

Counter-Observations: Aesthetics and Operational Images

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ABSTRACT. I develop the concept of counter-observation to analyse artistic practices that criticise urban surveillance by showing the very images through which surveillance is produced. I will consider Harun Farocki's video work Counter Music as an example of this practice. This work shows what Farocki calls operational images of the city of Lille, editing them in a style that explicitly recalls the city symphony typical of 1920s cinema. Operational images are defined by their functional role within operations such as mapping, surveying, monitoring, tracking, and guiding. This work exposes the meta-operativeness (Emilio Garroni) of these images, the fact that, in addition to being a means to an end, they can prompt awareness of the very practices of control to which they give rise. Drawing on the relations between technology and art defined by Alva Noë, I claim that operational images are ways of organizing our life, and we should therefore focus on the interactive network of humans and technology that they give shape to. Artistic experimentations such as Farocki's, by repurposing images of control, expose how they alter our environment and prompt aesthetic and social awareness.

1. Urban Surveillance and Its Enemies

Technically produced images enable, constrain, shape, and support our urban life (Amin, Thrift, 2017; McQuire, 2008; Thrift, French, 2002). Cameras, drones, satellites, and other sensor images are part of a technical network that observes, collects data, trains predictive

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models, and activates procedures that organise our behaviour in the city. It has been noted that contemporary visual culture no longer has the human eye at its centre, but the mechanical eye (Paglen, 2016). A multiplicity of images supports processes of surveillance, social control, and governmentality that increasingly escape the decisions of citizens and even their awareness. Images of this kind, images that look at us without us looking at them, have also been called *operational images* (Eder, Klonk, 2017; Farocki, 2004; Parikka 2023).

Some authors claim that if images are the devices through which procedures of social organisation are produced, we need elaborate common practices of aesthetic reflection and must develop a new ‘common sense’ (Weizman, Fuller 2021). We are witnessing various experimental attempts to develop aesthetic reappropriations of surveillance images that use images ‘against themselves’ (Elsaesser, 2004). But how can we appropriate images that were not produced for this purpose and that do not immediately show what they do? We find one solution in Harun Farocki’s video work *Counter Music* (2004).

I will develop a concept I call *counter-observation*, with the aim of analysing *a specific aesthetic strategy through which surveillance images are used to support critical reflection on the technical media that produced them*. I will distinguish it from what Weizman and Fuller call ‘counter-investigation’ (2021). Counter-observations do not contest the unfolding of an event, but how images are used as techniques that organise our forms of life without our noticing. To define it, I will initially refer to Noë’s theory of strange tools. I will then show the need to appeal to what the philosopher Emilio Garroni calls *meta-operativeness*. Meta-operativeness is the fact that human beings interact with reality not by limiting themselves to carrying out operations to achieve predefined goals, but by reflecting on possible goals that are not currently given. According to Garroni, this reflection takes place within perception, and before any explicit intellectual elaboration. I propose that we should think of meta-operativeness as a way to adapt some of the fundamental categories of modern European aesthetics to reflect on technically produced procedures of control. Through this concept, it is possible to clarify the aesthetic process that allows images commonly used as surveillance devices to be used in a work of art to criticise surveillance itself.

I will focus on how Farocki exposes operational images used for urban control. Farocki presents the city image from the point of view of the machine. It is not a coherent, human-centred image, but the outcome of a fragmentary network of observations that tracks the circulation of both human and non-human actors. Farocki’s artistic practice lies on the threshold between art

and political critique of technical apparatuses. His work not only addresses issues such as surveillance, privacy, or discrimination, but also, at a more fundamental level, analyses the ways in which operational images redistribute visibility within public spaces and embody power relations.

