Maurizio Guerri

Serious Games

The Asymmetry of Images in Harun Farocki's Work

Abstract

The video installation *Serious Games* (2009–2010), by director, artist, and image theorist Harun Farocki (1944–2014), investigates the relationship between virtual reality, augmented reality, and war in the contemporary world. The question that guides Farocki's research is, How have new technologies and new ways of producing images changed contemporary wars? Farocki's analysis shows how the images themselves have become a part of war – not as propaganda, but as part of communication and part of the tactics of war, and how, within the way wars are conducted, images are becoming more and more "operational" and therefore entail an increasing asymmetry in both the materiality of conflicts and their perception. Farocki's work on the relationship between images and wars is not only a genealogy of our view of wars, but also an attempt at "profanation" – to use Giorgio Agamben's notion – that allows for a restitution of the testimonial capacity of images in relation to wars.

Keywords

Harun Farocki, Serious Games, Operational Images, Profanation

Biography

Maurizio Guerri teaches contemporary philosophy and history of social communication at the Academy of Fine Arts in Brera, Milan, and works for a number of didactic labs at the Department of Philosophy of the State University of Milan. He directs the series "Aesthetics and Visual Culture" published by Meltemi in Milan.

"How Can We Show You the Way Napalm Acts?"

Harun Farocki's video installation *Serious Games* (2009–2010)[1] was exhibited for the first time at the São Paulo Biennale in 2010. *Serious Games* consists of four videos (respectively titled *Watson Is Down*, *Three Dead, Immersion*, and

1 The video installation *Serious Games* can be seen at https://vimeo.com/370494311 [accessed 10 May 2021].

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A Sun with No Shadow) that were created in an attempt to bring to light the ways in which wars take place in the contemporary world and the role that images play within contemporary war conflicts. *Serious Games* is one of the final chapters in Farocki's articulated genealogy of contemporary wars in images.[2]

In Farocki's work, wars and the relationship between wars and images first emerged in the 1969 film *Unerlöschbares Feuer (Inextinguishable Fire)* and relates historically to the Vietnam War. Farocki's film opens with a close-up of the director himself, framed by the camera and seated at a table reading a letter from a Vietnamese citizen recounting his own story: while he was engaged in household activities he was hit by the "inextinguishable fire" of a napalm bomb that destroyed his house and damaged his body forever. After reading the letter, Farocki asks,

> How can we show you the way napalm works? How can we show you the damage caused by napalm? If we show you the images of napalm damage, you will close your eyes. First you will close your eyes to the images; then you will close your eyes to the memory; then you will close your eyes to the events; then you will close your eyes to the relationships between them. If we show you a human being with napalm burns, we hurt your feelings, you will feel as if we tried to hit you with napalm. So we can only give a weak representation *[schwache Vorstellung]* of how napalm acts.

After saying these words, Farocki puts out his cigarette on his forearm. How is it possible to show in pictures the violence of an occupation war, the pain and death of those affected by napalm in Vietnam? How is it possible to show these violent events in images without forcing the viewer to "close their eyes"? We close our eyes to images when they hurt us, or we close our eyes because we are indifferent to what is happening; similarly, our eyes are closed – or we close our eyes – when images of pain become spectacles, as they conceal the event they are supposed to witness. One of the questions Farocki asks himself in his films and installations concerns how the violence of war can be shown through images. How can we work with images and words so that the filmmaker and the viewer open their eyes and try to understand what happens during war? In *Unerlöschbares Feuer*, Farocki states that in this case a "weak representation" allows us to open our eyes. We

2 On the genealogy of wars in Farocki's work see Cervini 2017.

know that the weak representation Farocki is talking about consists of the gesture with which Farocki puts out the lit cigarette on his own skin, the act he performs at the end of the statement quoted above. It is a very weak burn compared to someone who is hit by the inextinguishable fire of napalm, but – as Georges Didi-Huberman has pointed out – this "weak representation" at least allows us to "compare",[3] to make a comparison between the 400 degrees of the embers of a cigarette and the unquenchable 3,000 degrees of napalm, which devours flesh: the image of Farocki putting out his cigarette on his arm allows the spectator to take in a gesture that will then allow him to broaden their understanding of those affected by napalm fire. Farocki's gesture makes it possible for European and American citizens to see what is happening in Vietnam, that is, it brings to the imagination what is invisible and unimaginable for most people.[4] Farocki writes in *War Always Finds a Way*:

> My gesture [the act of putting out the cigarette on the skin of my arm] was directed at the here and now. Vietnam was far away and that limited contact with the heat was meant to bring it closer. The small gesture was meant to disturb the image, it was directed against the system of cinema and indeed confirmed [...] the testimonial power of the filmic image.[5]

