The Image as Machine Niels Van Tomme

This is my recommendation: we must live more attentively.

László Krasznahorkai 1

At the Griffith Observatory in Los Angeles, a magical place where scientific research and popular imaginaries collide to present a positivist view about the open nature of science, the following text is displayed on a wall label housed within its permanent exhibition:

The eye is our oldest astronomical tool. It senses light from objects in the sky, but many of these are too small or faint for us to see in detail. To extend the view, our eyes need a boost. The telescope changes everything. It helps the eye gather more light and magnifies what we see. Suddenly, points of light become planets. Indistinct glows resolve into beautiful nebulae and galaxies. When we attach special instruments to a telescope to examine the light from these objects, we learn more about their true nature.²

The logical, enlightened view of scientific observation and objective knowledge driving this description, in particular its view on man-made technology as an uncomplicated aid to our understanding of the world, stands in stark contrast to a central question driving the Visibility Machines project. What if the entire concept of enlightenment, which in its ideal form propagates the transparency of scientific investigations and the sharing of knowledge, ultimately served its exact opposite: the systematic concealment and unavailability of information about specific objects? And what if this occurred in such a way that their true nature will remain at all times inscrutable? One must only think about the recent revelations by whistle-blower Edward Snowden to begin considering the transformation of enlightenment's idea of presuppositionless knowledge, and its political offspring in the concept of open government, into an absolute doctrine of state secrecy and government unaccountability.³ In this way, philosopher

László Krasznahorkai quoted in "Unbearable Beauty: A review of *Seiobo There Below* by László Krasznahorkai," Eric Foley, *Numéro Cinq* (September 2013), http://numero-cinqmagazine.com/2013/09/05/unbearable-beauty-a-review-of-seiobo-there-below-by-laszlo-krasznahorkai-eric-foley/, last accessed October 16, 2013.

Wall label, Griffith Observatory, Los Angeles, CA, February 2013.
Enlightenment in this context is meant to evoke the broad historical and cultural

Joan Copjec cautions against "enlightenment philosophy's 'wild fantasy' of 'moral improvement' and universal humanity, of the fostering and protection of human rights, progress, universality," suggesting that "these concepts are responsible for bringing about the very disasters they pretend to ward off." Despite such critical analysis as Copjec's, the original concepts behind enlightenment remain the dominant paradigm in much of today's intellectual endeavors, ranging from scientific and scholarly research to the reasoning behind government policies, as well as broader realms of the West's cultural and societal developments.

Engaging many of these issues, Trevor Paglen's emblematic use of advanced telescope lenses—those indispensible tools in service of scientific progress and universal good-while prying at classified military sites from afar, reveals similar transformations of enlightenment thinking into widespread doctrines of secrecy. The ambiguous imagery he generates, which becomes the final work, systematically fails to adequately visualize the hidden reality it attempts to address. The telescope lens becomes a device embedded within the very violence it seeks to investigate, as such tools of vision are inextricably entwined with the history of, as well as ongoing standard developments within, the military industrial complex. Paglen thus raises fundamental questions that go beyond the specifics of the worlds he investigates, forcing us to reflect on the so-called neutrality of lens-based media in depicting military operations specifically, as well as the limitations of recording and processing our environment more broadly. Along similar lines, Harun Farocki's iconic use of operational images, imagery produced by and for machines, points towards a parallel transformation in our understanding of the image as an "enlightenment tool": what exactly are these images showing us, and for whom are they intended? No longer

This text investigates how the original ideas behind the concept of enlightenment—related to scientific reason and the transparency of knowledge—can be reappropriated through artistic contexts. It does so by asking a series of urgent questions related to the work of Harun Farocki and Trevor Paglen. How does considering their works side by side produce a better understanding of the reality these artists confront—the arena of global military operations? In which way can the systematic artistic investigation of military surveillance, espionage, war-making, and weaponry become in itself an act of enlightenment, a way of looking

envisioned to represent something, they are employed as recognition and tracking tools for military use, becoming fully integrated within the fabric

of war instead of the advance of knowledge.

