separation of visual qualities from their object reference," produced by techniques such as extreme close-up, extreme lighting techniques, and rapid movement. Put together, such effects show "a grasp of abstract directions for lighting and rhythm" (ibid., p. 37) by putting an emphasis on "the pattern of light falling on objects and its movement as the basis of experience, deliberately separating it from a specific identification with a particular object" (ibid., p. 34). To support this argument, Le Grice calls specific attention to Léger's systematic isolation of objects on-screen through different camera and lighting techniques. And he indicates how Man Ray's famous use of the photogram—a technique Man Ray himself referred to as "rayogram"—can be seen as an effect of

abstraction because of the way it “draws attention to the material nature of the film itself and the images on it as a photochemical reality” (ibid., p. 35).

### PROPERTIES OF THE GENERALIZED IMAGE

With such observations, Le Grice opens up for an understanding of abstract film as a generalized image. However, apart from the short lines of reasoning briefly summarized above, he never develops the overall idea of abstraction as generalization any further, and he therefore fails to consider the broader consequences of this “other” direction in filmic abstraction and what it could tell us about the status of the image on a more general level. In order to further explore what a generalized image could be, I will therefore—taking Le Grice’s examples and overall observations as a starting point—examine the properties and techniques that are of particular relevance not only for abstract live-action film but for the performance and perception of generalized images on a more general level.

#### Isolation as generalization

A first property of the generalized image concerns the identity and status of individual elements and the way they appear in the image. Here, generalization is the direct result of an extensive reduction of the very particularity of individual elements (objects, persons, animals, etc.) through isolation and de-individualization. From a pragmatic point of view, the live-action images of Man Ray’s and Léger’s films are obviously results of an act of technological reproduction: they depict objects, persons and events captured in a space and time different from that of the viewer’s. But what the images reproduce, what they represent, is neither fully available nor aesthetically important as information in the perception of the films.

This effect is most profound in Léger’s technique of isolating objects in the moving image through the different camera and lighting techniques mentioned above. In a short article published two years after finishing *Ballet mécanique*, Léger himself proposed to consider “things for what they can contribute to the screen just as they are—in isolation—their value enhanced by every known means” (Léger, 1968/1926, p. 279). Over-exposed quasi-objects appear in pure black and white voids. Mouths are smiling and eyes are staring at us from the dark. We see fragments of feet walking from side to side. Balls and other objects are swinging and rotating back and forth, and machine parts are pumping up and down in extreme close-ups or in kaleidoscopic accumulation throughout the entire screen.

In this way, isolation of objects and concealment of representational information contribute to a basic dissolution of figurative relations and tensions in the image (between object and context, between figure and ground). This lack of figurative tension is a distinctive effect of the generalized image, not only in Léger and Man Ray but also in several other contemporary films by Duchamp, Moholy-Nagy, Dziga Vertov and others. In the abstract live-action film, the lack of information and the isolation of individual elements are not effects in an erotics of the veiled and the unseen as it was the case in the surrealist sensibility of the same period. It is an effect of generalization. Isolation generalizes the image not by hiding the pre-mediated reality in non-figurative abstraction, but by reducing the tensions between the two: between on-screen events and the ordinary actions behind them, between image and world.



Man Ray: *Le retour à la raison* (1923)

This is one of the most characteristic features of the generalized image: No matter if objects and events in the image in fact are the direct products of technical reproduction, they have *lost their significance and aesthetic effect as reproductions*. And through this devaluation of reproducibility they simultaneously intensify their presence on-screen, in the image. By eliminating the tension between inside and outside, before and after, cause and effect, the image becomes the phenomenal origin of its own display.

#### De-individualization and materialization as generalization

By rendering objects and events as detached from their origin outside the image, isolation transforms everything on the screen into pure imagery. But it does so without abstracting them in any photographic or figurative sense. When the depicted



objects and events in this manner erase the traces of any origin outside the image, they simultaneously lose their sense of particularity to become de-individualized elements in the overall composition of the generalized image. The effect of isolation is thus directly related to a more general question of identity, individuality and particularity.