So comparison is a first step towards breaking the anaesthetisation and spectacularisation of images, which effectively prevent us from seeing. They stop us from seeing the bodies of so many individual Vietnamese human beings – soldiers and civilians, men and women, adults and children – who are burning. In a different direction to the "metaphorical" reading that Thomas Elsaesser has given of Farocki's gesture,[6] Didi-Huberman speaks of a "choreography of dialectical comparison", of a "metonymy", if one considers "the punctual wound as a single pixel of what Jan Palach suffered on his entire body".[7] And again, writes Didi-Huberman, "the burning mark does not constitute an end point or a weakened metaphor, but a relative point, a point of comparison: 'When he has finished speaking, the author burns himself, even if only a single point on his skin. It is precisely here that a point of contact

3 Didi-Huberman 2009, 44.
4 On the imagination in Farocki's work see Montani 2017.
5 Farocki 2015, 59.
6 Elsaesser 2007, 17–18.
7 Didi-Huberman 2009, 44.

with the present world is given.'"[8] Understanding the violence of war in images requires a capacity for comparison, and comparison is one of the fundamental elements of the genealogical method.[9] Another fundamental element of the ability to read the war/image relationship is the dialectical dimension, that is, the ability to read the complexity, tensions, and contradictions that run through what we are observing.[10] In the specific case of *Unerlöschbares Feuer*, Farocki works on the anaesthetisation generated by the images in order to overturn it into a new "testimonial power" of the images themselves.

Serious Games

Since the end of the 1960s, the function of image production devices in warfare has remained central to Farocki's work. In this respect, the installation *Serious Games* is particularly important, as Farocki confronts the most technologically advanced forms of warfare by which the most powerful armies conduct warfare today. Specifically, at the centre of the installation are VR (virtual reality) as a form of combat training for US soldiers and AR (augmented reality) and VR used in rehabilitation programmes for veterans suffering from post-traumatic disorders. The video installation, as Farocki himself recalls, was born out of a newspaper article in 2008:

> In the summer of 2008 my collaborator Matthias Rajmann sent me a newspaper clipping. Traumatised U. S. troops returning from combat are treated with video games. In therapy they watch virtual scenarios that simulate some of the situations they experienced in Iraq. The idea is that the virtual images will help the soldiers to remember the events that caused their trauma. From previous research we knew that similar virtual environments were being used to train troops for combat. Images that prepare the war resemble those that help process it. The idea for a project was born.[11]

The first aspect to underline is the need to show in images what is not normally seen: both the preparation of soldiers with VR programmes and their

8 Didi-Huberman 2009, 44.

9 For this understanding of genealogy, see Foucalt 1977.

10 On the dialectic of images in Farocki's work, with reference to Walter Benjamin's thought see Didi-Huberman 2009.

11 Farocki 2014, 1.

rehabilitation from post-traumatic disorders are dimensions that do not belong to the visual heritage of the majority of the population, despite the fact that these serious programmes derive from videogames that are very popular among enthusiasts all over the world.[12] To try to explore this area of contemporary life, Farocki and his collaborators obtained permission to film inside Fort Lewis army base and at the Marine Corps training base at Twentynine Palms. In "Immersion", a text written in 2008 before they started filming, Farocki states, "We would like to show how they [worlds of artificial imagery] are used constructively in ways that go beyond self-contained fictional universes."[13] The "self-contained fictional universes" dimension of the imagery of AR and VR programmes stems from their genealogy: training and therapy programmes derive from war video games, which in turn derive from military technologies. Farocki's video installation therefore answers the question of whether these "worlds of artificial imagery" can be "used constructively".

In the first video (two channels) *Serious Games I (Watson Is Down)*, we see the training of American soldiers using the Virtual Battlespace 2 programme – the professional version of the video game – which uses all the available data for the territory to recreate a space as close as possible to the reality within which the soldiers will have to move to wage their war. Through the programme's menus, the trainers can place various types of ordnance and different enemies on the virtual path the soldiers have to take and modify the weather conditions, light, etc. Parts of the video show the soldiers or trainers in action in front of the screen, other images capture the screens where the soldiers are preparing. The only tense moment is when one of the American vehicles is attacked by enemy soldiers: the Americans successfully return fire, but Private Watson is shot (virtually) by the enemy. Watson (in the flesh) in front of his computer sighs and lets himself down on the back of his chair. The dominant feeling transmitted by the attitudes and gestures of the soldiers is boredom; even when they are attacked, the young soldiers react in a way that is strangely apathetic and inadequate to the "game" in which they are moving.