Joan Copjec, Imagine There's No Woman (Cambridge: MIT Press, 2003), 137.

development within the Western world starting in the late 17th and 18th centuries, which emphasized reason and knowledge instead of tradition.

back at and responding to the "warriors of vision," to use philosopher and critic Brian Holmes's term?⁵ And, ultimately, what can be learned from such brave confrontations between artists and the military: might we find within these gestures a way to "undo," or transform, the various forms of domination that have so deeply distorted and politicized our relationship

to images and the realities they seem to represent?

Exploring the three-part structure established through Visibility Machines, notably the governing principles of Vision, Observation, and Knowledge key to the artists' works centered on military operations, this text suggests a way to reconsider the collapse or regression of reason, to evoke Adorno and Horkheimer's ideas in *Dialectic of Enlightenment*.⁶ Both Harun Farocki and Trevor Paglen have developed unique critical and formal approaches to thinking about image-making in confronting the military realm, demanding of their viewers that they become actively involved in this thought-process, consistently looking "behind" the image to "read" the violence inscribed in it—the very thing that is at its core but that will always remain hidden to the eye.

Vision

In The Fence (Lake Kickapoo, Texas) (2010), one of Trevor Paglen's photographs most distinctly addressing the issues at hand (see page 14), we see an abstracted and blurred visual plane, an amalgam of red and orange hues, with whites breaking through in the upper part and darkness appearing below. There are no visual markers in this somewhat eerie and enigmatic large-scale image; there is nothing to guide our attention within its visual plane, as if we were confronted with a colorful depiction of the void. It is only when we start paying closer attention to the title of the piece and further investigate the specific geographical coordinates it mentions that we can begin to grasp the meaning and consequences of what is being depicted. Lake Kickapoo is a 6,200-acre artificial lake in Archer City, Texas, that serves as the main water supply for its immediate county. More importantly, "The Fence" is the everyday name of an enormously powerful radar system surrounding the United States, a protective shield against the potential, assumed assault of enemy missiles and foreign satellites. Paglen's photograph is the electromagnetic image of a section of this radar perimeter captured at Lake Kickapoo that shifts its microwave frequencies, invisible to the human eye, into the visible spectrum. The result, a radiating field of color, is reminiscent of the celebrated sublime images of late-

Max Horkheimer, Theodor W. Adorno, *Dialectic of Enlightenment* (Stanford: Stanford University Press, 2007).

Brian Holmes, "Visiting the Planetarium, Images of the Black World," in *Trevor Paglen*, exhib. cat. (Vienna: Secession, 2010), 14.

period Turner, but whereas the latter's imagery reflects man's subjection to nature's overwhelming infinitude, the image by Paglen confronts us with our subjugation to a creation entirely our own—the largely clandestine and hidden workings of the United States military industrial complex.

Exploring the realm between the invisible and the visible, Trevor Paglen has repeatedly referred to his work as the moment when something becomes perceptible but remains unintelligible, the instant when you find the evidence of absence, so to speak.7 This critical, almost anti-photographic gesture is foremost exemplified in the blurred sublimity of The Fence (Lake Kickapoo, Texas), which challenges photography's unique visual appeal, its so-called indexicality. This indexicality, as cultural theorist Piotr Sadowski points out, creates a "visual likeness that possesses a degree of accuracy and 'truthfulness' unattainable in purely iconic signs such as painting, drawing, or sculpture."8 It is precisely the ambiguous relationship Paglen's image holds to claims of truth and visual accuracy that opens up a space for critical debate on the internal workings of the photographic image from within the medium itself. Staring at the image of a radiating blur of colors, we are engulfed with uncertainty about its stature as evidence, enhanced by the precise information that is made available to us through its title. In this sense, Trevor Paglen's image distinguishes itself from offering a merely political or activist statement about the political reality it represents, as it engages the longstanding artistic tradition of questioning photography's integrity as visual evidence and the limits of photographic representation.

Could the inconspicuous concept of "the blur" be the conceptual connecting point between Trevor Paglen and Harun Farocki's work on military operations and its consequences on thinking about images? "When speaking about blurs," theorist Thomas Keenan writes:

we are also talking about images and their quality, about clarity and hence about light....The blurry image is difficult to resolve, make out, reduce: it is not clear but dim, not sharp but dull. The blur challenges our habit of looking. We blink or squint, try again to see something that is somehow out of alignment with itself. We always look twice, more than twice, when things get blurry.⁹

Thomas Keenan, "Disappearances: The Photographs of Trevor Paglen," *Aperture*, no. 191 (Summer 2008).

