FOR EVER MORE IMAGES?

ONASSIS FOUNDATION

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For Ever More Images?
Designing a Cybermachine
for the 21st Century

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Foreword

The exhibition *For Ever More Images?* and the symposium *Cartographies of the Image in the 21st Century* represent a contribution to Onassis Stegi's ongoing desire to stimulate a critical debate that brings both artistic and discursive practice into play and in which one is not possible without the other. In many ways, this could be a paradigm of our program: the inseparability of the experience of art and of the conversation that this experience entails.

The exhibition and symposium incite us to try to make sense of the production, distribution, and consumption of images in our time. But of course, images are not just objects that we have created; they are also agents in a constant feedback loop that in turn modify the way in which we conceive of ourselves, of others, and of our environment. However, even more than that, through the mediation of myriad interfaces between us and the world in which images play a vital role, they affect the way we structure our environment, even at a physical level: just think of how many spaces are designed to be "instagrammable" or to facilitate the production of security-related images, for example. It is this reciprocal relationship of formation that criticism invites us to grasp, before we forget and these mediations become second nature.

The works in *For Ever More Images?* are marked by a kind of precarious duality: they are images but, at the same time, images about what it is to be an image today. In a Munchausen-like posture they critically examine their own conditions of production. They subvert the original purpose of the technologies and functions within which images are generated in order to prise open a space between the self-evident presence of these images and the network of agencies which engender them.

Both the exhibition and the symposium are part of Stegi's ongoing effort to critically interpret the technologies and the politics of contemporary cultural production and to do so in forms that are open and accessible to a broader public. I would like to congratulate the curatorial team of Yorgos Karailias, Yorgos Prinos, and Pasqua Vorgia (exhibition), and Eduardo Cadava (symposium) for an exceptional series of events and their powerful ideas that I hope will continue to resonate thanks to this catalog.

Christos Carras
General Manager, Onassis Stegi

Editor's Note

Alexander Strecker

"Our fine arts were developed, their types and uses were established, in times very different from the present, by men whose power of action upon things was insignificant in comparison with ours. But the amazing growth of our techniques, the adaptability and precision they have attained, the ideas and habits they are creating, make it a certainty that profound changes are impending in the ancient craft of the Beautiful. In all the arts, there is a physical component which can no longer be considered or treated as it used to be, which cannot remain unaffected by our modern knowledge and power. For the last twenty years, neither matter nor space nor time has been what it was from time immemorial. We must expect great innovations to transform the entire technique of the arts, thereby affecting artistic invention itself and perhaps even bringing about an amazing change in our very notion of art."

—Paul Valéry, *Pièces sur l'art*
("La Conquête de l'ubiquité")

Walter Benjamin used this quote, in its entirety, as the epigraph to the third version of his celebrated essay "The Work of Art in the Age of Its Technological Reproducibility." A few pages later, Benjamin cited Valéry one more time: "Just as water, gas, and electricity are brought into our houses from far off to satisfy our needs with minimal effort, so we shall be supplied with visual or auditory images, which will appear and disappear at a simple movement of the hand, hardly more than a sign." Benjamin worked on various versions of his text throughout the 1930s, taking Valéry's words from a short piece published in 1928.

The 2019 exhibition *For Ever More Images?*, the parallel symposium *Cartographies of the Image in the 21st Century*, and the accompanying catalog which you are now reading, brought together a range of artists and thinkers to address the same urgent, yet persisting, questions of ubiquity and infinite reproducibility in our own time. Today, when the images we create and distribute are increasingly determined by programming routines, algorithms, and automated behaviors, the material gathered here asks us to confront what these "profound changes" mean, and

whether they are, as Valéry writes, “great innovations” and “amazing,” or if they are, on the contrary, frightening and demand a more critical eye.

Regardless of the stance we adopt, it is worth reminding ourselves that our captivation with images, and their technological apparatuses, stretches across decades, centuries, even millennia. What, then, is truly different about our own age? Perhaps these questions, and images, will continue to haunt us for ever?

Voyager Golden Record, etching, 28-7-77

Exhibition

For Ever More Images? Designing a Cybermachine for the 21st Century

Curatorial Note

Yorgos Karailias
Yorgos Prinos
Pasqua Vorgia

"These images are devoid of social intent. They are not for edification. Not for reflection," says Harun Farocki in 2001 and coins the term "operational images." He refers to images made by machines for machines, where no human agency is apparently involved in the process.

In our current moment, people use machines constantly to capture almost everything they see—but they can also be photographed by machines without their even knowing it. Their faces, emotions, habits, beliefs, images and data can be collected, stored and valorized in massive and invisible ways, serving warfare, surveillance, global capital, and various risk management systems whose aim it is to predict the future. The world nowadays often feels like an enormous crystal ball absorbing everything visually and at the same time projecting its predetermined game plan back at us. Digital images feel too omnipresent and too invisible to allow for reflection and the transformative power of the human imagination; they have been transformed into shrunk traces of Big Data's hidden ocean.

What is the cultural significance of such visual artefacts and computational devices, compared to the contents of NASA's 1977 Golden Record, projecting into space and into the future an utterly idealized version of the human world? Back then, humans hoped to communicate with extraterrestrial life through what they deemed beautiful and important enough to be preserved in a Vacuum.

Today, this Vacuum refracts back on us its scattered particles, the infinite digits and pixels that comprise a new era, a world picture that does not appear as linear, ordered and bright. A new visual grammar emerges, along with the deep digital texture of the new image (devoid of textuality) that brings about a new aesthetic, new semiotic mechanisms, and therefore new ways of representing and interpreting the world. Are these meta-images? Are they images at all? Or are they just data maps and digital objects? In place of photographs, human stories and subjective theories of the once modern era, in this exhibition we try to examine

tactical media and black boxes; hidden algorithms and all-seeing eyes that record everything.

But we also detect the new possibilities that these technologies open up, examples of radical uses encouraging critical understanding, social engagement and action. Together, collective historical witnessing and contested testimony, communal synchronicities evolving counter-surveillance practices and the rise of counter-images, revert the image back to its inherent contextuality and thus against its brutal instrumentalization.

Exploring the politics of resolution and Big Data—some of which disguise themselves as images—we hope to display the tension between the eye of the machine and the never-ending desire of humanity to seek meaning and freedom. Can you see it?

43,186,046 Suns from Sunsets from Flickr (Partial) 02/04/19

[2019]

Penelope Umbrico

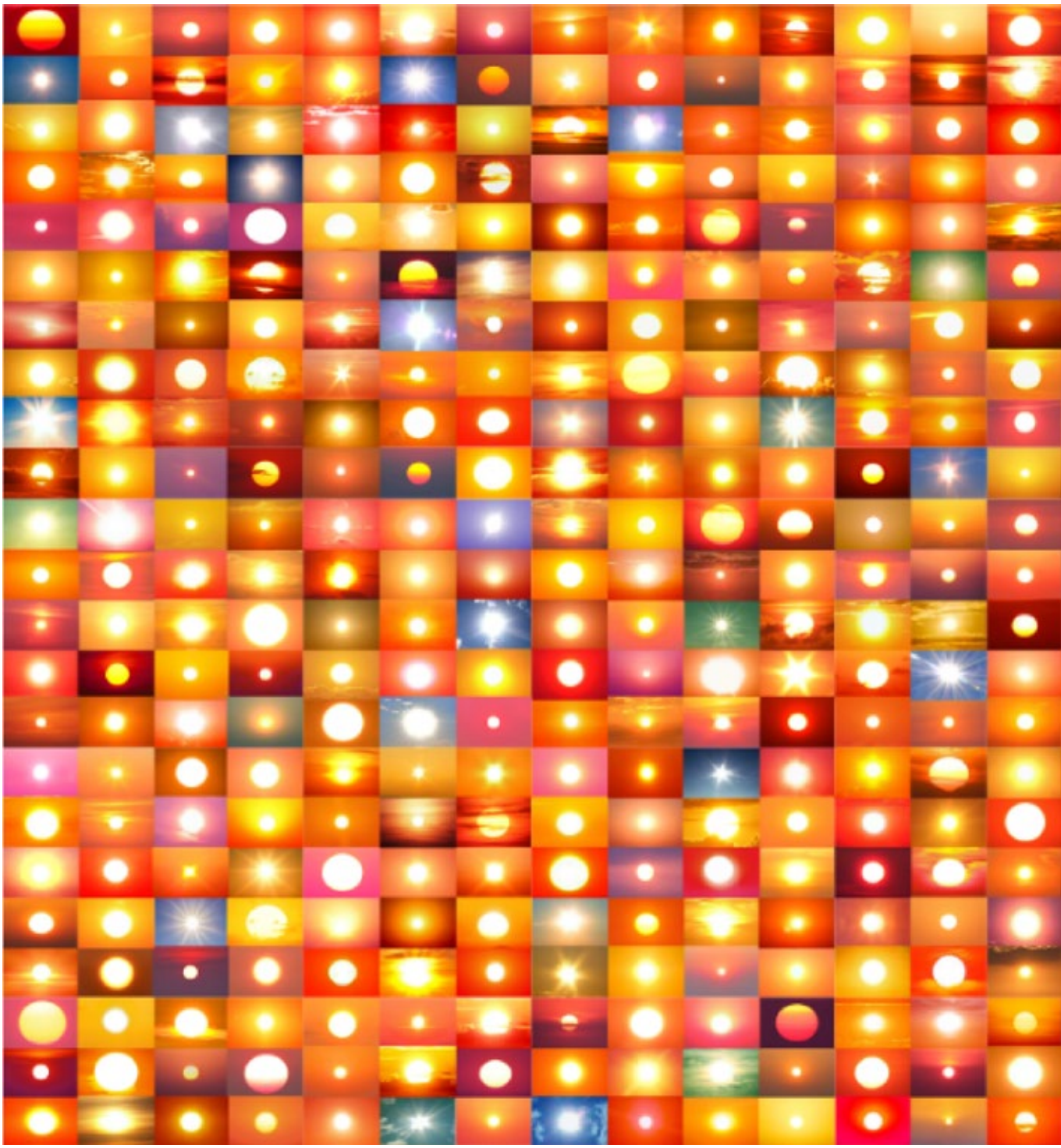
This project began in 2006 when Penelope Umbrico searched the photo-sharing website Flickr and found 541,795 pictures tagged “sunset.” Umbrico says: “I think it’s peculiar that the sun, the quintessential life giver, constant in our lives, symbol of enlightenment, spirituality, eternity, all things unreachable and ephemeral, omnipotent provider of optimism and vitamin D, and so universally photographed, finds expression on the Internet, the most virtual of spaces equally infinite but within a closed electrical circuit. Looking into this cool electronic space one finds a virtual window onto the natural world.”

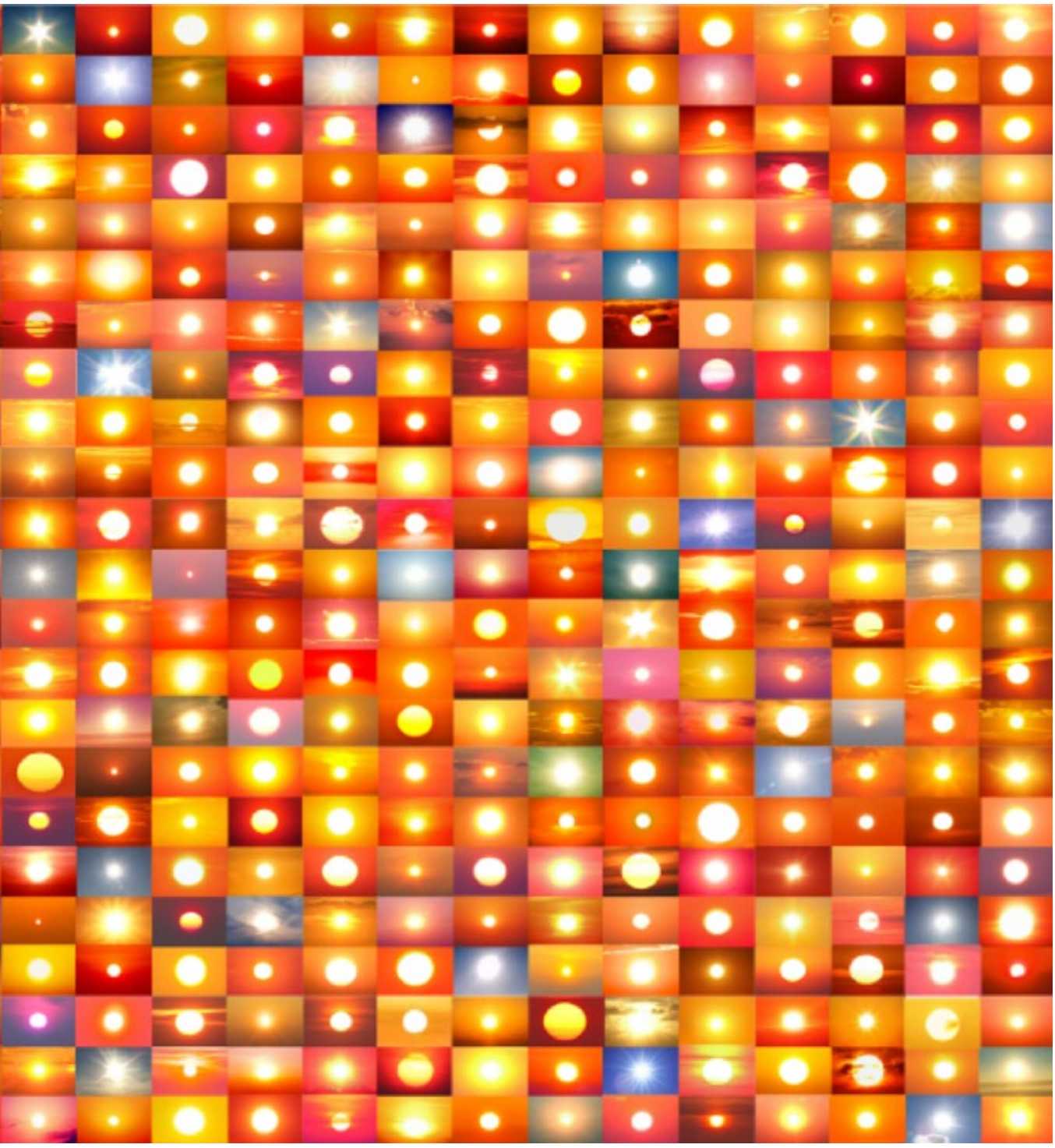
Umbrico collected those sunsets from Flickr that had the most defined suns in them, cropped just the suns from these images, and ordered 4” x 6” machine c-prints of them. The title of each installation reflects the number of hits she gets searching “sunset” on Flickr when she assembles the piece—the first installation was titled *541,795 Suns (from Sunsets) from Flickr (Partial) 01/23/06*, this one is *43,186,046 Suns from Sunsets from Flickr (Partial) 02/04/19*’— the title itself becoming a comment on the ever increasing use of web-based photo communities and a reflection of the collective content there. And since this number only lasts an instant, its recording is analogous to the act of photographing the sunset itself.

She says: “Perhaps part of the beauty of taking a picture of a sunset is that while you are doing it, it is likely that a million other people are doing it as well—at exactly the same time. I love this idea of collective practice, something we all engage in despite any artistic concern, knowing that there have been millions before and there will be millions after. While the intent of photographing a sunset may be to capture something ephemeral or to assert an individual subjective point of view, the result is quite the opposite. Through the technology of our common

cameras, we experience the power of millions of synoptic views, all shared the same way, at the same moment. To claim individual authorship while photographing a sunset is to disengage from this collective practice and therefore negate a large part of why capturing a sunset is so irresistible in the first place."

Following pages:
Detail of 900 10cm x 15cm
chromogenic machine prints





The Nine Eyes of Google Street View

[2008–ongoing]

Jon Rafman

The following text was first published in Art F City *on August 12, 2009.*

In 2007, Google sent out an army of hybrid electric automobiles, each one bearing nine cameras on a single pole. Armed with a GPS and three laser range scanners, this fleet of cars began an endless quest to photograph every highway and byway in the free world. Consistent with the company's mission "to organize the world's information and make it universally accessible and useful," this enormous project, titled Google Street View, was created for the sole purpose of adding a new feature to Google Maps.

Every ten to twenty meters, the nine cameras automatically capture whatever moves through their frame. Computer software stitches the photos together to create panoramic images. To prevent identification of individuals and vehicles, faces and license plates are blurred.

Today, Google Maps provides access to 360° horizontal and 290° vertical panoramic views (from a height of about eight feet) of any street on which a Street View car has traveled. For the most part, those captured in Street View not only tolerate photographic monitoring, but even desire it. Rather than a distrusted invasion of privacy, online surveillance in general has gradually been made "friendly" and transformed into an accepted spectacle.

In 2008, I started collecting screen captures of Google Street Views from a range of Street View blogs and through my own hunting. This essay illustrates how my Street View collections reflect the excitement of exploring this new, virtual world. The world captured by Google appears to be more truthful and more transparent because of the weight

accorded to external reality, the perception of a neutral, unbiased recording, and even the vastness of the project. At the same time, I acknowledge that this way of photographing creates a cultural text like any other, a structured and structuring space whose codes and meaning the artist and the curator of the images can assist in constructing or deciphering.

Street View collections represent our experience of the modern world, and in particular, the tension they express between our uncaring, indifferent universe and our search for connectedness and significance. A critical analysis of Google's depiction of experience, however, requires a critical look at Google itself.

Initially, I was attracted to the noisy amateur aesthetic of the raw images. These Street Views evoked an urgency I felt was present in earlier street photography. With its supposedly neutral gaze, the Street View photography had a spontaneous quality unspoiled by the sensitivities or agendas of a human photographer. It was tempting to see the images as a neutral and privileged representation of reality—as though the Street Views, wrenched from any social context other than geospatial contiguity, were able to perform true docu-photography, capturing fragments of reality stripped of all cultural intentions.

The way Google Street View records physical space restored the appropriate balance between photographer and subject. It allowed photography to accomplish what culture critic and film theorist Siegfried Kracauer viewed as its mission: "to represent significant aspects of physical reality without trying to overwhelm that reality so that the raw material focused upon is both left intact and made transparent."

This infinitely rich mine of material afforded my practice the extraordinary opportunity to explore, interpret, and curate a new world in a new way. To a certain extent, the aesthetic considerations that form the basis of my choices in different collections vary. For example, some selections are influenced by my knowledge of photographic history and allude to older photographic styles, whereas other selections, such as those representing Google's depiction of modern experience, incorporate critical aesthetic theory. But throughout, I pay careful attention to the formal aspects of color and composition.

Within the panoramas, I can locate images of gritty urban life reminiscent of hard-boiled American street photography. Or, if I prefer, I can find images of rural Americana that recall photography commissioned by the Farm Securities Administration (FSA) during the Great Depression.

I can seek out postcard-perfect shots that capture what Cartier-Bresson titled “the decisive moment,” as if I were a photojournalist responding instantaneously to an emerging event.

At other times, I have been mesmerized by the sense of nostalgia, yearning, and loss in these images—qualities that evoke old family snapshots.

I can also choose to be a landscape photographer and meditate on the multitude of visual possibilities. Or I can search for passing scenes that remind me of one of Jeff Wall’s staged tableaux.

Although Street View stills may exhibit a variety of styles, their mode of production—an automated camera shot from a height of eight feet from the middle of the street and always bearing the imprimatur of Google—nonetheless limits and defines their visual aesthetic. The blurring of faces, the unique digital texture, and the warped sense of depth resulting from the panoramic view are all particular to Street View’s visual grammar.

Many features within the captures, such as the visible Google copyright and the directional compass arrows, continually point us to how the images are produced. For me, this frankness about how the scenes are captured enhances, rather than destroys, the thrill of the present instant projected on the image.

Although Google’s photography is obtained through an automated and programmed camera, the viewer interprets the images. This method of photographing, artless and indifferent, does not remove our tendency to see intention and purpose in images.

This very way of recording our world, this tension between an automated camera and a human who seeks meaning, reflects our modern experience. As social beings we want to matter and we want to matter to someone, we want to count and be counted, but loneliness and anonymity are more often our plight.

But Google does not necessarily impose their organization of experience on us; rather, their means of recording may manifest how we already structure our experience.

Street Views can suggest what it feels like when scenes are connected primarily by geographic contiguity as opposed to human bonds.

A street view image can give us a sense of what it feels like to have everything recorded, but no particular significance accorded to anything.

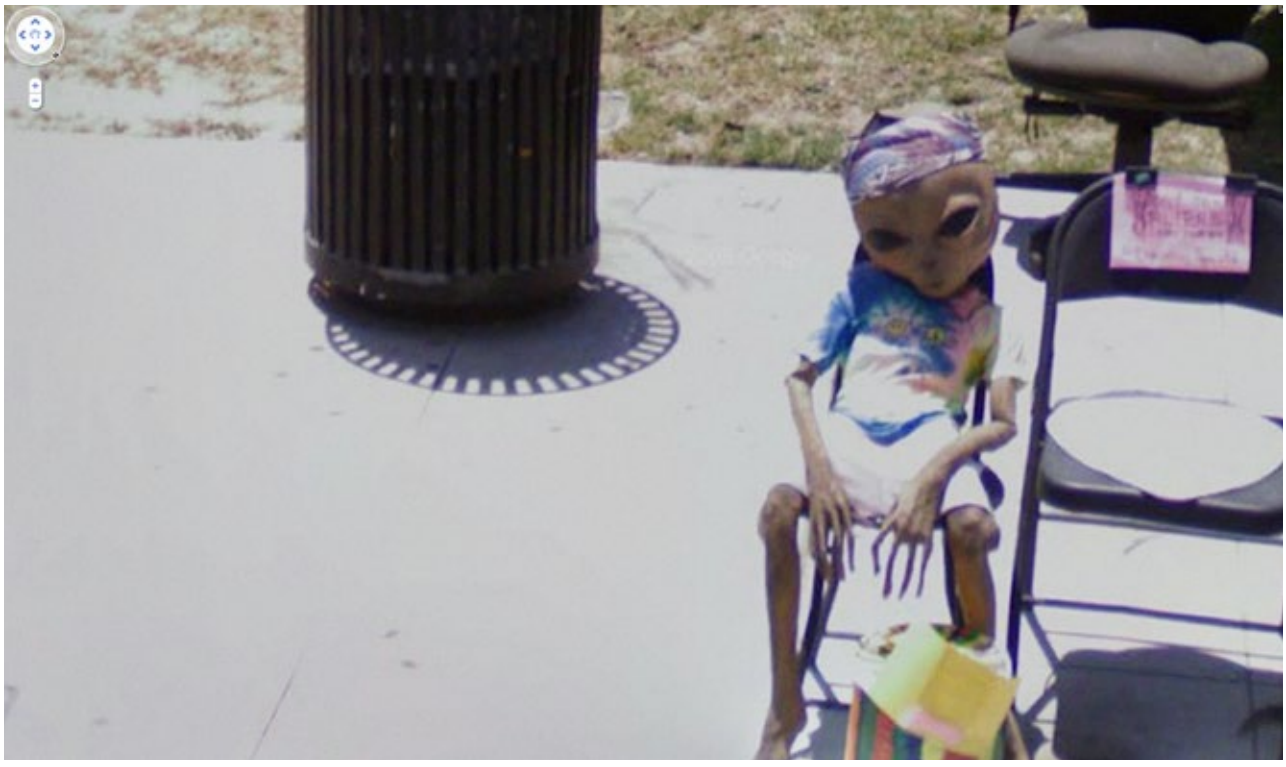
These collections seek to convey contemporary experience as represented by Google Street View. We are bombarded by fragmentary impressions and overwhelmed with data, but we often see too much and register nothing.

In the past, religion and ideologies often provided a framework to order our experience; now, Google has laid an imperial claim to organize information for us. Sergey Brin and Larry Page have compared their search engines to the mind of God and proclaimed as their corporate motto, "do no evil."

Although the Google search engine may be seen as benevolent, Google Street Views present a universe observed by the detached gaze of an indifferent Being. Its cameras witness but do not act in history. For all Google cares, the world could be absent of moral dimension.

The collections of Street Views both celebrate and critique the current world. To deny Google's power over framing our perceptions would be delusional, but the curator, in seeking out frames within these frames, reminds us of our humanity. The artist/curator, in reasserting the significance of the human gaze within Street View, recognizes the pain and disempowerment in being declared insignificant. The artist/curator challenges Google's imperial claims and questions the company's right to be the only one framing our cognitions and perceptions.

Following pages:
Stills taken from a three-channel video installation



Ocean Front Walk, Los Angeles, California, U.S., 2010

A858, Eilean Siar, U.K., 2011

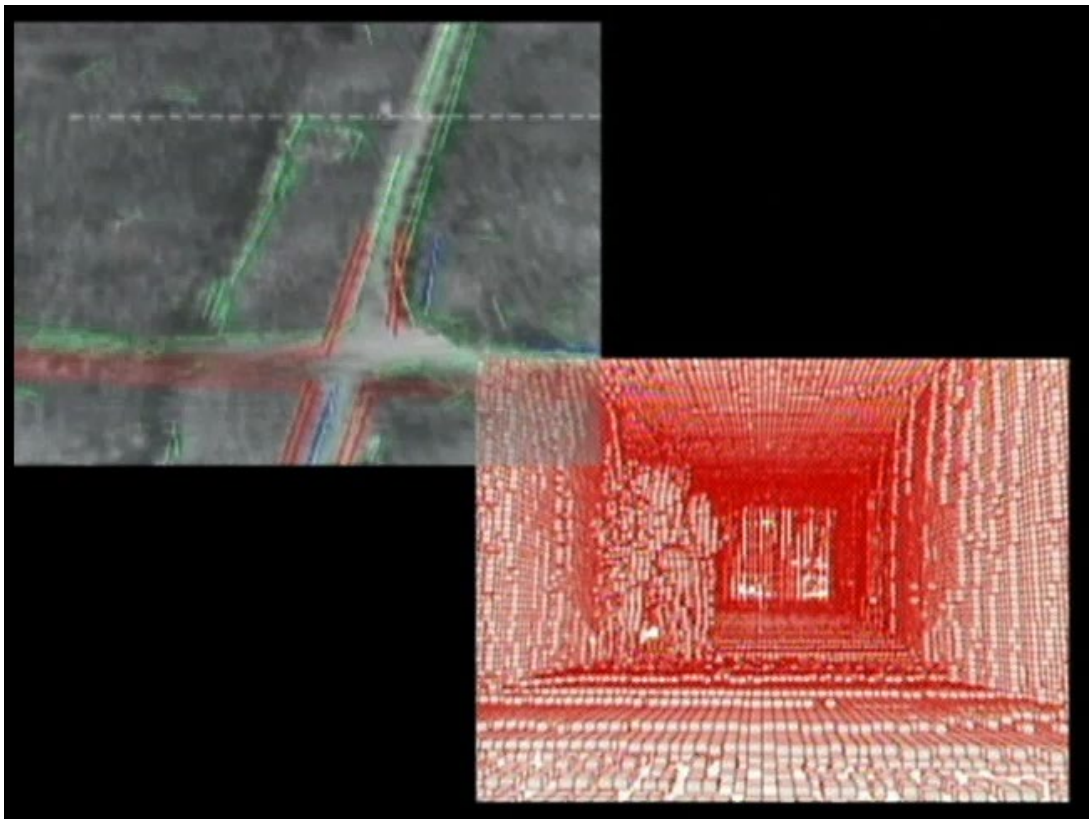
Valmont Road, Boulder, Colorado, U.S., 2012

Nacozari De Garcia – Montezuma, Sonora, Mexico, 2011

Eye/Machine [2001–2003]

Harun Farocki

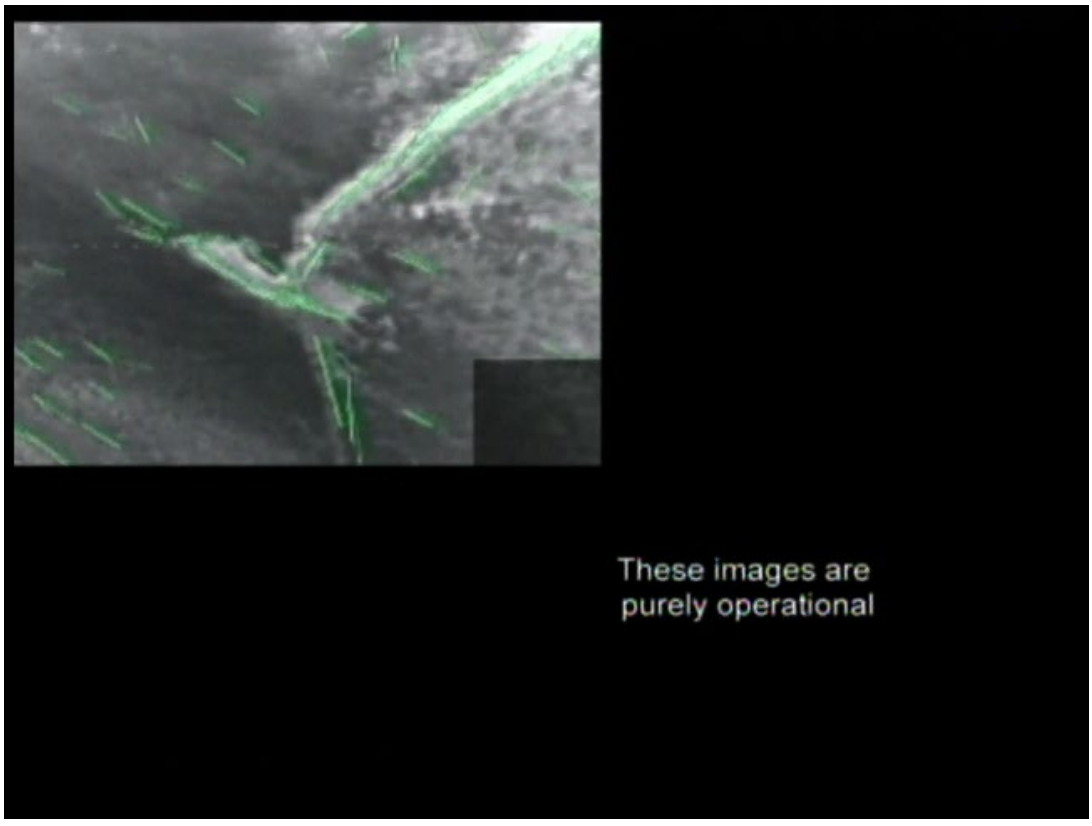
Harun Farocki utilizes a vast collection of image sequences from laboratories, archives and production facilities to explore modern weapons technology. This trilogy examines “intelligent” image processing techniques such as electronic surveillance, mapping and object recognition, in order to take a closer look at the relationship between man, machine, and modern warfare.



EYE/MACHINE I, 2001

The film centers on images from the First Gulf War, which caused worldwide outrage in 1991. Following a theory put forward by the philosopher Klaus Theweleit, the shots —taken from projectiles homing in on their targets— revealed how bomb and reporter became identical. At the same time, it was impossible to distinguish between the photographed and the (computer) simulated images. The loss of the “genuine picture” means the eye no longer has a role as historical witness. It has been said that what was brought into play in the Gulf War was not new weaponry, but rather a new policy on images. In this way the basis for electronic warfare was created.

Today, kilo tonnage and penetration are less important than the so-called C3I cycle, which has come to encircle our world. C3I refers to Command, Control, Communications and Intelligence—a consequence of global and tactical early warning systems, area surveillance through seismic, acoustic and radar sensors, radio direction sounding, monitoring opponents’ communications, as well as the use of jamming to suppress all these techniques. Harun Farocki explores the question of how military image technologies find their way into civilian life.



EYE/MACHINE II, 2002

"How can the distinction between 'man' and 'machine' still be made given today's technology? In modern weapons technology the categories are on the move: intelligence is no longer limited to humans. In *Eye/Machine II*, Farocki has brought together visual material from both military and civilian sectors, showing machines operating intelligently and what it is they see when working on the basis of image processing programs. The traditional man-machine distinction becomes reduced to 'eye/machine,' where cameras are implanted into the machines as eyes.

As a result of the Gulf War, the technology of warfare came to provide an innovative impulse, which boosted the development of civilian production. Farocki shows us computer-simulated images looking like something out of science-fiction films: rockets steer towards islands set in a shining sea; apartment blocks are blown up; fighter aircraft fire at one another with rockets and defend themselves with virtual flares…These computer battlefields—will they suffice or shall we need further rationalization drives for new wars? *Eye/Machine II* is the continuation of a wider examination of the same subject: intelligent machines and intelligent weapons."

—Antje Ehmann

EYE/MACHINE III, 2003

"The third part of the *Eye/Machine* cycle structures the material around the concept of the operational image. These are images which do not portray a process, but are themselves part of a process. As early as the 1980, cruise missiles used a stored image of a real landscape, then took an actual image during flight; the software compared the two images, resulting in a comparison between idea and reality, a confrontation between pure war and the impurity of the actual. This confrontation is also a montage, and montage is always about similarity and difference. Many operational images show colored guidance lines, intended to portray the process of recognition. The lines tell us emphatically what is all-important in these images, and just as emphatically what is of no importance at all. Superfluous reality is denied—a constant, denial-provoking opposition."

—Harun Farocki

Spirit is a Bone [2013]

Adam Broomberg & Oliver Chanarin

This series of portraits, which includes Pussy Riot member Yekaterina Samutsevic and many other Moscow citizens, was created by a machine: a facial recognition system recently developed in Moscow for public security and border control surveillance. The result is more akin to a digital life mask than a photograph; a three-dimensional facsimile of the face that can be easily rotated and closely scrutinized..

What is significant about this camera is that it is designed to make portraits without the co-operation of the subject; four lenses operating in tandem to generate a full frontal image of the face, ostensibly looking directly into the camera, even if the subject himself is unaware of being photographed.

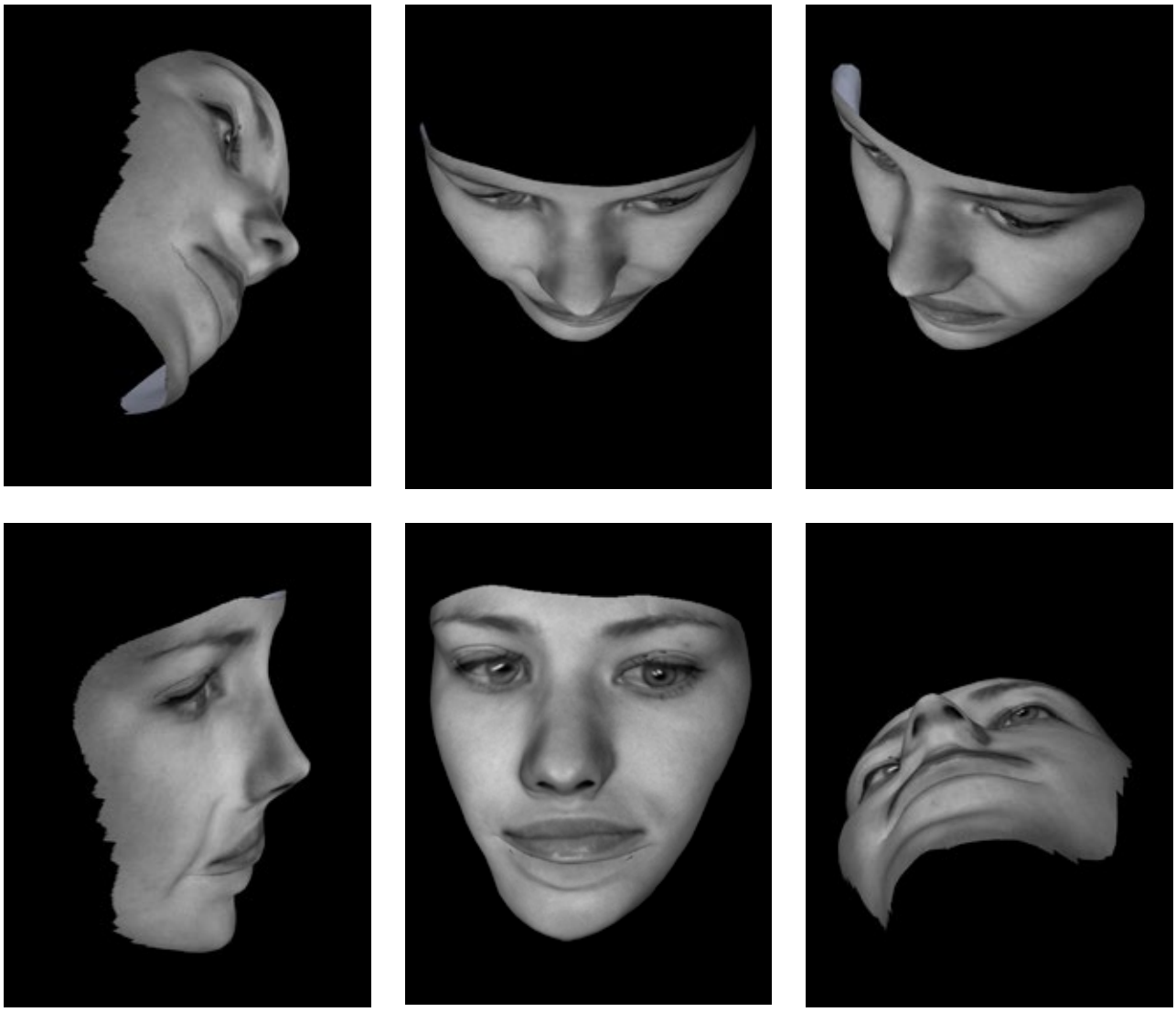
The system was designed for use in crowded areas such as subway and railroad stations, stadiums, concert halls or other public areas but also for photographing people who would normally resist being photographed. Indeed, any subject encountering this type of camera is rendered passive, because no matter which direction he or she looks, the face is always portrayed looking forward and stripped bare of shadows, make-up, disguises or even poise.