As a profound example of this, consider Man Ray's use of the rayogram. Here, Man Ray strips the depicted object from any marks and details that would otherwise separate it from other similar objects of its kind and help to maintain its uniqueness and identity as a particular object, as a unique existence, as a real thing among things in the physical world before any technical reproduction. What is left in the image is a mere *schematic* outline of the depicted, a contour. The depicted objects become clichés, models, pure graphics, pure form (*skhēma* (gr.): form). But they still do so without being abstract in any photographic sense. By schematizing the objects, Man Ray abstracts them from their individual properties to display them in their "general form."

Similar effects of de-individualization are found in Man Ray's and Léger's different uses of extreme lighting and close-up. Together such effects of photograms, lighting with radical contrast and extreme close-up not only abstract each object and singular event through schematic generalization. They also contribute to a generalization of the total image. Le Grice describes how the photogram "draws attention to the material nature of the film itself and the images on it as a photochemical reality" (1977, p. 35). Similar conclusions could be made regarding extreme lighting and closeup. They all contribute

to a more general *materialization* of the image as a spatiotemporal whole. The lack of reproductive effects of originality and individuality *synthesizes* the image into a consistent block of material movement and variation covering all parts of the image.

This is not only the case in the many passages using all-over effects in both Léger and Man Ray, as for example in the images of visual noise in the beginning of *Le retour à la raison* or the many kaleidoscopic images in *Ballet mécanique*. And it is not only evident in the way the rayograms, close-ups and radical contrasts materialize the image as a consistent whole of molecular intensity by exposing the very grains and particles of the chemically manipulated film stock. Abstraction of objects through de-individualization and schematization highlights the very nature of the moving image as a



Fernand Léger: *Ballet mécanique* (1924)

performance of its own synthetic nature, as basically nothing but "light moving in time," as William Wees puts it (1992). By isolating and de-individualizing its elements, the generalized image exposes its abstract-concrete nature as an a-signifying image of pre-individual movement and variation.

### Generalization of space

This synthetic performance of total movement again relates directly to another important aspect of the generalized image concerning its spatial characteristics. In a short statement from the opening sequence of *Ballet mécanique*, Léger hints at a basic property of the generalized image when he claims his film to be "the first film *without scenario*" ("le premier film *sans scénario*"). The historical accuracy of such a claim may be disputable. What is important here, however, is the way Léger draws attention to an abstract dissolution of representational space (*sans scénario*) as an aesthetic effect produced without the use of non-figurative imagery. Almost every image in *Ballet mécanique* is clearly figurative in the photographic sense, from the woman on the swing and the smiling mouths in the opening sequence to the fun park activities, rotating pumps and driving cars of later sequences. But despite the use of photographic material, the different sequences in the film do not reproduce a particular setting, an alternative reality, fictional or reproduced, in which mimetic actions and events are experienced to take place.

In other words, the image space in abstract film becomes abstract not because it is non-figurative, but because it does not produce an alternative (fictive, mimetic) reality in the form of a particular place in which movements and actions are "taking place". All elements and all actions in the abstract live-action film are essentially produced in, by and for the image. This generalized, detached and synthetic image-space, void of any mimetic and particular qualities, thus becomes similar to what Gilles Deleuze has called "any-space-whatever" (*espace quelconque*). Any-space-whatever "perhaps has one of its points of origin," Deleuze argues,

in the experimental cinema which breaks with the narration of actions and the perception of determinate places. If the experimental cinema tends towards a perception as it was before men (or after), it also tends towards the correlate of this, that is, towards an any-space-whatever released from its human co-ordinates. (1986, p. 125)

Without being abstract in the figurative sense, the space presented in and by the image is abstracted from any particular cues and instances and from any human coordination, relation and location. It could be anywhere, as Deleuze suggests. It is pure screen-space, pure image.