Niels Van Tomme, "Seeing Things," *Foreign Policy in Focus*, April 16, 2009, http://fpif.org/seeing_things/, last accessed October 16, 2013.

Piotr Sadowski, "The Iconic Indexicality of Photography," in *Semblance and Signification*, ed. Olga Fischer, Christina Ljungberg, Pascal Michelucci (Amsterdam: John Benjamins Publishing Co., 2011), 355.

Indeed, in the hands of these two artists, the blur gets transformed from hazy outline to visual indicator of sorts, pulling the viewer into the world of the image and pushing her to look more closely, to take a more critical position and to consider her own implication and responsibility towards it. But, of course, the blur in Harun Farocki's work is not the same as the one in Paglen's. It is notably the former's now classic Eye/Machine trilogy (2000-03) (see pages 2-10) that first introduced operational images in an artistic context and the chilling effects of their extra-human visions. For Farocki, the often undecipherable and blurred imagery of camera-equipped missiles that were first broadcast during the 1990-91 Gulf War provide us with a new way of machinelike seeing, announcing an entirely new order of images with vast representational consequences. With cameras zooming in on targets and becoming fixed upon impact, the imagery provided by these machines gives us the means to consider the relationship between everyday surveillance and weaponized vision, and offers an opening to investigate who controls and produces these images whose outlines are often hard to detect. As Harun Farocki observes, "these images lacked plasticity; the human scale was missing," suggesting a realm of imagery that is both panoptic and objective, and which introduces a relentless process in which the eye no longer has a role as historical witness.

Writing about Harun Farocki's *Eye/Machine*, art historian Hal Foster considers the way in which the work's title "immediately poses the question of relation: does the slash signify a split between eye and machine... or a new elision of the two, or somehow both—a split that has produced an elision?" There is definitely a before and after *Eye/Machine* with regards to thinking about the status of the image. The effects of seeing so much imagery produced through missile weaponry, robotic production, and video surveillance, points to a man-made reformatting of our entire field of vision, suggesting a world of images that has moved beyond our reach. Blurring the boundaries between human and machine vision, Harun Farocki, according to Foster, "intimates that a new 'robo-eye' is in place, one that, unlike the 'kino-eye' celebrated by Dziga Vertov, does not extend the human prosthetically so much as it replaces the human robotically." The blur, then, should be seen as the iconographic sting of enhanced robotic vision, challenging our habit of looking at the otherwise impeccable world of machine visualization.

Observation

In the notes to his 1983 film An Image, a painstakingly meticulous dissection of the production of a Playboy photograph, Harun Farocki writes about his

11 Ibid.

Hal Foster, "Vision Quest: the Cinema of Harun Farocki," Artforum, November 2004.

method of gaining access to locations which might be difficult to penetrate: "The television station that commissioned it assumes in these cases that I'm making a film that is critical of its subject matter, and the owner or manager of the thing that's being filmed assumes that my film is an advertisement for them. I try to do neither. Nor do I want to do something in between, but beyond both." This dedication to persistently go "beyond," rather than straightforwardly critique or portray something, offers a deep and analytical inquiry into the very structures supporting the subject matters he addresses. Such an approach prompts Farocki time and again to set up collaborations with institutions of conflicting nature, such as military training grounds or companies developing simulated battleground scenes. In a sense, this gaining access to worlds normally beyond our reach, perhaps best exemplified in the extra-human image world of *Eye/Machine*, gives Farocki's ingenious strategies their most distressing results.

With its heightened analytical approach and dialectical montages, there is a sense of almost scientific, research-oriented objectivity looming over Harun Farocki's work, which is an intelligent form of deception inherent to his practice. According to theorists of science Lorraine Daston and Peter Galison, objectivity, as an intellectual construction of ways of seeing, has a history in which the objective lens replaces the subjective eye, establishing that "to be objective is to aspire to knowledge that bears no trace of the knower." Farocki, with his camera seemingly neutrally capturing the action often without direct comment, establishes in effect an opposite goal through his work: his carefully constructed and edited observations are ingenious interrogations of questions of authorship, control, and authority, addressing the ways in which these concepts relate to the creation and, ultimately, ideological meaning of images. In this process, the hand of the artist is of essential importance.