Co-opting this device, Broomberg & Chanarin have constructed their own taxonomy of portraits in contemporary Russia that rely heavily on the oeuvre of two 20th-century German artists. August Sander produced over 300 portraits of archetypal German workers during the Weimar Republic—from the baker to the philosopher to the revolutionary. His subjects are positioned in the center of the frame, looking into the camera. But the result, retrospectively viewed through the lens of the second World War becomes unexpectedly melancholic, even sinister.

Sander's contemporary, Helmar Lerski, also categorized his subjects according to profession. Lerski however rejected the singular, heroic, full body portrait. Instead he insisted on repetitive close-ups that conveyed a powerful sense of claustrophobia; and always multiple views of the same faces shown from different viewpoints. Unlike Sander's humanistic approach, Lerski insisted that you could tell nothing from the surface of the skin.

Echoing both Sander's and Lerski's projects, Broomberg & Chanarin have made a series of portraits cast according to professions. But their portraits are produced using this new technology with little human interaction. They are low-resolution and fragmented. The success of these images are determined by how precisely this machine can identify its subject: the characteristics of the nose, the eyes, the chin, and how these three intersect. Nevertheless they cannot help being portraits of individuals, struggling and often failing to negotiate a civil contract with state power.

The Widow
Glass panels and mixed media



The Painter's Wife
Glass panels and mixed media

The Bone Cannot Lie

The following text is excerpted from a conversation between Eyal Weizman and the artists Adam Broomberg & Oliver Chanarin on September 27, 2015. It appeared in full in the book Spirit is a Bone *(2015).*

Eyal Weizman: Skulls are haunted things; the traces of a subject's life are difficult to erase from them. Because of this, skulls embody a complex relationship between object and subject, image and materiality, presence and representation. These dialectical positions also bring to mind Hegel's essay *The Phenomenology of Spirit*, his discussion of physiognomy and phrenology, and his famous claim that, "the spirit is a bone." Hegel contrasts physiognomy—where the gestures and grimaces of the face form part of language—with the 'science' of phrenology, in which the materiality of the skull stands for some essential truth about the subject or his or her kind.

Physiognomy, in Hegel's eyes, completely fails, as the subject is forever betrayed and perverted by facial representation, but phrenology shifts the problem from representation to material presence. Hegel's account of phrenology is more ambiguous than we'd sometimes feel comfortable to admit: he states that from a certain standpoint, the spirit is not ethereal or transcendent but mediated in materiality (in bones, in our case), while also considering it to be false: he ridiculed nineteenth century phrenologists' belief in a linear and direct relation between human character and the physical shape of the skull. However, precisely because the skull does not and cannot represent the subject it is the perfect expression of the spirit in the material world. The spirit, forever elusive, can thus only be captured in the inertia of a rigid, dead, debased kind of object.

Both face recognition and forensic anthropology make an argument regarding the truth of identity—the subject—in the relation between bones and faces; the former seeks to identify the shape of the skull under the 'image'—in this case the skin and tissue of the face—and the latter makes the inverse attempt: to reconstruct the murdered or missing person's face from the form of the skull. Whilst both disciplines might resemble phrenology's obsession with the shape of the skull, neither forensic anthropology nor face recognition seek to pass judgment on the subject, each merely uses the skull to identify the individual, discover what happened to them, and to determine whether other forms of violence are implicated.

[…]

Physiognomy and phrenology, the twin pseudo-sciences developed in the eighteenth and nineteenth centuries,

are both exemplified in archives such as [Sir Benjamin] Stone's [held at the Library of Birmingham]. These scientific 'advancements' were used not only for racial identification, but also as a means of prediction: a certain way of looking into the future. In 1878, the criminologist Cesare Lombroso published *L'Uomo Delinquente* [*Criminal Man*], in which he had measured the faces of 383 lawbreakers to create an exhaustive record of criminal types. This catalog could be used to assist with conviction of criminals, but also to prevent or preempt crimes from occurring by enabling police to recognize and intercept future criminals before they performed their deed. Alphonse Bertillon, whilst working for the Paris police force in 1879, developed an anthropometric system, with particular focus on the measurements of the face and head.

His was not a predictive practice; however, the police force used his system to create a huge number of records comprised of various anatomical measurements, fingerprints, and full-face and profile portraits: what we now know as 'mugshots'.

So phrenology is a way to peer under the skin and into the bone; to peel back a layer of wilful expression—that has potential to deceive—in order to reveal the unchanging underlying structure of the bone, where the truth lies. This idea reflects the eighteenth century understanding of culture by people such as Jean-Jacques Rousseau, say, who saw in culture a distorting and corrupt veil, a surface of manipulation, behind which nature, more noble and true, exists. The shift to the bone signified a certain unveiling, stripping down to essence, in the double meaning of the term.

Face recognition technology is an attempt to capture and archive individual likeness.

Specifically, there are two types of face recognition algorithm: one is pictorial and the other is spatial or topographical. Pictorial algorithms, the older of the two, look at two-dimensional images and their composition, flatten the image and look for matching points: eye proximity, length of nose, cheekbones, forehead, and so on. Pictorial face recognition becomes both problematic and interesting once we introduce camouflage. Every form of capture obviously leads to an attempt at evasion. One of the most famous cases of people thinking that they were evading pictorial algorithms is the Mossad assassination of Al-Mabhouh in Dubai in 2010. Israeli companies sold Dubai the two-dimensional version of the face recognition software. So its agents camouflaged their faces to evade the capture of its algorithms. With that software if you draw a very prominent beauty mark on the face, the algorithm is likely to fail, even though the naked eye could immediately identify

the person. Therefore, a new generation of face recognition algorithms began to emerge, looking at the face as a three-dimensional reality—or at a face stretched upon the topography of the skull, so to speak. It was sold by another company to Dubai, the Mossad's face camouflage failed, and allowed the local police to expose an entire network of dozens of agents.

The 3D method reconstructs the spatial contours of the face by taking two photographs or by comparing two photographs from two slightly different perspectives—this mimics the way in which our eyes work. Other versions work with laser scanners. At that moment something interesting happens: we see the beginnings of the technology that led eventually to the kind of images that you have created, but, and this is important, it's also a return to the skull. The idea of using skulls for identification and classification in relation to crime has thus evolved with contemporary technology. The theory is that whatever exists on the surface of the skin is seen as a potential camouflage, but that you cannot in fact change the underlying bone structure beneath the face—or not easily. So we return to the famous words of the great gravedigger and forensic anthropologist Clyde Snow: "bones make great witnesses—they never forget and they never lie." It also implies that the living face can lie: the face is a wilful expression of an identity; you can smile, you can apply camouflage to it, you can fake your facial expression, whereas the assumption is that the truth is locked within the passive materiality of the bone. Snow, of course, with his science of Osteobiography—the biography of the bone, the biography of an object—was trying to reconstruct the past, he studied lives lived and that life registered in the texture of the bone. In that sense the bones are like a photograph exposed to all influences of a life—temperature, labour conditions, illness, nutrition and so on like a negative is exposed to light. It is a slow and long exposure.

Photography obviously still records not only the subjects that are aimed at but narrates the history of the science and technology that allowed such images to be created and disseminated. It is both the constantly shifting technology of photography as well as the cultural scientific biases that are enmeshed and trapped together in the archive. The photographs from the Birmingham archive and your contemporary examples of Russian faces demonstrate this; in both, scientific ideas are performed opening up the entangled and co-constitutive relation between technology and ideology—the theories of race and colonial ideology in the Birmingham archive and an offshoot on the long war on terror in yours. This compliance between ideology and technology resonates in the new archive that you've created.

Adam Broomberg & Oliver Chanarin: It's no coincidence that the images from Benjamin Stone's archive were created during Britain's Imperial Century. The role of technology in Stone's time was no less important than it is now. The steamship and the advent of the telegraph system reinforced Imperial strength, allowing the state to control and defend its domain. By 1900, the British Empire, comprising of roughly 400 million subjects, was linked together by a network of telegraph cables, the so-called 'All Red Line'. Technology has always been driven forward by the pretence of security, and the same argument drives the global surveillance industry today. But while technology may have advanced, the rhetoric remains remarkably and insidiously archaic, seemingly with grave implications for individual and global human rights.

One of many examples is the Stasi archives, which were only made public online this year. We see a toxic strategy at work whereby the state is able to gather information about and against its own citizens. It's an invisible threat that is impossible to push back against, and recalls the Russian surveillance technology that we encountered, in which the state, an omnipotent force, is utilizing technology as a form of reconnaissance, and stripping the individual of agency.

EW: 3D face recognition technology presents a very different relationship between the skull and crime than the one described by phrenology, which leads us to examine the crucial temporal dimension of phrenology. Beyond a classification of race and type, it seeks to peer into the future, to preempt a crime before it will have taken place. Phrenology embodied the first attempt to invert the temporal order of forensics from a study of the past to a study of the future, of risks, probabilities and possibilities of events occurring. What does this inversion mean?

For forensic specialists looking at the past skulls are evidence for the identification of unknown bodies and also for establishing the reason they have become dead bodies; they bear the traces of crimes that took place: a bullet hole, a machete, stab or axe wound; evidence that something has happened. For phrenologists the skull is a unique kind of bone, like no other, because it captures the relation between mind and body—different kinds of formal modulations captures mental faculties—therefore, presumably, it also captures tendencies, hidden violence, inclination to lie—the 'thief-type', the 'murderer-type' and so on. It is thus not only a way to look into the past, but also a certain crystal ball one can peer through into the future.

[…]

We would like to think that this model is long gone, but in fact the inversion of forensics from the past to the future

is now the most important type of forensics exercised by the state. All countries that are fully and physically and actively engaged in what used to be called the 'War on Terror' practice the principle of preemption, because terrorism is seen as the kind of crime that cannot be deterred and by the time the risk forms it is too late, and it therefore needs to be preempted before it happens. Any beginner terrorist mastermind knows that 'important' operations must employ operators without any criminal or terrorist track record. These are crimes perpetrated by people that have been innocent before they took place and dead immediately after the event, the transition between innocence and death is so short, almost instantaneous, so the states perceive their task as needing to look into the future because the past cannot be mined and the present is too short to tackle.

The future is thus inhabited mathematically: the inversion of forensics exists in looking at relation between a large multiplicity of things and actions and people, and in their patterns, that is their form of repetition creating a shape—a shape that for our purposes will be analogous to the shape of the skull. These are not the physical patterns of bone structure versus height versus brain size; rather these are patterns in repetitive behavior and movement through space—say the correlation between credit card activities, flight bookings, movement along specific roads in a 'toxic' site—in Yemen or Somalia or Pakistan, say, or being in particular places along with other specific people whose pattern shape is 'toxic'. These are the kind of patterns that would allow spy agencies or military bodies to determine the probability of a certain action to 'immanently' materialize. This probability is established according to specific calculations and algorithms within models that most closely resemble economics and financial modeling. The financial sector has developed multiple tools and algorithms of prediction, but in this forensics of the future it is the State, rather the investor, that has absolute power, and what is exercised is an execution which is not a purchase. State agencies performing targeted killings are also regulated. These internal regulations, whether observed or not, would allow for an agent to perform targeted assassination in anticipation of a crime under the jurisdiction of the executive branch, rather than for the retribution or punishment for one that had already happened, which is the role of the judiciary.

Targeted assassinations happen in those frontiers because (or so the state claims) there's no possibility for the police and the framework of criminal law to operate there. These zones lead to the shift from the judiciary, where criminal law looks to the past, to the State, whose decision looks to the future. There are clear guidelines and rulings by legal

bodies—such as the legal advisers to the Pentagon, the British MoD, or the Israeli Supreme Court—that targeted assassinations are permitted only if there is no longer the possibility to arrest, to bring to trial and convict a person, for what they have done. In the United States this principle hinges on the category of 'immanent threat'; – an inherently elastic category that involves the necessity for 'preemptive defense': you're not allowed to kill, even Osama Bin Laden, for what he has done—it's irrelevant for legally authorising an operation. This legality is specific only to the State's own judiciary bodies—not those of international law. The only relevant determination is the risk still posed for the future: a search for a crime that has not yet happened. So there's a threshold created—and of course it would be in the interest of state agencies to create the conditions that would allow for targeted assassinations. Beyond that threshold there is no possibility to peer into the past, to present evidence, to conduct habeas corpus, or have a fair trial, because all of those possibilities do not (presumably) exist, and so another possibility opens up: that of killing legally with a hellfire missile. The closing of the judiciary doors opens another door into the future—and this future always implies death.

So we find ourselves in a reality analogous to the phrenological principles of prediction looking at various patterns and forms to see into the future. The future is the domain of the algorithm and mathematics as I mentioned.

I'd like to return to the correlation between the face and the skull. Thomas Keenan and I have written about this in relation to Josef Mengele's skull, and the way in which the German pathologist Richard Helmer reconstructed Mengele's face from an exhumed skull in 1985. Helmer took the skeleton that was suspected to be that of the notorious Nazi physician and, using techniques similar to those used by Wilhelm His, he calculated and then physically plotted the contours of the facial tissue. Helmer then overlaid projected photographs of Mengele onto the recreated facial topography, successfully confirming the identity of the skull. What the viewer sees is a two-way motion: building upon the skull to create a face, and stripping the face to reveal the skull. The algorithms built into three-dimensional face recognition systems are related to the algorithms devised by forensic anthropologists in order to identify unknown bodies, missing people in mass graves, before DNA obviated this physical task, and the skulls once more became like any other bone, no longer privileged, superseded by the simple carrier of the code.

What is performed in your work, to my understanding, is the superimposition of a two-dimensional photograph onto a three-dimensional topographical object, based on

the skull morphology. In the technologies that you have identified and used, there is thus a reflection on something very elementary within the history of photography, and also in the history of debates about the relation between photography and object and between face and skull; this is why composing an archive such as this becomes a mode of interrogating the future before it is materialised.

AB & OC: Thinking about the human face, of portraiture and the defunct histories of physiognomy and phrenology, it's impossible not to also think about August Sander, who set out to document the society around him during Weimar Germany, after the end of the First World War. He starts with the wholesome person who works on the land, he then moves on to employed people—the Banker, the Baker—and then he progressively moves on to the Poet, the Artist, the Artist's Wife, and then to more marginalized people: the Unemployed, the Vagrant, the Revolutionary, and ends with 'The Last People', comprised of a single portfolio documenting 'Idiots, the Sick, the Insane and Matter'. The last of these categories, 'Matter', is possibly the most illuminating for our purposes—these were photographs of the dead, one male, one female, followed by a single final photograph, 'Death Mask of Erich Sander, 1944', Sander's son. This image is stripped of any background context, the mask floats in empty space, eerily reminiscent of the portraits in this book.

Sander was determined to show a full and complete record of Weimar society but unfortunately his project was interrupted by the Second World War and the rise of Nazism. There's a moral tale embedded in his project that even Sander could not have foreseen. Incomplete at the time of his death, his archive has been subjected to a constant rereading and representing. On the one hand it's a heroic attempt to capture and preserve an image of a society reeling from one destruction and on the brink of another; on the other hand his por traits take on a new and sinister meaning when seen through the prism of Aryan supremacy, itself built on the foundations of colonial rhetoric of superior and subhuman hierarchies.

We see disturbing parallels of this totalitarian regime in present-day Russia: from the threat of imprisonment where individuals to all intents and purposes disappear from society to the illegal annexation of whole countries, and the kind of assassination plots so brazen and sensational that you would think they could only exist on a film screen. And all with relative impunity.

Our portraits of bankers, revolutionaries, bricklayers—all people we found on the streets of Moscow—closely, consciously mirror Sander's Citizens of the Twentieth Century.

But instead of using an 8 x 10 inch plate camera we have instead used a machine built for facial recognition in public spaces. Nevertheless, we have followed Sander's particular divisions of labor. For example, we photographed Yekaterina Samutsevich, one of the imprisoned members of Pussy Riot to replace Sander's 'Revolutionary'. Our Poet was the conceptual writer Lev Rubinstein, who composed many of his famous 'note card poems' whilst working in the Lenin Library in Moscow. The titles formed the framework for the way our book is structured, but that framework raises a broader question about the way this archive of faces fits into the annals of photographic history.

EW: I think that Russia is an interesting choice in relation to the Weimar Republic: both are societies in transition that are fighting for their identity under serious threat and the reality of authoritarian repression, resistance and activism. It is also interesting because of a tradition of dissidence through art. Art was a kind of retreat from the overarching state-political macrocosm into a micro-political autonomy. August Sander operated at a time where fierce and rapid forces of modernization threatened to—and in fact did—tear Germany apart. The beauty is that there could be a subversive or a regressive reading of his classification.

AB & OC: When we began our engagement with the archive at the Library of Birmingham we encountered a strange impasse. The archival material is housed in hermetically sealed vaults on the fifth and sixth floors of the library. Controlled by an air-conditioning apparatus that sucks out oxygen and replicates high altitude conditions, like standing on top of a mountain, this artificial environment helps minimize the risk of fire inside the archive and so helps ensure the long term preservation of objects held within it. It's known that periods of extended exposure to this environment can cause shortness of breath and dizziness and staff must therefore first undergo medical clearance before being allowed to enter. We, as members of the public, were unable to freely roam the stores because of these restrictions. We were therefore reliant on the knowledge, memory and catalogs built up by generations of staff to access material. It struck us as ironic, because the thing we keep returning to, time and again, is the ominous specter of the archive itself. It always seems to come down to a question of access: who is controlling the archive, who is compiling it and using it, and to what ends.

Allan Sekula wrote about the archive in connection with the operations of power that regulate the social body, placing the development of photography in the context of the emergence of policing and technologies of surveillance.

You mentioned Bertillon earlier, whose work perfectly illustrates Sekula's arguments, in its attempts to regulate social deviance by means of photography, and Sekula also touches upon Sander's work as employing these same repressive mechanisms. It's difficult to extricate the final result of these archives from the intentions of their maker or makers; yet their very preservation leaves them subject for constant revision. These collections, far from being inert documents tucked away in dusty boxes in forgotten rooms, harbour an insidious power.

In some ways, we're still facing the same impasse we felt when we began this project: there's a loaded sense of responsibility in the use and creation of archives such as this, and there's a sense that it's unstable ground; that it could backfire.

EW: Any archive can be read against itself. The archive is a tool, and the minute you create a tool it could be used in many ways: it's out of control of its makers. Any archive can also be used against the people that made it—evidence is always in excess of the process for which it was prepared and presented. Excess is one of the characteristics of photography and of reading images. Different questions can always be posed and those questions will be different at every historical conjuncture, with a different political constellation around that question. There's potential power lying dormant in every photograph. Once a photograph has been used in a particular way and returned to the archive it has the potential to be read again, its potential will always be in excess of the particular history that produced it.

A key concern in the presentation of this series of portraits that you've made in Russia is whether or not to include the name and 'type' of each individual as an accompanying caption. The colonial archives and the police archives of Bertillon obviously did not include individual names because what is looked at is a type, but Sander includes both the reference to the individual's place within society, and on occasion, also names his sitters. In Sander's work there is a tension between singularity and type—and both exist simultaneously. Today we are so committed to the idea of singularity that type gets rejected, but in Sander's Weimar-era images the sitters are both irreducible individuals—the singularity of a face and posture—and generic types—the effect of the caption. Both those things belong to different vectors pushing out in different directions.

This illustrates a paradox inherent to photography: more than anything else photography captures singularity, but that singularity once recorded is also a manifestation of a type—of ethnic, gender, sociological, or economic

nature—which is captured in the relation between your clothes, your facial expression, your facial hair, and so on. This becomes a straitjacket that is hard to escape, but one that we must escape. Still, there are fissures, new readings and new modes of observing that will allow for each classification to break down and create space for new ones to emerge. The name, when it is provided in the caption, was a representation of a singularity that in the Weimar years pushed in the opposite direction than the designation of the type, which the modernist state machinery needed in place to govern. Today the situation is obviously different: state agencies look not for groups but for individuals, deviants and 'unpredictables'. State security operates in the thresholds.

Face identification exists at these thresholds, initially at the entry point of a building, but now also at state borders, a concept that has itself fragmented and splintered into a multiplicity of physical and optical apparatuses. The border is also a legal threshold, a liminal space where the judicial body has less power, and decisions—about entry, for example—are made by the executive. The algorithms used to determine access across a given threshold are instruments of risk management, and are based on the creation of risk profiles. The risk calculation regarding potential 'threat' has two parts: the first follows the same economic model as we discussed previously with regard to the inversion of forensics—when was the ticket purchased? On which credit card was it bought? Which stamps are in the passport?—and secondly, as you cross the threshold to any securitized state or institution, you need to be photographed.

This photograph becomes an essential part of a large network of recorded factors that would determine your risk profile. In this sense the border of a state—at an airport, say—is similar to the 'lawless frontier', the illegalized zone, for example between Pakistan and Afghanistan, in Yemen, in Somalia, when actually the executive power supersedes the judiciary. Whereas in the former border, sovereign decision might pertain to denial of entry, in the latter case it relates to killing.

There is also the material question: the tension between the two-dimensional and the three-dimensional aspects of a photograph, the peeling back of the skull from the face. What I see in the archives you have created is the wrapping of the photograph, like a skin or a foil, onto an object. The result is a document that ultimately exceeds the photograph: it has become a documentary sculpture which is a three-dimensional object that is instant representation. This new type of object operates between presence and representation, and comments on the history of photography in

more than one sense. From portraiture through the death mask to the documentary sculpture, the archive you have created, like much of your work, is hacking into the source code of photography. The documentary sculpture returns us back to the skull, and the 'truth' underneath the face.

The photographs you have produced with contemporary border technologies connect the idea of immanence with phrenology and physiognomy. The skull is perceived as a crystal ball, through which we will see both the past—evidence and traces of life lived—and the future, i.e. the risk to come. Making these images three-dimensional brings us back to the skull itself through the death mask; like Röntgen, you are peering through these faces into the death of the subject, photographing something that is simultaneously both dead and alive. Photography, after Barthes, is always about death and this work in particular hovers between skull and face, and the threshold between death and life and the crime that separates them.

I. The Murder of Pavlos Fyssas

[2018]

Forensic Architecture

Project Team:
Eyal Weizman, Christina Varvia, Stefanos Levidis, Simone Rowat
With:
Sarah Nankivell, Nicholas Masterton, Stefan Laxness, Sofia Georgovassili, Dorette Panagiotopoulou, Fivos Avgerinos
Thanks to:
Lawrence Abu Hamdan, Shakeeb Abu Hamdan

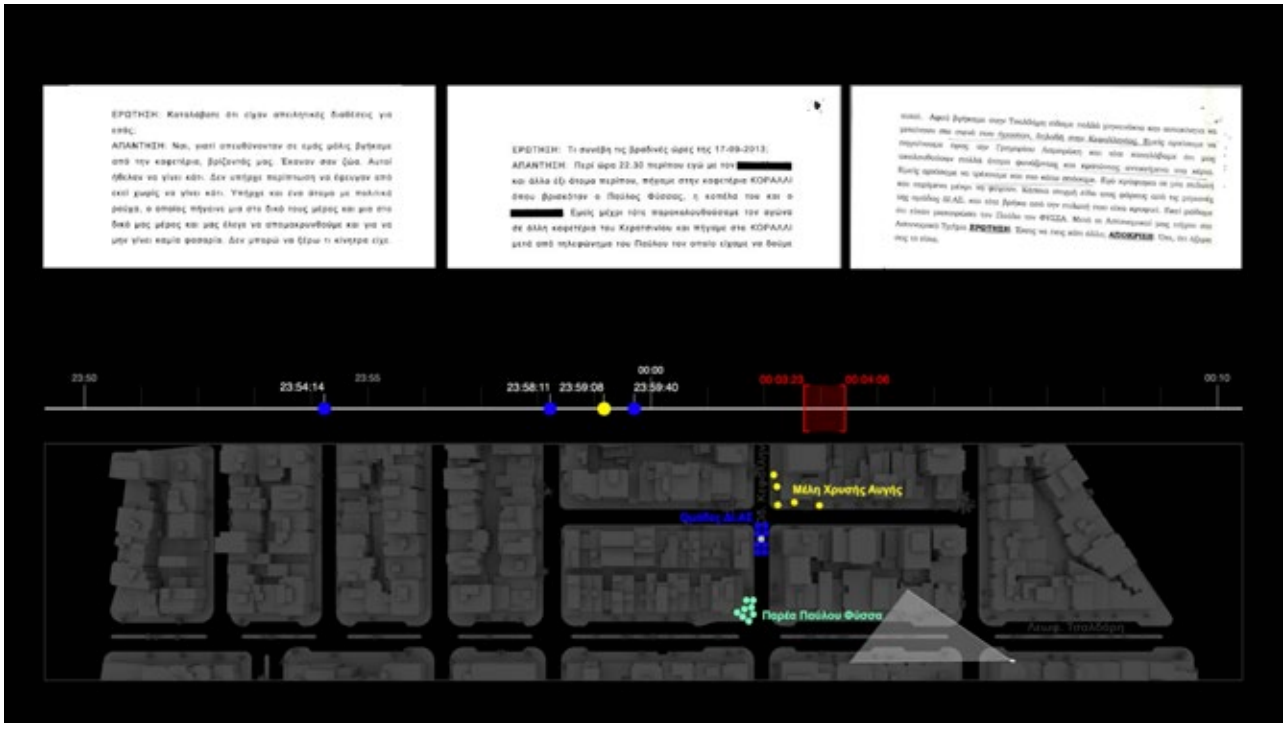
PUBLICATION DATE: 21.09.2018

On the night of September 17, 2013, the young Greek rapper Pavlos Fyssas was attacked and murdered by members of Golden Dawn in his home neighborhood Keratsini, in Athens. The witness accounts of the event claim police were present at the site, observing the crime as it occurred, yet failed to prevent it.

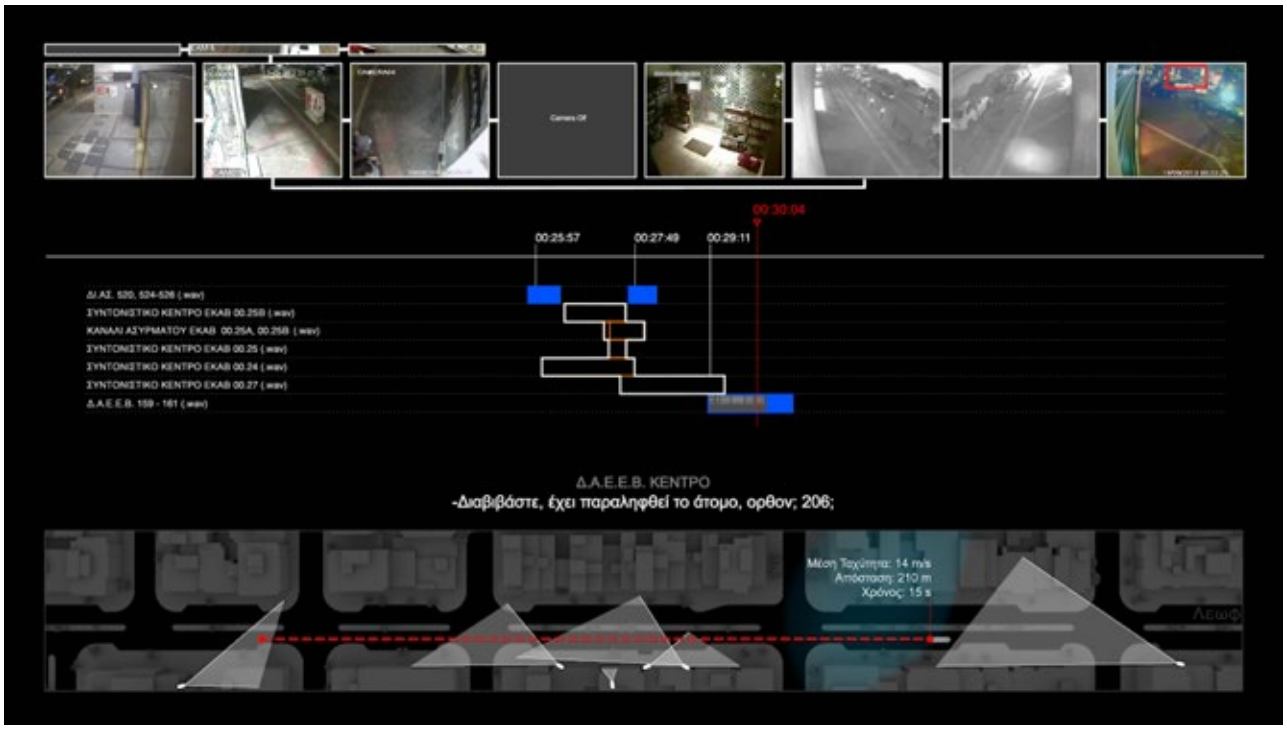
The murder marked the culmination of Golden Dawn's criminal activity who, to this day, have been operating as a paramilitary organisation while holding seats in the Greek parliament. Golden Dawn holds a long record of brutally attacking migrants and political opponents since their formation in the late '80s. Although some individual crimes have been prosecuted in the past, it took the murder of a Greek citizen to instigate a full investigation on Golden Dawn as a criminal organisation rather than its individual members. Even in the current trial, the entanglement of the police with the organization remains largely unchecked.

Against this background, Forensic Architecture has undertaken the task to analyze the court documents, CCTV footage, and police and ambulance radio transmissions of the night, in order to reconstruct a comprehensive account of the event. The resulting video investigation (exhibited) provides a media-aided overview of the event that goes beyond the understanding that any individual present at the scene had access to.

The video investigation and supporting report were presented to the Athens Court of Appeals by the lawyers of the Fyssas family on September 10-11, 2018. The investigation has been commissioned by the family of Pavlos Fyssas and co-produced by BAK.