2. How Do We Put a City on Display?

A city can be put on display in many ways: by showing its infrastructures, its planning, its populations, the circulation of traffic. It is not at all clear what the image of a city should show to provide us with a clear view of what is happening within it. Berleant suggested that the perceptual experience of the city requires specific aesthetic treatment (2007). The same applies to the experience of the images that capture what we normally neglect as we are immersed in our urban environment. The god's eye view of the city from above is not sufficient to provide a complete view, but only one of many. Especially at the beginning of the 20th century, cinema experimented with the city image in an attempt to capture its continuous flow (Cowan, 2008; Jacobs, Kinik, Hielscher, 2019; Weihsmann, 1997). The city symphony is a paradigmatic genre. Its name derives from how the editing of ordinary activities of city life produced a rhythm. From street traffic to shop windows, every element of the city acted as a component of an orchestra. The idea was that cinema could use the mechanical eye of the camera to show the chaotic movement that citizens experienced first-hand, too involved in their activities to see the urban routine from the outside.

However, today we are witnessing a new phenomenon. Sensible technologies have enabled the production of urban organisation techniques in which the city regulates itself through sensors, cameras, satellites and other image-producing devices (McQuire, 2008). The mechanical eye that used to be a means of liberation from the oppression of urban life has now become the very device of its promotion. A new technological environment made known through ubiquitous computing, the Internet of Things, network and distributed sensing, shows how image-based technologies are changing urban organisation. On the one hand, a complex technical and sensory infrastructure is set up, consisting of high-precision detection devices, like infrared sensors, multispectral optical devices, lidars, and acoustic systems operating according to automated data-acquisition protocols; on the other, operational control centres push

surveillance away from the public eye. This brings about a phenomenon of centralisation, in which a very small proportion of the population involved have decision-making power over urban surveillance, so that most people are often unaware of how it unfolds.

The city is a technology, and its infrastructure is the product of intelligent organisation of communities (Edwards, 2002; Mattern, 2015). The technologies that organise the city are not devices that perform isolated functions, but rather establish tributed ecologies that are highly integrated, coordinating storage, distribution, and transport of goods and people (Kittler, 2013; Virilio, 2002, 2006). However, it must also be argued that the city is an *aesthetic technology* that articulates the conditions of possibility for the affective and perceptual experience of citizens and determines the cases in which this experience reaches the threshold of awareness, giving rise to critical reflective experiences. Alva Noë has focused on the aesthetic experience of technology:

There is an intimate link between technology and organized activities. Roughly, a tool (such as a hammer or a computer) is the hub of an organized activity. Technology is not mere stuff. It is the equipment with which we carry on our organized activities. Technologies organize us; properly understood, they are evolving patterns of organization (Noë, 2015).

The role of art is to show us the technological organisation that goes unnoticed. By showing it to us, it provides us with a vantage point to reflect on and possibly modify it. According to Noë:

art, I am proposing, takes its impetus from the fact that we are organized but are lost in the nesting, massively complicated patterns of our organization. Art – and philosophy, too – are practices for investigating the modes of our organization, or rather, the manner of our embedding in different modes of organization. Art is not just more organization (Ibidem).

However, art is not only a rupture of the everyday, but also, a way to rethink it collectively:

art is disruptive and destabilizing, and also that it is a mode of investigation, a form of research aiming at transformation and reorganization. Art investigates or exposes by destabilizing. Art, I have urged, is a philosophical practice (ibidem)

Before a wide audience, art can expose the processes of control that escape the attention of the media. It puts in front of our eyes things we normally passively accept. However, it is not

enough to expose and rethink control procedures. It is necessary to think about the aesthetic practices through which images that conduct these procedures can become objects of political discussion.