The second video (single-channel) of the installation *Three Dead* is also dedicated to training strategies in the military environment. Here we are no longer in a VR space but in a physical space that mimetically reconstructs

12 On videogames in Farocki's work see Fassone 2017.

13 Farocki 2012, 239.

the conditions in which the soldiers will find themselves when they arrive at their destination. The exercise is dedicated to a Military Operation in Urban Territory (Mout), so soldiers are training by interacting with figures who play the parts of citizens, carrying out all the activities present in the urban context of the territory in which the soldiers are going to operate. Some fake citizens try to fraternise with the soldiers who are guarding the neighbourhood; an open-air canteen is set up in a square where food is distributed to all those who request it.

The terrorist-figures suddenly burst into this square, shoot wildly, then flee, as do all those who were eating at the canteen; in the foreground a figure returns to get something to eat that he had left on the table. Then, soldiers are shown carrying out an operation in which they seem to be trying to flush out suspected terrorists. This video opens and closes with two fragments of 3-D simulations of the same fake city in which the exercise just described takes place, developed by the company Maraizon.[14] In the reconstruction of physical spaces too, the role of VR has become fundamental. As can be easily guessed, the aim of this video is to explore a further aspect of soldier training: learning to move in physical spaces reconstructed to simulate the conditions in which they will be operating, but with the material reconstruction of spaces increasingly dependent on virtual representations. At the centre of the installation is the theme of reciprocal exchange and interpenetration between VR and reality, one of the most advanced areas of experimentation in military training.

The third two-channel video is *Immersion*, which shows in images the rehabilitation therapies for soldiers returning to the United States suffering from PTSD. The video opens with images of Dr Albert Rizzo of the Institute for Creative Technologies at the University of Southern California in Marina del Rey, who explains the principles of virtual reality exposure therapy (VRET) and how the Virtual Iraq programme works. VRET is a behavioural therapy that is based on "literally immersing patients in their wartime experiences".[15] Next, the video shows the person undergoing the therapy and what he or she sees while wearing the immersive visor. Several soldiers follow one another, and while they relive through the programme's simulation the war attack they suffered, they have to tell in words what happened,

14 Maraizon's works can be seen at http://maraizon.com/gallery [accessed 15 May 2021].

15 Farocki 2012, 243.

with the therapist intervening and urging the patients to verbalise, to give details about the traumatic event.

Most of the minutes of the video are dedicated to the last patient: encouraged by the psychologist, the patient recounts the aggression suffered during an operation in enemy territory, the death of his companion, the panic, the inability to react. At times the soldier would like to take off the visor because it is too hard to return to confront those tragic and painful moments. He even feels a sense of nausea and the therapist reminds him that he has a bucket nearby. The video ends with a round of applause from those present (until now we knew nothing about these "spectators"); the soldier takes off his visor and says, "Yes, my nausea was real." The psychologist also explains that the soldier's first test was very good, taking into account that she too is not yet fully acquainted with the programme. We then discover that these images are not of a real case of therapy for a soldier suffering from PTSD, but are from a demonstration video promoting the use of this behavioural psychology technique to deal with cases of people suffering from post-traumatic disorders.

The last seconds of the video show, without further comment, a few seconds of the programme in question relating to the Subjective Units of Disturbance Scale (SUDS). SUDS is used in the context of cognitive-behavioural therapy to make patients aware of progress they have made in dealing with the situations causing mental distress. The scale ranges from 0 (condition of total absence of disturbance) to 10 (condition of absolute distress, total despair). The images of the programme show an environment reminiscent of an Afghan city, and then a loud explosion, smoke, screams, gunshots are heard. In conclusion, as Anders Engberg-Pedersen notes,

> The multiple repetition of the trauma then desensitises the soldier again to return the senses to a stable condition *(allostasis)*. In other words, the same immersive VR technology is now employed both before and after combat in an attempt to manage and control human responses to extreme experiences.[16]

The fourth and last video (dual channel), *A Sun with No Shadow*, constitutes a sort of synthesis of the video installation as a whole; in fact, Farocki returns with these images to the questions he has addressed in the previous

16 Engberg-Pedersen 2017, 160.

videos. The video opens with images from *Watson Is Down* showing soldiers training with the virtual battlespace programme: the words commenting on the images remind us that all the data used to construct the virtual images are based on very precise surveys of Afghan territory: "The computer landscape depicts real details: hills and valleys, roads and vegetation – go back to cartographic data." Even the shadows cast by military vehicles are real insofar as they are drawn by tracing the position of the sun in Afghanistan at a precise moment. Then we see an instructor placing enemies by choosing them from a menu; a man wearing a palandrana and flip-flops, a woman covered by a burka, another man with a dirty shirt and tennis shoes: "An instructor places enemies. Poorly-armed enemies in asymmetrical wars." And more images of a military vehicle moving through the desert: "These images should follow up the war." They will be used for therapeutic purposes. The "light mood" allows the choice of the type of light, daylight, night etc. However, Farocki notes in a caption for *Serious Games IV*, "Images that should evoke memories, images of the horrors of war of the attacks and snipers, the images for follow-up resemble those that prepare the war. Although the follow-up images are shadowless." Farocki adds very dryly, "The system for reminding is somewhat cheaper than that for training." The installation closes with a juxtaposition of images of the training system and images of the cheaper system for treating traumatised soldiers. Finally, Farocki's written comment: "But both systems use *asymmetrical* images."[17]