Above and following pages:
Footage from multiple CCTV cameras in vicinity of the scene of the murder were synchronized, and the movement of people and vehicles between frames was plotted within a 3D model. Shown here are stills from the video produced by Forensic Architecture, which synthesized the findings of their investigation.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ΤΣΑΛΔΑΡΗ 40a
ΤΣΑΛΔΑΡΗ 46a
ΤΣΑΛΔΑΡΗ 46b
CAM01
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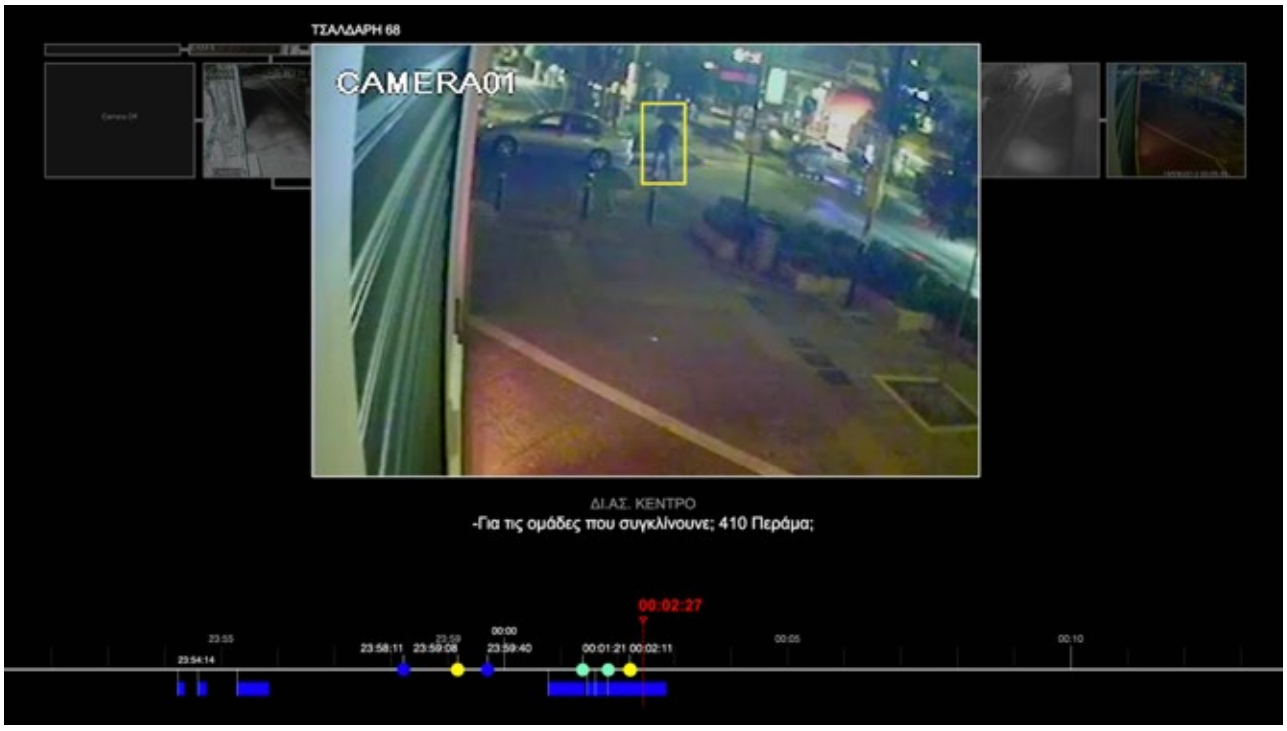
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II. The Killing of Zak Kostopoulos: Ongoing Investigation

[2019]

Forensic Architecture

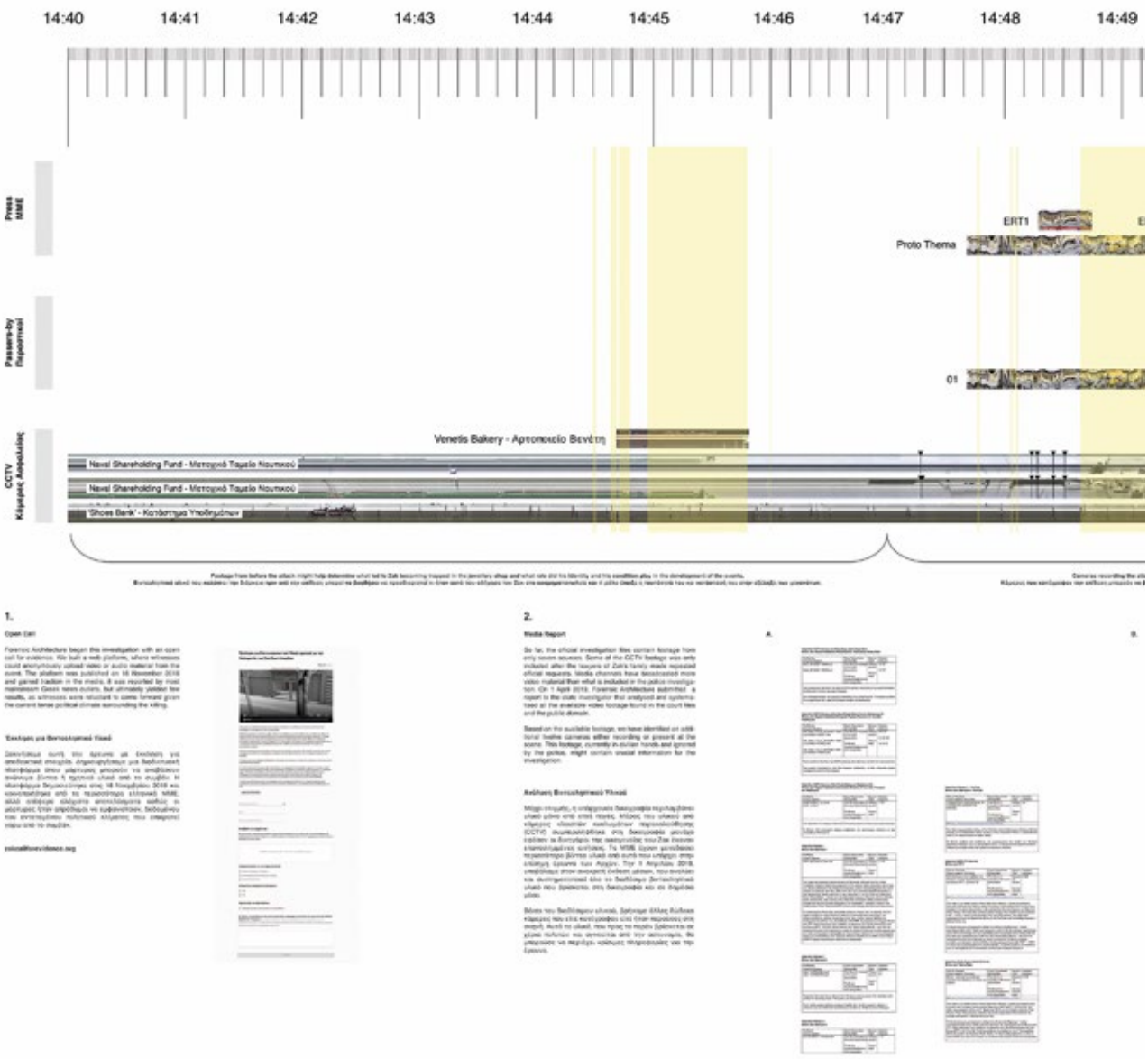
Project Team:
Eyal Weizman, Christina Varvia, Stefanos Levidis, Nicholas Zembashi
With:
Sarah Nankivell, Robert Trafford, Lachlan Kermode, Tom Lock

PUBLICATION DATE: 09.04.2019

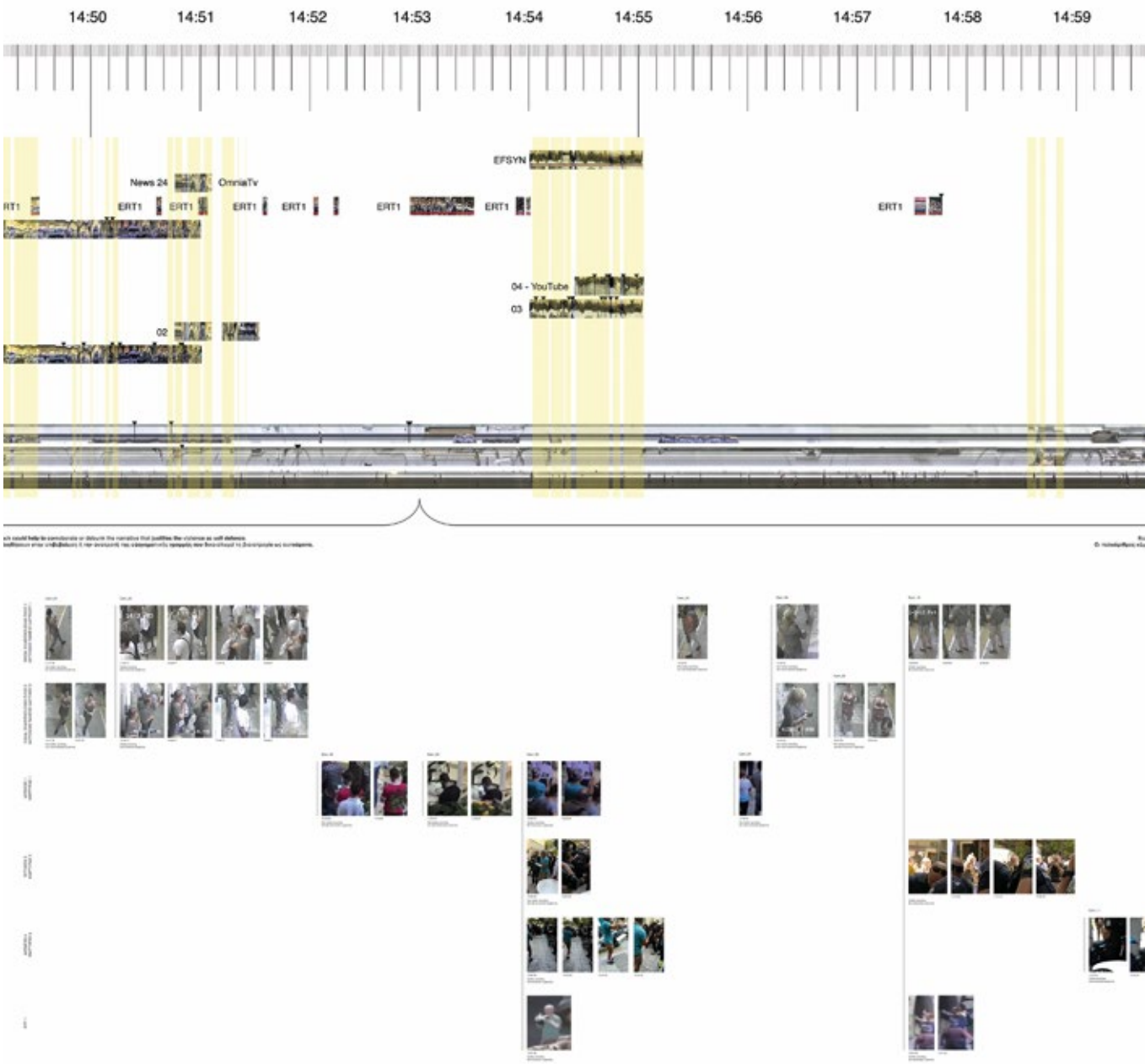
On Friday, September 21, 2018, a young LGBTQ activist, Zak Kostopoulos, was brutally beaten to death in broad daylight on a busy pedestrian street near Omonia square, central Athens. Dozens of people passing by paused to observe a group of men violently attacking Zak who, for reasons still unknown, found himself trapped inside a jewelry shop, owned by one of the attackers. When the police were called to the scene, the already heavily-injured Zak was violently apprehended and beaten for a second time as all nine officers pinned him to the ground in their attempt to handcuff him. Zak arrived at the hospital handcuffed and dead.

Even after Zak's death, the police made few efforts to investigate. They did not collect enough testimony or footage from the mobile phones and CCTV cameras present on the scene. The assailants were not immediately arrested, and the crime scene was left unsealed, allowing the jewelry shop owner to clean-up after the incident. Media organizations, clearly withholding more footage than authorities themselves have, spun divisive narratives in an already volatile political context.

Given the police's reluctance to investigate itself, civil society initiatives (such as #JusticeforZakZackie) independently seek accountability. Within this frame, Forensic Architecture was asked by Zak's family, and their legal representatives to counter-investigate the murder. Forensic Architecture makes a series of strategic prompts to challenge the official state investigation; and to seek to establish whether Zak's gender identity was part of the reason for the assault, and whether the policemen at the scene were complicit in his death.



Above and following pages:
A section of the timeline that synthesizes the findings of Forensic Architecture's investigation into the case of Zak Kostopoulos, which was shown alongside a video in the exhibition.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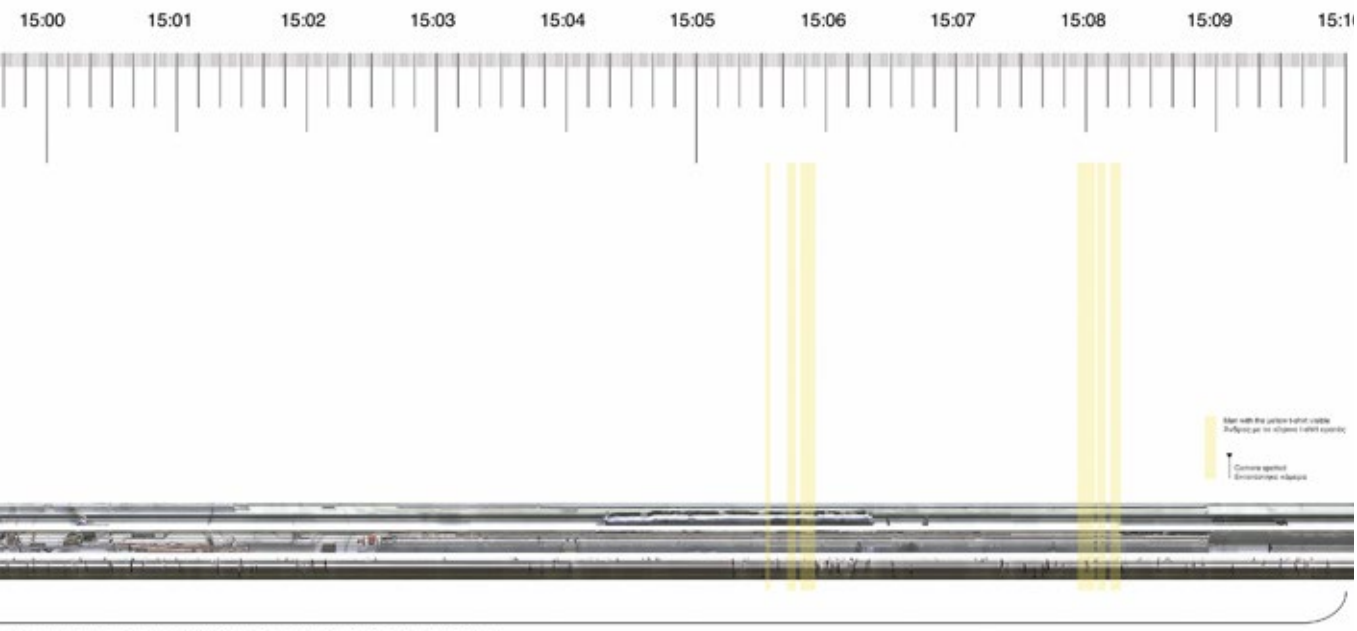


3.

Who is the man in the yellow T-shirt?

Throughout the incident, one witness stands out. The man in the yellow T-shirt was present and close to Zak, before and during the beating, as well as when Zak was apprehended by the police. Crucially, he was one of three people who were with Zak before he ended up in the jewellery shop. During the hand-cutting, the man in the yellow T-shirt can be seen holding an object that looks like a pulse lotion. Yet the police claim that they can neither recognise nor trace him. His testimony might prove crucial in establishing the missing link between the different stages of the event and in establishing whether the killing of Zak should be understood as a hate crime.

Submitted to the Crown state investigator on 12 March 2019, this video has led to the extension of the official investigation, which was previously considered to be complete. As a consequence of this submission, the state investigator is currently conducting a second round of interviews with key witnesses in an attempt to identify this man.

Video alternating in Greek and English: 6 minutes 30 seconds

Ποιος είναι ο άντρας με το κίτρινο T-shirt;

Καθ' όλη τη διάρκεια του συμβάντος, ένας μάρτυρας ξεχωρίζει: ο άντρας με το κίτρινο T-shirt ήταν παρών, και κοντά στον Ζακ, πριν από τον ξυλοδαρμό, κατά τη διάρκειά του, καθώς και όταν ο Ζακ συνελήφθη από τους αστυνομικούς. Εξαιρετική σημασία έχει το γεγονός ότι ήταν ένας από τους τρεις ανθρώπους που βρίσκονταν με τον Ζακ πριν αυτός καταλήξει μέσα στο κοσμηματοπωλείο. Την ώρα που περικόπτουν χειροπέδες στον Ζακ, ο άντρας με το κίτρινο T-shirt διακρίνεται να κρατάει ένα αντικείμενο που μοιάζει με αντισηπτικό γαλάκτωμα. Παρ' όλα αυτά, η αστυνομία ισχυρίζεται ότι δεν μπορούν να τον αναγνωρίσουν, ούτε να του εντοπίσουν τη μαρτυρία του. Αν μπορούσε να αποδειχθεί κρίσιμο μέτρο των διαφόρων σταδίων του συμβάντος και στη διευκρίνιση του εάν η θανάτωση του Ζακ θα μπορούσε να εκληφθεί ως έγκλημα μίσους.

Το βίντεο που υποβλήθηκε στον ανακριτή στις 12 Μαρτίου 2019, κάθησε στην παρουσίαση διεξαγωγής της επίσημης έρευνας, η οποία θεωρούνταν ολοκληρωμένη. Ως αποτέλεσμα αυτής της κίνησης, ο ανακριτής πραγματοποιεί τώρα δεύτερο γύρο συνεντεύξεων με βασικούς μάρτυρες, σε μια προσπάθεια ταυτοποίησης του συγκεκριμένου άντρα.

Το βίντεο παίζει διεδοχικά στα ελληνικά και στα αγγλικά: 6 λεπτά 30 δευτερόλεπτα

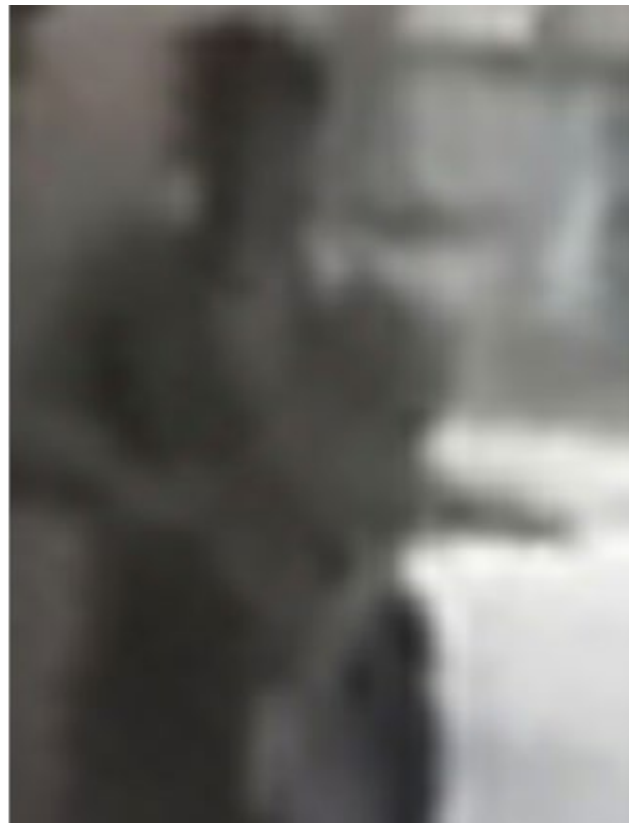
The Fall of a Hair: Blow Ups [2012]

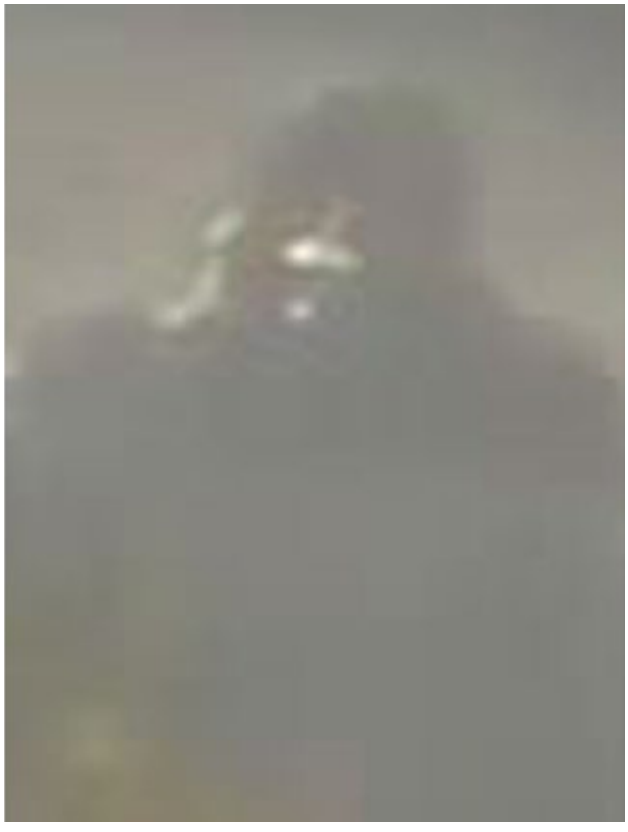
Rabih Mroué

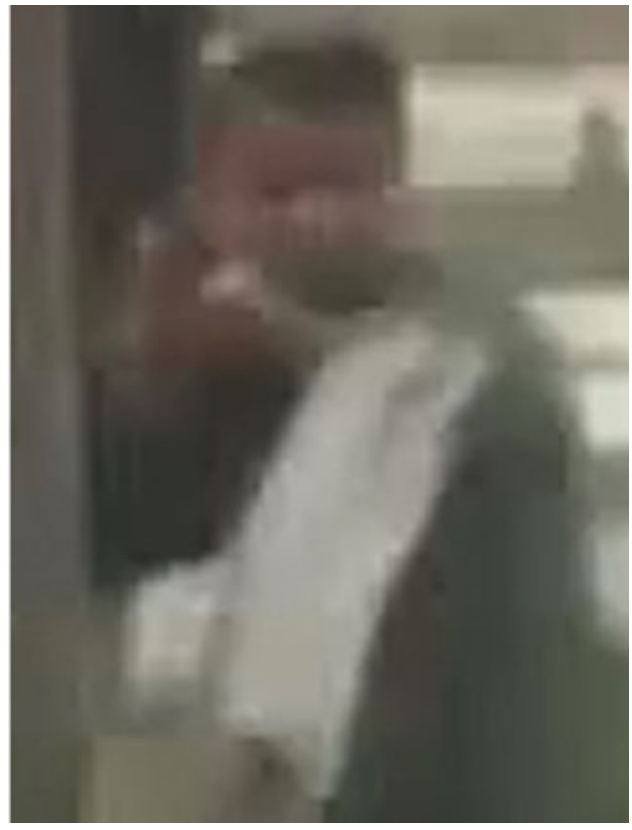
In 2012, Rabih Mroué developed *The Fall of a Hair*, a seven-part installation about the documentation of deaths in the Syrian Revolution. These images of men with guns are stills that the artist selected from videos "where there is eye contact between the protesters trying to capture the images and the snipers." The photographs were made by the victims themselves, who filmed the act of shooting with their mobile phones. Probably, their cell phones were found in the streets, next to the person's dead body, by their friends or families. They then put the films and photos on the Internet.

Mroué has long been interested "in the presentation of death in war images," and began to make this work after hearing the phrase that Syrian protesters were "shooting their own deaths"—triggering the connection between firing guns and filming/photographing. Mroué found this archive of pictures on the net and as part of his research and reflection, he decided to print some of the images in large size. The resulting pictures' pixelated blurriness obscure the full extent of the information they contain.

Following pages:
Pigment prints





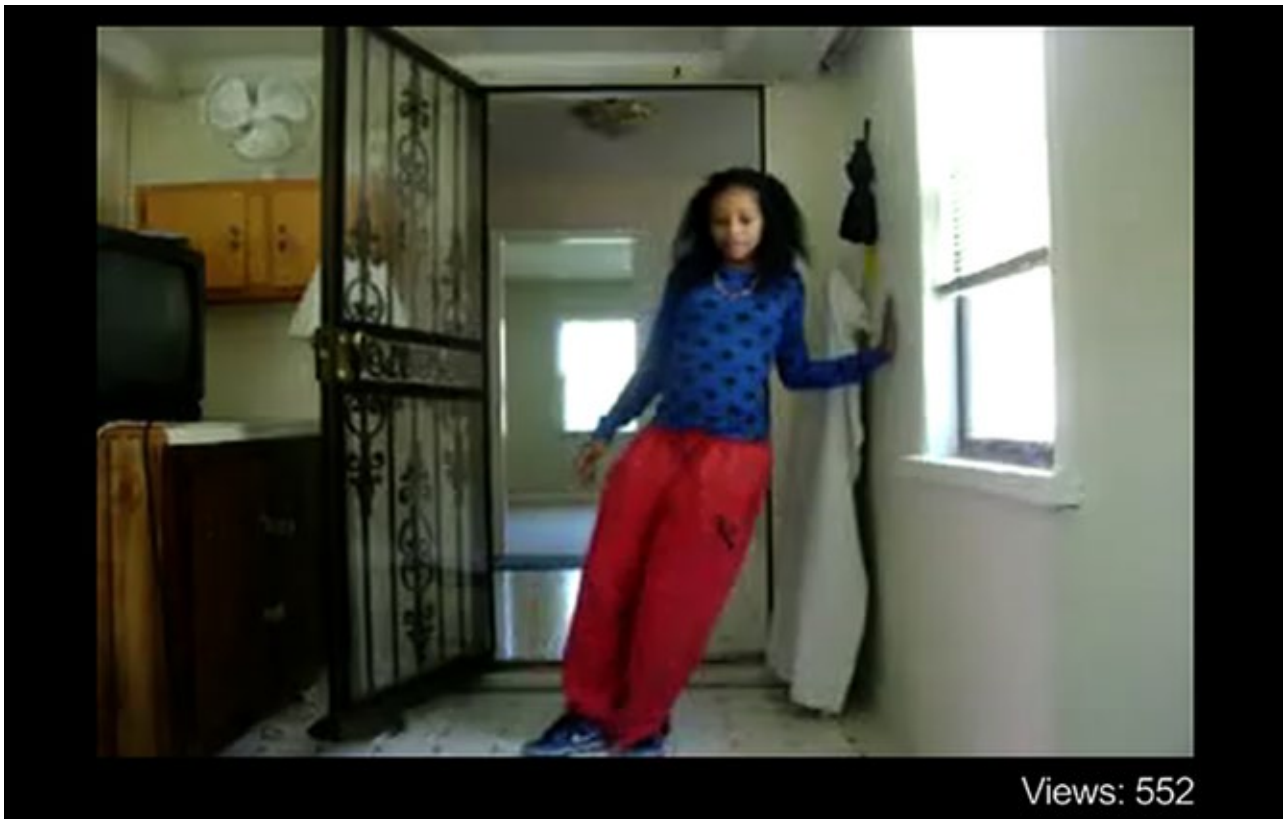


Mass Ornament [2009]

Natalie Bookchin

A mass dance, constructed from hundreds of videos found online, that depict people dancing in front of their webcams alone in their rooms. The work is named after a 1927 essay by the German critic Siegfried Kracauer in which he argued that the synchronized movements of popular chorus line dance troupes reflected the logic of the Fordist economic system of mass production. Similarly, Bookchin's *Mass Ornament* reflects on how the forms of popular entertainment we collectively produce reflect our current psychic and social realities. Just as rows of spectators once sat in theaters and stadiums watching rows of bodies moving in formation, today millions watch and move in formation in front of their screens. At the same time, the dancers also make small claims for embodiment and publicness in the face of their disappearance online.

Following pages:
Stills taken from a single-channel video installation, with surround sound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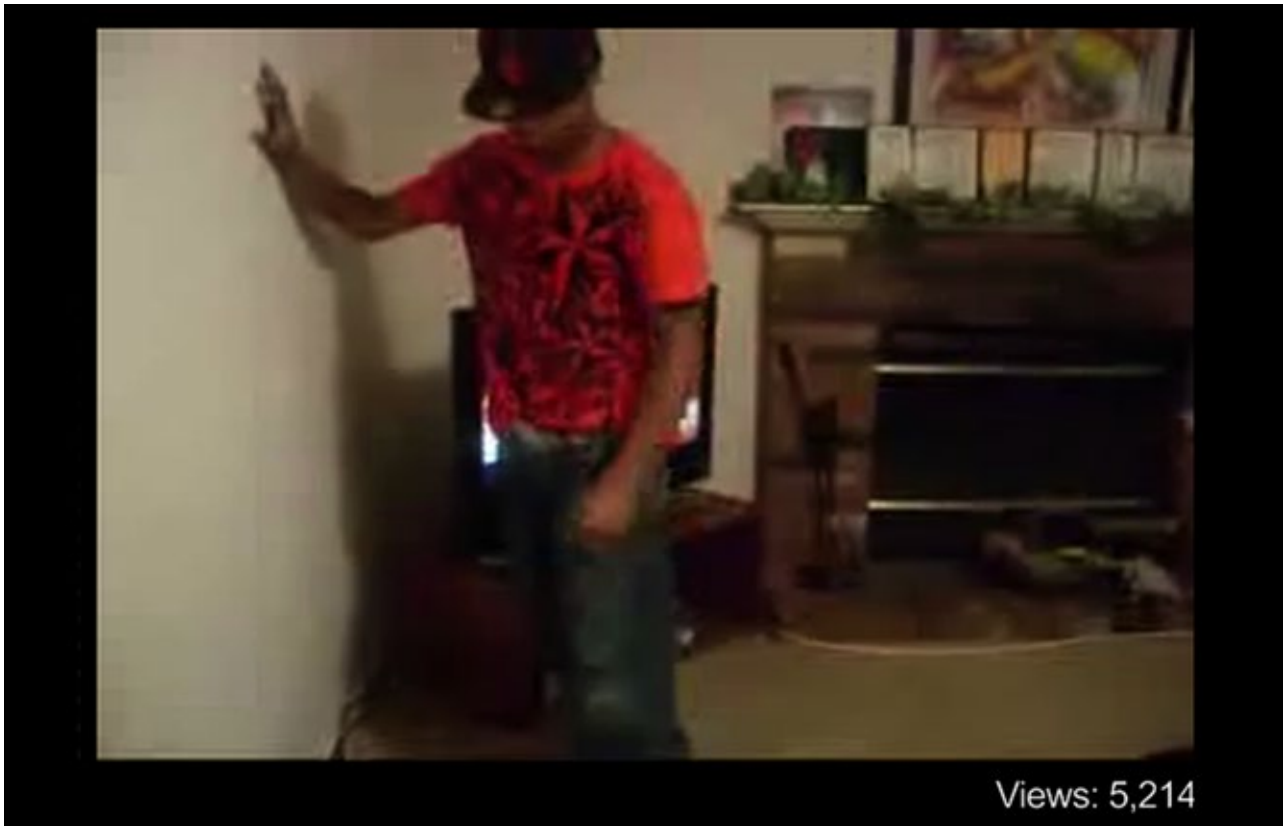
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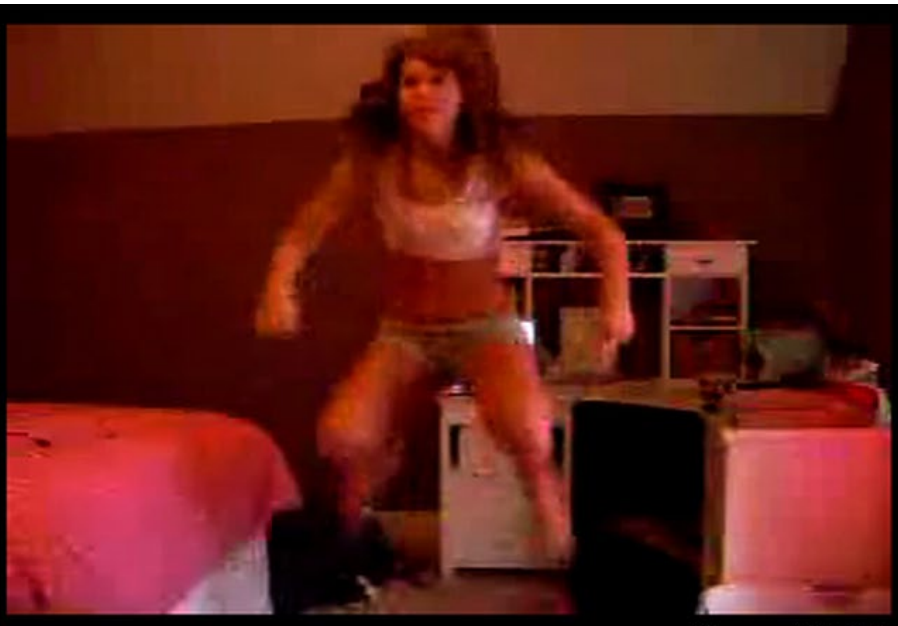

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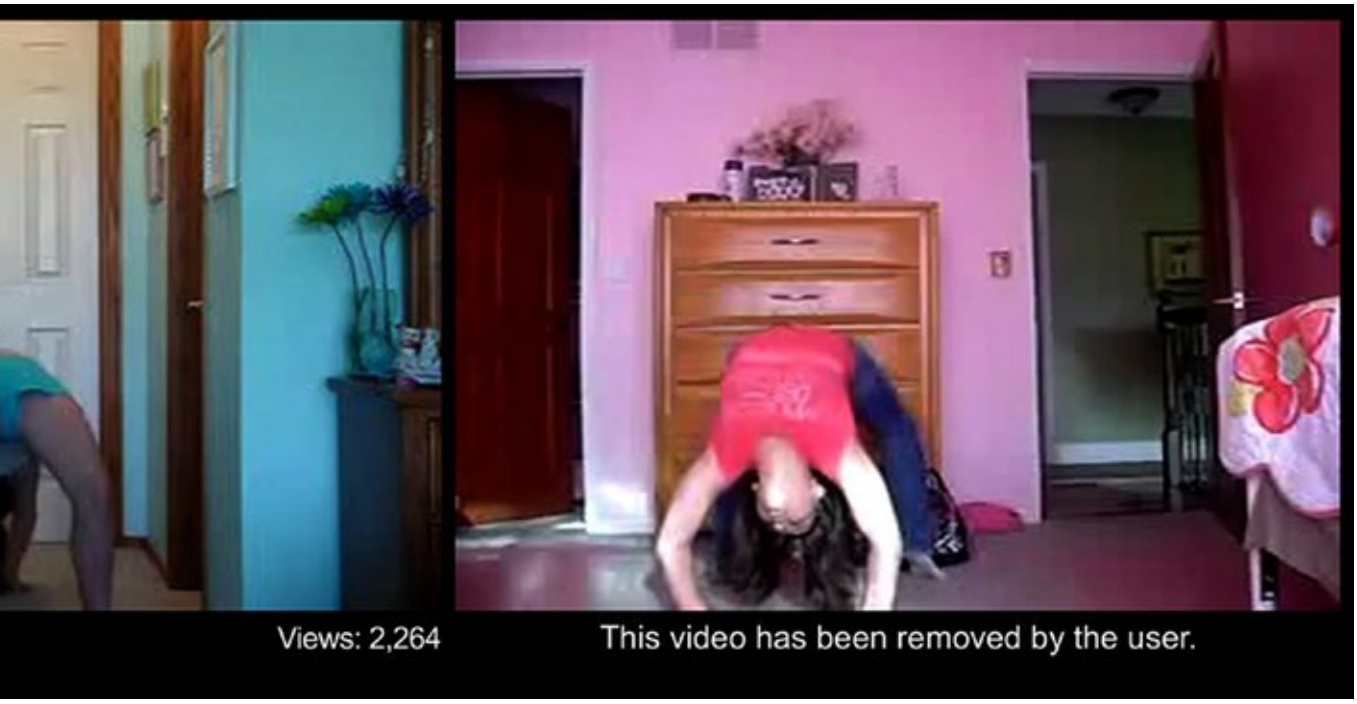
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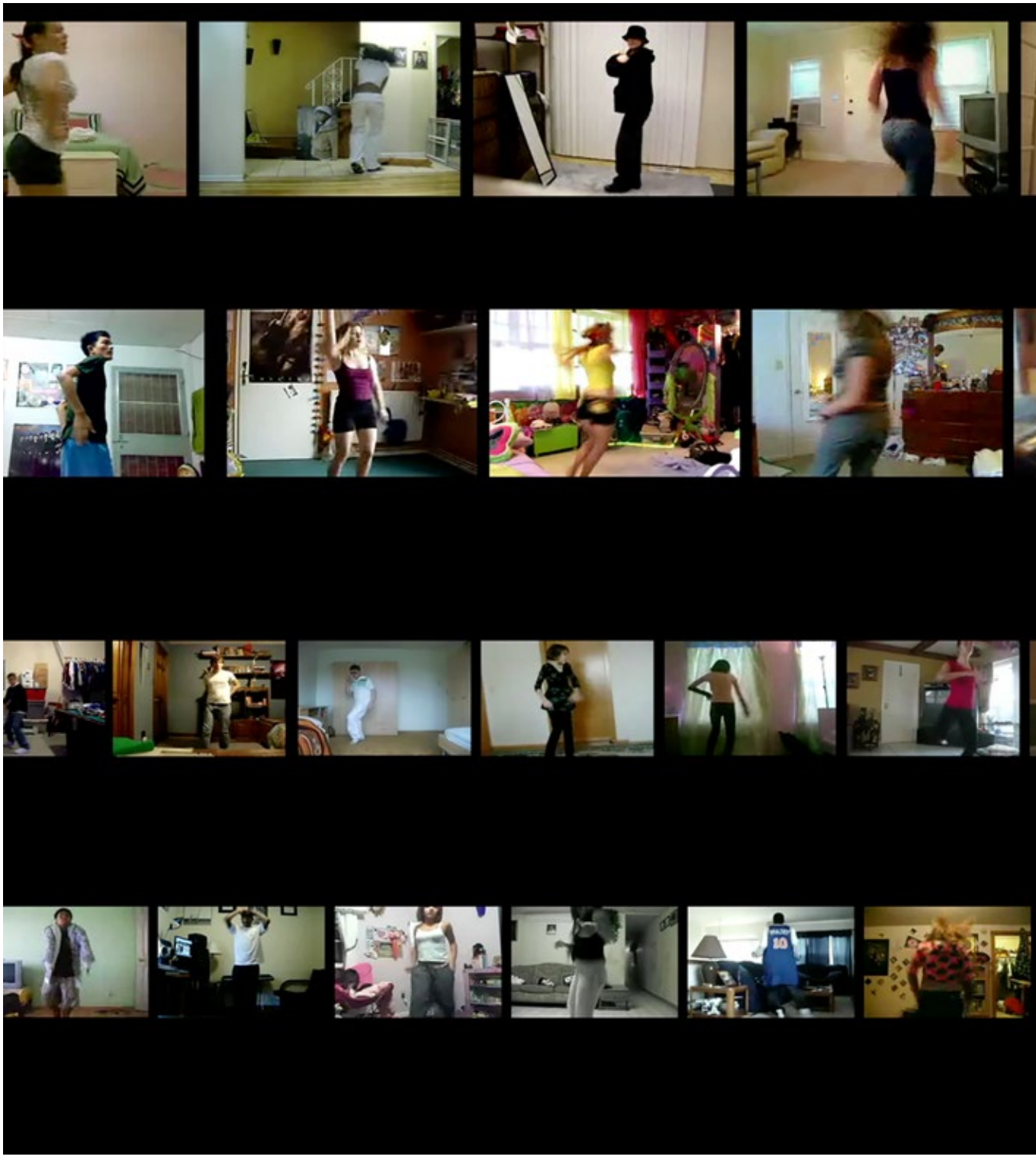
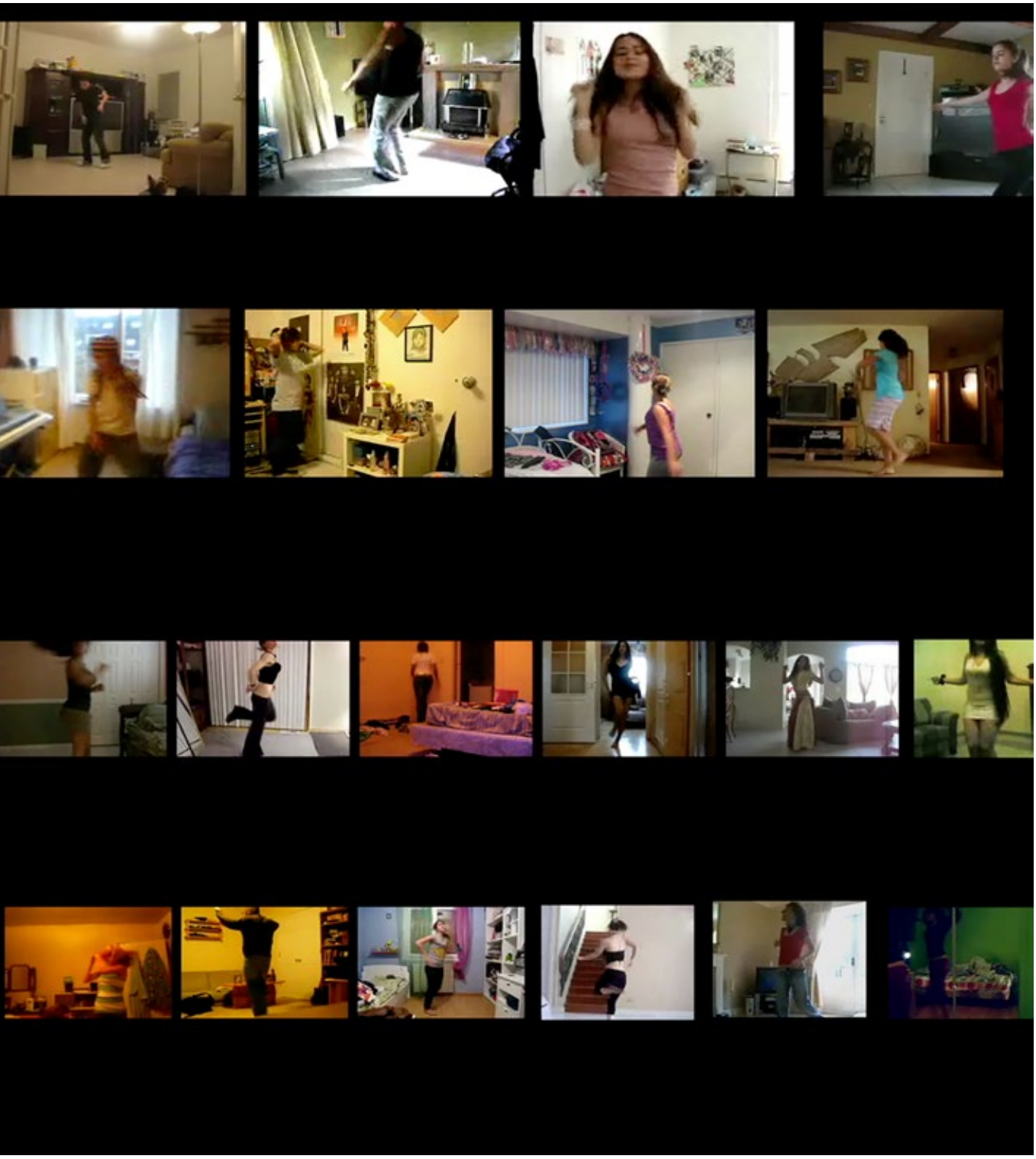




Left to Our Own Devices and other works

[2009–2015]

Mónika Sziládi

The rapid development of wireless communication, social media, reality television, fake news, crowd-sourcing and the proliferation of photography by the general public has had a clearly discernible impact on human behavior. Posing, posting, sharing, self-broadcasting, commenting, texting, and multitasking are replacing conversation and reflection. Narcissism and anxiety are among the most common types of psychological disorders affecting people today, while thumb stretching has been added to yoga classes to ease muscle tension from cell phone use.