3. Harun Farocki's City Surveillance Symphony

In 2000, Berlin-based artist and media theorist Harun Farocki introduced the term operational image. He provides this brief definition: 'They are images that do not represent an object, but rather are part of an operation' (2004). His examples include surveillance videos depicting crowded streets; videos mounted on missile warheads or recorded by drones; videos of traffic used in experiments to build autonomous vehicles; computer graphics simulations; satellite images of airports; surgical images of the inside of patients' bodies. The Images shown by Farocki are inconspicuous technologies that organise our forms of life. Farocki's approach to images as media shifts the focus from the grand narratives constructed by media such as literature, newspapers, cinema, advertisement to techniques that operate below the threshold of our attention. He focuses on images that we do not give importance to, that are not made for us to be seen, that are mostly involved in computational mechanic processes. Operational images are outside literary history, outside mass culture, outside the culture industry. They might fall under what media scholar Bernhard Siegert has called 'ontic operations' (2011), that is, material techniques that produce situations. However, the use of operational images for the control of urban life is far from neutral and entails a distribution of power relations through automatic technical devices. It is, rather, part of what Fuller and Goffey would call a *grey zone*, 'a space of activity that is ethically ambiguous' (Fuller, Goffey, 2012).

In *Counter Music* (2004), Farocki focuses on how operational images perceive urban space. *Counter Music* is a two-channel video work that pairs video footage with text. The piece analyses images embedded in computing, surveillance, and control systems that manage citizens and infrastructures, images produced by machines or used to operate machines. machines that see and act, aided by human operators, and images observed by people in control rooms. *Counter Music* is a city symphony of Lille, as seen through operational images. The city symphony is a cinematic genre that emerged in the 1920s, where urban life was filmed and edited into an orchestrated rhythm. The most well-known examples include *Manhatta* 1921; *Dynamic of the*

Metropolis (1921–1922); *Nothing but Time* (1926); *Berlin. Symphony of a Great City* (1927), along with *Man with a Movie Camera* (1929) by Dziga Vertov, Farocki's main reference. These films show the frenzy of urban dwellers going about their daily tasks, chaotic streets, shops, and working people. By contrast, in Farocki's symphony, we see images of underground pipes, security cameras, and computer simulation monitors. In this work, citizens are merely one component of the traffic within a *machine landscape* (Young, 2019). *Counter Music* inherits the atmosphere of the so-called machine films, such as *La Marche des machines* (1927), *Ballet mécanique* (1924), *Mechanical Principles* (1930), *Philips Radio* (1931), replacing optimism for industrial progress and new automatic machines with scepticism and mistrust.

In *Counter Music*, we see ourselves through the eyes of machines and come to realise we are merely background figures in the flow of the city's traffic, part of a network under constant observation. Farocki compares the city to a body whose veins are the underground infrastructure, the invisible pipes that sustain life on the surface. Urban activities are monitored in hidden spaces. He contrasts the illuminated streets with the monitors in control centres, where operators supervise a technical chain of command for surveillance: 'men and women who are paid to look at images'.

Early twentieth-century theorists emphasised how the perceptual revolution of the modern metropolis was centred on the increasing exposure of citizens to sensory stimuli. This issue was addressed in the seminal works of Georg Simmel, Siegfried Kracauer, and Walter Benjamin. Today, however, the rise of *technical media* in the management of urban space has shifted the locus of perception from the citizen to images. It is machines that now collect stimuli about citizens, not the other way around. The issue of sensory overload that characterised the 1920s, while the symphony of the city was developing in parallel, returns today in reflections on the new sensing technologies used in monitoring and surveillance. From the saturation of stimuli experienced by individuals in urban spaces, we move on to the description of a technical surveillance architecture that collects enormous amounts of data and exceeds the capacity of any human being to make sense of it. Farocki inherits the tendency of the city symphony to exalt the vision of machines, showing how they allow us to access new points of view. Nonetheless, he widens the gap between human and machinic perception. In *Counter Music*, we do not feel at home in the urban context that surrounds us; we feel alienated as we see a city that is hostile to the human point of view.

The city symphony allowed the viewer to experiment with camera position, alternating between high- and low-angle shots, using unusual viewpoints to look at the city, and using moving shots by mounting the camera on vehicles. Operational images allow the projection of the gaze outside the body, realising the dream of seeing without being seen. The operator in the control room can observe, control, decide, and give orders, while being far from the actual consequences. The operator can even delegate the act of looking itself, as the image that can be directly computed by a machine. In contrast, the individual who is the subject of the image, the citizen being watched by a CCTV system, the target being tracked by a guided missile, the prisoner being surveilled by a thermal camera, does not see themselves in the image. The image sees them, but they do not see the image (Paglen, 2016). Sometimes, they do not even see the technical device that captures the image; they are not aware of it, or such awareness is below the threshold of attention.