Asymmetrical Images

In a very thorough analysis of *Serious Games*, Virgil Darelli author observes that Farocki's statement about "asymmetrical images" remains in some ways "mysterious".[18] Indeed, Farocki's statement may seem so until it is placed in the frame of all his previous work on the relationship between images and war. I am thinking in particular of *Bilder der Welt und Inschrift des Krieges* (*Images of the World and the Inscription of War*, 1998), *Auge/Machine I, II, III* (*Eye/Machine I, II, III*, 2000–2003), and the video *Ausweg* (*A Way*, 2005). Farocki himself suggests an interpretation of the "asymmetry of images" in an interview he gave on the occasion of the exhibition *The Image in Question:*

17 On the asymmetry of the wars see Kaldor 2012.

18 Darelli 2019, 112.

War–Media–Art, held at the time of his lectureship at Harvard University. When asked, "What do you think are the difficulties of representing modern warfare?", Farocki replied,

> Wars today are very asymmetrical – one side is far stronger than the other, which is quite unlike earlier warfare. We also see that the classical moments in which wars have been decided – moments like the battle, the siege, and so on – no longer exist, and now we have remote weapons, where you can sit in a bunker in Florida and launch a weapon. All of these things have changed. Plus, the images themselves have become a part of war – not as propaganda, but as part of communication and part of the tactics of war.[19]

There are two principal reasons why we can speak of an "asymmetry of images" in contemporary wars: (1) the general and absolute disparity of forces that characterises contemporary wars in a systematic way, generating the *overall asymmetry* of conflicts; (2) the *asymmetrical function* that images play in the war process, since the "images themselves have become part of the tactics of war". An increasingly decisive part of the asymmetry concerns precisely the asymmetry in the *use* of images.

More specifically, Farocki clarifies the issue in his response to the next question, "What sorts of images are playing an active part in warfare?"

> They are what I call operational images: no longer needed just to depict something, they are needed as tools of pattern recognition. We see satellite images being used by software to find certain shapes and then they are translated into round shapes or square shapes or whatever to find the target. Images are a means of recognition, of tracking; it's a total integration into the strategy of war.[20]

Thus, for Farocki operational images (or operative images; in German, *operative Bilder*) are the kind of images that have an "active part" in the conduct of wars, images that "are not necessary to represent something" but become essential as "tools of recognition schemes" in the functioning of war. It is clear that the reference to the asymmetry of images with which *Serious*

19 Farocki 2010.

20 Farocki 2010.

Games closes derives from the relationship they have with the sphere of "operational images".

Probably the clearest definition of "operative images" given by Farocki is the following: "In my first work on this subject, *Eye/Machine* (2001), I called such pictures, made neither to entertain nor to inform, 'operative images'. These are images that do not represent an object, but rather are part of an operation."[21]

One of the captions of *Eye/Machine I* reads, "They [operational images] are not for edification, not for reflection." In several places Farocki points out how operational images dissolve their mimetic relationship with reality and that they often tend to become idealised schemes – according to Max Weber's definition – for the construction of reality.[22] "Simulator produces an idealized image from geographical data. It models the world according to requirements of labs and factories", reads a caption in *Eye/Machine I*. Increasingly, we find ourselves in an anaesthetised or unconscious relationship with images that, unlike in the past, are not produced as mimetic representations of things and have no cognitive or playful purpose. These images are parts of a technical process that operate in different ways in different areas of life. Operational images are "functional images".[23] They have a function in a technical working process, but in relation to a human gaze they have no meaning. Their preservation is therefore redundant or completely senseless. They are produced, used, and deleted. They are disposable images. We can include in this category all the different images that make industrial production processes work, video surveillance images, and, first and foremost, the images by means of which a missile can recognise, track, and hit its target. These images escape the human gaze, either because in different ways these images make themselves unavailable or because the human gaze is entirely secondary or irrelevant to the functioning of these same images. The most disturbing perspective put forward by Farocki in *A Way* is that while "there are not yet any weapons that can direct themselves at their own target, even if no projectile can yet identify its own target", the technical potential for automatic warfare is there, as demonstrated by the fact that there are now "robots that find their own targets" in industry.