However, this transformation of the image-space into a generalized any-space-whatever does not mean that the generalized image withdraws in pure abstract isolation from the surrounding reality. On the contrary, the generalization of its different aspects highlights the performative and affective presence of the image. Because of its lack of scenario, the abstract image not only becomes profoundly superficial and synthetic. It also simultaneously becomes more material and more real, since everything that "takes place" is taking place in the viewer's own space-time. This is the basically "theatrical" quality of the generalized image, in the sense that Michael Fried (1968) proposed it in his analysis of minimal sculpture's basic necessity to be seen, felt and understood as a physical presence in the viewer's own environment. Without any opposition between the real and the representational, the image and the viewer will share the same reality. The image space, the movements and events on the screen and the architectural properties of the screen itself merge into a total image of a highly real and material presence. Abstraction, isolation and materialization become similar processes in the production of the generalized image as an abstract-concrete performance of the aesthetically real.

### Flow and repetition as generalizing effects

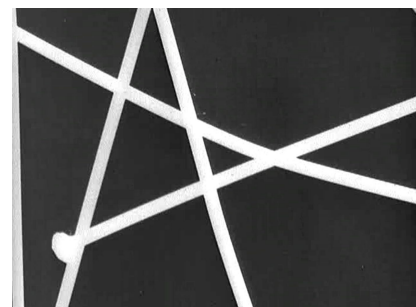
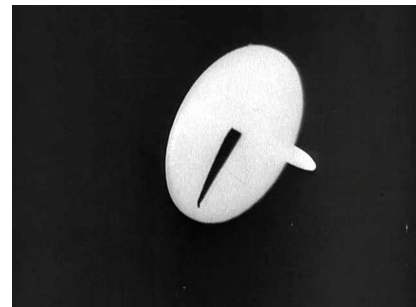
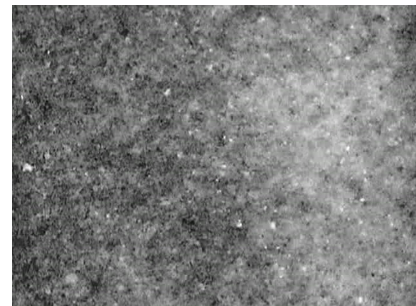
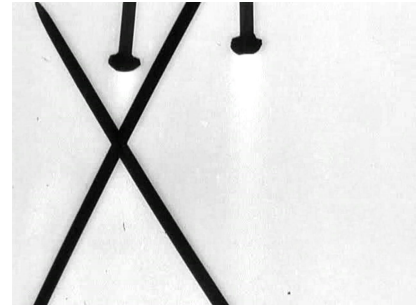
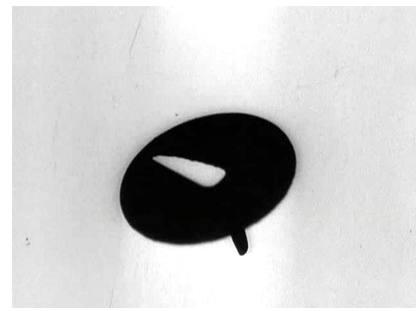
The different techniques in Man Ray's and Léger's films are typically used in combination. In *Le retour à la raison*, for example, uninterrupted flows of high contrast, quasi-recognizable accumulations of dust, nails, bracelets and springs, de-individualized and schematized by the rayographic technique, eventually dissolve into a continuous play of rotating light from a turning carousel or into quasi-chaotic images of walking feet in isolated movement across the screen. This synthetic combination of individual shots produces a strong impression of a seamless and radically undisrupted filmic flow. Everything rotates, circulates or oscillates perpetually and in every direction to produce the generalized image as a single, uninterrupted, luminous continuum of total movement in space and time.