4. Meta-operativeness

A space that Farocki focuses on at length in this and other films is the control room, which we might analyse as the opposite of the editing room from which he produces his work. A control room is an enclosed space in which one or more operators are placed in front of one or more screens. It is a room in which images are processed by experts, a decentralization of decision-making. Both the operator in the control room and the vision machine analyse images solely for the purpose of using them in their function of control.

Farocki's work does not merely bring the image of the control room into the movie theatre or the museum. It is not only about showing the machine's gaze. Instead, the goal is to allow people to creatively reappropriate it by 'unlearning to see like humans' (Paglen, 2016). He seeks to move images from the control room – that is, a space in which they are used only for a function, unreflectively, without being carefully analysed – to the editing table – that is, a space in which they become an object of critical reflection. The editor is someone who watches a video so as to decide where to make the editing cut. At the same time, they cannot be reduced to the operator merely performing a mechanical function. The decision, in the editing room, requires reflection on the work as a whole and its meaning. The editor is not a passive spectator, yet neither are they a servomechanism that can be replaced by a machine. This is why Farocki,

in other works, develops a phenomenology of the editor, a figure who interrogates images and transforms their function. Farocki wants us to see operational images as if we were editors. He prompts us to use images, to make them objects of reappropriation and, therefore, of critique, transformation, and public discussion.

Farocki's *Counter Music* does not, therefore, simply put things on display. It does not merely show us how things work. By showing us images, it makes us reflect on how to criticise the devices that produced them and their social and political implications. Therefore, the viewer of the film does not merely observe that control is exercised in a certain way, but, while watching, *reflects on how to invent other ways of operating*. I believe this is possible because, as viewers, we do not simply passively accept what we are shown but take some sort of distance from it – one that is not, however, a complete detachment. We do this based on a fundamental characteristic of our way of interacting aesthetically with reality, namely meta-operativeness.

Italian philosopher Emilio Garroni, as part of his rethinking of the fundamental categories of modern European aesthetics, particularly Immanuel Kant's thought, has developed the concept of meta-operativeness (*metaoperatività*). Meta-operativeness is, we might say, an attempt to rethink aesthetic disinterestedness as a fundamental posture through which human beings perceptually interact with the world. Meta-operativeness shows how disinterestedness is a feature of perception that occurs within practical life and not as uninvolved contemplation of an artwork.

Human perception occurs by producing what Garroni calls an 'internal image' (*immagine interna*), which is not a static image, but the dynamic scheme that allows the subject to interact with objects in multifarious ways. This image is characterised by being an indeterminate selection of relevant features that are not only those immediately perceptible. The internal image consists of the traits that enable the individual to operate in the world. Perception and operation are closely linked, although they do not coincide. When we see something, we do not have a fixed image in our minds of the operations that thing can be used for, but rather a dynamic image of an indeterminate multiplicity of possible operations.

Meta-operativeness is exemplified in our perceptual interaction with technical tools. Garroni shows that technical tools are never merely seen for the attainment of given ends, but also in view of possible ends. This means, for example, that human beings, in performing an operation

in view of some purposes, are able to distance themselves from the operation they are performing by reflecting on how that operation can also serve other purposes. This distancing occurs while the operation is being performed. We cannot distinguish it from our perceptual, volitional, emotional engagement.

Human meta-operativeness considers the tool to be produced as a tool destined for possible purposes and not only actual given objectives. [...] So in the case of man, the varying perceptual interpretability of a stone or a hammer seems to be a perceptive engagement, based on their recognition, which, although not physically transforming the object or the tool, configures them according to a specific expression in appropriate situations tacitly similar to a language that implies a metalinguistic capacity and organizes all cases, real and even merely possible (Garroni, 2025).