For instance, *Serious Games* (2010), is a series of video installations in which Farocki works with the interactive computer simulations the U.S. military employs to train soldiers for combat, as well as for treating them after they return from war with a myriad of symptoms related to post-traumatic stress disorder. With its detached, side-by-side comparisons of simulations and real events, it is not so much the question of reality that is of interest to Farocki but the issue of who controls and decides upon making this distinction and the ideological and power relations embedded in such decisions. Considering the details of the images in the games designed for treating soldiers returning after war, the almost casual observations that appear as intertitles in *Serious Games 4: A Sun With No Shadow* (2010)

13 Lorraine Daston and Peter Galison, Objectivity (Brooklyn: Zone Books, 2007), 17.

Harun Farocki, "Ein Bild/An Image," *Zelluloid*, no. 27 (Fall 1988), http://www.farocki-film.de/1983eg.htm, last accessed October 16, 2013.

(see pages 92–103) mention that "the follow-up images have no shadows / the system for remembering is a little cheaper than the one for training." This confirmation of implementing a less costly, and thus less "realistic" simulated universe for traumatized soldiers offers, in effect, a rare insight into the inner workings and ideological construction of the imagery produced by the military industrial complex, revealing how these images systematically give priority to the preparation of conflict over the treatment of damaged soldiers. As such, Farocki aligns himself with many of the observational issues film theorist Thomas Elsaesser ascribes to political cinema after Brecht, which is "turned on the relation of 'who looks' and 'who speaks,' and on the traces which these marks of enunciation leave on the filmic discourse." ¹⁴

Similarly dedicated to employing advanced techniques of observation, Trevor Paglen uses high-powered equipment normally applied in astrophotography, a specialized technique to shoot astronomical objects and large areas of the night sky. His *Limit Telephotography* series, which appropriates this technology, investigates the covert activities of U.S. secret military operations, collectively known as the "black world." Involving a thoroughly detailed process of research and observation, Paglen aims at classified sites on the ground with the kind of equipment that would normally be used to take pictures of celestial bodies orbiting Earth. As the artist explains:

I was trying to find places where I would have a line of sight to some of these "black" sites and shoot landscape photos. That's the technique. I'm talking about taking photographs from twenty to fifty miles away. When you're looking at something on the ground that far away, there's so much heat, haze, and thick atmosphere that the images start falling apart. All of the colors fall apart from each other.¹⁵

Capturing classified military bases and installations located in some of the most remote parts of the United States, the project "documents" places that cannot be captured by cameras using regular lenses intended for traditional use. The resulting images, such as *Detachment 3, Air Force Flight Test Center #2, Groome Lake, NV, Distance ~ 26 Miles* (2008) (see pages IIO–II), often embody an epistemological collapse, as they don't merely show the places they are trying to represent, in this case the secret Air Force operating facility known colloquially as Area 51, but go beyond such questions, investigating the actual physical limits of vision and

Thomas Elsaesser, "Political Filmmaking after Brecht: Harun Farocki, for example," in *Harun Farocki: Working on the Sight-Lines*, ed. Thomas Elsaesser (Amsterdam: Amsterdam University Press, 2004), 145.
Niels Van Tomme, "Seeing Things."

the role technology plays in such experiences. Following this reasoning, Brian Holmes suggests that the series as a whole asks of the viewer to see something altogether different, "not just individuals, installations, or technical devices, but the larger order of systematic secrecy, the *world* into

which they fit."16

In his 2009 book Blank Spots on the Map: the Dark Geography of the Pentagon's Secret World, an exposé of a world of state secrets specifically related to military operations, Paglen dedicates an entire chapter to the charismatic Danish scientist and Nobel Prize winner Niels Bohr. Working on the Manhattan Project, Bohr, who had promoted openness and cosmopolitanism while working in Copenhagen, discovered the vast scale of secrecy surrounding the production of the atomic bomb, as Paglen calls it, "not necessarily from foreign intelligence agencies, but to the public, to Congress, and to the courts." This fundamental tension to be at once complicit in a hidden governmental assignment while simultaneously adhering to the intellectual and ethical codes within Bohr's overall field is broadly echoed in Paglen's investigation of state secrecy in contemporary military states, which seeks to understand the contradictory nature of secret projects. How, Paglen seems to ask, can we make this "black world" visible—a realm that officially doesn't exist, even though it has an estimated yearly budget of 52.8 billion dollars not approved by legislative branches of government. 18 In what way can it become a field of study that is once again open for critical assessment and governmental transparency?