21 Farocki 2004, 17.

22 "So in a Max Weberian term, 'ideal type', somehow these images are very close to an ideal type. I think they are asking reality to be as calculable as these systems are", Farocki 2012, 284. On ideal type in Farocki's works see Franke 2012.

23 Didi-Huberman 2010, 17.

For Farocki, therefore, the operational process functions independently of the human eye and its perception, imagination, knowledge, and memory. Human freedom and responsibility are thus deactivated with regard to the functioning of operational images. If these images are not dependent on vision and responsibility, when they function in the field of war, they tend once again to escape human vision and responsibility. Farocki proceeds to genealogise the disappearance of the images that function or bear witness to what happens during conflicts: this disappearance is attributable to the ever-increasing weight of operational images in the spheres of our lives. The fact that such images are increasingly at the centre of how conflicts are conducted is in itself one of the main reasons why we see less and less of what happens in wars. At the same time, the imagery of war is increasingly dependent on wargames, which in turn form the basis of an ever-larger part of soldiers' training.

The first Gulf War, in 1991, is taken by Farocki as a turning point in the relationship between images and warfare because for the first time operational images were used in a systematic way to control missiles launched against their targets: images transmitted by a camera placed on the head of the missile, which is seen and controlled by the pilot of the plane that launched it. These images dissolve the moment they hit their target. Since the first Gulf War, we have seen fewer and fewer war dead, despite the increased use of imaging devices and the increasing involvement of civilians in warfare. Operational images, Farocki writes, "more than just propaganda and despite strict censorship were aimed at erasing the two hundred thousand dead of that war".[24] Images that are produced increasingly independently of humans, operational images that work in the operation of war and are not made for human eyes occupy ever greater space within wars in which the dead disappear. The 200,000 dead of the first Gulf War are more than censored; they fall out of the field of visibility to the point of slipping below the threshold of existence.[25] For Farocki, operational images work to remove the dead from wars independently of propaganda logic. In the installation *Eye/Machine I*, Farocki associates commentary captions with phantom subjects and other operational images taken from various industrial production processes, traffic control, surveillance, etc. Farocki's work is focused on the

24 Farocki 2015, 58.

25 Fundamental on the relationship between violence and invisibility in the "small" wars is Weizman 2018.

images sent by missiles.[26] In particular, for the images sent by missiles before they hit their target, we read, "We saw images like these in 1991, of the War against Iraq. In 1991 we saw these images of the war against Iraq. Operational images, no propaganda. Not propaganda yet. An ad for intelligent machines." There is no need for direct propaganda in favour of war because, according to Farocki, the kind of operational images we are dealing with actively work precisely to transform reality in its effects, removing themselves not only from the human hand, but also from the human eye.

Operational images are the junction between the industrial production of global capitalism and the work of destroying wars, central issues in videos such as *Eye/Machine II* and *A Way*. If, as Farocki shows in *Eye/Machine III*, the images of the Vietnam War still "threatened" and "entertained", the purely operational images of the first Gulf War perform functional operations and therefore no longer arouse any passion, primarily because they remove themselves from the interest of the human eye and simply function, no longer arousing any passion or resistance.

The properly operative dimension of operational images is explored in the interweaving of images and words of the video installation *Eye/Machine I*: "Industrial production abolishes manual work and also visual work." Any kind of working process that functions on the basis of operational images makes the activity of the human hand and eye superfluous. For Benjamin, the emergence of photography and film entailed that "For the first time, photography freed the hand from the most important artistic tasks in the process of pictorial reproduction-tasks that now devolved upon the eye alone."[27] Farocki with his work on images shows how operative images today tend to impose themselves as an exclusion of the contemporary human eye. Finally, the characteristic dimension of the operative image – as it develops in military and production apparatuses – is captured by Farocki in a sort of new form of *religious* relationship with images, in a retreat of this sphere of images from public viewing and sharing, as I try to explain later, based on Agamben's theories. In this sense, Farocki writes in a caption to *Eye/Machine I*, operational images are devoid of a "social purpose" *(soziale Absicht)*.

In the first Gulf War, Farocki writes, photographed images and those produced by computer simulation were no longer distinguishable from one another. With the loss of the "authentic image", the possibility of the his-

26 On *Eye/Machine* see Blumenthal-Barby 2015.

27 Benjamin 2008, 20.

torical eye witness was also erased. "This led to the use in the Gulf War not only of new weapons, but also of a new politics of images *(Bilderpolitik)*. In the Gulf War, the foundations of an electronic way of conducting war were produced".[28]

This "electronic mode of warfare" is connected to a "new politics of images". Both are based on a simulatory condition in which the absence of the "authentic image" erases the possibility of "historical testimony".