In this process, the aesthetic potentials of each object and each singular event merge and mix to become intensive variations in the total image as a

synthetic whole. The objects in the images are obviously not identical. But because they are abstracted from their particular origin outside the image, they have the possibility of being perceived as *univocal* entities without losing their basic properties as different. According to Deleuze, entities are univocal not because they are the same but because their way of being is the same: "Being is the same" for all individuating differences or intrinsic modalities, "but these modalities are not the same. It is 'equal' for all, but they themselves are not equal" (Deleuze, 1994, p. 36). This univocity of being and the onto-aesthetic flattening of relations between different elements indicate a characteristic form of distribution in the generalized image: *repetition*. Repetition is able to produce a radically continuous form without eliminating the individual differences between singular elements and events. Because all elements are treated as univocal they can—no matter what they may depict—blend into a singular, synthetic image-space as a pulsing, flickering whole. Hence, repetition becomes a basic principle of distribution in the generalized image.

However, repetition is not only a key factor in the avant-garde film image because of the way in which each object and each singular event is spatially and temporally distributed. It also plays a crucial role on the level of the total image. Because of its generalized character, each image as a synthetic, spatio-temporal whole becomes repeatable in its entirety in a way that would be impossible with particular, individual and representational images without disintegrating the scenario they produce as a consistent "world" of alternative reality. In this sense, to abstract an image by way of generalization is simultaneously to make it repeatable. The images are repeatable not because they are identical or non-figurative, but because they are de-individualized, de-humanized and generalized as "any-space-whatevers." Because they are no longer identifiable as anything in particular, they blend seamlessly into the mix of pure, generalized repetition.

This principle is demonstrated with excellence in both *Le retour à la raison* and *Ballet mécanique* where whole sequences are often looped in unvaried, pure repetition with the sole purpose of being repeated. As an example, consider the beginning of *Le retour à la raison*. Here, in one of the very first serial compositions in the history of the moving image, a whole sequence of disparate images—a restlessly bouncing black circular object followed by an image of falling nails and ending in a field of pure, flickering visual noise—is repeated directly afterwards in its entirety (now in negative).







Fernand Léger: *Ballet mécanique* (1924)

Indeed, such a looping of entire sequences only makes sense because of the synthetic character of the generalized image. It can only be repeated because it operates and affects beyond the very question of representation. The principle, however, also works the other way around: to repeat an event is also to abstract and synthesize it. Hence, any repetition of whole images will spontaneously dislocate and detach them from any particular instance to produce the image-space as an a-signifying any-space-whatever. By way of repetition, the moving image is set free to perform its uninterrupted flow of generalized abstraction.

Furthermore, because of its generalizing potential, the repeatability of the image opens up for a much more vivid engagement with the very rhythmicity of the filmic flow. The generalized image is a potential synthesizer and modulator of continuous variation. Léger's and Man Ray's films beat, pump and pulsate. Series of repeated images produce successions of flickering and vibrating affects. Patterns of movement blend into a complex flow of energetic circulation and oscillation. This focus on rhythmic beat structures is apparent, for example, in a famous sequence from *Ballet mécanique* in which we see a looping image of a woman repeatedly carrying a sack up a stair case. Similar effects are found in looping sequences of non-identical images, where a certain temporal structure or a certain line of movement (rotating, pumping, flickering etc.) is repeated in different images. And we also see it in the many images that are immediately followed by a horizontal or vertical reversal or by a full repetition in negative. And again, many sequences of layered multi-exposed images have similar rhythmicizing effects, where the constant change of relations between movements in the different layers generate an overall, emergent effect of a flickering image-space in continuous variation.

In this use of repetition to produce effects of generalized abstraction, the contrasting sequences of disparate images no longer relate to each other to form a consistent scenario. Instead, by allowing a pure, serial distribution, they carry a strong rhythmic potential that is non-existent in particular and representational images.

In this rhythmicizing process, the image not only becomes more abstract by generalizing space into an any-space-whatever. At the same time, it opens up for an abstraction of time itself. Repetition—and the transformation of singular events into a univocal rhythmic flow that it enables—simultaneously reduces any sense of a particular timespan being



represented in the images: there is no unique, particular moment, no culmination and no narrative sense of an ending. What the generalized image presents is but a series of detached, synthetic movement turned into a pure flow of time.