The series *The Other Night Sky* (for examples, see pages 13, 105, 108, 109, 149, 150) depicts, at first glance, beautiful geographical landscapes, which seems to be illustrations of astonishing night skies. In reality, these images document classified American satellites orbiting our planet. There is no official acknowledgement by the U.S. government about the existence of these objects; nevertheless, they are there in space circling like any other satellite, while keeping a close watch on citizens. To develop this body of work, Paglen uses observational data collected by an international network of amateur satellite observers. Translating this data into a functional form, he uses a software model that allows him to calculate the position and timing of overhead reconnaissance satellite transits. He then photographs

16 Holmes, 14.

17 Trevor Paglen, Blank Spots on the Map: the Dark Geography of the Pentagon's Secret World

(New York: Penguin Books, 2009), 89.

Journalist Barton Gellman and Greg Miller reveal a \$52.6 billion "black budget" for fiscal 2013, obtained by the *Washington Post* from former intelligence contractor Edward Snowden. "U.S. Spy Network's Successes, Failures and Objectives Detailed in 'Black Budget' Summary," *Washington Post*, August 29, 2013, http://www.washingtonpost.com/world/national-security/black-budget-summary-details-us-spy-networks-successes-failures-and-objectives/2013/08/29/7e57bb78-10ab-11e3-8cdd-bcdc09410972_story. html, last accessed October 16, 2013.

this unexplored region using large-format cameras and a computer-guided mechanical mount. Paglen states that he is inspired by the methods of early astronomers like Johannes Kepler and Gallileo Galilei, who documented never-before-seen moons in the early 17th century. Just like classified reconnaissance satellites, these moons were not supposed to be seen, although they were nonetheless clearly there. With this series, Paglen not only reflects on what it means to see the traces of these contemporary "secret moons," but also questions the role of the artist/researcher, as what might seem individual artistic research actually depends on a network of collaborators with whom Paglen works to collectively identify and reveal classified U.S. programs as much as the unique visual approach the artist brings to the table in representing these.

Knowledge

The essays in this book, published on the occasion of the exhibition *Visibility Machines: Harun Farocki and Trevor Paglen*, expose some central issues at stake in the works of the two artists, which are revealed when considered side by side. Asking one to repeatedly look at these images, to "blink or squint [..] always look twice, more than twice," as quoted earlier by Thomas Keenan, wondering about their analytical precision (Farocki) and sublime representations (Paglen), is the task given to the viewer. We, as much as the artists, have a responsibility towards these images. Our work lies in thinking along with them, to consider them not as autonomous objects of aesthetic contemplation but as active fields of knowledge to be approached as any other intellectual challenge, so that a deeper understanding, as well as a historical contextualization of the pieces, can fully emerge. Harun Farocki, in a recent interview, seems to suggest a similar attitude, as he is foremost interested in a direct exchange with his audience:

Nowadays I am interested in...tackling a subject in such a way that it becomes productive and generates a force field via which others can continue to work on it. It is about gaining new access to things: about establishing a mode in which one not only sees something differently through the images, but sees the images themselves differently.²⁰

These ideas align with Trevor Paglen's thinking when he writes that, in all of his work, he is "interested in the limits of the visible world, in the nature of evidence, and the fuzzy and contradictory relationship between vision,

Trevor Paglen, "Sources and Methods," in this volume, 147.