As Engberg-Pedersen noted,

> Clearly, the point is not that VR has fully replaced reality in a procession of simulacra, as a quick reading of Baudrillard would suggest. It is, rather, that reality no longer stands in opposition to simulations but, for better or for worse, has come to include them. When our representations of war become the means by which war is waged, we need to expand our notion of the real, not shrink it. As Farocki's Serious Games makes evident, embodied immersive simulations form an integral part of what we must now think of as the military real. And it points to the fact that this expanded notion of military reality is organised aesthetically.[29]

The Profanation of Operational Images

As mentioned earlier, Farocki's intention with this video installation was to explore if and how worlds of artificial imagery "are used constructively in ways that go beyond self-contained fictional universes". Its conclusion in this sense is clearly in the negative. The AR and VR technologies used in the military environment fit perfectly within that system of operational imagery noted in the previous paragraph. Both training and therapeutic images are asymmetrical images, that is, they express the asymmetry which increasingly characterises contemporary conflicts and in which the mutation of wars into exercises, the absence of an (external) enemy, the so called "humanitarian" motivation of conflicts, the subtraction of war processes from the human gaze are increasingly widespread and normal elements.

This exploration by Farocki in the sphere of AR and VR images relates to many of the questions addressed by Walter Benjamin when he confronted

28 Farocki 2008.

29 Engberg-Pedersen 2017, 164.

photography and film in the 1930s. Benjamin saw in them forms of perceptive training based on shock, on repetitions that impose themselves as corporeal "innervations", which through a form of "subjugation" has the possibility of overturning themselves to form modes of "liberation".[30] In the final analysis, the liberation to which Benjamin refers is a liberation from work as a function of the construction of a "space of play" *(Spielraum)*.[31] The work/play dialectic in Benjamin must be understood in at least two respects: (1) the receptive innervation that allows the human body to enter into relation with technical instruments (in some of Benjamin's examples, the child's ball, the painter's brush, the keys of a typewriter), expanding and modifying the human's perceptive sphere. The work and enslavement carried out in order to become innervated with the instrument are overturned in the construction of an extension of the perceptive possibilities and of operation on things. Reception and passivity turn into creation and activity. And (2), in addition to this aesthetic level of the work/play dialectic, there is another level that we could define as collective and political. Benjamin writes in a famous passage from *The Work of Art in the Age of its Technical Reproducibility*,

> Revolutions are innervations of the collective – or, more precisely, efforts at innervation on the part of the new, historically unique collective which has its organs in the new technology. This second technology is a system in which the mastering of elementary social forces is a precondition for playing [*das Spiel*] with natural forces. Just as a child who has learned to grasp stretches out its hand for the moon as it would for a ball, so humanity, in its efforts at innervation, sets its sights as much on currently utopian goals as on goals within reach.[32]

Aesthetically and politically, the subjugation to photography and film is important not only on an individual level, but also on a collective one, in the sense that it constitutes a revolutionary chance for the use of technique no longer under the sign of sacrifice and work, but under the sign of "an interplay between nature and humanity".[33]

30 On "innervation" in Benjamin see Somaini 2018.

31 An essay on *Serious Games* that highlights Benjaminian implications can be found in Darelli 2019.

32 Benjamin 2008, 45, n. 11.

33 Benjamin 2008, 26.

If observed from this Benjaminian perspective, AR and VR devices in the military context are employed in a direction of subjugation and passivity that tends to change – at least for those who have access to them – into a new form of that "spectacle" of which Benjamin spoke in reference to the "aestheticizing of political life",[34] such that the subject of the spectacle is humanity reduced to its own blind "self-alienation" and "annihilation".[35]

In another well-known passage, Benjamin used an image taken from the sphere of medicine to illustrate the relationship between the pictorial image and the filmic image. The painter's relationship to the image he produces can be compared to the relationship of the traditional doctor or magician with his patient: "The magician maintains the natural distance between himself and the person treated; more precisely, he reduces it slightly by laying on his hands, but increases it greatly by his authority."[36] By contrast, the relationship of the film operator with the image can be compared to that of a surgeon with his patient:

> The surgeon does exactly the reverse: he greatly diminishes the distance from the patient by penetrating the patient's body, and increases it only slightly by the caution with which his hand moves among the organs [...]. The surgeon abstains at the decisive moment from confronting his patient person to person; instead, he penetrates the patient by operating *[er dringt vielmehr operativ in ihn ein]*.[37]