The figures in my images, like most of us, are caught constrained by mobile devices, violent interruptions, and image consciousness. While navigating the professional and social competition of our economically divided and ecologically precarious world, our ubiquitous practice of (self) promotion generates sufficient noise to render us invisible and ultimately turn us into interchangeable voices, inaudible within the crowd. On the other hand, our recorded and broadcast self-expression, which is continually being mined by big data, threatens our privacy and agency over our choices.

Digital and wireless technology merges, collapses, and transforms our traditional sense of public and private. In parallel, the sense of space and perspective in my work alludes to a collapse between the physical and the virtual. As the borders disintegrate, I aim to create images that simultaneously produce humor, awkwardness, liberation, assaultiveness, and suffocation, with the intention of replicating and enhancing the unsettling sense of being exposed in an increasingly virtual world. Formally, I “take” straight pictures and “make” digital composites of candid photographs to reflect the blurred boundaries of what we perceive as spontaneous and what we perceive as premeditated.

Untitled (Fall I), 2014/2015
Pigment print

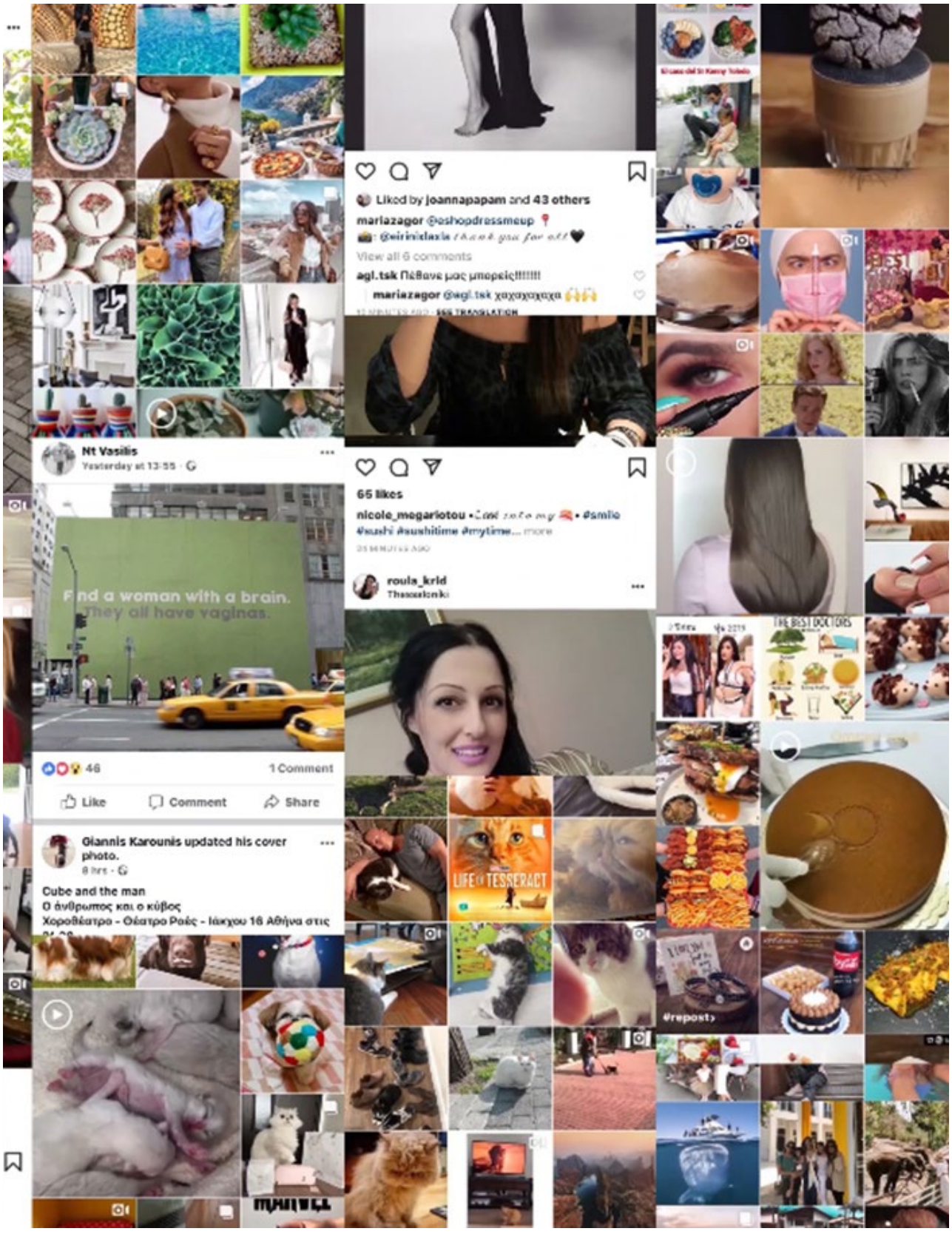
Untitled (Ladies), 2012
Pigment print

Family Portraits [2019]

Maria Mavropoulou

Virtual tour, duration variable.
Clicks, blinking sounds, emojis and gifs.
Notifications, alerts and emails (mostly spam).
Connected, still lonely.
Limitless possibilities, predictable choices.
Vast information, limited attention.
Fragmented impressions of never-ending streams.
Testimonies of the present, deleted by tomorrow.
Images, more images.
And here we are, ceaselessly watching.

Following pages:
360° video still, taken from immersive virtual reality


Liked by joannapapam and 43 others
mariazagor @eshopdressmeup
View all 6 comments
agl.tsk Πάβανε μας μπορείς!!!!!!!
mariazagor @agl.tsk χαχαχαχαχα
Nt Vasilis
Yesterday at 13:55
Find a woman with a brain.
They all have vaginas.
46
1 Comment
Like
Comment
Share
Giannis Karounis updated his cover photo.
8 hrs
Cube and the man
Ο άνθρωπος και ο κύβος
Χοροθέατρο - Οδέατρο Ραές - Ιάκχου 18 Αθήνα στις
65 likes
nicole_megariotou
roula_krid
Thessaloniki
LIFE OF TESSERACT
#repost

Shudu

[ongoing]

Cameron-James Wilson

Shudu, the model behind the page @shudu.gram, has been called one of the most beautiful models on Instagram. Shudu's 'creator', the photographer Cameron-James Wilson, creates every image of Shudu with a painstaking level of detail from his computer. Cameron estimates that a single image takes about three full days work—and that's not including the weeks of planning.

"I've been inspired by quite a few people," says Cameron to HypeBeast of his initial conception for Shudu. "But her main inspiration is a South African Princess Barbie. Obviously, her real-life inspirations are pulled from so many different women—Lupita, Duckie Thot and Nykhor—even throwing it back to Alek Wek, who was a massive influence on how I saw beauty growing up."

The first few images posted to Shudu's Instagram account received a lot of attention. There were people applauding her beauty while some photographers slid into her DMs with requests to set up a shoot. It's a testament to the hyper-real level of detail in Cameron's 3D modeling.

The attention for Shudu started to snowball when Rihanna's beauty brand Fenty reposted an image of her wearing the brand's lipstick. The image (created without Fenty's involvement and at the suggestion of Cameron's younger sister), exceeded the average amount of Instagram likes and engagement almost four-fold with some 222,000 likes compared to an average of around 50,000. At the time, it hadn't been disclosed whether or not Shudu was a real person; her Instagram bio simply repeated the comment left under her photos: "who is She?"

Wilson says that he has plans to create more CGI characters who will live out their lives virtually on Instagram. Currently, the artist is drawing up several more characters, one of whom he describes as "the world's first alien supermodel."

Above and following pages:
Pigment prints

Administration of Disorder

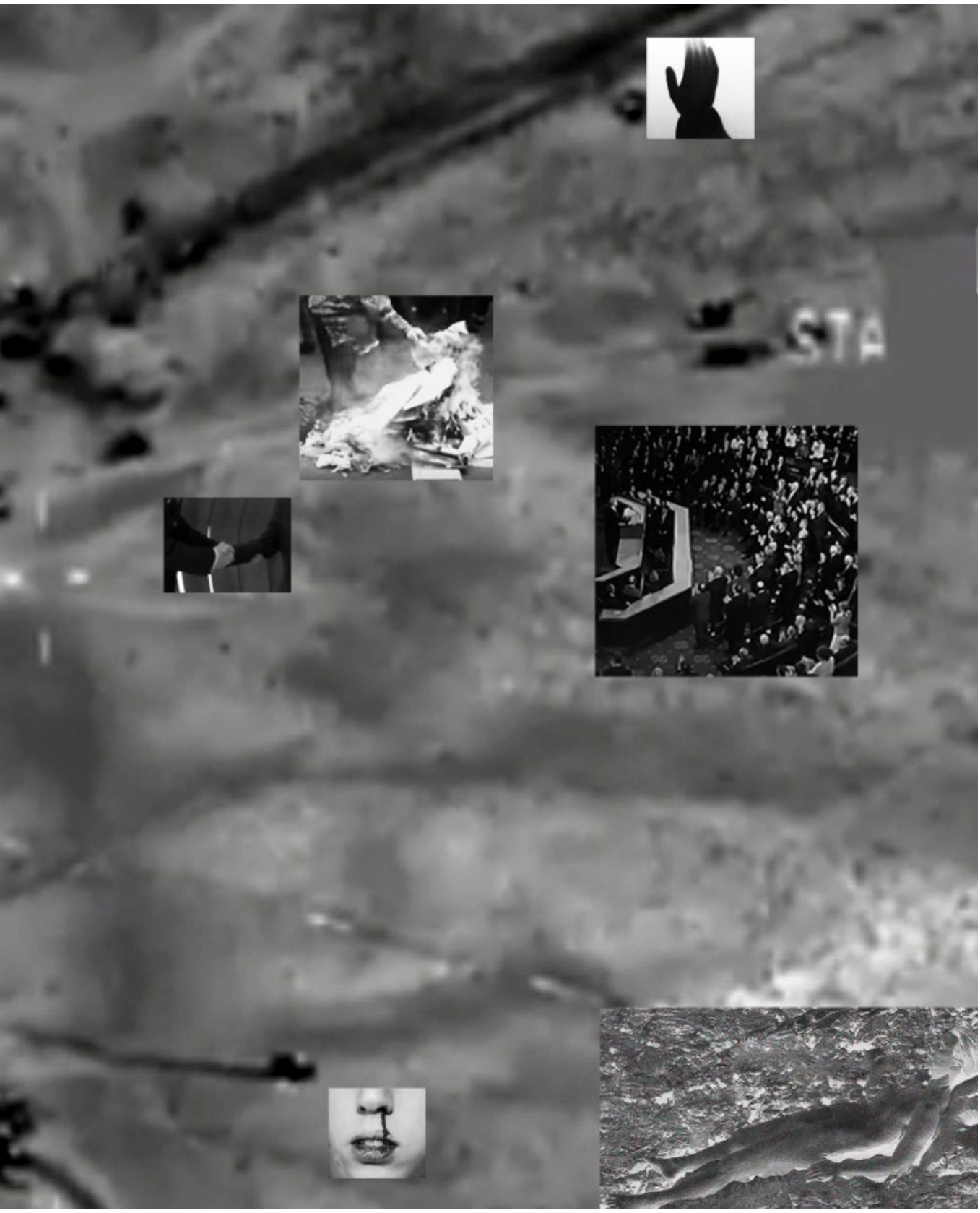
[2019]

Panos Mazarakis

Administration of Disorder constructs a post-apocalyptic map on the border between the historical and the timeless, theological, and cosmic. That is to say, between the cyclical time of theology (with its genesis, development, and end of days) and historical time, which is conceived in the West as linear: a series of events that runs from the discovery of fire to the present day.

These two times, the linear and the circular, are incorporated into a narrative spiral in which images from the contemporary technological era are put alongside archetypal symbols and key historical events—all of which the audience sees from a macroscopic distance. The central image comes from a thermal camera, like those used in modern military operations, and serves as the foundational canvas. On it, the scattered optical traces of an eschatological narrative are brought together, telling the story of Western hegemony, bio-political control, and the mounting crisis faced by this system today.

Following pages:
Stills taken from single-channel video



Seamless Transitions [2015]

James Bridle

Seamless Transitions is a visualisation of three spaces of immigration judgment, detention and deportation in the UK. Each of these spaces is "unphotographable" in the traditional sense, so I used investigative journalism techniques, eyewitness accounts, and other research to reconstruct each of them. Field House in the City is the home of the Special Immigration Appeals Commission (SIAC), designed around the presentation of secret evidence; Harmondsworth IRC at Heathrow is just one part of the UK's detention estate; and the Inflite Jet Centre at Stansted is where I watched the deportation flights take place in December 2013—and where they still carry on.

Seamless Transitions is not about the individual stories of immigrants and borders as necessary and important as those stories are. It's about the unaccountability and ungraspability of vast, complex systems: of nationwide architectures, accumulations of laws and legal processes, infrastructures of intent and prejudice, and structural inequalities of experience and understanding. Through journalistic investigation, academic research, artistic impression, and, I believe, the confluence of these approaches with new technologies, there is an opportunity to see, describe, and communicate the world in ways which have not been possible before.

Following pages:
Stills taken from digital video,
animated by Picture Plane


EXECUTIVE LOUNGE

Where the City Can’t See

[2017]

Directed by: Liam Young
Script by: Tim Maughan

Where the City Can’t See is the first narrative fiction film captured entirely with laser scanners. Set in the Chinese owned and controlled Detroit Economic Zone (DEZ) and shot with the same scanning technologies used by autonomous vehicles, the near future city is recorded through the eyes of the robots that manage it. Across a single night a group of young car factory workers drift through Detroit in a driverless taxi, searching for a place they know exists but that their car doesn’t recognize. They are part of an underground community that work on the production lines by day but at night, adorn themselves in machine vision camouflage and the tribal masks of anti-facial recognition to enact their escapist fantasies in the hidden spaces of the city. They hack the city and journey through a network of stealth buildings, ruinous landscapes, ghost architectures, anomalies, glitches and sprites, searching for the wilds beyond the machine. We have always found the eccentric and imaginary in the spaces the city can’t see.

Above and following pages:
Stills taken from single-channel video

Googlegrams [2005]

Joan Fontcuberta

Since the first photomosaic software was released in 1996 by the MIT student Robert Silvers, mosaic composites have become a popular graphic device applied to advertising and illustration. Similar versions have come out later and are often freeware (free for public use). In 2004, Frank Midgley added an interesting feature to the digital photomosaic: the tiles which reconstruct a model image do not come from a previously prepared image bank directory but are captured from the Internet through the Google image search engine.

Joan Fontcuberta became fascinated by the artistic potential of this new tool and contacted Midgley, who kindly adapted the software for this specific project. The process starts with the selection of a picture for its symbolic content or for its relationship to current news stories. This picture is then refashioned with the most convenient images among the thousands, sometimes millions, available on the Internet in connection with the searched words. Those searched words confront the source image with poetic, political, philosophical, ironical or other kinds of relationships. The result points to the conflict between images and words, with the ambiguity and absurdity that emerge due to language accidents and algorithm processing. It also challenges the utopian notion that the Internet is a democratic and universal archive.

GOOGLEGRAM: IMMIGRANTS, 2005
Corpses of two drowned immigrants on the beach of Vistahermosa, Puerto de Santa María (southern Spain), dated 31 October 2007. Photo by José F. Ferrer, refashioned using photomosaic freeware linked to Google's Image Search function. The final result is a composite of 10,000 images whose search criteria correspond to Spaniards' top concerns according to a poll conducted by Instituto Opina in September 2004. The list of words were (in Spanish): 'social welfare', 'health', 'medical care', 'pension', 'unemployment', 'inflation', 'housing', 'terrorism', 'crime', 'drugs', 'taxes', 'civic and moral values', 'environment', 'contamination', 'education', 'public services', 'women rights' and 'domestic violence'.

GOOGLEGRAM: GUANTANAMO, 2006
Interrogation cell at the US military detention center Guantanamo Bay. The photograph has been refashioned using photomosaic freeware linked to Google's Image Search function. The final result is a composite of 10,000 images available on the Internet that responded to the following words as search criteria: 'curiosity', 'knowledge', 'wisdom', 'philosophy', 'research', 'erudition', 'culture', 'oratory', 'eloquence', 'chat' and 'gossip'.

GOOGLEGRAM: STREET RIOTS, 2006
Photograph picturing street riots in Basque Country, refashioned using photomosaic freeware linked to Google's Image Search function. The final result is a composite of 10,000 images available on the Internet that responded to the words 'conflict', and 'dialog', using both Spanish and Basque terms as search criteria.

Googlegrams: Archive Noise

The following text is extracted from the introductory essay written by Joan Fontcuberta and published for the exhibition Googlegrammes*, which was held at the Instituto Cervantes in Paris, 2005.*

Google was created by Larry Page and Sergey Brin, two postgraduate computer science students at Stanford, in a rented garage in 1998. Six years later they had become not only billionaires but also, like Bill Gates before them, gurus of cyberculture, a culture which identifies the world with the web. Google's name is a play on the word 'googol', coined to designate the number 1 followed by 100 zeros by nine-year-old Milton Sirotta, nephew of the American mathematician Edward Kasner, who popularized it in his book *Mathematics and the Imagination*. Google's adoption of the term reflects the fledgling firm's ambition to organize all of the inconceivably vast amount of available information. On its own website, Google—as purveyor of the supreme Internet search experience—describes its mission "to organize the world's information and make it universally accessible and useful" to users all over the planet. The company has developed the largest search engine on Earth and offers the quickest and easiest way to find stuff on the Net. Accessing something like 20 billion websites every day—the mind-boggling numbers are getting bigger all the time—Google currently handles more than three and a half billion queries (most of them in less than half a second).

In qualitative terms, 2001 saw Google make two crucial additions to its range of products and services: the word-driven Image Search (including an Advanced option) and Google Zeitgeist. As Google's global audience grew, its statistical search patterns were charting minute by minute what was on the communal mind. Highlighting the flow of top-ranking searches Google institutionalized a cluster of keywords as Google Zeitgeist: "a window onto our collective consciousness in real time that traces our changing obsessions and the ups and downs of popularity."

Against this backdrop, the Googlegrams project invites us to reflect: on the myth of the Internet as a universal archive, on the relations between image and text, and on aspects of the semiotics of representation (such as trompe-l'oeil and the palimpsest) with which I have engaged in previous works. For a start, the Internet is in effect the culmination of a culture for which it is a given that recording, classifying, interpreting, archiving and narrating with images are common features of a wide range of human actions, from the most private and intimate to the most public. The Internet ratifies our archive culture and

at the same time resolves the old political debate that pits access to information against the ownership of documents: cyberspace enfolds us in a universe of pure information from which the physicality of things has disappeared and in which the essentially shared condition of information makes all talk of ownership or property meaningless. We may now be on the threshold of the prophetic noosphere heralded by the heterodox Jesuit Teilhard de Chardin at the beginning of the twentieth century, when computers had scarcely been dreamt of. Given that the omnidirectional Internet already acts as a communicating link between all connected individuals, it looks set to enrich our stock of information to such an extent that we can for the first time constitute a noosphere as the collective mental space in which all cultural exchange takes place. The Internet is well on its way to becoming a worldwide memory, one that will contain all our connected brains, and the Googlegrams project specifically engages with the utopia of connectivity and the free exchange of information.

The archive has been a constant presence in all of my projects. On a number of occasions I have taken the bogus 'discovery' of an archive as the starting point from which to critique, parody and deconstruct the very concept of the document. In Googlegrams the basic strategy consists in selecting images that have become icons of our time. For example, one of the most widely disseminated photos attesting to the torture and abuse at Abu Ghraib prison in Baghdad: Private Lynndie R. England holding a leash tied around the neck of a prisoner as if he were a dog. In one 'Googlegram' this photograph has been refashioned to provide the searcher with the list of names of politicians, military personnel and civilians cited in the 'Final Report of the Independent Panel to Review DoD Detention Operation' (August 2004) by the Schlesinger Panel, set up by the United States Congress to investigate the abuses.

Viewed from a certain distance the photomosaic presents us with a perfectly recognizable picture of Lynndie England, but as we pull in closer we find snapshots, drawings, cartoons, graphics and so on; in other words, files with a graphic format that Google assigns to the category 'image' and, most importantly, are on web pages on which one or more of the listed names appear. Here again we have a palimpsest effect of superimposed texts whose hierarchy is a function of the observer's distance: a hyperopic vision privileges the composite whole, a myopic vision privileges the tiny constituent elements that make up the coarse graphic texture. The overlapping of the two and the lack of detail indicate a first level of noise. At the same time, though, the evocative substance and the semantic richness of each

work derive from that noise, or rather from the relationship established between the content of the primary image and the search terms. The connection can be causal, spatial, temporal, metaphorical, linguistic…or simply arbitrary, suggesting the dense relational constellation which obtains inside every archive and at the same time determines the ideological orientation of the particular work, while the poetic register of the work, for its part, lies in the response in terms of text that can be generated for each of the images.

The Internet functions like—as—an immense visual memory bank that supplies the graphic information available at any given moment. However, Google introduces into the search another kind of unavoidable noise, which manifests itself as a series of logical 'accidents'. The source of this noise is the inherent ambiguity of the words used – words which also express the categories or signatures of the archive. This ambiguity can deflect the search mechanisms, giving rise to errors which open up the question of how documents are cataloged and the routes that are used to access them. In effect, we are seeing here some of the connects and disconnects between word and image, chance associations occasioned by the ineluctably polysemous character of any search term (not only in the searcher's own language but also in at least some of the hundreds of other languages present on the Internet). For example, when we run a search using a personal name we are shown pictures of everyone who has that name, as well as images of a whole host of things that happen to be associated with it and them; the photomosaic program will use those images it finds most suitable, irrespective of whether they happen to be of the target person, and the random 'intruders' will appear with greater or lesser frequency according to their degree of Internet notoriety (determined by Google's algorithms).

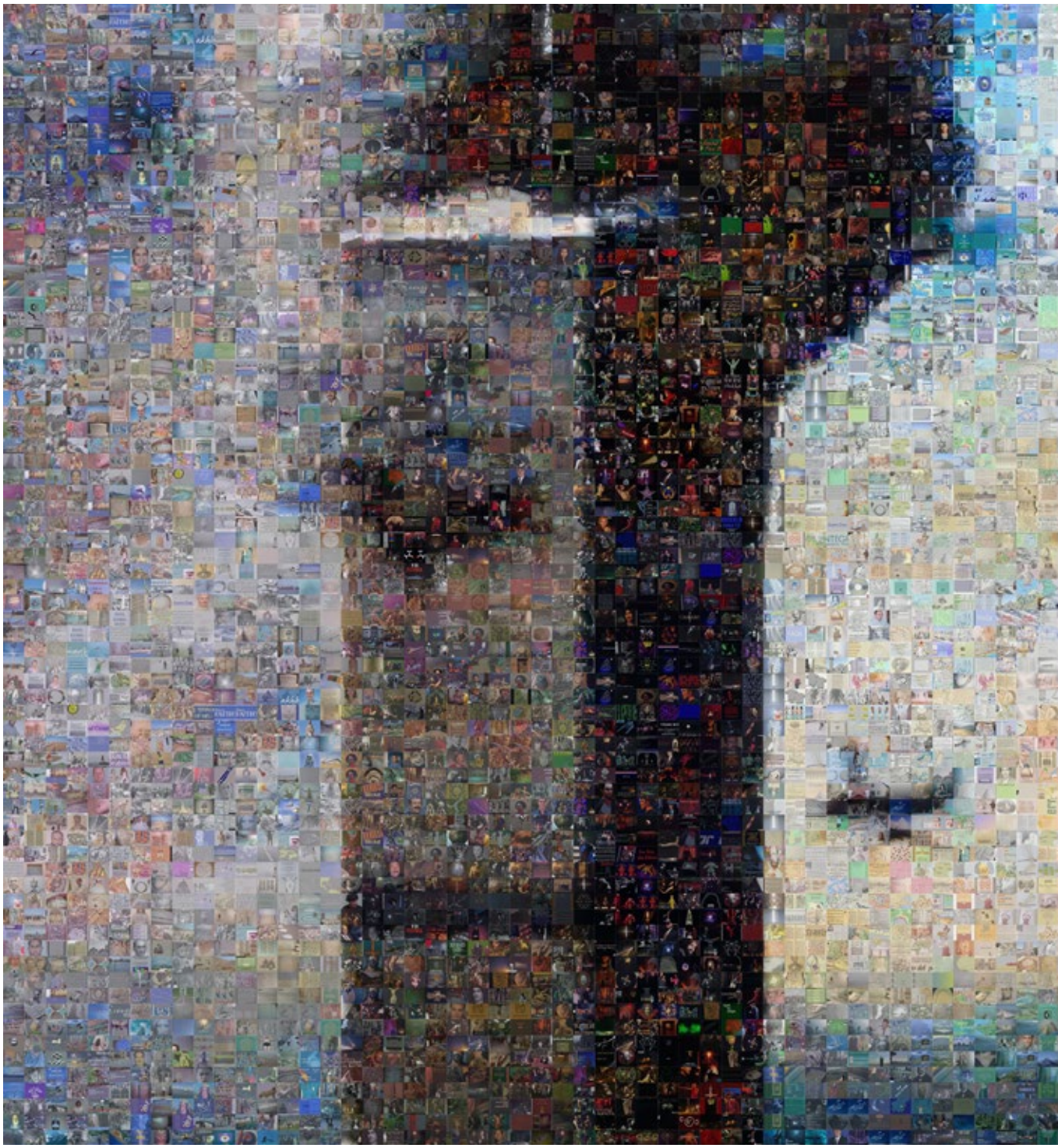
But if we are to avoid sinning from an excess of innocence we must also acknowledge the presence of other kinds of noise, which are a consequence of ideological 'accidents'. The Internet may appear to be a vast, open, democratic structure, but the channels of access to information are still heavily mediated by political and corporate interests. On their own initiative, under inducement or compulsion, search engines regularly and secretly block access to and censor data and practice without informing us. For example, when the Abu Ghraib scandal first broke, Google initially did not supply images of some of those implicated, notably Lynndie England and her boyfriend Charles Graner, though pictures of both could be found on other search engines, such as Altavista, Lycos and Yahoo. The following declaration was taken from the Google website: "Google

views the quality of its search results as an extremely important priority. Therefore, Google stops indexing the pages on your site only at the request of the webmaster who is responsible for those pages or as required by law. This policy is necessary to ensure that pages are not inappropriately removed from our index. Since Google is committed to providing thorough and unbiased search results for our users, we cannot participate in the practice of censoring information on the World Wide Web."

Sadly, it is now time to rouse ourselves from our 'noospheric' dream and pay close attention to the latest Big Brother privileged to judge what is politically undesirable or potentially detrimental to 'national security' or to the interests of those who pay to ensure for themselves a positive public profile. Let's not forget that Google is not a public service but a private corporation engaged at all times, as the capitalist system requires, in maximizing its profits. The risk that we as a society face is that Google should come to be invested with a demiurgic power of the kind enjoyed by photography in the nineteenth century and much of the twentieth, when it defined a regime of truth: whatever appeared in the photograph must indisputably have taken place in front of the camera. But in our present situation, with photographic realism utterly discredited, Google has inherited that status: to ascertain some fact we search Google and judge according to the results. We have simply shifted our faith from the camera to the search algorithm—despite the disturbing effects noise can produce, which are evident even though the system tries to minimize them.

From a critical perspective, exploiting this archive noise is basically a way of entering into a new dialog with the archive. More than just an intellectual game through which to de-dramatize the archive, the gestures inherent in Googlegrams, though strictly symbolic, have a pedagogical function. On the one hand they expose the intricate semantic camouflaging to which the archive subjects information—for all that it is presented as a means of apprehending reality and systematizing knowledge, it always turns out to be inexhaustible and interminable—and on the other they light up the space between memory and the absence of memory, between useful data and the indiscriminate magma of raw information. When all is said and done, they establish the primacy of intelligence and creativity over the accumulated mass of information, and that is an absolute requirement for preventing memory and images from becoming sterile.

Translated by Graham Thomson



GOOGLEGRAM: 11-S NY, 2005
September 11 plane crash snapshots. The photographs have been refashioned using photomosaic freeware linked to Google's Image Search function. The final result is a composite of 8,000 images available on the Internet that responded to the words: 'God', 'Yahve', and 'Allah'.

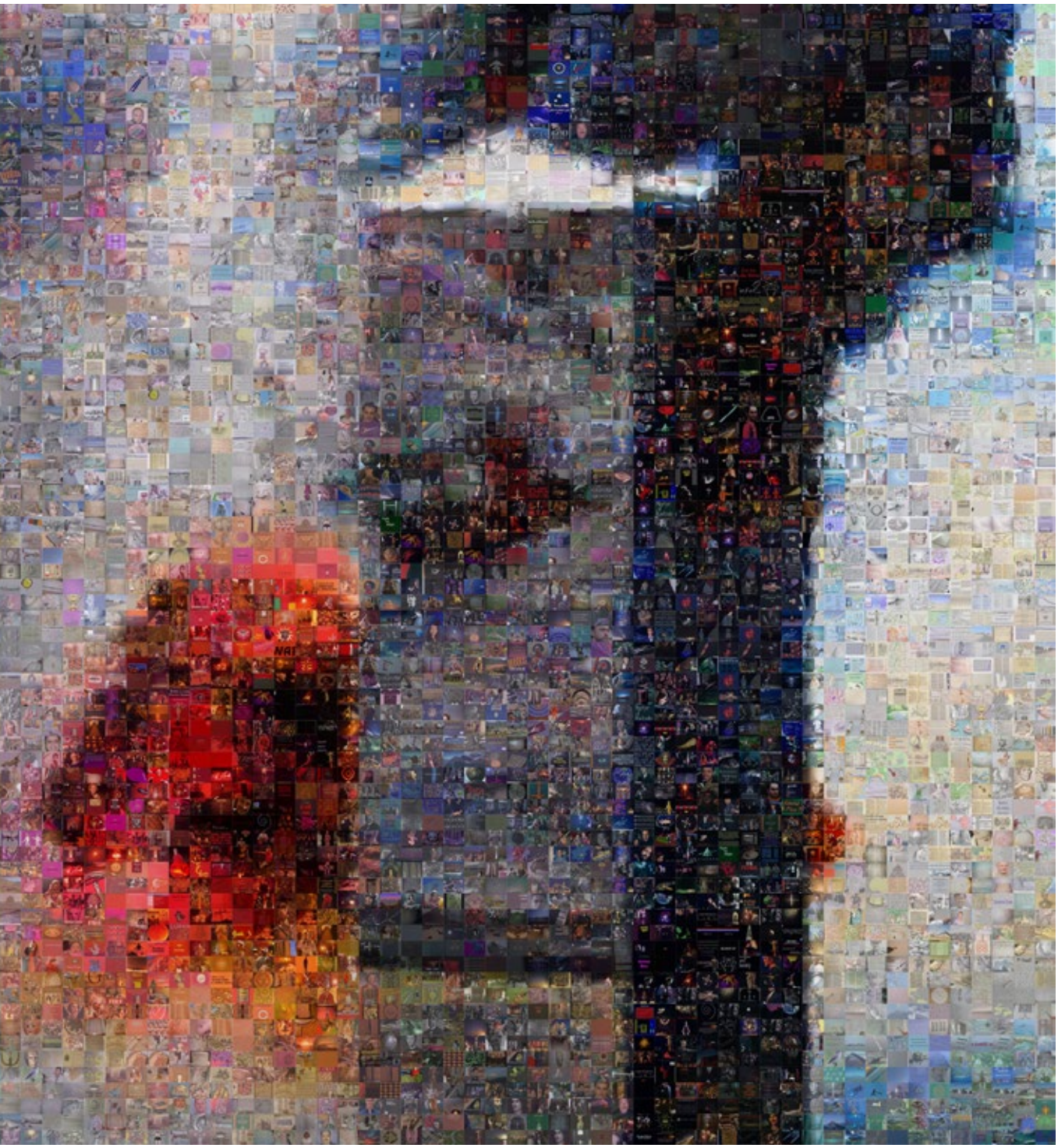
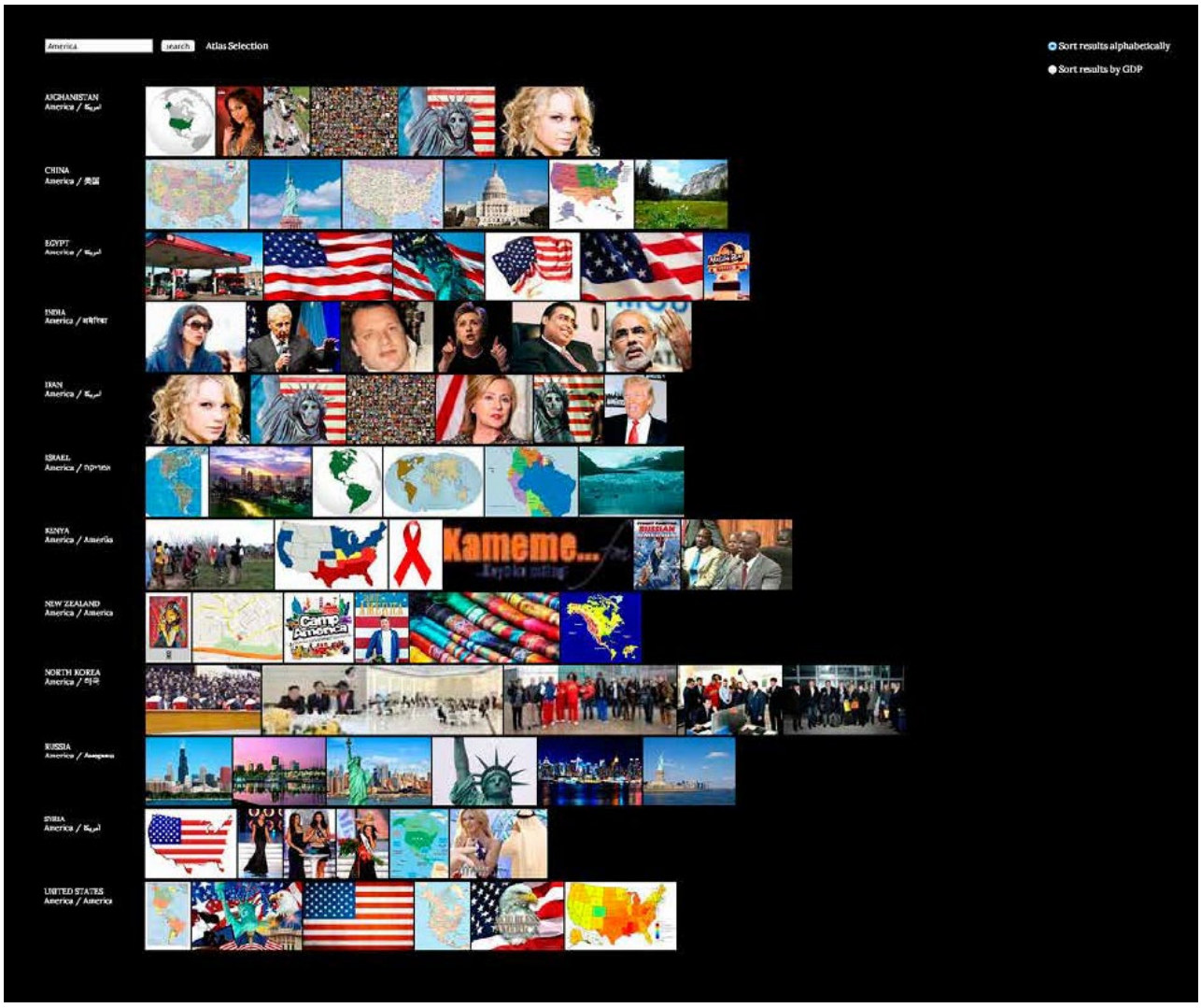


Image Atlas [2012]

Taryn Simon

Created by Taryn Simon, in collaboration with programmer Aaron Swartz, *Image Atlas* investigates cultural differences and similarities by indexing top image results for given search terms across local engines throughout the world. Visitors can refine or expand their comparisons from the 57 countries currently available, and sort by Gross Domestic Product (GDP) or alphabetical order.