### GENERALIZATION AS MEDIATIZATION

The generalization of the image that I have outlined here was not just a decisive feature in the abstract avant-garde films of the 1920s. As suggested earlier, it proposes another direction in image-making and the perception of images on a much more general level. I will not be able to deal with this broader context here, but will leave it for other investigations to explore the similarities and dissimilarities between the generalized image in its different cultural and historical manifestations. It has solely been my aim here to outline the contours of what the aesthetic potentials of such a generalized imagery may be.

What has been important here, it must be stressed, is not so much the generalization itself, but rather the consequences it has for the production and perception of images beyond the opposition between the figurative and the non-figurative. It is as though generalized images, and the objects and events they show, are no longer relevant to think of, imagine or perceive as anything but what they *do as images*, isolated and detached as they are from any outside, pre-mediated reality. The generalized images are all “pure images,” they only exist and perform as images.

So, the more intensely the techniques of generalization are being used to abstract the different components of the image from a particular, pre-mediated reality, the stronger the performative power of the image will be as a synthetic, mediatic whole. By dissolving the transmissive, representational character of the image as mediator, generalization highlights the presence of the total image. In this regard, abstraction as generalization can basically be seen as a form of *mediatization* of the image, in which all elements and events perform according to their nature as mediatic phenomena solely produced in and of the image.

Indeed, this mediatization of the image into pure mediaticity is not an evocation of greenbergian medium specificity. Quite the contrary, it rather suggests a synthetic and performative understanding of the image as what you may call a “generalized mediaticity,” produced independent of any particular characteristics of a material support or technical framework for each specific image. To become abstract, in the generalized sense, is to become pure medium,

where everything that exists and affects do so only in its capacity of being in and of the image. It is to transform the image into an a-signifying medium of pure immanence, functioning and finding expression beyond the very question of representation and signification.

### REFERENCES

- Deleuze, Gilles.** (1986). *Cinema 1: the movement-image* (Hugh Tomlinson & Barbara Habberjam, Trans.). London: Athlone. (Original work published 1983)
- Deleuze, Gilles.** (1994). *Difference and repetition*. New York: Columbia University Press. (Original work published 1968)
- Fried, Michael.** (1968). Art and objecthood. In G. Battcock (Ed.), *Minimal art—a critical anthology*. New York: E.P. Dutton.
- Greenberg, Clement.** (2003a). Modernist Painting. In C. Harrison & P. Wood (Eds.), *Art in theory 1900-2000*. Oxford: Blackwell. (Original work published 1965)
- Greenberg, Clement.** (2003b). Towards a newer laocoön. In C. Harrison & P. Wood (Eds.), *Art in theory 1900-2000*. Oxford: Blackwell. (Original work published 1940)
- Léger, Fernand.** (1968). A new realism: the object. In Herschel Browning Chipp (Ed.), *Theories of modern art: a source book by artists and critics*. Berkeley and Los Angeles: University of California Press. (Original work published 1926)
- Le Grice, Malcolm.** (1977). *Abstract film and beyond*. London: Studio Vista.
- Manovich, Lev.** (2001). *The Language of new media*. Cambridge, Mass.: The MIT Press.
- Rees, A. L.** (1999). *A history of experimental film and video*. London: BFI.
- Wees, William C.** (1992). *Light moving in time: studies in the visual aesthetics of avant-garde film*. Berkeley, Ca.: University of California Press.
- Worringer, Wilhelm.** (1997). *Abstraction and empathy*. Chicago: Ivan R. Dee. (Original work published 1908)

### CORRESPONDENCE

Ulrik Schmidt, Roskilde University,  
Department of Communication and Arts,  
Universitetsvej 1, Building 43.2,  
4000 Roskilde, Denmark  
E-mail: [ulriksc@ruc.dk](mailto:ulriksc@ruc.dk)

Published online, 2017  
ISSN 1749-3463 print/ISSN 1749-3471  
<https://doi.org/10.14434/artifact.v4i1.13371>  
© 2017 Artifact