Harun Farocki quoted in Thomas Köster, "Making Pictures Visible: Harun Farocki," Goethe-Institut, February 2012, http://www.goethe.de/kue/bku/kpa/en8851008.htm, last accessed February 16, 2013.

imaging, knowing, belief, and truth."²¹ Preoccupied with questioning the presupposed relationship between images and knowledge, between seeing and believing, both artists challenge the well-known dictum that "to see is to believe," pushing it into more ambiguous territory, suggesting that "not only that what is known is not what is seen, [and] that what is seen is not all there is to be known," to use the words of Thomas Elsaesser.²²

Relating to this point, Harun Farocki, in his 2003 film War at a Distance (see pages 140–48), traces the history of missile guidance systems from World War II to the present day, suggesting a direct relationship between military strategy and industrial production. Showing footage of a 1942 war experiment in which a missile was equipped with a television camera to record its flight path, the voiceover dryly comments that "the development of the television bomb, and in particular the reduction in camera size, may well have boosted the development of the television industry." For Farocki, 21st-century warfare tightens the complicity of war and image, as well as the relationship between violence and technology, underscoring the necessary "collusion of image and text in the writing of history." This collusion not only counterbalances the instability of meaning present in images, but also decodes the elements hidden within it, becoming a tool in the emergence and enhancement of historical knowledge that brushes against officially recognized narratives.

Using an equally profound historical framework, Trevor Paglen's KEYHOLE IMPROVED CRYSTAL from Glacier Point (Optical Reconnaissance Satellite; USA 186) (2008) (see page 149), is the photograph of a reconnaissance satellite portrait recorded at Yosemite Valley that brings to mind the tradition of photographers celebrating this quintessentially American landscape, such as Ansel Adams and Timothy O'Sullivan. With this image Paglen reminds us that "a lot of what we think about as classical Western landscape photography was paid for by the military, or by what was then called the Department of War, as part of what they called reconnaissance surveys." Evoking a tradition of photography that was involved in the conscious pictorial construction of a frontier imaginary, these works became iconic images of the American West, symbolizing the manifold colonization of vast landmasses. Rephotographing these landscapes, and the military satellites that now inevitably pervade their skies, represents a further colonization into space, the ultimate frontier.

²¹ Paglen, 151.

²² Thomas Elsaesser, "Harun Farocki: Filmmaker, Artist, Media Theorist," in *Harun Farocki: Working on the Sight-Lines*, 33.

²³ Sylvie Lindeperg, "Suspended Lives, Revenant Images. On Harun Farocki's film *Respite*," *Trafic* no. 70 (2009).

Jessie Wender, "Trevor Paglen's State Secrets," *The New Yorker*, October 16, 2012, http://www.newyorker.com/online/blogs/photobooth/2012/10/trevor-paglen.html#slide_ss_0=8, last accessed October 16, 2013.

Paglen, as Brian Holmes suggests, "cannot help but situate himself within and against this aesthetic tradition...using art historical models to seek an affective confrontation with militarized space while at the same time trying to undermine or redirect the political valences of aesthetic experience." ²⁵

The emergence of historical knowledge through the depiction of military operations in the works of Harun Farocki and Trevor Paglen is thus closely entwined with the study of images and the cultural and technological developments within the media with which they are creatively engaged. As violence, the state, and image-making are inevitably linked in this context, the images produced by these artists provide an opportunity to challenge some of the fundamental questions confronting contemporary visual culture. They involve the potential to illuminate a world normally beyond our reach, "bringing to consciousness what was before only dimly perceived, so that it becomes available for critical reflection," as philosopher and historian Susan Buck-Mors states.²⁶

Perhaps these images should be seen as machines that position themselves with and against the military sphere they confront. They bring to mind Walter Benjamin's concept of *Stiltellung*, which describes an "arrest of happening," an interruption of an automated process, that disrupts ideas of historical progress and suspends our commonly held beliefs.²⁷ Considered as such, they should be conceptualized as devices that open up the possibility for the reemergence of civic debate, battling the terror of all-pervasive state violence and its secretive strategies of control, while nonetheless also being stubborn aesthetic objects that make us look and wonder with awe at the knowledge contained within them.

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Holmes, 20, 22.

Susan Buck-Morss, "Visual Culture Questionnaire," *October*, no. 77. (Summer 1996).

Walter Benjamin, "On the Concept of History," *Gesammelten Schriften* I:2, (Frankfurt am Main, Suhrkamp Verlag., 1974), trans. Dennis Redmond, http://www.marxists.org/reference/archive/benjamin/1940/history.htm, last accessed October 16, 2013.