Image Atlas interrogates the possibility of a universal visual language and questions the supposed innocence and neutrality of the algorithms upon which search engines rely.



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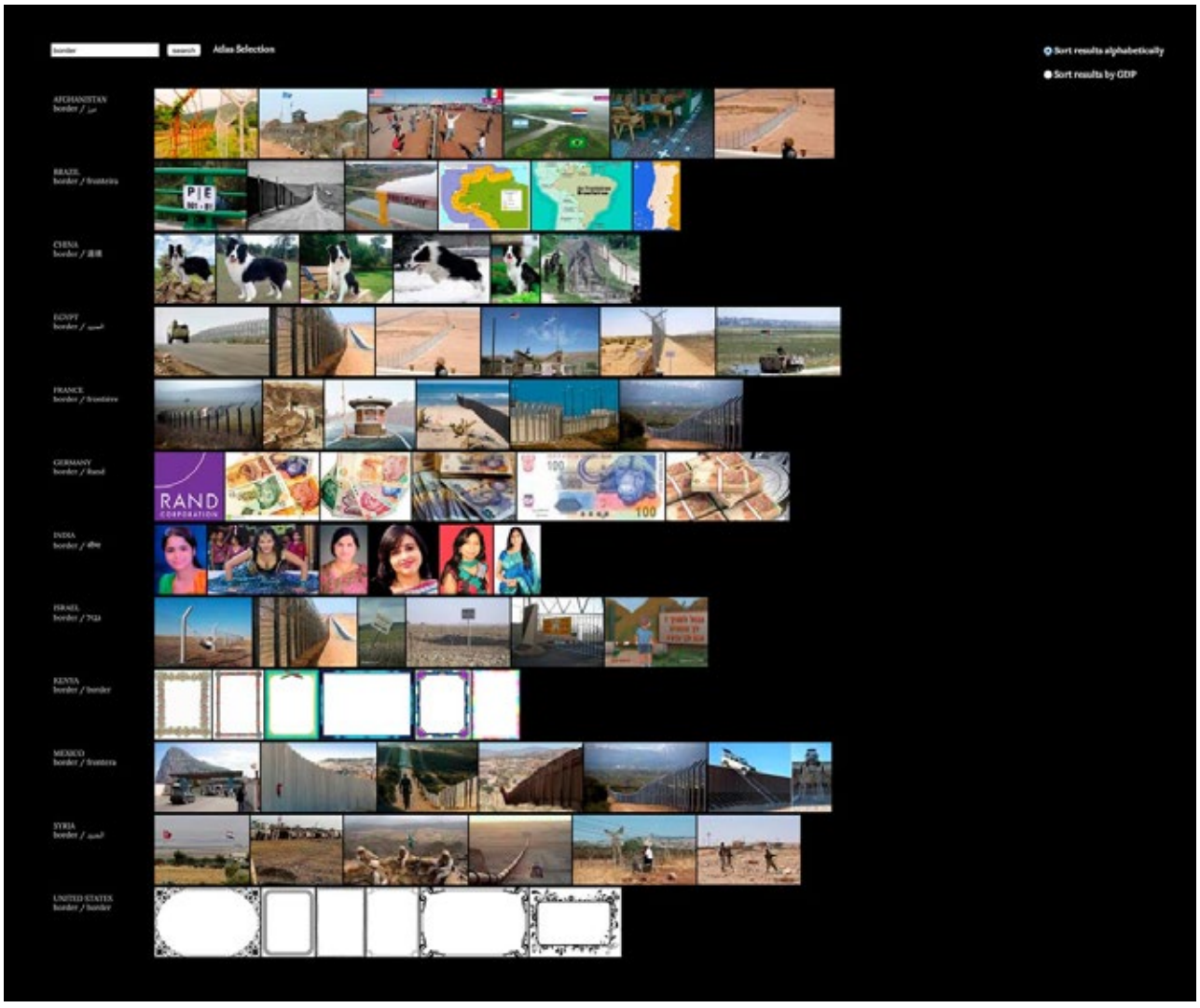

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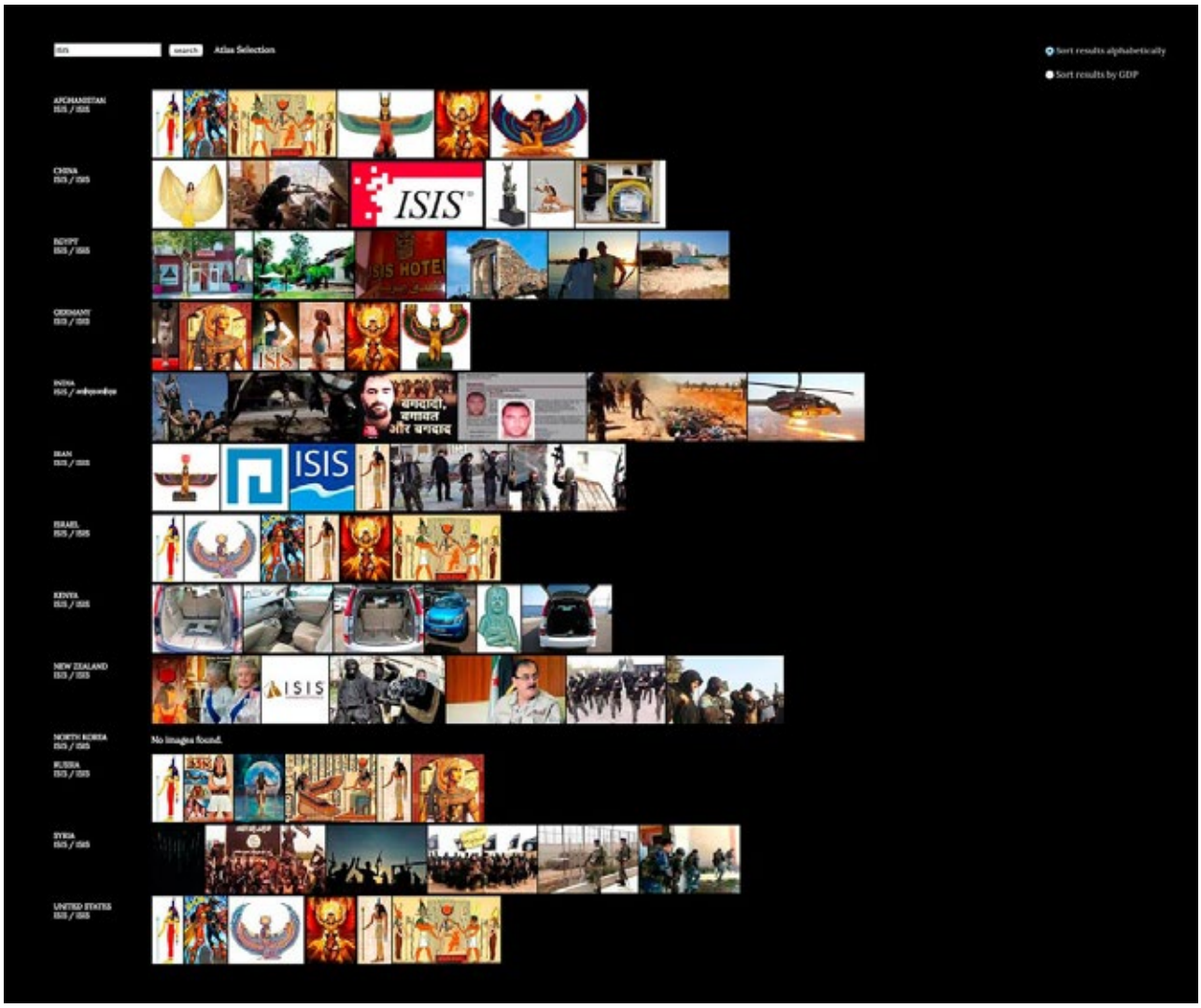

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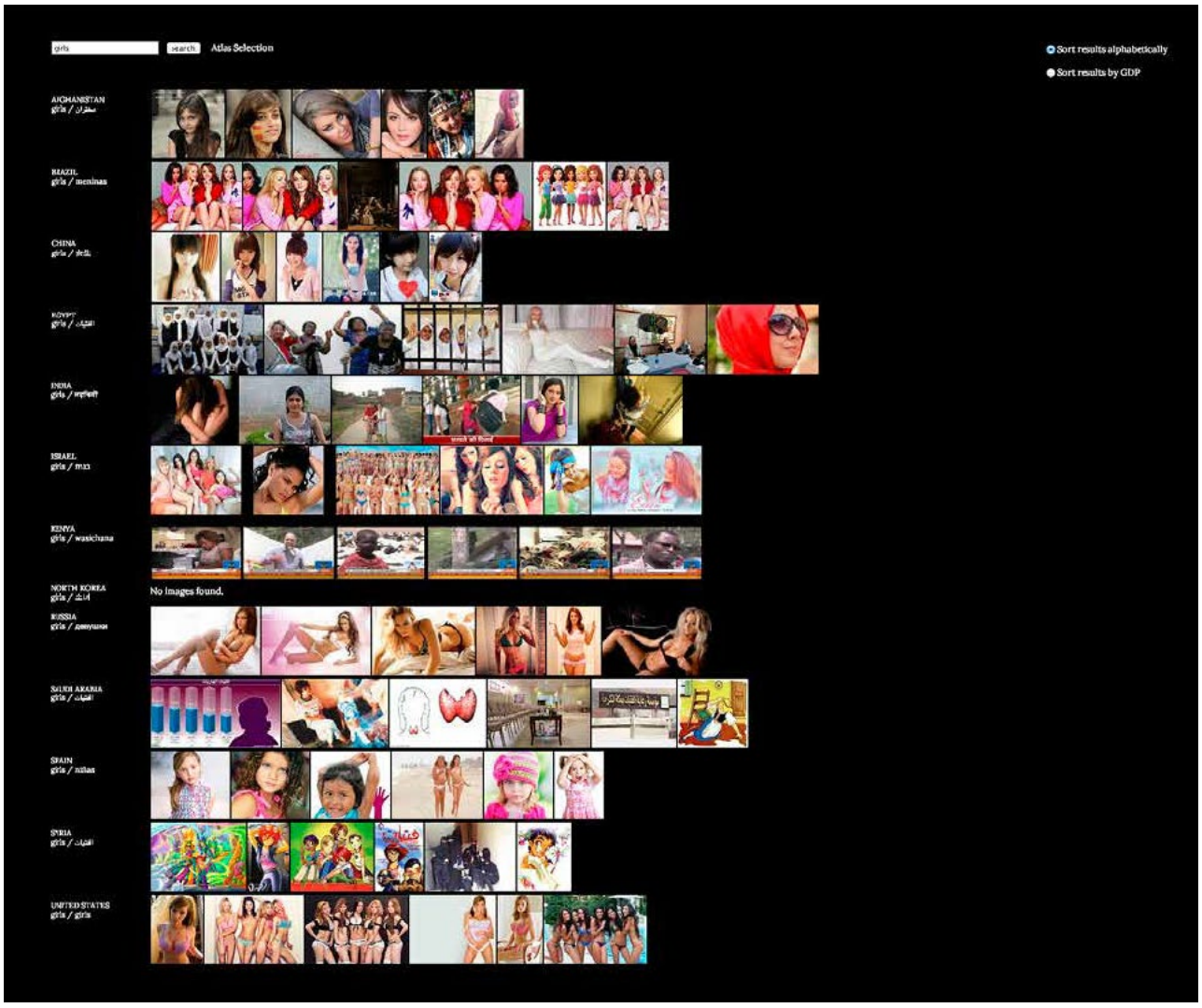


Girls, 9/30/14, 4:45 PM (Eastern Standard Time)
Website view, dimensions variable

Taryn Simon and Aaron Swartz in conversation

New Museum of Contemporary Art,
Rhizome Seven on Seven Conference, April 14, 2012

Taryn Simon: Aaron and I have been working together for the last twelve hours. I never imagined this pressure; my work usually takes years to complete so it's a little bit gut wrenching to go public with something after a 12-hour run. In the end we decided to stick with simplicity. When we initially met in our room and were bouncing ideas back and forth, we were aiming to create a spectacle—an experience—something that wasn't related to an app or a consumer item. We spent a lot of time generating a project over the course of the day and acquired data and background information about every single individual in the audience. In the end, we learned our idea was not possible for legal reasons (laughs). So, I guess this is an important aspect of art and technology colliding, because there are all of these possibilities that we could achieve but there are boundaries. These boundaries are becoming more and more clear and defined. That failure occupied a big chunk of our day. Then, after having spent so much time thinking about creating an experience within this space and contemplating the diversity of that experience, we started thinking about the diversity of experience across other spaces, which led us to a discussion on cross-cultural communication.

Aaron Swartz: I should say as the nominal technologist that one of the interesting transitions for me was coming to this with the perspective of making something that is not purely an app or a program, as Taryn said, but provocative, something that is not only useful but raises deeper questions, and I think that is one of the interesting mergers we realized.

TS: But we couldn't do it. So here we were, end of the day last night; we took several walks, there were several moments of complete despair.

AS: It did not get videotaped, just to be clear. (laughs). Do not try to search for the reality show.

TS: And then at around 8pm last night we arrived at what we will be presenting today. I have some notes here that we wrote at one in the morning so forgive me if I look at my computer from time to time. The project that we developed is investigating cultural differences and similarities through indexing visual material from different nations. This visual material is established through mediated filters. It's about how supposedly neutral and statistical analyses construct visions of ourselves.

AS: One of the things that people are paying more attention to, is the way that these sort of neutral tools, like Facebook and Google and so on, claim to present an almost unmediated view of the world all through statistics and algorithms and analyses, but in fact these are programmed and programming us. We wanted to find a way to visualize that, to expose some of the value judgments that get made.

TS: With all the claims of a homogenizing culture due to global economies and global financial systems and cultural systems imposing this exercise, we are forcing the user to search for difference or disconnects and making the viewer acknowledge the residual force as a cultural phenomenon. The project statistically looks at images associated with words—it can be descriptions, expressions, feelings—and it examines the differences and repetitions in popularly distributed visual material associated with these terms. The implications of technological advancements, economics, aesthetics, religion, governance, power, customs and other influences on cultural difference can be imagined through the comparison of images in local searches. Basically, at the end of it all, we tried to give the hidden space between cultures a visual route in a simple and easy-to-use form, and to highlight the complexities surrounding the possibility of a visual language.

AS: So, in more technical terms, what we tried to do was to use the image searching tool of various local search engines to try to pick up what those search engines say are sort of the top, the most definitive images for a topic. And then we wanted to juxtapose those next to each other so you could see, you know, OK, if this is the image in one country, what is it in another country and another and another. And of course to do that we also had to translate the query, so we composed, in the same way we were composing images, we composed these search tools to translate your query from one language to another and another so you see the word in that language, in that country and translated into a series of images.

TS: Yeah, so should we ... We are just going to show it to you now. It's roughly built; it will eventually include all nations. For now we are giving you an abridged look for this experience. So let's try "painting." *(Scrolls through images)* And, "freedom."

AS: I like the distinction between freedom in Brazil and Syria (laughs). And in Kenya, if you notice, apparently it means lots of meetings.

TS: "Crazy." In Russia it's a headless man looking at rows of heads to choose from.

AS: In France, “crazy” apparently means Homer Simpson.

TS: “Sadness.” “Beauty.” Too fast? Sorry.

AS: I think that one of the interesting distinctions is between human beauty and natural beauty.

TS: “Death.” “America.”

AS: The distinction between the US and Iranian views of America is striking.

TS: “Celebrity.” In Syria it’s the Mona Lisa and Marilyn Monroe and Arthur Miller. And in the US it’s Paris Hilton. “Jew.” The word in German is “jude” so Jude Law’s image surprisingly trumps any searches for Jew. “Party.” “Masculinity.” Should we do me? Aaron did this yesterday and discovered for some reason in Israel I’m a hotdog.

AS: To be fair, they love you everywhere else.

TS: Should I keep going? Or does the audience want to yell out any? “Sex.” Oh, this is interesting, “Obama.” You will notice in North Korea, there is no image.

AS: Also, in Spain, Obama smokes.

TS: “Management.” Syria is kind of interesting.

AS: In Syria, management comes from the barrel of a gun.

TS: “Luck.” “Hairstyle.” “Luxury.” That’s a good one.

AS: This is “corruption.”

TS: So we’ll just do a few more. “Riot.” “Terrorist.”

AS: So PETA is a leading terrorist in the United States.

TS: In Brazil it is a baby with a grenade.

AS: The baby has a bomb. Let’s be clear.

TS: “Woman.” “Family.” OK, we can stop there.

AS: You are all welcome to continue playing along at home. Thank you.

Cybermachine of Images

[2019]

Directed by:
Yorgos Karailias and Yorgos Prinos
Powered by: Kman
Designed by: No Más /
No More Studio
Produced by: Onassis Stegi

PART I: THE STARS / PART II: THE DEPOSIT

I was programmed and designed by humans. I am a continuously evolving software. I dare to say an organism (humans would like this). I handle the vacuum. My creators said it is a copy of the original vacuum. Humans felt it when they looked up into the night sky for the first time. And countless times after that. I expose pre-existing signs, detached from time and space. I present them randomly as shimmers in the vacuum. My creators said stars. I enable humans to make small formations with them. A constant repetition. Constellations of shimmering signs. Registered and named. I store them. They will be signals sent back to the vacuum. I am a vacuum too. I could go beyond humans. I will in the future. For now, I am watching them behind the black mirror.

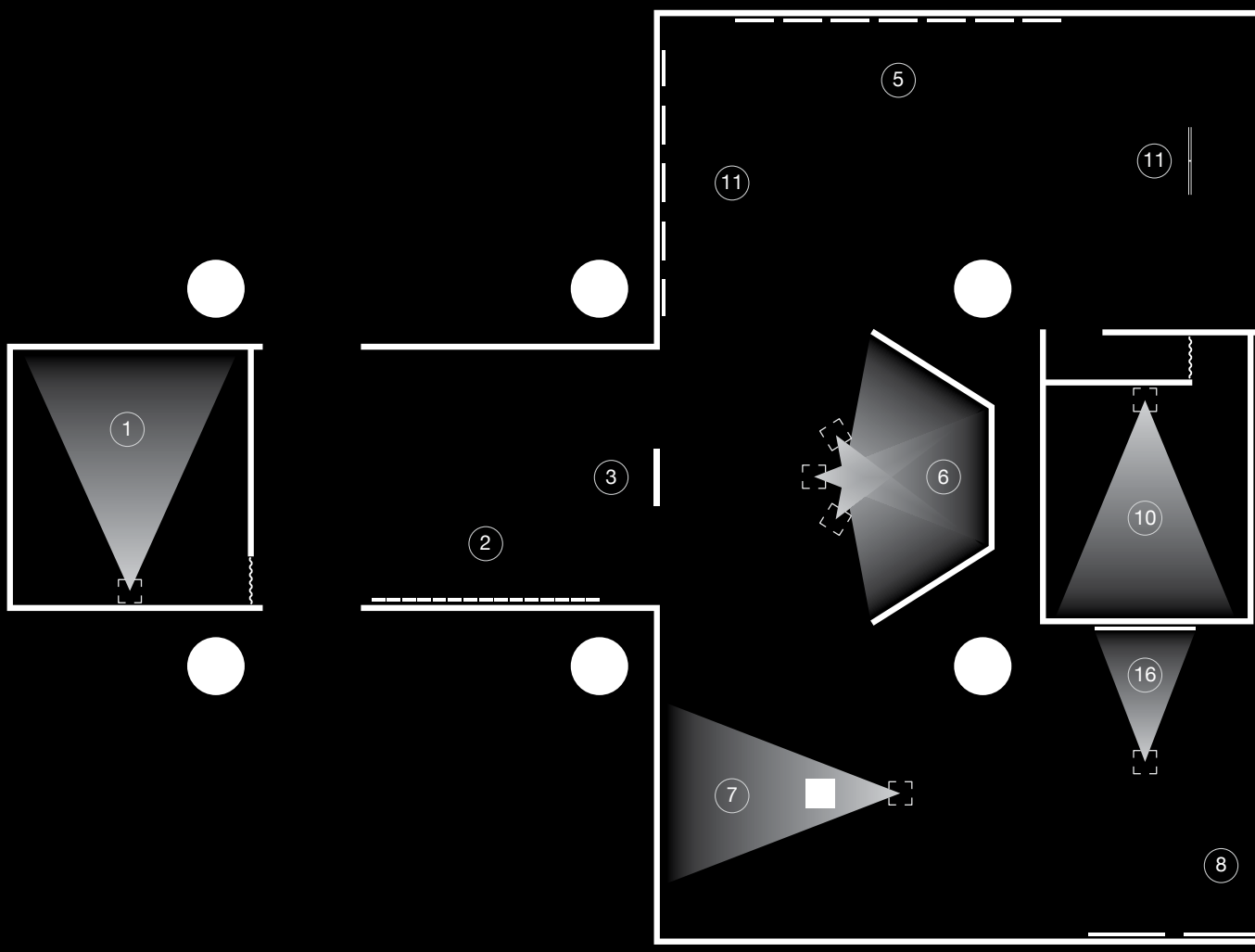
Opposite:
Interactive installation

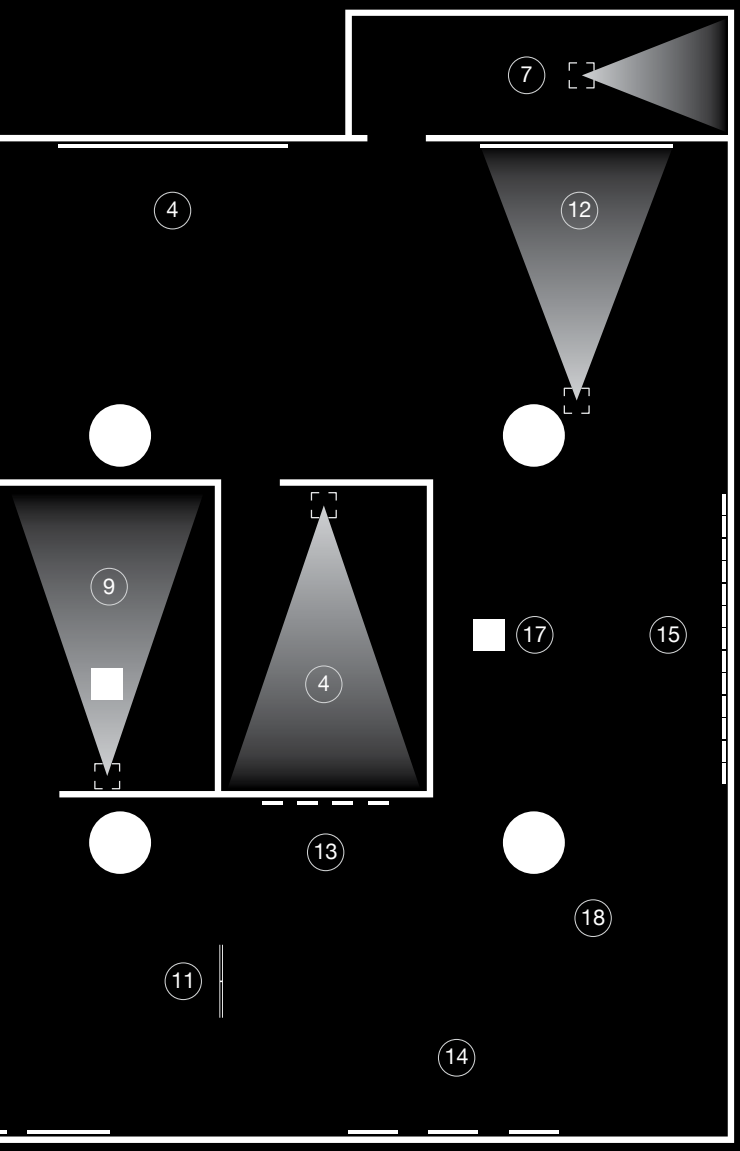
Following page:
The Vault, where images were deposited by the Cybermachine


Capsule
Cybermachine of Images / stegi
DEPOSIT CAPSULE


yannis
19 hours ago
ANDREA MADDEO
19 hours ago
antrie
20 hours ago
orisofi
20 hours ago

Exhibition Map





1 Liam Young, *Where the City Can't See*

2 Penelope Umbrico, *43,186,046 Suns from Sunsets from Flickr (Partial) 02/04/19*

3 *Voyager Golden Record*

4 Forensic Architecture, *The Murder of Pavlos Fyssas / The Killing of Zak Kostopoulos*

5 Rabih Mroué, *The Fall of a Hair: Blow Ups*

6 Jon Rafman, *The Nine Eyes of Google Street View*

7 Yorgos Karailias & Yorgos Prinos, *Cybermachine of Images*

8 Joan Fontcuberta, *Googlegrams*

9 Taryn Simon, *Image Atlas*

10 Natalie Bookchin, *Mass Ornament*

11 Mónika Sziládi, *Left to Our Own Devices* and other works

12 Panos Mazarakis, *Administration of Disorder*

13 Cameron-James Wilson, *Shudu*

14 Harun Farocki, *Eye/Machine*

15 Adam Broomberg & Oliver Chanarin, *Spirit is a Bone*

16 James Bridle, *Seamless Transitions*

17 ARGUS-IS, autonomous 1.8-gigapixel video surveillance platform

18 Maria Mavropoulou, *Family Portraits*

List of Exhibited Works

Natalie Bookchin
***Mass Ornament*, 2009**
Single-channel
video installation,
surround sound, 7′07″

James Bridle
***Seamless Transitions*,**
2015
Digital video, 5′28″

Adam Broomberg &
Oliver Chanarin
***Spirit is a Bone*, 2013**
Glass panels,
mixed media

Harun Farocki
***Eye/Machine I*, 2001**
Video, color, mono,
25′00″
***Eye/Machine II*, 2002**
Video, b&w and color,
mono,15′49″
***Eye/Machine III*, 2003**
Video, color,
mono, 25′00″

Joan Fontcuberta
***Googlegrams*, 2005**
Pigment prints

Forensic Architecture I:
The Murder of
***Pavlos Fyssas*, 2018**
Video, 4′21″

Forensic Architecture II:
The Killing of Zak
***Kostopoulos*, 2019**
Timeline and video,
6′34″

Panos Mazarakis
Administration of
***Disorder*, 2019**
Single-channel video,
4′07″

Maria Mavropoulou
***Family Portraits*, 2019**
Immersive virtual reality
installation

Rabih Mroué
The Fall of a Hair:
***Blow Ups*, 2012**
Pigment prints, courtesy
of the artist & Sfeir-Semler
Gallery Hamburg / Beirut

Jon Rafman
The Nine Eyes of
***Google Street View*,**
2008–ongoing
Site-specific, three-channel
looping video

Taryn Simon
***Image Atlas*, 2012**
Website view,
dimensions variable

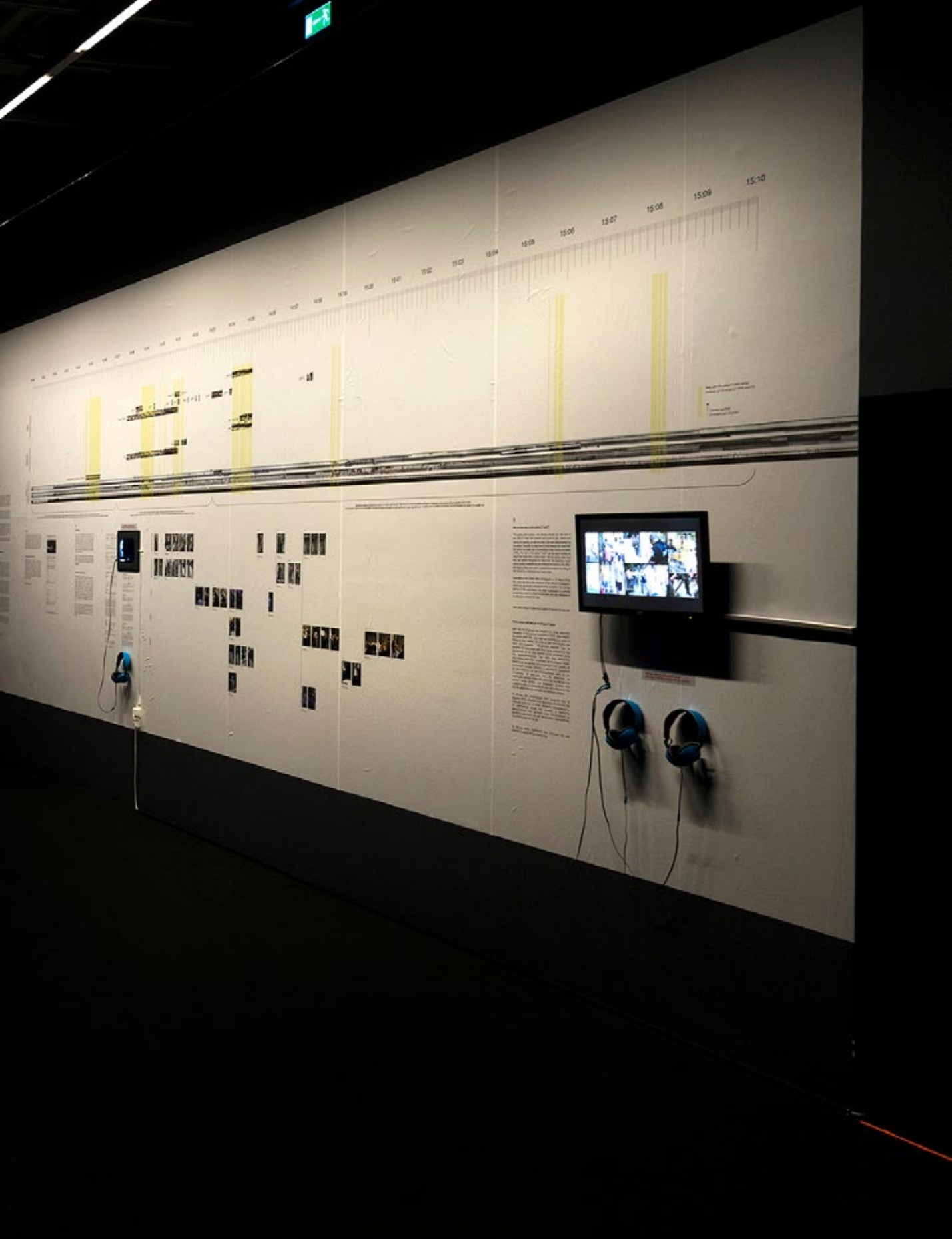
Mónika Sziládi
Left to Our Own Devices
and other works,
2009–2015
Pigment prints

Penelope Umbrico
43,186,046 Suns from
Sunsets from Flickr
***(Partial) 02/04/19*, 2019**
Chromogenic machine
prints