Garroni uses technical tools as an example to illustrate a fundamental characteristic of all our perception. The same tool, such as a hammer, can perform various functions, such as driving a nail, acting as a lever or smoothing a surface. Technical objects are not tools that perform predetermined functions. When humans interact with a tool, they do not limit themselves to perceiving it as useful for a given purpose, but also as possible purposes, not currently given, which could nevertheless arise in other circumstances. We use a tool on the condition that we always bear in mind that we could operate otherwise.

In short, we perceive these possible functions, in certain situations, without this necessarily broadening our explicit conception of the hammer. In all these cases, what occurs is the perception of the various configurations suitable for a particular use, and not necessarily the *statement of* the multiple interpretations and uses of the stone or hammer; that is to say, we do not propose different interpretations or uses, but, so to speak, we see that the stone or the hammer are suitable to them (ibidem).

A machine is limited to performing operations through images; it does not possess the same flexibility made possible by the meta-operativeness of human perception. On the contrary, when images are shown to a spectator, they are not simply used for specific purposes but become the subject of critical reflection.

5. Counter-Observations and Politics of Common Sense

We could consider the artistic operation conducted by Farocki in *Counter Music* as an example of how art can put on display the organisation of our forms of life, so as to allow reflection on how this organisation is put into practice and how it might be changed through social awareness. This is not a simple showing of how devices work on a technical level, but a new perspective on urban life that changes our perceptual habits. This involves a meta-operativeness that emerges in our aesthetic interaction with the city, and not only through our intellectual knowledge of its technical infrastructure.

Eyal Weizman and Matthew Fuller have thematized the difference between sensing and sense-making. While the first is produced by technical devices, the second necessitates aesthetic involvement. Their attack is not directed against the technologies that produce images, but against the separation of sensing processes and political debate. They recover a classical notion of aesthetics as the striving for a common sense so as to develop practices based on sensing technologies that criticise state violence. Therefore, they call for the construction of ‘investigative commons’ or ‘aesthetic commons’. Common sense, the notion that Immanuel Kant, at the origins of modern aesthetics, regarded as the aesthetic principle that guaranteed humanity’s universal agreement in judging, is brought back into focus today in the face of the proliferation of operative images that control our forms of life. For Kant, aesthetic judgment is not a cognitive judgment based on principles of the intellect. Aesthetic judgment, however, has the special feature that it can claim – without demonstrating it – the universal agreement of all finite rational beings, that is, all human beings. Common sense is the name he assigns to the principle of aesthetic judgment (Garroni, 1989). A principle that cannot be enunciated, but that we can presuppose everyone uses when judging aesthetically. This, however, does not imply that everyone *will* agree with the aesthetic judgement one makes, but only that when one judges, they experience the possibility of agreeing.

Aesthetic reflection makes us discover the foundation of public debate, shared reflection, and therefore grounds political life on our sensible experience. Recovering the notion of common sense, Weizman and Fuller tell us that remote sensing processes that produce operative images can reactivate an aesthetic survey of state violence deployed with the aid of surveillance technologies. While they call for investigative practices, Farocki proposes a different strategy

based on what I called counter-observation. Fuller and Weizman consider counter-investigation as the act of constructing common sense using the instruments of control through which state power perpetuates its dominance. Counter-investigation does not imitate traditional investigative procedures, but 'seeks to exceed and to circumvent the procedural limitations and necessities entailed by the modes of power they embody'. However, they have in mind a political struggle that focuses primarily on specific crime events. Farocki's artistic practice is best described as a counter-observation, because it develops a straightforward critique of the technical instruments through which power operates. He prompts us to counter-observe the operational images as such. For this reason, he does not limit himself to identifying the different perspectives through which an event leaves traces on technical devices, as in an investigation, but reflects on what makes the operation possible and how it might be the object of political debate. His work attempts to develop a common sense that is not limited to reconstructing events, but which aims to change the way we aesthetically inhabit urban space.

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