What emerges from the montage is therefore a disorganised image, the image "of the cinematographer is piecemeal", as Benjamin put it, as opposed to the organic image, the "total image" of the painter. For Benjamin, "the presentation of reality in film is incomparably the most significant for people of today, since it provides the equipment-free of reality they are entitled to demand from a work of art, and does so precisely on the basis of the most intensive interpenetration of reality with equipment".[38] This fragmented and shocking dimension of the photocinematographic image translates into an aesthetic-political "chance":[39] photography and cinema shatter the

34 Benjamin 2008, 41.
35 Benjamin 2008, 42.
36 Benjamin 2008, 35.
37 Benjamin 2008, 39–40.
38 Benjamin 2008, 35.
39 On these aspects see Gurisatti 2012, 49–86.

presumed single reality of things. The "second" reality that cinema produces leads to an explosion of the banality, contradictions, and limits that run through the "first" reality. At the same time, however, this shock opens dialectically to a "chance": the destruction of the reference to the original, the overcoming of the image as a mimesis of reality opens up an operational relationship between the human being and the world. The photocinematographic gaze is an allegory of a world that humankind has the possibility of constructing on the basis of their technical ability, free for the first time from the passive reference to a being or an order of values that pre-exists with respect to humankind's own activity. In particular, montage – as a constitutive element of the photo-cinematographic gaze – constitutes for Benjamin a powerful aesthetic-political allegory: the shocking element essential to photography and cinema stands as a destructive element of the traditional mimetic relationship of the image to reality. Benjamin believes that cinematic images appeal to us as follows: there is no other reality than that which is realised through imaginative construction; today the imagination has equipped itself with sensitive prostheses, we must aesthetically form ourselves and develop our sensitive-imaginative faculty in accordance with those innervations that are already operative in our lives. In this sense, the photocinematographic image is operative in that reality is handed over to human action and needs. Farocki, by contrast, uses the term "operative images" to define images that are totally unbalanced on an operativity from which humankind is systematically excluded, as we have seen.

That kind of operativity in the emancipatory sense of AR and VR images comes precisely from the kind of work on images that Farocki himself carries out with his video installations. As Didi-Huberman noted in an illuminating essay on Farocki, "The gift of images" that Harun Farocki gives us therefore has to do "with what Giorgio Agamben calls profanation".[40] he adds, "Farocki certainly does not dishonour the images he shows and reassembles in his films and installations. On the contrary, he shows exemplary respect for the images (respecting their modes of operation as much as possible, in order to show them better)."[41] But the respect that Didi-Huberman is talking about is *profanation* in the precise sense that Agamben gives back to this word: "Farocki 'profanes' the visual strategies of international trade or the contemporary military industry: he tries, through reassemblies, to

40 Didi-Huberman 2010, 15.

41 Didi-Huberman 2010, 15.

abolish and cancel separations [...] [to teach us] to make a new use of them, to play with them. And it is in this way that life in prison or the way of conducting a war really become our business, all of us."[42]

For Agamben, *profanation* is a key word, in which he condenses his critique of contemporary spectacular capitalism, which imposes itself as a new form of religion:

> Religio is not what unites men and gods but what ensures they remain distinct. It is not disbelief and indifference toward the divine, therefore, that stand in opposition to religion, but "negligence" that is, a behaviour that is free and "distracted" (that is to say, released from the religio of norms) before things and their use, before forms of separation and their meaning. To profane means to open the possibility of a special form of negligence, which ignores separation or, rather, puts it to a particular use.[43]

Profanation should not be confused with secularisation, as Agamben clearly explains:

> Profanation, however, neutralises what it profanes. Once profaned, that which was unavailable and separate loses its aura and is returned to use. Both are political operations: the first (secularization) guarantees the exercise of power by carrying it back to a sacred model; the second (profanation) deactivates the apparatuses of power and returns to common use the spaces that power had seized.[44]

From Agamben's perspective, Farocki's work on AV and VR images is therefore a form of profanation that works to restore human beings' gaze, their capacity for decision and action.

Pietro Montani, I believe, grasped one of the most important aspects of Farocki's work when he observed that "the proper place of Farockian cinema, its essential 'poise', is to be grasped in the space of reversibility (between image and word) and in the peculiar productivity present in the work of schematisation carried out by the imagination".[45]

42 Didi-Huberman 2010, 15–16.
43 Agamben 2007, 75.
44 Agamben, 2007, 77.
45 Montani 2017, 262.

Serious Games can also be conceived as the restitution of humankind's aesthetic and political action, of a weave made up of empirical data, images, and written words that emerges in the relationship of American soldiers with the AR and VR devices they work with for training and in some instances in immersive post-trauma therapy. But in order for these images to be taken out of the operational and functional sphere to which they are relegated by governments, states, and the big companies of war and videogames, they must become *common* property, they must be returned to the *community*, profaned from the cultic sphere to which they are relegated through the work of exposure, editing, and reinterpretation that Farocki offers in his works. It is through this work of profanation that Farocki can give back to AR and VR images the "testimonial power" of the images themselves that allows us to judge and actively operate in our history.