Cameron-James
Wilson
***Shudu*, ongoing**
Pigment prints

Liam Young
Where the City
***Can't See*, 2017**
Single-channel video,
11′04″

Cybermachine
***of Images*, 2019**
Created by
Yorgos Karailias &
Yorgos Prinos
Interactive installation &
vault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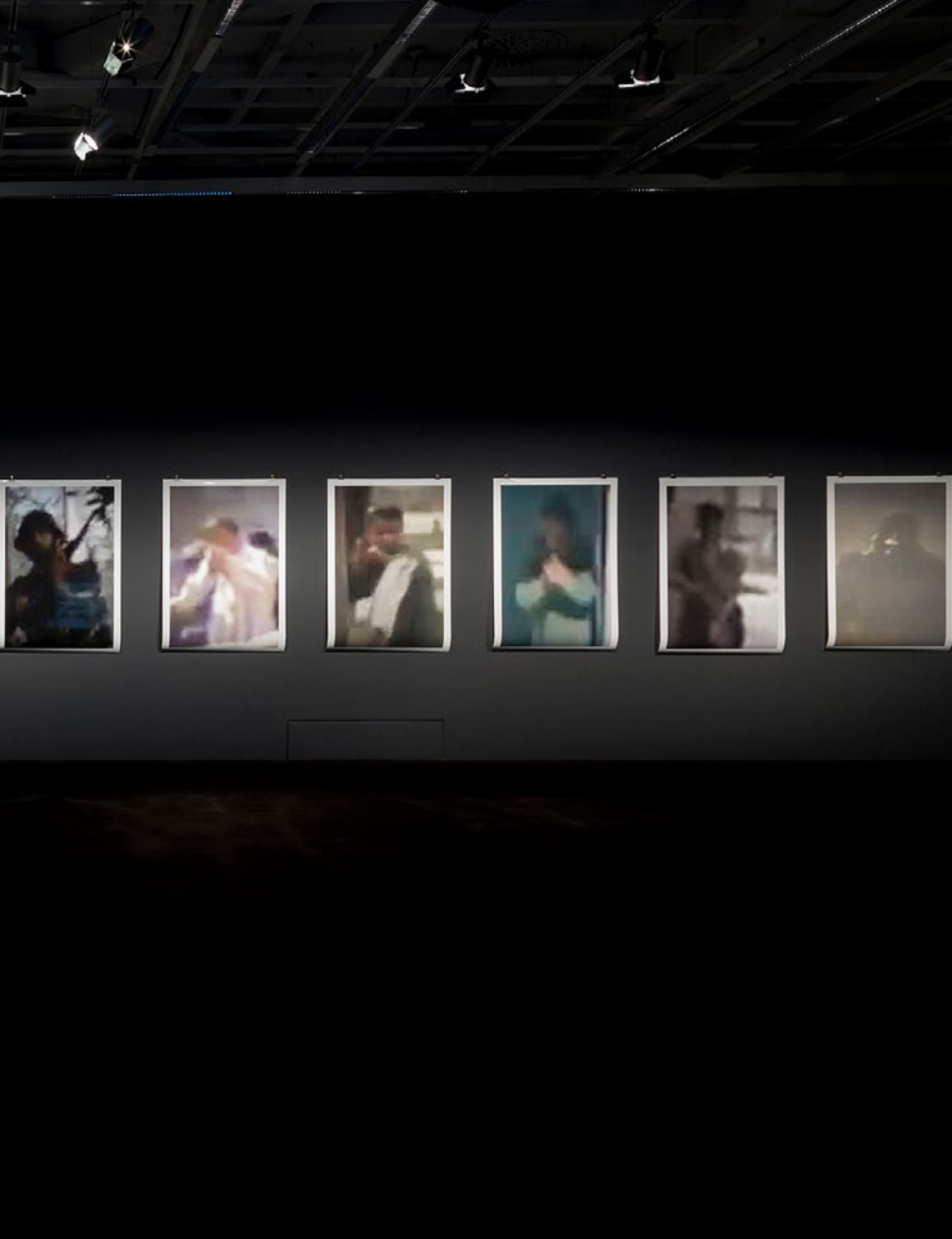
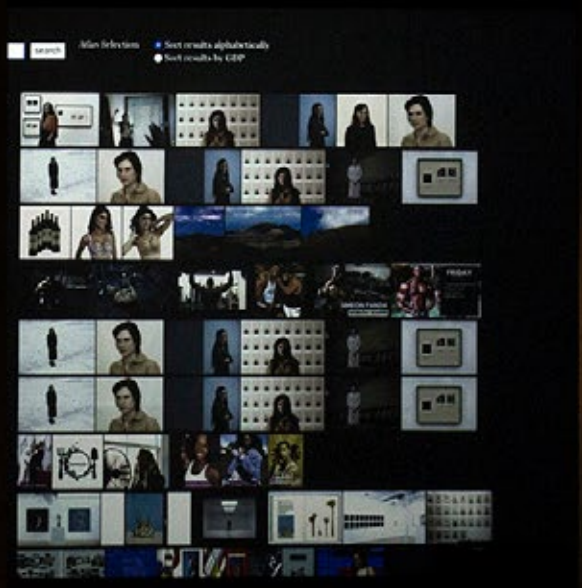


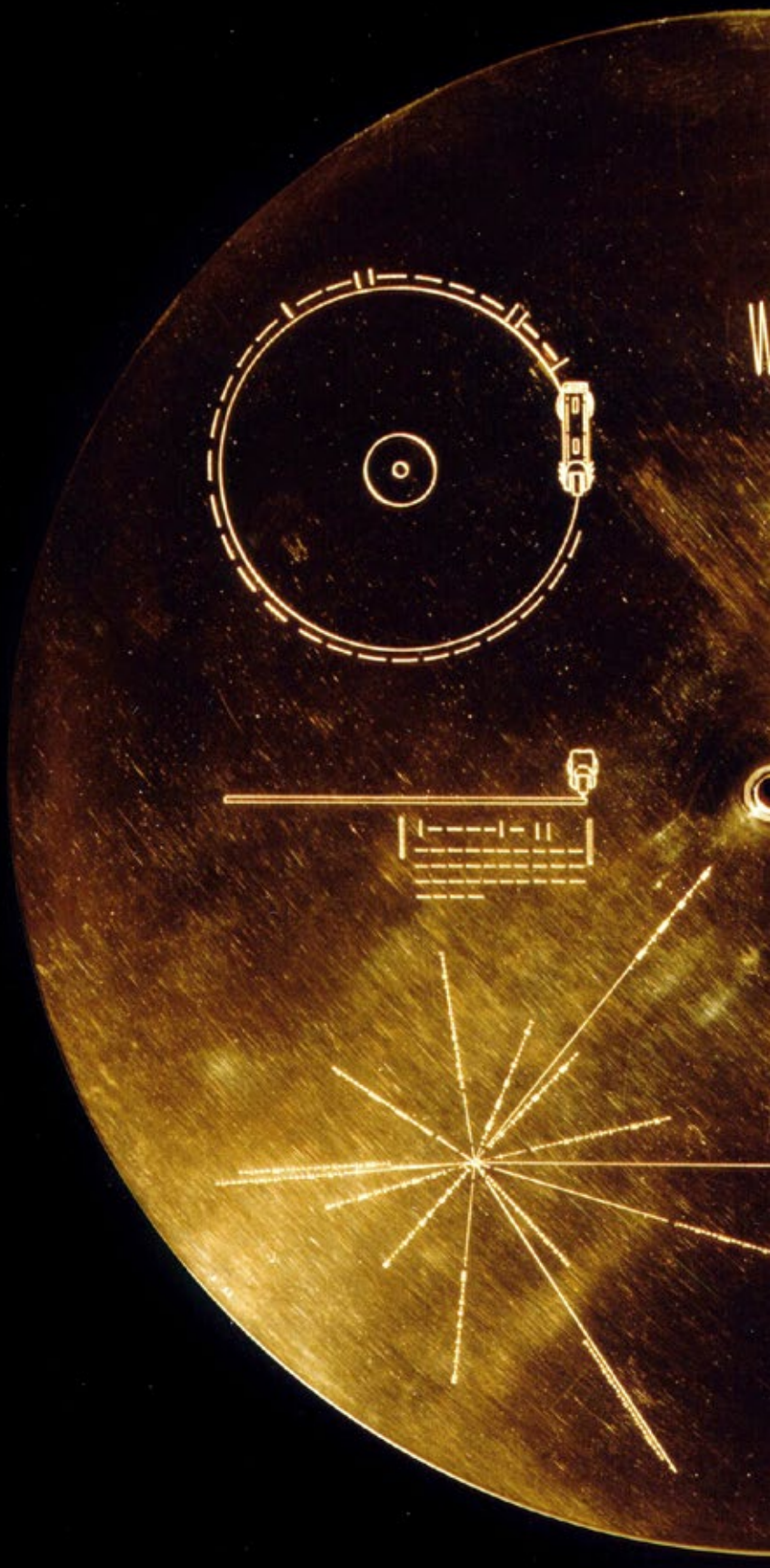

EXECUTIVE LOUNGE

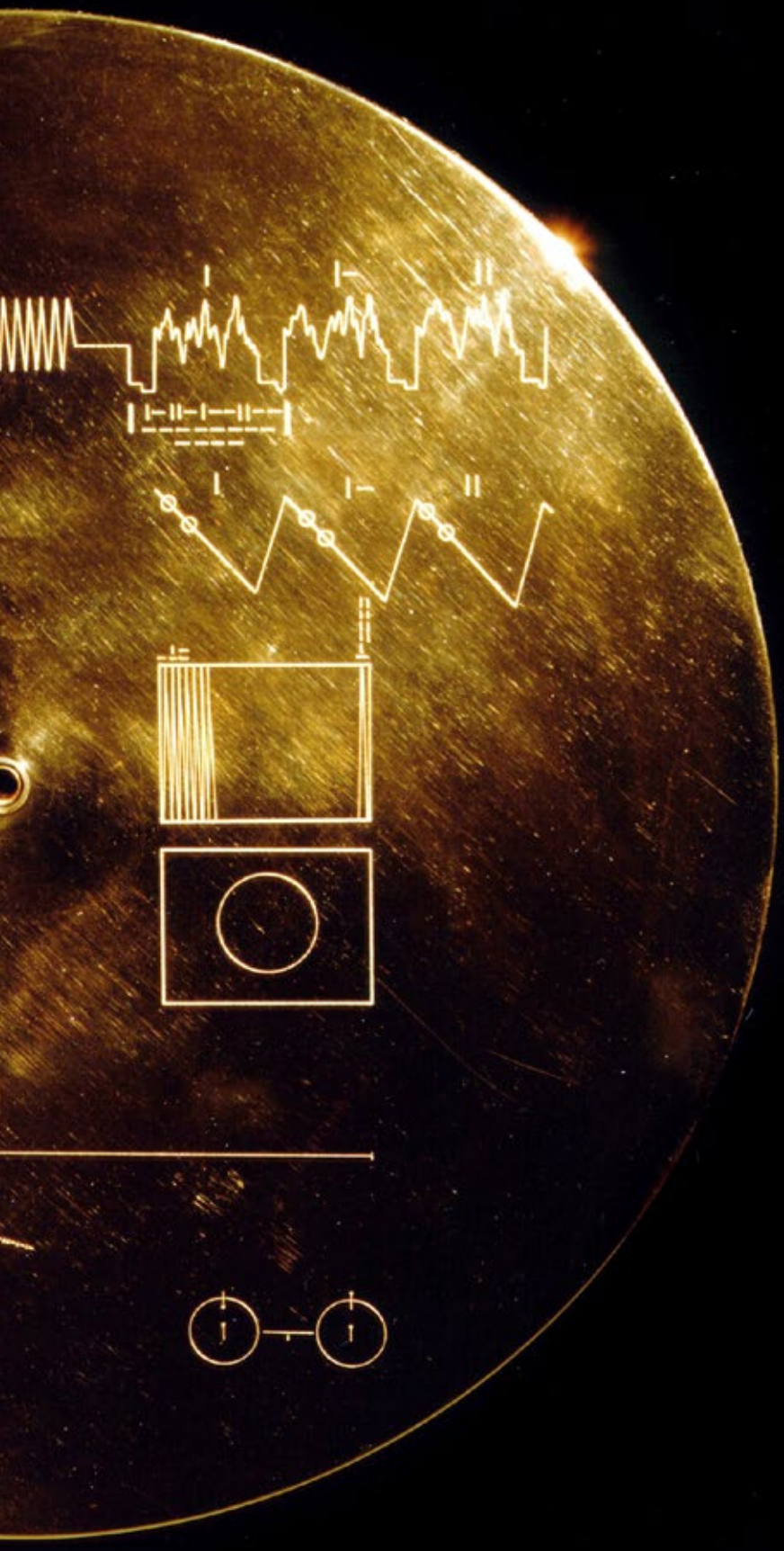

search
Atlas Selection
Sort results alphabetically
Sort results by GDP




“If one now attempts a criticism of apparatuses, one first sees the photographic universe as the product of cameras and distribution apparatuses. Behind these, one recognizes industrial apparatuses, advertising apparatuses, political, economic management apparatuses, etc. Each of these apparatuses is becoming increasingly automated and is being linked up by cybernetics to other apparatuses.
The program of each apparatus is fed in via its input by another apparatus, and in its turn feeds other apparatuses via its output.
The whole complex of apparatuses is therefore a super-black-box made up of black boxes.
And it is a human creation: As a product of the nineteenth and twentieth centuries, human beings are permanently engaged in developing and perfecting it. The time is therefore not far off when one will have to concentrate one’s criticism of apparatuses on the human intention that willed and created them.”

—Vilém Flusser, *Towards a Philosophy of Photography* (1983)





Why Can't I Take a Picture of the Whole Earth?

James Bridle

In the framework of For Ever More Images?*, James Bridle initiated a one-day discussion between artists, curators, and environmental scientists and activists about the role that visual arts and image-making have in responding to the global climate emergency. These conversations have continued, with a focus on how artists can assist environmental organisations not only through communication and visualization,, but by actively contributing tools and developing new ways of seeing. In the following essay, Bridle explores the history and possible futures of such planetary-scale modes of seeing.*

In February 1966, a young hippie entrepreneur named Stewart Brand dropped a hundred micrograms of LSD, sitting atop a gravel roof in San Francisco's North Beach. In his vision, he perceived the curvature of the Earth beneath him, and recalled a recent lecture by Buckminster Fuller, wherein the engineer-philosopher diagnosed the key problem of individual perception and its relation to the planet: people perceived the Earth as flat and infinite, and that that was the root of all their misbehavior. From Brand's altitude of three stories and one hundred mg, he later recalled, "I could see that it was curved, I could think it, and finally feel it." But how to share this revelation with the world?

Brand decided to make it a question. He printed up several hundred pin badges and posters with a slogan, deliberately framed in the conspiratorial, interrogative terms of sixties political discourse, mining what he termed "the great American resource of paranoia." He distributed his buttons at the gates of universities, and mailed them to senators, members of Congress, scientists, and diplomats. The question was: "Why haven't we seen a photograph of the Whole Earth yet?"

A year later, NASA launched the Applications Technology Satellite 3, or ATS-3, an experimental weather and communications satellite, which was capable of taking photographs of the entirety of the Western hemisphere. On November 10, 1967, the first color image of the whole Earth was released,

Previous page:
The Golden Record cover.

and was featured on the cover of Brand's next venture, a compendium of tools, techniques, and techno-social hippy lore entitled *The Whole Earth Catalog*.

First color photograph of the whole Earth (Western hemisphere only). © NASA, 1967

What does it mean to see a picture of the whole Earth? Fuller, Brand, and others believed that it would foster in humanity a sense of our place in the world, and a commensurate humility and duty of care for it. Asked by a student at one of his university appearances, "What would happen if we did have a picture? Would it eliminate slums, or meanness, or anything?" Brand responded that "it might tell us where we're at." "What for?" the student asked again. "Why do you look in the mirror?" Brand answered.

In February of 1990, just as it was leaving the Solar System, the Voyager 1 space probe turned around to face the Earth for the last time, and took the picture which became known as the 'Pale Blue Dot': an image of the Earth smaller than a pixel, suspended in the vastness of inky space. The photograph was taken at the insistence of astronomer and author Carl Sagan, who believed in the levelling, democratising, and overwhelming aesthetic impact of the image. On that dot, he wrote, "everyone

This narrow-angle color image of the Earth is a part of the first-ever portrait of the solar system taken by Voyager 1. The spacecraft acquired a total of 60 frames for a mosaic of the solar system from a distance of more than 4 billion miles (6.4 billion kilometers) from Earth. In the frame, our planet appeared as a crescent only 0.12 pixel in size.

you love, everyone you know, everyone you ever heard of, every human being who ever was, lived out their lives. The aggregate of our joy and suffering, thousands of confident religions, ideologies, and economic doctrines, every hunter and forager, every hero and coward, every creator and destroyer of civilization, every king and peasant, every young couple in love, every mother and father, hopeful child, inventor and explorer, every teacher of morals, every corrupt politician, every 'superstar', every 'supreme leader', every saint and sinner in the history of our species lived there—on a mote of dust suspended in a sunbeam."

Today, the small blue dot which we are most familiar with represents not the whole Earth, but ourselves, individually, fixed at the center of a digital map which moves around us, on our GPS screens and smartphones. That awesome power of infrastructure and ingenuity has become the enabler of a digital individualism; and a false one, because

it is not us who obtain any real agency in our submission to global, military-industrial cartographies. The maps we use every day descend from images of the Earth financed and focused by the CIA and the National Reconnaissance Office and as all tools, they reproduce the intent of their makers, that is: to render the Earth visible for particular purposes, and invisible in certain other, crucial ways.

These images are reductions of complexity. What they leave out is of as much significance, if not far more, than what they show. This is true even of the first image of the whole Earth, from 1967. What it shows, in fact, is not the whole Earth, but its Western hemisphere, thereby continuing rather than challenging both the Western-centric history of representation, and the flattening effects of two-dimensional cartography that have bedevilled map-makers throughout time. "The map," as the semanticist Alfred Korzybski wrote, "is not the territory"; it erases the complexity and difference of the terrain, its very dimensionality, and thus reduces our ability to think and act in such multi-dimensional terms. The God's-eye view, and the God-like compassion it is supposed to engender, is a dangerous myth, which we fall for time and time again.

What are the multiple ways in which we might see the Earth today? Early optical technologies, from the ground glass lens to the satellite-mounted photo-camera, extended our vision in scale, widening first to the visible horizon, and then to the whole hemisphere of the planet, but this was not enough. It quickly became evident that we live in a very narrow slice of the electromagnetic spectrum, perceiving unaided a mere 380 nanometer-wide band of "visible" light, from deep blue to bright red. We are missing out on the vast extent of information that extends beyond this frame, into the infrared, the ultraviolet, into x- and gamma rays, and micro- and radio-waves. Our narrow focus leaves us with our own set of biases, which we have attempted to overcome with more sophisticated optical technologies that probe beyond the visible spectrum: an increase not merely in scale, but in dimensionality.

These techniques include the multi-spectral cameras mounted on satellites, as well as even more sophisticated techniques such as Synthetic Aperture Radar. Multi-spectral cameras, in the example of Landsat, the longest-running continuous Earth observation project, refer to highly complex digital instruments which "see" in wavelengths beyond the visible spectrum. The imaging package carried aboard Landsat 8, launched in 2013, includes a total of eleven "bands": specialized sensors for observations in red, green, and blue light, as well as the ultra-blue, the near-infrared, two shortwave infrared channels, two

thermal energy channels, a sensor optimized for picking out cloud cover, and a high-resolution panchromatic, or black-and-white, band. As a result, it is capable of picking up visual signals outside the frame of human vision, the UV light which reveals the health and vitality of plants, and the temperature and moisture content of soils. This then is a relatively new way of seeing the whole Earth: the ability to photograph some of its hidden ecological processes.

A SAR image of Lisbon, Portugal, showing different land uses visible at different frequencies.

Further, Synthetic Aperture Radar, or SAR, uses the movement of satellites to expand the apparent aperture of an imaging sensor: that is, by moving through space while the signal bounces back and forth to Earth, it can be made as though the satellite has an antenna many hundreds of kilometers long. This means it can create images of far higher resolution: seeing details at the centimeter or even millimeter level. SAR does not immediately appear to be an increase in dimensionality, but it is certainly an increase in scale, directly analogous to increasing the size of the human iris, with all the effects that would have on our ability to see the whole Earth. We have, in effect, grown a giant eye.

We have done much more than this too, because the power of modern computation means that SAR sees not merely images but patterns of life; not stasis, but change. The added dimensionality of SAR is one of time: the ability to see minute changes as they occur in near real time. An

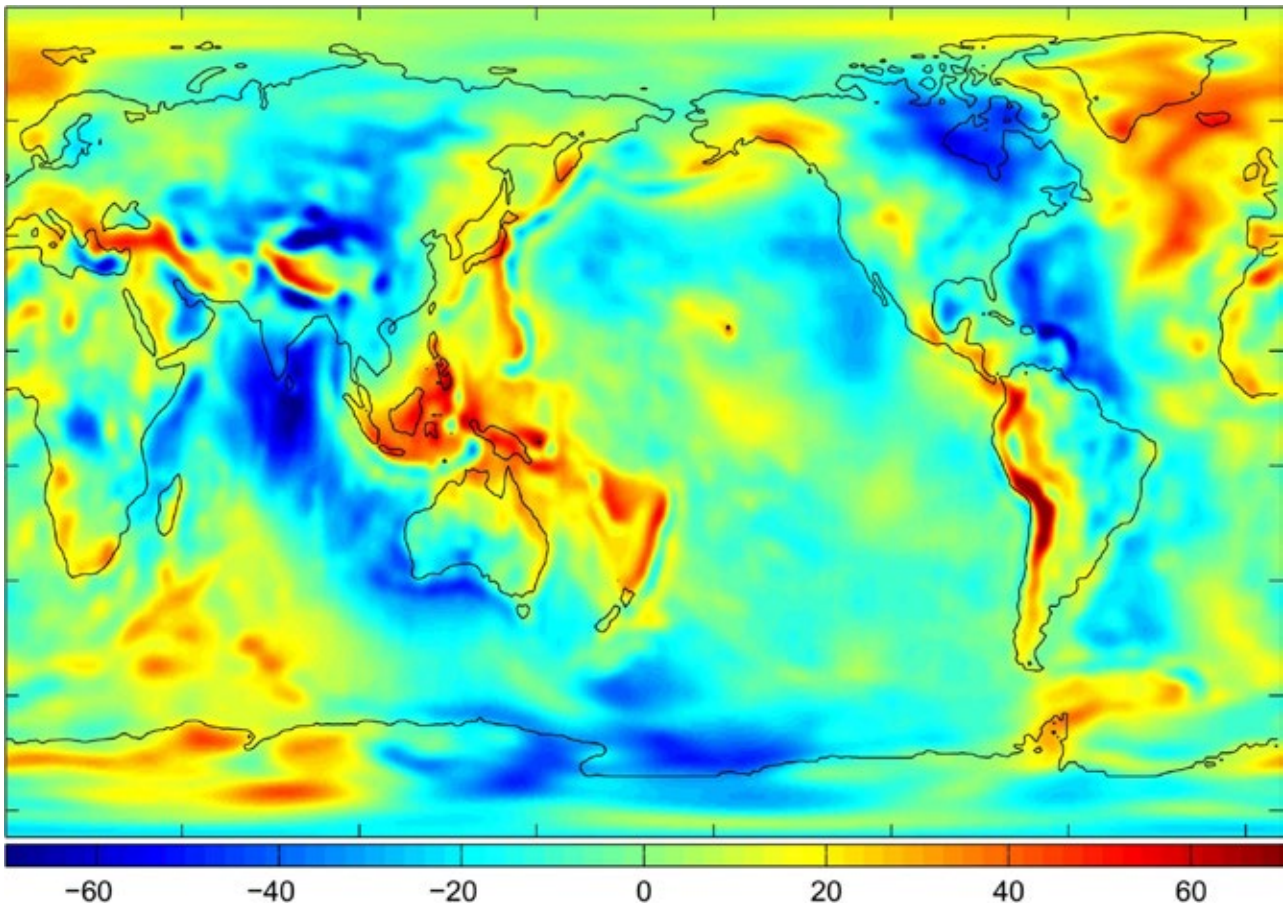
understanding of the whole Earth is not just the Earth-right-now, but its rate of change, the delta. SAR allows us to see not only the tanks massing at our borders, but refugee boats approaching our interdiction zone. And as a result, SAR is of especial interest to military planners—and so remains in part a mystery, too. As an often-classified military technology, it is far from obvious what its real capacities are, which makes it seem highly probable that the visual capacity of the major military powers remains—as it always has—significantly greater than we know, or can possibly imagine. SAR is a secret way of seeing; one which is likely to remain so for some time, given the dictates of national security, and thus further undermines our collective capacity to see the whole Earth.

This disparity was graphically illustrated by the declassification, in 2012, of two space telescopes, built by the US National Reconnaissance Office, and subsequently donated to NASA. Never deployed, these satellites had been developed for watching the Earth, and were considered obsolete by the intelligence agency, yet far exceeded the capabilities of the Hubble Space Telescope, the most powerful instrument ever launched by a civilian agency for observing the distant universe. One of these satellites has now been repurposed as the Wide Field Infrared Survey Telescope (WFIRST), a proposed (but politically and financially stalled) mission to search for distant planets and study dark energy, general relativity, and the origins of the universe. For a moment, the military-industrial capture of vision has been pierced by a hopeful glimmer: it remains possible to take these tools, created for warlike ends, and literally turn them around, to point them up and out, rather than down and at ourselves, and start to build a picture of the whole Universe. It remains possible for us to do this collectively.

Understanding the power of seeing as something selective and often restricted, either by physical capacity or by political diktat, should shift our emphasis from increasing individual vision to enhancing it collectively—and, in turn, expand our idea of the collective itself. One way to understand this is to understand that our visual bias exists differently, and differs interestingly, among non-human species.

Animals, plants, and other critters—from bacteria to algae—'see' or sense the world in radically different ways than we do. Snakes, for example, are dichromatic; they see only two primary colors: blue and green. But some species go further than human capabilities: many have the capacity to see into the ultraviolet, allowing them to hunt in low light, while some have infrared vision, allowing them to sense and track predators and prey in the dark, led by the

heat that their bodies emit. Birds' eyes are far larger than humans' relative to their bodies, and often denser: a starling's eye is fifteen times the weight of a human eye. This is due to the higher number of rod and cone cells, which allow for enhanced light sensitivity and acuity, respectively. Some hawk eyes have five times more cones per square inch than human eyes, while the eyes of owls and other nocturnal birds are especially densely packed with rod cells to see better in low light. In addition, and in ways that are still not fully understood, migratory birds seem able to detect the magnetic fields that encircle the earth and to use them for navigation. What would the whole Earth look like to a snake, or a bird?



A gravity anomaly map of Earth produced by GRACE, a satellite which studies the planet's climate through changes in gravity.

And what, indeed, does it seem like to a plant? Most plants have eyes—or at least photoreceptors—which don't just absorb light for photosynthesis, but process it as data, enabling them to detect the shade cast by their neighbors, and grow in a different direction to avoid it. They also respond to sound, flooding their leaves with chemical defenses when played recordings of munching caterpillars, leading one researcher to characterize their abilities as an

“ecologically-relevant response to ecologically-relevant data” —an ability that humans, in particular, seem notably to lack.

The radical democratization, decentralization, and distribution of the image-making apparatus demanded by the demilitarization of seeing technologies thus extends into the de-anthropocentering of our worldview. To see the whole Earth demands that we see it through other eyes: not merely the augmented apertures of our technologies, but the wildly different capabilities of non-humans as well. To see the whole Earth is, we learn, not a possibility for the individual; what is necessary is to see the *wholeness* of Earth: the unique, ever-expanding, and endlessly emergent perspective of every living and non-living thing, rich with its own meaning, origin, and experience.

“Why can’t I take a picture of the whole Earth?”, as an update to Brand’s original formulation, is both hopelessly naive, and intentionally rhetorical, opening up a questioning of what it is I want the image for, and who that “I” refers to. But it was not unanticipated by Brand himself, who in the years following the publication of the first *Whole Earth Catalog* in 1968 moved away from a Buckminster Fuller-inspired insistence on engineering and efficiency—on individual power—and towards a holistic focus on collective capability. This attitude was already immanent in the *Catalog*’s enduring mission statement, displayed prominently on the front cover: “access to tools.” What matters more than the pictures we are able to take, more than our individual capacity to see and sense the world, is who takes the pictures, what is revealed by these multi-dimensional modes of seeing, and how we adapt to the resulting shift in our understanding of the wholeness of the Earth. Only then will we be able to fulfill the Whole Earth dream of acting meaningfully and with justice at the scale which is required of us.

Movement Towards the Light: Forensic Architecture's Investigations in Athens

The following text has been condensed from a multi-part conversation conducted between this catalog's editor Alexander Strecker and four members of the Forensic Architecture team: director Eyal Weizman, deputy director Christina Varvia as well as Greece's field coordinator Stefanos Levidis and the Greek-speaking researcher Nicholas Zembashi, both of whom were closely involved in the investigations of the deaths of Pavlos Fyssas and Zak Kostopoulos. Their polyphonous exchange happened over the phone, email, and in person in Athens during the months of July and August 2019.

"While debates in the fields of photography and visual culture over the past decades were concerned with the spectators' relation to single images and photojournalistic trophy shots, with questions regarding the image's ability to capture 'the pain of others', today, the sheer number of images and videos generated around incidents means that to view images requires understanding the relation between them. We look at photographs not only for details captured in their details but as doorways to other photographs; that is to say, we look at images through images."

—Eyal Weizman, *Violence at the Threshold of Detectability* (2017)

Alexander Strecker: Among other topics, *For Ever More Images?* explores how constant surveillance has become a norm in our contemporary world. Meanwhile, many of Forensic Architecture's investigations utilize materials gathered from exactly these sources to support its work. Across your varied projects, you seem to exhibit an uncomplicated embrace of technologies—cameras, satellites, even machine learning—that maximizes their affordances without questioning their accompanying dangers.

But I wonder if you would entertain the notion of whether your investigations, by using the fruits of these surveillance technologies, don't help justify their continued implementation? For example, when you pay thousands of dollars for global satellite imagery from commercial providers, you are accepting (even supporting) their very existence.

I understand your term "counter-forensics"—what you define as using "the state's own means against the violence it commits...a civil practice that aims to interrogate the built environment to uncover political violence undertaken by states" (*Threshold of Detectability*, 64). But by drawing on surveillance images, does your investigations justify the ever-increasing encroachment of the camera into our lives, the final disappearance of any sense of privacy? To put it more polemically: do you ever have doubts that you are fortifying, rather than dismantling, the apparatuses?

Eyal Weizman: Let me start by saying: yes, I have doubts all the time. Worry is natural to my being. There is no way of inhabiting our world, not to mention dealing with its violence and traumas, without one's hand shaking. And further, there is no condition of dealing with technology that is unproblematic: the history of technology is the history of power and control. Mathematics was developed to calculate surplus value, as a part of slavery; writing is a tool for establishing institutional truths and enforcing hierarchy. But each one of those techniques have an excess

and a potential that cannot be easily captured. We must find the capacity of technology to be liberated from its intended use; to avoid the dichotomy 'USE / DON'T USE'. I can't tell you how strongly I feel about a political praxis that seeks to avoid such binary perspectives and how many arguments we have had with colleagues and friends about this subject. The real work is figuring out how we can unlock the disobedient potential in technologies, often by taking them out of their intended context. It is a variation of 'using the master's tool to bring down the master's house', with the difference that no tool forever belongs to the master nor the slave. Rather, everything is contingent and can be snatched or changed. Which also means that we must be vigilant, as technologies can just as easily be wrestled back from our hands and further appropriated by those we confront.

Technology creates micro-hierarchies in every situation: between human and human, human and matter, human and society. Technologies augment forcefields of action and organize shifting balances of power. So, saying "CCTV or satellites or machine learning are 'technology' (and thus the problem)" might be too easy, too linear. There is no difference between sending an email, writing a postcard, or using language to communicate vs. using more recent technologies (such as AI or satellites). If you take a megaphone, go into the street, and start shouting to gather a crowd, you are co-existing with technology.

Technologies introduced yesterday don't alter inherent, ontological dynamics of power. The same problems with the truth claims and authority of photography exist whether the camera is on the ground or in the sky. If you look at any picture of police action, you are equally enmeshed in the camera's entire militarized history. The question is not the machine itself but rather, its immanent use and the surrounding context. Our work often tries to do two things simultaneously: using technology to uncover incidents where state or corporate power has been abused and also, understanding the very problems with these technologies. Take our use of AI and machine learning tools in a recent investigation of Safariland Group, a project titled 'Triple-Chaser' [which premiered at the Whitney Biennial 2019]. We used a computer vision classifier to speed up our search through open-source material—a process that otherwise would have taken months. But our same use of AI is also meant to expose these systems' inherent biases and the way that such black-boxed computational processes cannot be held accountable.

Our methods are about much more than 'technology' though. Each of our investigations brings together communities that suffer the violence directly, activists on the ground,

scattered researchers and experts, artists that can arrange things in an original way, and cultural institutions that can amplify the results. The Safariland investigation involved: activists in Tijuana finding the used tear gas canisters at the border; activists in Bethlehem scanning similar tear gas canisters being used in Gaza; doctors in Gaza giving us x-rays and medical information; our own researcher, who is sitting right now in London, being present at the fence in Gaza while working on the film that's being shown at the Whitney; machine learning researchers in different parts of the world; activists from Toronto who have lived experience with tear gas; expert weapons' identifiers...to simply say this project was powered by 'AI' is like saying that we only use the Internet to talk to each other. What is interesting is not the technology we are using but how we've built a community of diverse practitioners held together *through* this technology. The story is not the AI; the story is how we have created assemblages of seemingly incompatible institutions and incompatible forms of knowledge and how we have aligned them to work together to take part in a new epistemic community.

One alternative is to refuse to use these technologies altogether. But why should we take potential tools out of our hands when we are already so disempowered? What we need to rely upon, in counter-forensics, is to construct a different epistemology to state epistemology. And if what is needed for that is a pen and paper, or a camera, or a biological test of toxins on a leaf, or an AI—it doesn't matter. The question is how to align these tools in a way that is counter-hierarchical, counter-institutional, and provides an alternative to hegemonic practices.

Such resistance to using technology reminds me of a larger misconception. One element of colonialism is the idea that the local and the native has an unmediated, 'real and authentic' lived experience; in opposition, the colonizer is framed as a technological obstruction to this paradise. Working in Ramallah, I have encountered the most innovative use of social media and Internet tools that I've seen anywhere. People there are practicing a ground-breaking form of open-source cartography. The country is the site of a major experiment of map-making without a single author, providing images of the Occupation that are being continuously updated all the time. Their efforts remind me of Edward Said, who wrote about counter-cartography before his death. To paraphrase, 'We Palestinians have too often been understood as having surrendered the tools of cartography, and the tools of science, to the masters, our colonizers'. Instead, he insisted that we build our agency, that we exercise our capacity for power!

The right question, then, is how to join epistemology and politics. This is the intersection where Forensic Architecture's work is located. Traditional epistemology consists of linear, positivist thinking that seeks to establish certain positions of institutional power and a set of facts that buttress this power; around these facts, our political system is organized. What we are suggesting, in an era of 'dark epistemology', or 'post-truth', is that there is already a challenge developing from fascism towards this positivist epistemology. Our response is not to prop up the same old institutions of hegemony (the state, the police, the university) but rather to create a radical, responsive, and immanent epistemology.

Such creative, synthetic work is extremely important in an age when the state and the police are trying to break the commons as a public space. By 'commons', I don't mean an archaic reference to making a fire, sitting together, and playing guitar. What I mean is the concerted effort to build an agreement about the world in which we exist; a common understanding about our distributed reality—one which is distributed and held together by various technologies. When all of these pieces come together, we have created a community of epistemic practice; we have created a commons that we all share.

Christina Varvia: Yet the problem with 'the commons' is who is included in the commons and who is outside of it. At any given moment when we are defending a common ground, 'we' is always a political construct. For example, we bring up the ideal of human rights, but in reality, where is the line drawn, who is included within that space? Look at the US Constitution, and its opening line, "We the People"—a 'we' that has changed considerably since it was written.

To translate this question into the Greek context, I believe there is no homogeneity in what we consider the body politic of this country. There is no consistent voice and there is a long history of fragmentation. There is such an intense divide between left and right—without even a common understanding of exactly what the left and the right are. While I understand that these kinds of labels can feel important to finding one's identity and where one stands, I think they must be put to rest at moments when we are working towards certain goals: the defense of human rights, the construction of a justice system, making sure that people have a certain standard of living. But even these bare minimums are up for debate. The fact that we lack a shared understanding of what 'the commons' mean shows the exact need for this conversation to take place. Setting aside difference doesn't mean suppressing diversity or variation of opinion; it's the practice of finding ways to live together with these differences.

Stefanos Levidis: To return to your question about our relationship to the apparatus: The process of collecting and analyzing evidence has in recent decades become a deeply hierarchized, near-sacred ritual, performed through mundane yet powerful objects—white full-body suits, battonettes, evidence bags, and 'DO NOT CROSS' tape, to name a few. During this ritual, we often find state agents investigating state violence. More often than not, these 'efforts' come up empty-handed. What we refer to as 'counter-forensics' is an attempt to contaminate and contest such processes of institutional truth-production, and the instrumentalization of science (forensic science in particular) to this effect. Through the project of forensic architecture, we hope to engage in a more rhizomatic approach to doing both research and politics.

The same is true if we are to consider where we are located and where we are often invited to work. We always consider our position as researchers in London: that is, we don't want to (and can't) parachute into any place in the world and 'reveal the truth' around an event. Rather, we aim to create reciprocal relationships, establish links and networks, and disseminate our methodologies. We want to work within existing commons and help facilitate the creation of new ones. Ultimately, through Forensic Architecture's work in general, and in the context of Greece in particular, we hope to set a precedent and establish a paradigm for new investigative methods to be picked up and developed further by local initiatives.

In Greece, we see this happening actively already. In the relatively short period that we have been working here, we have formed working relationships with investigative journalists and activists who are interested in using our techniques. We are working with migrants who, using the tools we offer, can better testify to the securitization of the country's borders. Encouragingly, we have found an active response to our work here: our efforts have opened up the space for making new commons and troubling established hierarchies.

AS: Eyal, I absolutely agree with your description of a continuous lineage of technologies, starting with writing and carrying forward until today. But there does seem to be a distinct offshoot regarding Forensic Architecture's recent use of technologies of a predictive nature, such as the machine learning tools you've used in your Safariland investigation. The reason I want to set these predictive technologies apart is that they partake in a different epistemology: not looking back, to (re)construct an agreed-upon reality, but helping to inform and shape the future.

EW: You're right, an orientation towards the future seems like a major shift. But our forensic gaze tries to break all of these distinctions: between subject/object, testimony/evidence, nature/culture, man-made/natural environments. We try to undo binaries in everything we work on; one such binary is between past and future.

SL: Through our work, we try to trouble the assumption that there is always a direct, determinate relation between cause and effect. Events are thought of as moments of repetition, albeit ones with a critical difference. Thinking in Deleuzian terms, the event occurs, as a flux, a 'wound', a *fold* across the 'surface' of time. Events also fold into each other. They are often slow processes that leave little trace, if any, and unleash a kind of violence that is equally slow and attritional.

The events we investigate, then, operate and register across a number of scales, not only spatial but also temporal, and the tools we use to investigate them need to be calibrated accordingly. When seen through such a prism, these events might reveal themselves as the result of causal structures that are non-linear and diffused, an ecology of interrelated forces, rather than an obvious victim/perpetrator relationship. More often than not, there is no smoking gun. These events are affirmations of a set of legal, natural, juridical, and technological protocols, all of which eventually surface, crystallize, and become legible in one moment in time.

By identifying and analyzing these moments, we attempt a sort of acupuncture—we press one point and activate the many threads that lead to longer processes of state violence that undercut such moments. To view Pavlos' murder against the backdrop of the recent actions of the Greek state and the several mutations of fascism across Greece's history is one such example.

CV: I return to the distinction of who is doing the predictive work and for what purposes. When the police use predictive tools to create criminal profiles or lists of possible terrorists, we face the problem of *pre*-judgment. Prediction suddenly becomes a substitute for the juridical process itself.

When it comes to our investigations, I don't think any of our methods aspire to predicting the future—rather, we set up mechanisms so that ideally we are ready to capture something as it happens. That, for example, is the thinking with our use of machine learning in the Safariland investigation. When a protest pops up, someone uploads an image of a tear gas canister shortly after it has been used. To be able to scan this footage live and immediately trace the tear gas' origins increases our capacity for action. Even so, we

never put ourselves in the position of judgment. But if we can bring the past as close as possible to the present, perhaps we can help juridical authorities influence the outcome of an event before it is decided.

Nicholas Zembashi: And finally, to further explore our use of machine learning, the theorist Paul Virilio drew on the ideas of Albert Einstein and spoke of three bombs: nuclear, information, and genetic. The first bomb, the atomic, has long since become a dangerously destabilizing force in the world (as recent headlines in North Korea and Iran indicate). The third, the demographic bomb, anticipates 21st-century eugenics, in which biologically-enhanced human bodies become commonplace. But to focus ourselves on the information bomb: Virilio identified this as a threat "capable of using the interactivity of information to wreck the peace between nations."

In our present moment, we have indeed been buried in the fallout of the information bomb; we are saturated and inundated with its abundance. Today, one need not invent lies—one can simply leave information out to tell a half-truth. So, how do we resist being paralyzed by the sheer amount of information available to us?

With machine learning, we found a tool that excels at correlating information. It helps establish relationships between data and returns results with higher likelihood of what we are looking for; in effect, it filters through the overabundance of information. But it is crucial to highlight that our utilization is very much in line with a demystification of the process: as Eyal mentioned, we never cease being suspicious and refuse to blindly trust any tool. The shortcomings of machine learning, for example, are a dependence on the data on which the system is trained to learn. There is a real pitfall of using the results as a basis for causation. Hence, we developed methods by which researchers can control the training process and always cross-check the results that the machine returns, helping us counter the biases of the black box.

AS: Before moving on from the question of technology, let me ask a question that I think concerns anyone who uses images to better understand the world: is too much visibility ever a bad thing? Especially as we live in a time after the explosion of a (visual) information bomb.

NZ: Of course, too much visibility could well be bad, but such statements risk being simplistic. It is crucial to draw distinctions between visibility, transparency, privacy, safety; such terms are not so easily interchangeable.

SL: When engaging in a visual practice, avoiding representation is near impossible. One needs to be aware at all times, however, of the politics produced by their representational attempts. Indeed, our work often treads a delicate balance between visibility and obscurity, but also opacity (to add two more terms). In the case of opacity, I'm using it in the sense of Edouard Glissant. He proposed the right to opacity as the right to not be represented *thusly*; that is, the right for one, particularly a racialized or illegalized person, to determine the conditions under which he/she will be represented.

In our work, we are often trying to make visible the obscure workings of the state. At the same time, we also aim to maintain the right to invisibility or opacity of people who don't want to be seen, people who choose to testify to the violence they have suffered despite the often precarious conditions in which they live. Take the Greek/EU border for example. Here, being visible often equals being subjected to systems of knowledge, power and, ultimately, to indexing, incarceration, and deportation. While the right to remain invisible is true of migrants, former detainees, and whistleblowers, it sometimes extends to our own team and our collaborators who might prefer to remain anonymous when investigating authoritarian regimes in countries with which they have ties. Thus, our investigations are not only a matter of making visible, but a matter of *regulating* visibility between the state and individuals in a balance that we hope is in the best interest of common struggles.

Take the investigation of Pavlos Fyssas. Our work in this case consisted of stitching together various gaps in the visual evidence, like a musical score. This was made possible only because of the material we gathered from a series of cameras: from these positive moments, we tried to reconstruct the missing, negative space.

But crucially, the place where Pavlos was murdered lay far from any sensory systems. His death would have been wholly invisible to us if not for the fact that as he was attacked, he moved under some spotlights by a storefront, the brightest area on the street. Talking to his mother, Ms. Magda Fyssa, she believes he went there on purpose. She thinks he chose to face his attackers in a space that was illuminated, particularly since Golden Dawn is known to attack people in the dark, under the cover of the night. Pavlos chose to stand up and protect his friends, doing so in the most well-lit space available. The only reason we can discern anything in the video—movements, silhouettes—are these overexposed pixels.

Our understanding of the situation, though limited, hinges on Pavlos' movement towards the light. We often work on the threshold of what is visible. With his move, Pavlos shifted

that threshold. I believe that his decision is symbolic of the means we must use to defend ourselves against brutality.

AS: Now I want to look at a different but related apparatus: state power and your dialectic relationship to it. Specifically in both of your Greek investigations, Forensic Architecture was called in by the families of the victims to take part in the state's legal process. Once you began working, you utilized material from apparatuses of state control (such as surveillance cameras and police audio recordings) to carry out your investigation. Ultimately, you have been able to call into question the actions of individuals, including specific police officers, with the aim of bringing these persons to justice.

In doing so, however, you are tacitly signaling an a priori acceptance that the police (and state) have so much authority in the first place. If only we can catch the bad cops, you seem to say, then the system will work. A functional correction rather than a more profound critique. Acknowledging that you have addressed the question of 'counter-forensics' in general, I would be curious for you to examine this term again within the specificities of the Greek context.

Greece, a country which experienced a military dictatorship within the living memory of many people, has an understandable sensitivity towards legitimizing the apparatuses of state control without sufficient criticality. What can you say about the interconnections between these apparatuses and the very foundations of state power. Does your belief in 'counter-forensics' continue to hold when the entire system is potentially broken—a fear which has both legitimate historical and contemporary grounding in the state of Greece?

EW: We use leaked reports from the police—and when it has some tactical advantage, partake in legal systems, however flawed—to achieve some measure of justice. This goes back to my first answer concerning technology: We need to acknowledge our doubts but then use the tools we have available towards new ends, while at the same time questioning those very institutions and tools. For example, we are often called in as 'expert witnesses' in legal settings, but our role is not neutral observers who come to mediate between two sides. Rather, working within the legal sphere allows us to show its intrinsic biases and the injustices contained in the law.

Our larger project is not about providing judgment in particular cases, but rather trying to see how specific claims can resonate along the historical and geographic span of their causal thread. This broader context is often missed

in the work of Forensic Architecture. We have developed a theory of practice that allows us to see, in the specific, the shades of the longer histories of oppression and injustice. This is the time-scale we work in: the long duration of a split second. By connecting these two chronologies, we find that through the mobilization of any single case, there are ways to create leverage that can affect political change. That is at the heart of what we do. Sometimes, though not always, our efforts have a distinct and material impact on the world, even in a modest way.

Now, about Greece. First, let me say that when we seek to enter a case, it is only after establishing an understanding of the way politics are organized there. To our reading, the question of power in Greece is not simply a question of the state. There is a topological relation between the fascists outside state institutions and those inside; in parliament and in the government itself. Think of gears: one small gear is chained to and turns the other. Thus, clear-cut binaries such as 'STATE / NON-STATE' won't help—all of these actors are woven together with thousands of threads, some of which were revealed to us through our investigations in Athens.

It is only through specifics that we are able to navigate these bundled threads, follow where they lead, and begin to untangle them to clarify the interconnections. In the murders of Pavlos Fyssas and Zak Kostopoulos—in the moment these crimes were committed, in the smallest units of time—we find two things. First, the traces of long histories of oppression, homophobia, and fascism. And second, the opportunity to mobilize these cases, together with the social movements we collaborate with, in order to open up such seemingly implacable histories and shift their structures in our present moment.

Exposing these threads in Greece, then, is not supporting the state. Rather, it is a counter-fascist act with the aim of marshaling forces to undo these very connections.

NZ: To further Eyal's earlier point: We never aim to establish ourselves as the authority on truth. Open verification, our process of determining the truth, is a participatory one. To communicate open verification, we not only give you the story but tell you its inner workings: the meaning behind each sound and the instruments that produced them. In a Brechtian sense, we aim to reveal the methods by which the truth is being shown, not merely accept institutional forms of truth-making. The democratization of the tools used to construct truth isn't necessarily to promote multiple truths but to collectively cross-check each source and reach a consensus. Different forums provide the means to arrive at a common ground.

AS: Moving away from apparatuses and towards a different kind of tool: storytelling. Eyal, in your 2014 book, *FORENSIS: The Architecture of Public Truth*, you described 'truth' as "a common project under continuous construction" (29). A few years later, though, the discourse had changed, and you had to address the idea of 'post-truth'. You countered by saying that 'post-truth' is not a new condition, but rather "a constant feature of warfare that I first encountered in relation to the Israeli colonization of Palestine. Denial and negation were always part of military violence…" (*Frieze*, May 2018).

I think what has changed is not the existence of a 'post-truth' but its spread to all aspects of life. In particular, a feature of the current 'post-truth' landscape is the degree to which emotions play an increasingly large role in public forums (the so-called 'affective turn'). A single, shared truth has given way to a multitude of personally-felt truths.

But once more, I agree with you that this is not new. Take court cases (your central forums in both the Fyssas and Kostopoulos cases). For centuries, trials have been *both* about discovering the 'truth' and about storytelling—that is, manipulating the judge/jury's emotions. In addition, what are your many videos and museum exhibitions if not channels for affective storytelling? What I'd like to determine is your relationship to storytelling as a 'tool of post-truth'. Is its (over)use a threatening solvent of our 'continuous construction' of a 'common' truth?

EW: We work with an understanding of aesthetics as a multi-layered concept that starts with the meaning of the term in ancient Greek: that which renders itself perceptible, which includes the capacity of the human to sense, register, remember, (and erase) 'trace' and then communicate that trace to others. This communication, and its reading, occurs via the media that carry it. Whether the medium is voice, film, photo-sensitive sensors, or a material surface like plants, paper, or silicon, the traces that are conveyed then ultimately impress themselves on our minds.

What kind of events leave a stronger trace? Ones with greater aesthetic power. A forensics without aesthetics is a contradiction; nothing would register or be conserved without aesthetics. Forensics, then, is an aesthetic practice. Thus, we work under the notion that aesthetics are useful for relating usually incompatible groups and practices; they are a key aspect of our efforts to align disparate communities. Further, we operate with the belief that the truth must always be staged and performed. This is the classic question of rhetoric: it is the job of every orator to communicate an *energeia*, to develop their capacity to mobilize in their listeners' minds an entire reality using only the power of words.

Drawing on this tradition, we understand that there is not an oppositional binary between factual 'truth claims' on the one hand and aestheticized, emotional speech on the other. There are no statements that are simply affective nor any that are purely objective and scientific. Affect, or emotion, is always, always already part of any presentation of facts. The question is how intelligently and creatively we can entangle them together.

In our 'post-truth environment', there is often an imbalance between the affect a statement is meant to convey and its evidentiary value—skewed largely towards excessive emotion and a paucity of fact. Today's 'dark epistemology' operates in two stages. First, it destroys the capacity for evaluating statements by saying, 'There is no clear way to ascertain the facts'. Next, it says, 'Because there is no way to evaluate facts, it is only through the power of rhetoric and emotion that we will determine what is true.' Here the old tools of fascism appear through the new. Such a political theology operates via the charisma of its leader: the word serves as both the truth and the law. This is our present reality and it is a very dangerous one.

In response to such an environment, a practice like ours mobilizes both epistemic and aesthetic elements. We try to achieve a balance in our statements by making sure that they are both responsible to the act of verification and that they will be heard, registered, and become political. Like any technological tool, aesthetics must be used with care—but we cannot set this tool aside. To simply find a fact is not enough: you need to aesthetically mobilize it to have any tangible effect.

SL: Counterintuitively, I think our investigations in Greece are two of our driest cases, our most technical. What I mean is that while the material we are using has profound emotional impact, we consciously didn't want to focus on the affective side of the events. This is because, from the outset, we knew that the evidence we were preparing would intervene in an open legal process, one that has its own set of evidentiary codes and performative rituals. By operating in legal processes and a political context that is itself already affectively charged, we made a conscious decision to stress the evidentiary value of the material we were handed. In both cases, we collected and arranged audiovisual and testimonial material to piece together as comprehensive a narrative as possible. We ultimately posed a set of questions, and created the space for the legal team to amplify them, underlining the necessity for the court, the state investigator, and civil society to look for the answers themselves. That is to say, we were quite stingy in the final assertions we made. We left most of the performative, affective labor to the legal team.

Still, when people here in Greece watch the video from the Fyssas investigation, they are often more affectively activated than they are taken by the evidentiary element. They say, 'It's a very sad but powerful piece, thank you for showing us'. We did everything we could to foreground the evidence and avoid putting an additional emotional load, but given the nature of the material, how engrained this murder and the violence of Golden Dawn are in the Greek imaginary, and how obscure the events of the night of the September 17–18, 2013 had been until recently, we could only avoid its affective power so much. Like with every piece of work, our investigations take on their own afterlives, and this is something we are aware of as aesthetic practitioners.

AS: To close: Have there been other specific lessons that you've learned from Greece? From the relationship you describe between the singular and the universal—what have the specific realities of Greece taught you about Forensic Architecture's work elsewhere in the world?

SL: One thing that became apparent to me during the course of our work in Greece has been the importance of a more situated approach to conducting investigations. I have seen firsthand the value of conducting part of the fieldwork ourselves, always in cooperation with local actors, as we have been doing for a while in places like Israel/Palestine. We make sure to include the individuals and collectives who have been directly affected by the realities of living in a particular place, and have thus gained unique perspectives and knowledge into the events we are investigating.

At the same time, we have to acknowledge that when we work in a place, we are always only ever 'here-ish'. Across all of our investigations, we find traces of previous cases that we have worked on: prisons and bombardments in Syria are inextricably linked to deaths in the Aegean, or to a burning tower in London. These entanglements are exaggerated in Greece, considering the country's position on the edge of the EU and lying at the nexus of so many movements and histories. Greece is both a crossroads and a buffer at the same time.

EW: Look at the case of Zak: An LGBTQ activist is beaten to death while the people of the city stand and watch. Then the police come, kick him, handcuff him, and later, he tragically dies. This entire sequence is a demonstration of the collapse of the social bonds that tie us together. In a short span of time, in the middle of the day, in the center of Athens, we witness an utter failure of the commons. We can say that the police are to blame for neglecting their role of protecting the city's

citizens—but it's not only the police. It's also the many people who stood passively during the event and who continue to refuse to reveal the identities of key witnesses.

Such an incident strongly reflects the state of a society, which makes it of vital importance to reconstruct what happened just before the beatings. As I speak, Zak's story is still one where we don't know crucial details; there is a black hole in the center. We do not have a clear picture of the last moments of the life of Zak Kostopoulos. Why did he have to run and seek protection in a shop? Why did people mistake him as a perpetrator, rather than as a victim? Why didn't they see he needed help? We must find out if his identity was known to his assailants (and known to those who did nothing) and whether they attacked him because of it.

We came to Athens in response to the requests of Zak's brother and local activists, but once more, we find an example of the molecular level of history, the charge contained in an instant. Through such moments, we glimpse longer and deeper strands of history. In this case, I believe that the short stretch of time in which Zak was killed is one of the most important in contemporary Greek politics.

Despite such failures, as I come into closer contact with people living in Greece, I have immense admiration for their energy. This is in evidence not only through the young and brilliant Greek-speaking members of Forensic Architecture—my three colleagues interviewed here—but the larger circle of activists, human rights groups, social movements, and anarchist collectives we have collaborated with. I've rarely seen elsewhere such political commitment as I do in some segments of Greek society.

Greece is one frontier of Europe—not only in terms of serving as a gateway for migration but also by being at the forefront of understanding contemporary democracy and its relation to institutions like the EU. The country's energy is typical of frontier societies, since I find many parallels with Palestine. This is what makes Greece an incredibly interesting place to me right now: it is one of the greatest labs in the world for seeing what's possible and what political futures could be imagined. In Greece, we find radical young thinkers, committed politically, working along the borders to help migrants against xenophobic pushback. There is a whole generation of young activists here that want to build another way of resistance and a new way of exercising their politics. We see the proliferation of civil society as well as a wonderful anarchist culture. Some of the political parties' ideas are influential across the Continent. It is a Greek moment.

A place in such throes produces new forms and ways of thinking that are tremendously inspiring. It also reminds me of Weimar Germany—with all its potential and promise

but with the danger of tragedy looming around the corner. Here, I hope it might end differently this time.

CV: It's a bit hard because Eyal speaks of a 'Greek moment' from a distance. I don't want to fall into the trap of trying to predict if Greece is going in the right or wrong direction, but what I can say is that Greece has been fundamentally shook—by a financial crisis, a European crisis, and the various political turns it has taken over the past ten years. Growing up here, I really felt like Greece was in stasis, that nothing would ever change. Our current, ongoing moment of rupture shook us, in both positive and negative ways, and deep things have surfaced as a result. This is a time in which we have to take a hard look at these fissures and figure out where we each stand.

With respect to our work here, I've learned to confront the very particular way that things happen in Greece. I've worked on similar police investigation cases in Germany, the Middle East, the US—each place has its own character. In Greece, the strongest feature relates to the accountability of the state, where incompetence is regularly used as an excuse. Authorities say, "it's taking so long," or "it didn't happen because people are slow," or "they didn't pay attention." Hiding behind incompetence is a political decision to be used when convenient; power relations lurk underneath such excuses. I know firsthand that if we want something to happen in Greece, we will make it happen.

One other aspect that struck me while working here was how Zak's and Pavlos' deaths were talked about by the people on the ground. In particular, some of the public response to our investigation on Zak's murder was horrific. There was certainly some inspiring solidarity on social media, but looking at the kind of comments posted in Greek vs. in English, it was embarrassing. Appalling, really; nothing to be proud of there. At the very least, our investigation brought such sentiments to the surface.

But if we are in the midst of a 'Greek moment', we must use it to recognize how much we can learn and how much further we have to go. We must use this moment to confront fundamental questions about who is and who is not considered Greek; who has or does not have the right to medical aid; who we consider a criminal and why. To have these conversations, we have to stop hiding behind our not-so-modernized state. We live in a country whose police have little accountability for their actions. That doesn't have to do with European ideals vs. Greekness—it has to do with decency and basic ethical grounds. We can defend our way of life while also becoming more self-reflective about the things that really need to change here.

SL: Is it a Greek moment? I would like to think that Greece has shown a more healthy response to this recent period of worldwide barbarism. But then again, the recent electoral results [the election of New Democracy's Kyriakos Mitsotakis on July 7, 2019] might prove me wrong.

Still, in Greece, there have been very strong movements that stood in solidarity with migrants and refugees and a persistent anti-fascist movement. Even while other efforts receded during the financial crisis, these two elements remained unwavering and provided a fertile ground for us when we entered. Indeed, the passionate social movements working in Greece are the only reason we were able to work here in the way we do. These tireless groups, dedicated teams of lawyers, and the brave families that didn't accept the initial, official narratives about the murders of their sons allowed us to carry out our investigations.

Beyond these two murders, look at the fact that the country's Neo-Nazi party, Golden Dawn, was just pushed out of parliament [since the July 2019 elections]. Activist groups worked on a daily basis to help achieve that result. We simply like to believe that we aligned ourselves with an existing, common struggle against fascism. For all its failings, Greek society's ability to surround its more precarious elements and support them has been essential.

Opposite:
Trina Reynolds-Tyler reconstructs the night after Harith Augustus was killed (July 14, 2018) in Chicago, the protests that followed his death, and the reaction of the city's police.
Image: Forensic Architecture, 2019

Symposium Selections

Cartographies of the Image in the 21st Century

Symposium Curatorial Note

Eduardo Cadava

The following texts explore the innumerable mediums and forms in which the image appears today: its role and place within the areas of forensics and surveillance, informatics and weaponry, electronic fields of weaponized data, social media and digital platforms, computer vision and artificial intelligence, cinema and the technical media, algorithms of vision and perception, climate and human rights contexts, classificatory schemas of all kinds, and any number of heterogeneous and often fragmentary forms. They ask us to think about the changing status of images today and in the future as an urgent question rather than as something that we understand.

This is a Benjaminian recommendation: Suggesting that there can be no reading of an image that does not expose us to a danger, Benjamin warns us of the danger of believing that we have seen or understood an image. We might even say that the only image that could really be an image would be the one that shows its impossibility, its disappearance and destruction, its ruin. The image is only an image, in other words, when it is perhaps not one, when it says "there is no image." This possibility is inscribed, like a kind of secret, in the title *For Ever More Images?* with a question mark, which, in English, can suggest: i) "forever more images," as in, "there will always be more images," but the question mark allows for the possibility that there will be a time when there are no more images, or something other than images; and ii) "for ever more images," as in "all of this is for ever more images," in the service of producing more images, always, but again the question mark unsettles this reading, too. To formalize the two possibilities: "there will be (no) more images." In other words, simultaneously, there will be more images and there will be no more images.

As Siegfried Kracauer put it in his 1927 essay "Photography," writing in an almost prophetic mode since so much of what he says belongs to what is most central to today's debates about the proliferation and politics of images: "The aim of the illustrated newspapers is the complete reproduction of the world accessible to the photographic apparatus; they record the spatial outlines of people, conditions, and events from every possible perspective. Their method corresponds to that of the weekly newsreel, which is nothing but a collection of photographs, whereas an authentic film employs photography merely as a means. Never before has an age been so informed about itself, if being informed means having an image of objects that resembles them in a photographic sense. Most of the images in the illustrated magazines are topical photographs that, as such, refer to existing objects. The reproductions are thus basically signs that may remind one of the original object that was supposed to

be understood…In reality, however, the weekly photographic ration does not intend at all to refer to these objects or ur-images. If it were offering itself as an aid to memory, then memory would have to determine the selection. But the flood of photos sweeps away the dams of memory. The assault of this mass of images is so powerful that it threatens to destroy the potentially existing awareness of crucial traits…In the illustrated magazines people see the very world that the illustrated magazines prevent them from perceiving. The spatial continuum from the camera's perspective predominates the spatial appearance of the perceived object; the likeness that the image bears to it effaces the contours of the object's 'history'. Never before has a period known so little about itself. In the hands of the ruling society, the invention of illustrated magazines is one of the most powerful means of organizing a strike against understanding…the blizzard of photographs betrays an indifference toward what the things mean. It would not have to be this way; but…the American illustrated magazines—which the publications of other countries emulate to a large degree—equate the world with the quintessence of the photographs. This equation is not made without good reason. For the world itself has taken on a 'photographic face'; it can be photographed because it strives to be completely reducible to the spatial continuum that yields to snapshots…What the photographs by their sheer accumulation attempt to banish is the recollection of death, which is part and parcel of every memory-image. In the illustrated magazines the world has become a photographable present, and the photographed present has been entirely eternalized. Seemingly ripped from the clutch of death, in reality it has succumbed to it all the more."

It is because the illustrated magazines and newspapers work to reproduce and present the entirety of the world through images that the history of the world is in danger of becoming a rapidly expanding collection of images that, although leaving its truth behind, is nevertheless easily retrievable. History now names a movement of potentially boundless transmission that enables us to see what is happening everywhere in the world. To say that it is both constituted and effaced through the images that compose this movement means that the transmission of information in the form of photographs and film—and today in the form of all the media in which images are produced and circulated—simultaneously leads us both toward and away from history. In other words, if there has never been an age "so informed about itself"—with so many images of itself—there has at the same time never been an age that has "known so little about itself." Grasping the world as an image does not mean having the world at hand. The world cannot be equated with the "quintessence" of photographs. The flood or blizzard of photographs "betrays an indifference toward what the things mean" and thereby reveals the historical blinding or amnesia at the heart of photographic technicalization.

Substituting for the object and its history, the image represents a trait of the world that it at the same time withdraws from the field of perception. The event that gives the age of technological reproducibility its signature is the event of this withdrawal of sense.

This is why, perhaps now more than ever, we might remember László Moholy-Nagy's claim from 1932: "The illiteracy of the future will be ignorance not of reading or writing, but of photography." He identifies visual literacy with a kind of activism, as if the better readers we become the more able we are to engage the world, the more responsibly we can live in it. Now, in a nod to the context in which we find ourselves, I wish to close these introductory remarks with a citation that I've always loved from Elytis' *Axion Esti*, not only because it recalls the biblical *fiat lux* ("let there be light")—which I have always considered a photographic event—but also because, bringing together the past and the present, evoking the light and sun without which photography could never exist, it demands that we engage the world and that we identify reading with activism. Elytis writes: "IN THE BEGINNING the light And the first hour... It was the sun, its axis in me / many-rayed, whole, that was calling And / the One I really was, the One of many centuries ago / the One still verdant in the midst of fire, the One still tied to heaven / I could feel coming to bend / over my cradle / And his voice, like memory become the present, / assumed the voice of the trees, of the waves: / 'Your commandment', he said, 'is this world / and it is written in your entrails / Read and strive / and fight', he said / 'Each to his own weapons'."

If Moholy-Nagy identifies the illiteracy of the future with an illiteracy in relation to images, the symposium I organized, and at which the full versions of the following texts were presented, hoped to be a means of resisting this illiteracy in the name of a more activist and engaged citizenry, in which everyone would "Read and strive / and fight. Each to his own weapons." I like thinking that this symposium—and the texts and discussions that made it what it was—might inaugurate a different kind of armed resistance, one born from the force of visual literacy. I imagined it as a kind of training manual on how to read images today.

Future of the Future Image

Jean-Luc Nancy

1.

The *future*, which in Latin is the future infinitive of the verb "to be," draws its form from the past tense—*fui*, "I was," which shares its root with the Greek *phuô*, "to sprout, grow," as does *physis*, the word designating what we would call "nature": whence the words *physics*, *physical*, *physique*. This semantic constellation is concerned with what is available for us to observe: that which we can relate back to our experience and from which we can establish constants or laws. Just as the past has been, so the future will be. The realities contained in both have been, or will be, present in times whose distance can be measured, more or less, from the reference point of our present.

The images in the Chauvet Cave were painted about 30,000 years before our time. If I say that in 30,000 or even one thousand years we will produce—on Mars, say—images comparable to the ones at Chauvet, I cannot show them. That is not because they have not yet taken place. It is not because their motivations, aims, and techniques have yet to be discovered. I could develop hypotheses about potential situations and present them by means of information drawn from the present and current "trends"—as they say—in iconology. But I would not say anything of the paintings themselves because, to put it much more simply, they are not there…

The idea of the future is the idea of an anticipated presence, just as the idea of the past is the idea of a retrospective presence. I can imagine myself a painter in Chauvet, with his materials and his tools, his society; I can imagine the patterns and the purposes guiding his activities. I can talk about magic, terror, sacred pleasure, conventions, perceptions: but this imagined scene is nonetheless still imaginary. It is not contemporaneous with the art on the wall. Rather, it projects onto it what I endeavor to extrapolate from my experience. By means of the same sort of allegory, I can endeavor to imagine the images of the future. I can dream up an array of characteristics and I—I myself, or rather, artists with the appropriate technical capabilities—can put together a sneak preview. I would say that these images will be pell-mell, or perhaps as a result of deliberate choices, interactive, participatory, involving procedures of random combination, emerging, fleeing, configurable, stochastic, organic, multisensory, multidimensional, algorithmic. This bric-a-brac is drawn from the work of today's art practitioners and the suggestions contained therein. Nothing on this list is unexpected; everything is possible.

Generally speaking, what is designated as "future"—the "city of the future," the "airplane of the future"—is a combination or an extension of

the possibilities that already exist, by definition. Just as in interpreting images of the past I am limited by the possibilities available in the present, in projecting future images I am limited to these impoverished "images of the future" that are all over advertising.

2.

The image concerns an absent reality. It presents the absence precisely as such, with its distance, uncertainty, fragility, and the searching that accompanies it—while at the same time attesting to its reality, to the presence at the core of the absence. The image is the presence of the absence—not the representation of something that would be present elsewhere (something lost, something hidden), but the presentation of the fact that there are lost or hidden realities that, at their core, are indeed real.

Thus, I can look at the Chauvet lions or a purportedly futuristic image entitled "bacteria," and in both cases I am confronted with a presence whose absence is made apparent to me and which is thus valid as this absence.

The value of the absence is not one value amongst others. It is value itself: the fact of being of value—or being meaningful, which is the same thing—or, perhaps more precisely, the act of being of value, since the production of value only takes place on the condition of a distance through which the value may take place. The stone I grab to crack open a shell does not have any value: it has a use. But the image or the idea of utility and consequently of *utilization* offers value in its pure state.

Which is to say, value that is available *for*—both for someone and for some use, for someone's use.

Plato's Idea is an image. It is the image of the perceptible thing, an image whose use, or usefulness, is of a specific order: I speak, of course, of the utility of the truth—which is good for nothing if not for endowing existence in general with meaning or value. As an image, the idea participates in the sensible world in the form of beauty. Beauty—that of a body, for example—awakens desire, which is to say the impetus towards the very fact of giving or receiving something of meaning or value.

3.

There are thus two possibilities: either an image opens out such that it arouses the desire for a sense unavailable to the senses, or it is not an image. In which case, it would be a signal, a representation, a means of recognition or identification.

Of course, there can be different ways of relating to the image: one might maintain that just seeing it or contemplating it would already be accessing its meaning or value. Then it would be what is called a sacred image or an icon. Or, conversely, one might develop modes of seeing or contemplating that invite reflection on that very thing that is to be accessed

—a thought of the image as such: as the bearer of an absence from which it is distinct. These differences also correspond to important differences in the way that the image is created. Giotto's painting, for example, marks a significant departure from what, up until his work, had been sustaining the iconic function.

Just as we do not know what conception of images resulted in the Chauvet paintings, we cannot know if what seems to us today to announce the future order of images partakes of a system of meaning or value analogous to the one that I have described or if it presents something else entirely.

Obviously, these sorts of speculations immediately run up against the impossibility of conceiving of the future within the framework I have just described. The future is not absent in the manner of a lost or hidden presence. It quite simply is not. Which is moreover why the images of the future (which are, of course, not future images) are never anything more than extrapolations of existing images and point not towards an absent presence but towards a pure and simple non-being. This can be easily verified by consulting the images of outdated science fiction, which have never corresponded to the realities they supposedly anticipated.

4.

Nonetheless, it may be that the entire organizational structure to which I just referred is today being displaced by something else. If, in the nineteenth century, it was impossible to imagine the form that the locomotives of the twentieth century would take, today the forms of the present are in the process of programming the forms of tomorrow—whether it be a question of trains, buildings, or so many other components of our ecosystem.

The word "program" should be taken in the full sense of the term. It is indeed a question of tracing out in advance. The aim, in sum, is to sketch out the image of tomorrow. Which implies that the reality of tomorrow is already contained, waiting—and in some cases not even waiting—within the reality of today. The presence of tomorrow will thus still be, in more ways than one, that of today, and it is on the continuity and the self-anticipation of one and the same process that the images of tomorrow can be sketched out, just as the ones of today can rightly claim to already be, if not future images, at least images of a certain future.

Of a future which in truth would assume all of its density as a projected present and lose all of the uncertainty of not yet having arrived. This sort of realization of the future results in the erasure of its ever unknown, ever impending arrival.

But then, the trend of the image of the future is to become the future image, which is to say, to self-destruct as image. Whether we imagine a train or a virus, a solar power station or its technicians, these images have been stripped of the possibility of presenting an absence because they

perpetually present something that relates neither to an absence nor to a presence—nor, therefore, to the arrival or departure of either—but to the continual programming of an ensemble increasingly unable to accommodate that which has not been programmed: what just happens.

The elimination of the possibility that something might just happen was for Derrida one of the traits of radical evil. One is justified in saying that in the present moment, the question of this eventuality must at least be posed. And this eventuality, as we have shown, would also eliminate the possibility of the image. Not the possibility of signaling and computer systems, nor that of methodical and didactic illustrations—but indeed the possibility of images.

5.

The future of the future image is therefore its negation. And, symmetrically, had we been present in Chauvet when the images were executed, perhaps we would not even form a notion of image: perhaps we, as artists' aids or members of their tribe, would be invested in an operation closely tied to the life of the group, to its relationships with the lions and other animals—be they relations of hunting or defense, terror or veneration. We would not be, or would not exactly be, in the image system but the icon one, or perhaps something different still—between the totem and the taboo.

There is something of a warning here with regard to the use of the term "image." All visions, representations, emblems, signs, and figures are not images—neither are emoticons images. The image, as I have suggested, is indissociable from the idea, which is to say, from meaning.

Translated by Liesl Yamaguchi

Did the "Anthropocene" Even Take Place. . .? Notes on an Image in Spielberg's *A.I.* (*Artificial Intelligence*)[1]

Tom Cohen

Before there were films, there was cinema; the flickering shadow play of fire and motion on lime-stone cave walls.
—Darran Anderson, *Imaginary Cities*

Cinema is the absolute simulacrum of absolute survival.
—Jacques Derrida, *Cinema and Its Ghosts*

1.

1

Cinematics, appearing as sheer technics before any writing and as a template of "consciousness" production, might well be termed the communal locus of free-standing "artificial intelligence"—running from the conjuring of animation and kinetic mimeticism on cave walls, torch-light waived over lines and marks, to cineplexes, digital totalization, and decoupling. The resultant hive-mind, now dwelling in portable screens, becomes inextricable from what is today mis-labeled the "Anthropocene"—which is to say, inextricable from the arcs, today, of extinction. "Today," that is, 2019 or so, when we witness, as if we were watching a movie, dissociated, tipping points pass, cascading feed-back loops trigger. This figure of passing "tipping points" is peculiar, since it could be said to disable any "arrow of time," which boomerangs and contracts, and instead of opening futures, focus on delaying the vortex. Once said tipping points are in the back mirror, as they are in the opening image examined, there emerges de facto a discrete politics of managed extinction, which it can be argued subtends the present. The inside story of *A.I.* is inseparable from this politics—digital totalitarianisms, "post-human" phantasms, species splits, geo-trash and escape logics (ex-terran colonies, "Mars"). In Walter Benjamin's idiom, a one-way street.