Bibliography

Agamben, Giorgio, 2007, *Profanations*, trans. Jeff Fort, New York: Zone Books.

Benjamin, Walter, 2008 [1936], The Work of Art in the Age of its Technological Reproducibility, in: Benjamin, Walter, *The Work of Art in the Age of its Technological Reproducibility and Other Writings on Media*, ed. Michael W. Jennings / Brigid Doherty / Thomas Y. Levin, Cambridge, MA / London: Belknap Press of Harvard University Press.

Blumenthal-Barby, Martin, 2015, Cinematography of Devices: H. Farocki's Eye/Machine Trilogy, *German Studies Review* 38, 2, 329–351.

Cervini, Alessia, 2017, Oltre i limiti della rappresentazione. La genealogia delle immagini di guerra in Harun Farocki, in: Farinotti, Luisella / Grespi, Barbara / Villa, Federica (eds.), *Harun Farocki. Pensare con gli occhi*, Milano-Udine: Mimesis, 337–347.

Darelli, Virgil, 2019, I Serious games di Farocki. Gioco, apprendimento, terapia, in: *Cinergie. Il cinema e le arti*, 15, 105–114.

Didi-Huberman, Georges, 2009, How to Open Your Eyes, in: Ehmann, Antje / Eshun, Kodwo (eds.), *Harun Farocki. Against What? Against Whom?*, Köln: König, 38–50.

Didi-Huberman, Georges, 2010, Rendere un'immagine, *Aut-Aut*, 348, 6–26.

Elsaesser, Thomas, 2007, Harun Farocki: Filmmaker, Artist, Media Theorist, in: Elsaesser, Thomas (ed.), *Harun Farocki: Working on the Sightlines*, Amsterdam: Amsterdam University Press, 11–42.

Engberg-Pedersen, Anders, 2017, Technologies of Experience: Harun Farocki's Serious Games and Military Aesthetics, *Boundary 2. An International Journal of Literature and Culture* 44, 4, 155–178.

Farocki, Harun, 2008, Auge/Maschine I–III Filmpresentation Edith-Russ_Haus für Medienkunst, https://is.gd/HH3Dpp [accessed 15 May 2021].

Farocki, Harun, 2010, Portrait of an Artist, *The Harvard Crimson*, 26 October 2010, https://is.gd/xBSpKy [accessed 15 May 2021].

Farocki, Harun, 2012, Immersion (2009), in: Ten Brink, Joram / Oppenheimer, Joshua (eds.), *Killer Images: Documentary Film, Memory, and the Performance of Violence*, New York: Columbia University Press, 63–67.
Farocki, Harun, 2014, Serious Games, *European Journal of Media Studies*, 4 December 2014, https://necsus-ejms.org/serious-games/ [accessed 15 May 2021].
Farocki, Harun, 2015, War Always Finds a Way, *Continent* 4, 4, 59, https://is.gd/J1ki7b [accessed 15 May 2021].
Fassone, Riccardo, 2017, Serious Games I–IV alla luce dei game studies, in: Farinotti, Luisella / Grespi, Barbara / Villa, Federica (eds.), *Harun Farocki. Pensare con gli occhi*, Milano-Udine: Mimesis, 359–367.
Foucault, Michel, 1977, Nietzsche, Genealogy, History, in: Foucault, Michel, *Language, Counter-Memory, Practice: Selected Essays and Interviews*, ed. D. F. Bouchard, Ithaca, NY: Cornell University Press, 139–164.
Franke, Anselm / Wood, Brian Kuan (eds.), 2012, *Modern Monsters / Death and Life of Fiction*, Taipei: Taipei Fine Arts Museum.
Gurisatti, Giovanni, 2012, *Scacco alla realtà. Estetica della derealizzazione mediatica*, Macerata: Quodlibet.
Kaldor, Mary, 2012, *New and Old Wars: Organised Violence in a Global Era*, Oxford: Polity Press.
Montani, Pietro, 2017, Che cosa si può elaborare nel medium delle immagini? Immaginazione e linguaggio nel cinema di Harun Farocki, in: Farinotti, Luisella / Grespi, Barbara / Villa, Federica (eds.), *Harun Farocki. Pensare con gli occhi*, Milano-Udine: Mimesis, 253–265.
Somaini, Antonio, 2018, Innervazione, in: Pinotti, Andrea (ed.), *Costellazioni. Le parole di Walter Benjamin*, Turin: Einaudi, 87–91.
Weizman, Eyal, 2018, *Forensic. Architecture. Violence at the Threshold of Detectability*, New York: Zone Books.