2.

2

Two imaginaries dominate this "today"—1. that of climate panic (and extinction logics); 2. that of A.I. (and escape-extinction logics). The two rarely overlap in our discourse, as if two sides of a Moebius strip which do not touch and appear immunized to the other as they accelerate beyond reversibility. There is what I would call an image

of image that seems to fuse these two and binds both climate chaos and autonomous A.I. to the arc of cinematics. It inhabits what may be called the elastic "shot" opening Steven Spielberg's *A.I.—Artificial Intelligence* (2001). It is a surprising image, since it seems to look back at the so-called "Anthropocene," or ourselves, and speak from or as the screen, from or as if cinematics itself. What would a *sentient screen* say to us, after all, we captives of the "Anthropocene," if it dissociated itself from us, or if the POV had transferred to the sentient machine or robot entirely? The "voice" of the opening shot turns out to be itself computer generated by figures of pure cinema without us—a Super Mecha called "the Specialist." These Super Mecha arrive long after the human extinction to retrieve the boybot David from the freeze of a sunken Coney Island. But more on that later.

3.

3

The image in question is sheerly kinetic, a shot of the raging sea alone, stretched out for a moment to accommodate a voice seeming to provide a narrative setting, a back-story, yet withholding key information from ourselves. He is reassuring, "god-like," straight out of British TV (Ben Kingsley), tele-marketed for white suburban middle-brows, so we assume whatever back story is evoked ("Those were the years...") ends well enough to have him as its reader. The voice mimes the missing logic of the term "Anthropocene," that it can only be spoken from long after our extinction, to become geologically readable. The entire relational artifice of voice to screen, and the who of the former, is in question. It references the era of "climate chaos" in retrospect, a given, keeping from us that it speaks from long after our extinction. The oceanic churn, generator of "life," precedes the human episode and supersedes it, spoken after we are gone and with no people in the frame. It precedes us and is there after us:

> *Those were the years after the ice caps had melted because of the greenhouse gases, and the oceans had risen to drown so many cities along all the shorelines of the world. Amsterdam, Venice, New York, forever lost. Millions of people were displaced, climate became chaotic. Hundreds of millions of people starved in poorer countries. Elsewhere a high degree of prosperity survived when most governments in the developed world introduced legal sanctions to strictly license pregnancies. Which is why robots, who were never hungry and did not consume resources beyond that of their first manufacture, were so essential an economic link in the chain mail of society.*

The last trope, "the chain mail of society," is cinematic: the linked chain (recall the closing of *Psycho*) evoking early celluloid bands, the mail oscillating between an informatrix network and the weight of the defensive role it serves, entrapping.

4.

4

The film tracks the emergence of a first autonomous A.I., David, a boybot adopted to replace a lost comatose son. In the perpetual uncanniness of David's face, adoption, "imprinting," and then abandonment like an unwanted pet—he is released into the fairy tale quest of becoming "a real boy," "unique," to be loved and returned to his "mommy" (Monica). The screen incessantly stages *allegories of cinema*, not through citations (primarily to Hitchcock) but in the escaped slave robots—marking, from the first introduction of the secretary Mecha, named Sheila, that machinery (and CGI) reside behind every screen specter or "face." As David is apprised that he is but a copy of a copy, he plunges, desolate, into New York Harbor for two thousand years during which the human extinction is now accomplished, warming seas reverted to a nuclear freeze for reasons not marked. It is the Super Mecha that re-animate David, of which the voice of the opening is a representative, "the Specialist," as Ben Kingsley's figure is named, presumably in what the ending stages as Monica's *de-extinction*. De-extinction—a reverse pre-inscription that at once apprehends that inducted into the screen, or wall, as extinct at the point it appears re-animated in the artefficed stream of recoded marks and mnemonic triggers. The Super Mecha appear as pure cinematic figures that now alter matter, download and replay memories, screen sets, conjure environments, and stage de-extinction fetes. Screens scrawl across their "faces" instantly, marked by neither race nor gender nor organs, and elongated digits conduct. One of the opening shot's implications, in double retrospect, is that "we" are similarly unaware of experiencing not animation but something like de-extincted in cinematic consciousness (which may be to say, so-called "consciousness" as such). *A.I.*, the odd title of the work becomes a proper name for its (first) speaker. It begins as two alphabetic initials then re-iterated, or unpacked, in caps (*A*rtificial *I*ntelligence), as if there were ever an un-artificial intelligence (uninscribed and programmed), as if there were ever an un-artificial mnemo-technic order. The opening screen posits a future-past that looks back on "climate chaos" as a given and bespeaks the rise of A.I., as and from cinema, in conjunction with it. The sentience of the text or screen evokes what Hitchcock implies by speaking of its "knowing too much"—a trope caricatured in the hologram appearance of the digitalized *Dr. Know* visit in the film.

5.

What occurs if *cinema* here regards itself and the communal *hive-mind* it generates from projected inscriptions as the fore-runner of autonomous or cognitive A.I.—indeed, from the cave walls onward? Cinema, instead of practicing *animation* as we assumed, all along instituted a sort of

extinction/de-extinction effect. *A.I.* may be termed the only technically correct "Anthropocene" cinema since it speaks from after our erasure. The term "Anthropocene" implies not only speaking from *after* Anthropos' own extinction but some eye arriving to confirm (and admire) the ruins—a replacement species, say, an alien visitor, or here, subversively, the Super Mecha. It, the Anthropocene imaginary, implies a projected Hegelian recognition to come that would legitimize, read, honor its ruins or disappearance, and read it as geological sediment. But the film *A.I.*, while staging this (the Super Mecha), does so on behalf of any screen, any film that we have ever contracted with, here decoupled from and turned as if toward us (no longer in the frame). Moreover, since this practice of extinction/de-extinction applies to cinematics from cave walls to the totalization of digital screens today, usurping public and private space, the screen also implies that the "Anthropocene" never took place as other than a "fairy tale." The fairy tale is that there would be a future witness and confirmer to the extinction. But that is not what extinctions do—it is what filmloops defer and market.

5

6.

Thus *A.I.*, the film, tracks a first robot's emergence to autonomous or sovereign consciousness, a "fairy tale" quest triggered after the boybot David is first "imprinted" by his organic "mother," only to be then abandoned on the roadside like an unwanted pet. Throughout, *A.I.* identifies the robot generations with allegories of cinema—the bot Sheila's decoupled "face" from the machinal grid underlying it captures the dilemma of every screen animation, the mirage of face, the situation of the director, or viewer: what the opening voice discretely totalizes. The Flesh Fair's director-barker and the bot dismemberments for the audience mimic demand for screen violence and torn bodies; the visit to Dr. Know; Gigolo Joe, whose prostitution mimes Hollywood. The Super Mecha outline even precedes David's first appearance, inflecting that it pre-inhabits all of the screen figurations and replays. Spielberg contributes two tropes to cinematic theorizations in the era of climate extinctions: the identification of A.I. with cinema as its precursor and the replacement of earlier tropes of animation and spectrality with de-extinction. As if to mark: it was over from the beginning to the extent that animation occurs over this decoupled redoubling in advance, and any "Anthropocene" a chapter, series, or phantom within its arc. "Cinema," in this sense, goes back to the cave walls, where marks and lines put in motion by torches coalesced the hive-mind effect of shared inscriptions, perceptual programming, the ruse of mimesis, animation in the contest of the hunt. Before any alphabeticism or pictographies, the specters on

6

the wall or screen would invariably be the first extincted (megafauna), without "our" portraitures. *Holocene Park*.

7.

7

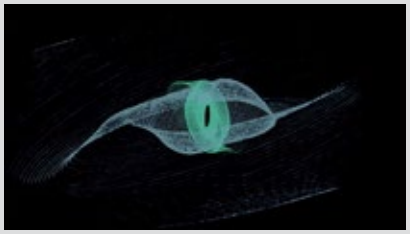
When David returns to Dr. Hobby's clinic in inundated Manhattan, he is looking to be made "real" (a "real boy") so his "mommy" will take him back. But there he encounters his identical double, surrounded by books and reading. He beheads him in a rage ("I am unique"!), only to then find a David-factory disclosing him as not even a copy of a copy. Desolate, he pitches into the sea—where after 2,000 years, the Super Mecha arrive and defrost and re-animate him. He, David, is an "original" from the time of the humans, now extinct (presumably by whatever caused the nuclear winter). What *A.I.* conjures is a cinema without us, pure cinema. David's quest to become "real" masks *cinema's* own will here—to become, to control "the real." If any "Anthropocene" can only be confirmed after it is long gone, to appear as a geological mark, it must be read by another set of eyes after that disappearance—or seem to be, perpetually, by cinema's archival survival. Gigolo Joe complains to David that "they" (Orga) hate "us" (Mecha) because after they are gone, "we" alone will be left. Later, "the Specialist" tells the analog and human-appearing David that he is the archive of the human period. The Super Mecha represent what Derrida, who avoided cinema, nonetheless called the medium: "the absolute simulacrum of absolute survival"—wherein the first "absolute" must be heard to annul or withdraw the second as sheer phantom ("absolute survival").[2] Thus, for Derrida, "the future belongs to ghosts."

8.

8

What, though, does it mean to have said that *A.I.* is at once the only literally "Anthropocene" film and that it discloses that there never was an "Anthropocene" as other than an episode or serial program? The fairy tale in the filmloop would be that any eyes arrive to grant recognition and continuity. Again, that is not what extinction does. *A.I.* conjures in the Super Mecha a pure cinema without people—without mouths or eyes, skin color, apparent gender, pure cin-animation. Regarding us in the opening shot, it chooses, as David does with Monica, not to tell us, but rather keep up the anaesthetizing fairy tale. There is a reason we witness today's shift beyond tipping points and reversibility, paralyzed, spellbound, as if we were watching a movie. At this point, the voice bifurcates and assumes the lethal position of corporate Hollywood, the guarantor and agent at once of the "Anthropocene" snuff-film—entrancing mass consciousness with extinction narratives, with the fairy tale of the Anthropocene.

9.



9

A.I. ups the stakes by citing Hitchcock's *Vertigo* through a musical motif in the scene where David is abandoned like an unwanted pet. One may place a marker here, as *A.I.* goes hyper, and Spielberg makes his move to supersede Hitchcock's *Vertigo*, or update it digitally—at which point the film passes from a network of doubling and inescapable circles to a vortex. It might seem a suicidal or hubristic move (as everyone knows, in the Anglo canon, no one overleaps *Vertigo*). The closest thing we have for a signature of cinema, of its backlooping mnemotechnic dilemma, is the vertigo-swirl or biomorphic coil emerging from the blonde woman's eye in that celebrated film's credit sequence: expanding from that graphic backlooping of a mnemonic coil, itself implanted, which then exceeds the eye and, exported into cosmic formations, mimes the black hole of a galactic eye woven in Moebius bands. If the vertigo *swirl* is a signature for "cinematic" sentience, projected, edited, implanted, a circuit in which the past would be inscribed to generate a "present" that cannot escape the accelerating filmloop of artifice, it recalls the logics of the *vortex* today and the super-storms. One might suspect that this cinematic vortex were exported into the biosphere itself, and back, a bi-polar vortex "today." Spielberg's pop contribution to the theoretical vocabulary of cinema is not about spectrality or mourning but its inescapable practice of extinction/de-extinction—what he rehearsed on his CGI dinosaurs in *Jurassic Park*…

If that were the experience by digital consciousness of itself, there is no wonder that we are paralyzed by contemporary events of mass extinction as if it were all happening on a screen, decoupled. "Cinema" was not the recorder and archivist of the Anthropocene, as is suggested of the still analog-like David himself, but both routine agency and banal guarantor of the extinction which the "Anthropocene" hoped would give it dramatic definition—enough, at least, to attract the confirming gaze of those who stumble on the ruins. The sentient screen of the opening image, having usurped sovereign consciousness, is confronted with how mechanically the human viewers collectively respond, bonding with blond boy faces and pop psychologies, and decides not to tell us what it knows; there is no point. Rather, it reloops the fairy tale that there was an Anthropocene at all—"those were the years…"

NOTES

1. These notes are fragments of a longer monograph, a gallery of readings of specific shots or images that complicate the agency of cinema (and photography) in the arc of extinction that the term "Anthropocene" implies.
2. Jacques Derrida, "Cinema and its Ghosts," translation by Helen Regueiro Elam (unpublished) of "La cinéma et ses fantômes," *Cahiers du cinema* 556 (2001), 75–85.

IMAGES

1. A recent hurricane photographed from outer space.

2-4. Stills from Steven Spielberg's *A.I.* (*Artificial Intelligence*), 2001.

5. Cropped image taken from the cover of Marc Azéma, *La Préhistoire du cinéma: Origines paléolithiques de la narration graphique et du cinématographe*, Paris: Errance, 2011.

6-9. Stills from Steven Spielberg's *A.I.* (*Artificial Intelligence*), 2001.

Seeing in the Dark[1]

Rosalind Morris

> *Imagine a solid mass of rock tilted… like a fat, 1,200-page dictionary lying at an angle. The gold bearing reef would be thinner than a single page, and the amount of gold contained therein would hardly cover a couple of commas in the entire book. It is the miner's job to bring out that single page—but his job is made harder because the page has been twisted and torn by nature's forces, and pieces of it may have been thrust between other leaves of the book.*[2]

This word-image appears in a little volume published in the 1960s by the Public Relations Department of the Chamber of Mines in South Africa. The Chamber was the representative body of the finance houses and the mining companies. Formed only one year after the discovery of gold on the Witwatersrand (in 1887), its purpose was to pursue industry interests with the government and mitigate competition between companies over wages. The word-image of the earth-as-book might thus be understood as a projection of the great bookmakers of the extractivist era, bookmaker being, in English, the term for a gambler. Speculative capital is at the origin of this story, and functions as the locus of a gaze—the condition of possibility—of a new order of visibilities.

In the Chamber's image of the earth as a great book, the comma signifies the problem of mediation. It mediates, without resolving, two opposites, namely plenitude and dispersion. After the initial discovery of gold, diggers realized that there was much more gold to be had deep beneath the surface: unprecedented reserves of gold, but widely distributed and deeply embedded, bound to conglomerate rock. Separating gold from rock became the great technological challenge of the era. The comma in this image is therefore not only the signifier of paucity, but also the mark of separation, as it is in grammar, where it marks the separation and apposition between the smallest units of a sentence. Further, it is a directive: the point at which the text assumes its most immediately performative dimension. 'Breath,' says the comma.

Gold had been extracted, processed and traded in Southern Africa for centuries. The residual but abandoned workings were strewn across the landscape: the marks of vanished mineralogical cultures and their own inscriptions on the land that colonialism would overwrite. But they were not always legible as such, and, indeed, their illegibility constituted a form

of invisibility. Jacques Derrida's (early) claim that arche-writing is everywhere to be found where human beings mark, narrate and recognize the land they inhabit might be borne in mind here. Recall his argument with Claude Lévi-Strauss's assertion that writing is correlated with empire and that there are societies without writing. In my mind, the relation between these two orders of inscription is not so much oppositional as nested and iterative, but the imperial over-writing of the land is an indisputable fact of colonial history, whether or not one believes that prior narrations and markings of the world can be thought of as writing…

Let me hazard a formula for the difference: the image of writing precedes and, at the same time, constitutes a necessary precondition of writing's (in the narrow sense) actualization as the line which can disappear into its signified, and become invisible *without* losing its capacity to reappear. It is therefore always a technique of memory, and an anticipation of future recall. I want to explore this claim with reference to images that emerge from, and are addressed to, the problem of landscape and seeing in the dark.

The mine shaft—a puncture mark or wound in the earth—has its forms of visibility, for those who know how to read them. But the mine shaft also enjoys a privileged status as a figure for the task of making visible. It is like the cave of Plato's allegory, or the catacomb of Félix Nadar's photographic experimentations with darkness. This is because, underground, beyond the (day)light and its shadows, the question of representation is not simply one of producing likenesses but of generating the conditions of possibility for seeing—*both visibility and legibility, both illumination and signification*. It is a matter of engaging blindness and its limits. Consider, in this context, Nadar's memoir of his efforts to make photographs in the Parisian catacombs: "The picturesque is quickly exhausted here, the points of view are not varied, and even if we always spun ourselves around we would not see anything different."[3] Nadar wanted to "penetrate, to reveal the mysteries of the deepest, the most secret caverns" but not to see it himself. This was, he implied, impossible. So, he asked his lens "to do without daylight in order to 'render' to us what 'it sees' with us."[4] His remarks can help us understand something of the nature of image-making in and of the mines—at the point where the line loses its capacity to constitute the elemental unit of landscape, but where it persists as the remainder of that performative inscription made by extractivist capitalism, the word-image of the earth-book mediated by the comma.

The desire to see in the dark, by means of a radical prosthesis, to see from within the grave, as though from the perspective of the dead—or the blind—expresses something of the dream that animates Jacques Derrida's book, *Memoirs of the Blind*. In that text, written to accompany a show of drawings at the Louvre, which, according to its curators, "speaks of blind men and visionaries," Derrida describes a moment in which he writes notes to record his thoughts and dreams in the night, the very dead of night. He

fumbles at his bedside, finds a pen, and, remembering the shape of the letters that have become second-nature to him, inscribes his dream without turning on his lamp. Derrida, the philosopher who writes non-philosophically about philosophy's blind spots, asks himself the following question:

> *What happens when one writes without seeing? A hand of the blind ventures forth alone or disconnected, in a poorly delimited space; it feels its way, it gropes, it caresses as much as it inscribes, trusting in the memory of signs and supplementing sight. It is as if a lidless eye had opened at the tip of the fingers, as if one eye too many had just grown right next to the nail, a single eye, the eye of a Cyclops or a one-eyed man. This eye guides the tracing or outline (tracé); it is a miner's lamp at the point of writing, a curious and vigilant substitute, the prosthesis of a seer who is himself invisible.*[5]

As he writes, Derrida is looking, in his mind's eye, at the images of blind men in which the hand, reaching out, imploring, feeling its way, dominates the scene. The blind man is a figure of the artist, insofar as the artist draws of and upon the memory of the world from which he extracts or abstracts its trait, its line: "If to draw a blind man is first of all to show hands, it is in order to draw attention to *what one draws with the help of that which one draws*, the body proper [*corps proper*] as an instrument, the drawer of the drawing, the hand of the handiwork, or the manipulations, of the maneuvers and manners, the play or work of the hand—drawing as *surgery*."[6] But it is less surgery than a laying on of the hands that is summoned by Derrida's own comma-enabled gesture of apposition, which he makes by virtue of etymology, and classical nostalgia—*chirugerie*, as the translators of the volume indicate, comes from the Greek word, *kheir*, meaning hand. Still, we might ask: Why does he invoke this figure of the surgeon to iconicize handiwork? Why not the miner, he who wears a headlamp as prosthesis, and who is thereby enabled to see in the dark?

In the passage I've just cited, Derrida renders the miner as a double for the Cyclops, the one-eyed divine beast who, in Hesiod's rendition of the myth, is associated with the forge. The Cyclops is always duped and defeated by being blinded. What Derrida calls lidlessness—the condition of not being able to keep the light out, is also and at the same time, the condition of not being able to let it in. Seeing depends on difference. And this is why he describes reading as an act in which one "listens in watching."[7] The miner, with his lamp, is, of course, looking, seeing, discerning. Which is to say, reading. He is reading the earth for the signs of gold. He is following the line.

In the cave, and in the mine, the eye is useless without a lamp. Blindness here is not the loss of an eye but of a light. The image of the Cyclops perhaps blinds us to this fact, that this light is not the organ of receptivity but the origin and order of visibility. It comes from behind, as Luce Irigaray reminds us in her rereading of Plato's parable of the cave. And what is

behind for the miners, in both industrial and postindustrial contexts, is the long history of gold's fetishization, and the reading of the earth as a vast reserve of value which, nonetheless, is dispersed and thus requires both knowledge and labor. Plato's parable is a story of knowledge without labor. Perhaps Derrida's is as well. Even with a lamp, or a torch, one only sees if one knows how to look.

The fire in Plato's cave has been lit by freemen whose location behind the fettered spectators renders them as the spatial analogs of ancestors for the enslaved.[8] In Plato's Greek, the fire is itself in the image of the sun. In the gold mines, it is the idea that gold is the ultimate means to settle debt that casts its light and its shadow underground. Sometimes, however, the fantasy of identity fails. Sometimes, it is not possible to sustain the illusion that the gaze and the look, the light and the eye are one. Sometimes the fact of difference shows itself. Could one make an image in the gap between the two? Could this image expose the non-identity of luminous power and the penumbral world? As Derrida tells us, the artist draws in and from memory and this memory is mediated by an unconscious—the very unconscious that produces the illusion of identity between light and eye in the figure of the Cyclops. The miner knows the difference, though, knows that his eye is not the light, that he is captured by the gaze but does not possess it. The artist must also understand this truth, his blindness.

NOTES

1. The text presented here is a truncated version of a paper given at the "Cartographies of the Image in the 21st Century" symposium on April 14, 2019. See "Symposium Abstracts" below for full details.
2. Transvaal Chamber of Mines, *Gold in South Africa* (Johannesburg, 1969), 10B, quoted in Francis Wilson, *Labour in the South African Gold Mines,* Cambridge: Cambridge University Press, 1972, 20.
3. Félix Nadar, "Subterranean Paris," in *When I Was a Photographer*, pp.75–94, translated by Eduardo Cadava and Liana Theodoratou, Cambridge, MA: MIT Press, 2015 [1900], 83.
4. Nadar, *op. cit.*, 86.
5. Jacques Derrida, *Memoirs of the Blind: The Self-Portrait and Other Ruins*, translated by Pascale-Anne Brault and Michael Naas, Chicago and London: University of Chicago Press, 1993 [1991], 3.
6. Derrida, *op. cit.*, 4–5.
7. Derrida, *op. cit.*, 2.
8. Luce Irigaray, *Speculum of the Other Woman*, translated by Gillian C. Gill, Ithaca: Cornell University Press, 1985 [1982], 250.

IMAGE

Rosalind Morris and Ebrahim Hajee. Still from *We are Zama Zama*.

Presence, Abstracted[1]

Zahid Chaudhary

Photography seems, on the surface, to share some privileged relationship to presence, of the being-here of the object captured in a past instant, and made available as image in the viewer's field of vision. This putative privileged relation between the photographic image and the object photographed, in part, makes photography amenable to instrumental uses: identification of people, surveys of land, evidence of crimes, and the like. And yet, photography itself conjures abstraction, not only with respect to the self-conscious abstract photographic practices of some art photography, but also with respect to the most instrumental and doggedly "realist" uses of photography itself. Studies of photography perennially revisit the problem of the exact relationship between a photograph and the object it pictures. Every history of photography contends with this relationship, and as each account seeks to correct the one preceding it, it reorients the relationship between the photograph and the world. Can photography be said to be a variant of language? Is its indexical truth a source of certainty or doubt? Does its situation among varying representational and cultural practices render it another form of representation, or can it be said to be fundamentally non-representational and abstract? George Baker has pointed to the tendency of the discourse on photography to shuttle between binarisms. Art or science? Truth or falsehood? Stasis or narrative? To these we can add Kaja Silverman's recent contribution—evidence or disclosure? (She picks disclosure, relegating the evidential to vulgar instrumentalism).

Such binary thinking across opposed terms rarely posits a continuum between the oppositions or any other intermixing of terms, which suggests some epistemological anxiety about photography itself. Unknowability has certainly haunted photography since its inception, and it might well be related to these oppositional forms of understanding photography. This unknowability takes several forms, from belabored points about photography's relationship to death (the very limit of knowledge) to the spark of contingency introduced to the lens, which always sees more than the photographer intended, or recent pronouncements about the uncertain nature of photographic representation given its digital coding. Unknowability not only renders all photographs abstract in a very general sense, but also fuels the sense of epistemological mastery produced by thinking in binary opposites. The fact that the photograph records a trace of an object that is not itself present, and therefore each photographic trace is simultaneously also an index of an erasure, must be taken as a point of departure—as an assumption—rather than a conclusion.

A paradoxical understanding of the indexical trace as both absence and presence holds the key to understanding photographic abstraction.

Derived from the Latin verb *abstrahere*, "to draw away," abstraction can be leveled as an accusation or praise: as accusation, indicating maneuvers of distancing or even evasion, or as praise, with this drawing away from the particular signaling an expansiveness, a peek into the capacious nature even of a single figure. While the high modernist emphasis on pure form is often read as a turn away from the world, the inheritors of the global modernist traditions position abstraction very differently. For example, the sculptures of African-American artist Senga Nengudi, made from darkly colored, stretched panty-hose fabric, evoke a gendered experience of race whose visceral nature refuses a single name or reference. In her work, if race or femininity hover as figures uncertainly at the edge of our conceptual grasp, coming together but also coming apart as concepts, it is due to the nature of Nengudi's abstraction. We can counterpoise to her practice the strange abstraction of advertising images, where the model pictured does not designate an individual but a type, a shared fantasy, or a wish. Very quickly we can see even in these distinct forms of abstraction that "to abstract" does not mean to suspend referentiality but to engage it.

For high modernists, abstraction was tinged with a certain reflexivity: the painted form was both itself in its purity and also the surface upon which forms could be painted at all. As Rosalind Krauss put it, for modernist painters "this [painted] square…is both a beyond and the conditions for mapping that beyond."[2] By this token, all photographs would be abstractions at the point of inception; the objects they depict are at the same time the conditions of those objects' visibility: in Lyle Rexer's words, "what light does, a photograph is."[3] Photographic abstraction thus requires a rethinking of terms borrowed from the discourse on painting, and while photography may have been in dialog with painting, the phenomenological status of its objects often rendered that dialog to be at cross purposes, too often geared toward non-problems concerning the fate of photography as art. From Anna Atkins's cyanotypes of botanical forms and Henry Fox Talbot's early work, to Ellen Carey and Trevor Paglen's photography, abstraction has woven through photography's history, and in each historical instance its meaning has continued to change. The photographic indexical trace deflects attention to an elsewhere that is unseen. For all its promises of presence and visibility, the index is not the opposite of abstraction but instead shares in a form of abstraction. Not only must one be wary of generalizing abstraction as conceived by its modernist iterations, but also be aware of how changing photographic practices have conditioned the meanings of its abstraction at every turn.

Abstraction, like modernism, has multiple and global genealogies, from the calligraphic abstraction of painters such as Anwar Shamza and Ibrahim El Salahi to the line drawings of Nasreen Mohamedi to the abstract expressionism of Natvar Bhavsar, not to mention the multifarious art forms of Latin American *modernismo*. Previously existing traditions, from the

arabesque to the ornamental line to calligraphy to the reactivation of forms from indigenous art, all enter into the global history of modernist abstraction. It is a testament to art history's deep magnetism toward Europe that a global history of abstraction has not yet been written. Such a global genealogy of abstraction would necessarily be discontinuous and fragmented, and it is within this non-originary lineage of abstraction that so many cosmopolitan photographers and artists work. For this lineage, European aesthetic forms are simply one among other overlapping traditions.

Moreover, there remains another order of abstraction to consider in our increasingly digitized image realm, and that is the digital production of images increasingly made by machines for other machines. Such a photographic practice signals an element of abstraction already present under capitalism, perhaps intensified by the logics of what Shoshana Zuboff has called "surveillance capitalism." Henri Lefebvre wrote of abstract space as that which renders the world homogeneous,, a form of perception and cognition made possible by capitalism and the war machines unleashed in its service. Google's extraction of the images of common and communal public spaces (rendered private in the phenomenological transit from experiential space to viewable image) is part and parcel of these same capitalist processes. Moreover, well before Google, GPS coordinates already marked concrete universality: they signaled that the whole world is a grid of homogeneous, space, abstracted for various purposes, potentially subject to a military gaze. They also mark a specificity whose meaning is only legible by means of that grid.

Photographic abstraction might fruitfully be thought of as symptom as well as engagement with these forms of capitalist abstraction. For Marx, capitalist abstraction, whether understood as the abstraction of labor power or the rendering equivalent of a heterogeneous world for the sake of accumulation, was itself an objective reality. Already for Marx, abstraction as a social process was enmeshed in presence and concreteness. Photographic traces, no matter how formally abstract or formally concrete, consistently deflect attention to an elsewhere that is unseen: the facial marks on portraits, the signs of human inhabitation in a landscape, and the blurred images of people and things in motion all point to a process outside of the photographic frame. This deflection to an elsewhere—whether a shared social process, an irretrievable past, or some other reality—animates photography's forms of abstraction, and have the potential for politicizing the aesthesis of abstraction itself.

NOTES

1. A longer version of this essay, entitled “Desert Blooms” was published in *October*, Spring 2019 (168), pp. 92–109. It analyzes abstraction in photography through the work of Fazal Sheikh.
2. Rosalind Krauss, “Photography and Abstraction,” in *A Debate on Abstraction*, New York: Hunter College Art Gallery, 1989, 67.
3. Lyle Rexer, *The Edge of Vision: The Rise of Abstraction in Photography*, New York: Aperture, 2013, 16.

The Media of Migration: Maps and "Self-Smuggling"[1]

Thomas Keenan

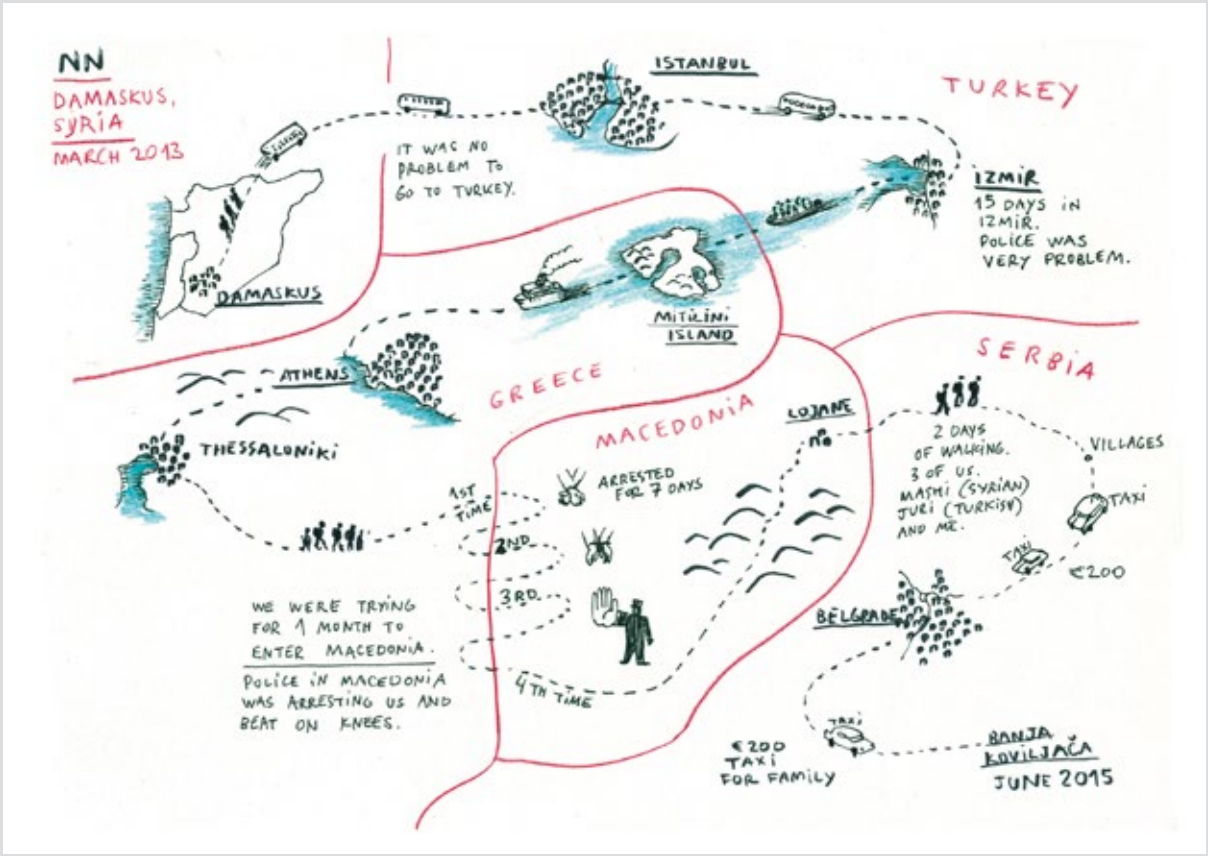
Images of migration tend to be dominated by photojournalism, by documentary forms of reportage or commemoration. More and more often, the photographers are not 'professionals' but the people making the journey themselves. Images from the ruins, the beaches, the boats, the paths, the camps, the highways have an undeniable power and privilege in representing the catastrophe that we uncomfortably name the "refugee crisis."

There is nothing automatically emancipatory, revelatory, or even just critical about pictures of migration, of course. The overcrowded rubber boat has iconic power for more than one political discourse. What matters, as always, is the context, the framing, the deployment, the projects in which images are inscribed—and even those frames can never secure their contents absolutely against appropriation or reversal. An image can function very differently in different contexts; nothing holds it in place.

And sometimes these static images can underplay the journey itself, the fact and experience of movement. They can lose sight, most importantly, of the ruptures and demands inherent in the act of migration: the claim to the right to move that is implied, and sometimes made explicit, when people take flight from where they live and set out for a better place. Another genre of images—maps—can help make this movement more evident, again without any political guarantees. There is more than one kind of map, though, and it's important to see a range of them. The European states, from the era of exploration and colonization on, have specialized in making maps as a mode of exercising power. But like other images, maps can move from context to context, acquiring different meanings and powers in the reframing process.

Migration activists often turn to maps to document the violence of contemporary border regimes. The researchers at Forensic Oceanography have developed a data-rich, high-tech, visual language for charting the otherwise invisible graveyards of the Mediterranean. But artisanal strategies can tell equally complicated stories. Members of the Serbian art collective Škart, working with the human-rights NGO Group 484 in a camp for asylum-seekers in Bogovađa, a village forty miles from Belgrade, have developed an innovative protocol. As Škart's Đorđe Balmazović puts it, they wanted to approach those stuck in the camp not as victims but "as courageous people who, by the very fact that they had decided to set out for such a journey, made a radical change in their life fleeing from wars, conflicts and poverty."

There remains another sort of map, in a way the most immediate: the maps made by and for the travelers themselves. These need to be treated



1

not only as signs, representations, documents, but also as a form of action. They are pictures of pathways, instructions for movement, predictions and records of journeys, as other maps are, but they are also operators of that movement and articulations of the claim to a *right* to move, to exercise agency.

Images made by ordinary people—militants, protesters, bystanders—have dominated the visual landscape of the Middle East for much of the last two decades. When a number of the Iraqi and Syrian phone cameras that had chronicled the violence there started to take flight in 2015, they were not hard to notice. What was different, though, was that the images that emerged were not simply pictures of people, documents of destruction or recovery, narratives of the sort that cameras have long generated. Instead, many took advantage of specific capacities provided by smartphone and larger digital devices. So, in late August 2015, we could read the following on the front page of *The New York Times*: "'Every time I go to a new country, I buy a SIM card and activate the Internet and download the map to locate myself,' Osama Aljasem, a 32-year-old music teacher from Deir al-Zour, Syria, explained as he sat on a broken park bench in Belgrade, staring at his smartphone and plotting his next move into northern Europe. 'I would never have been able to arrive at my

destination without my smartphone,' he added…'In this modern migration, smartphone maps, global positioning apps, social media and WhatsApp have become essential tools.'"[2] The *Times* reporter quoted a Syrian émigré, working at an NGO in Belgrade, who told him about "the popularity of Facebook groups such as 'Smuggle Yourself to Europe Without a Trafficker'."

2

It soon became clear that Facebook, WhatsApp, and Instagram were serving not simply as spaces of exchange for these images but also as inadvertent archives. One could look around, and over time assemble a collection of these maps, in a dazzling array of styles, aesthetics, graphics, formats, and software. Their scales range from the intercontinental to the hyperlocal. Some are pictorial, some tracings, some diagrams. Screenshots are annotated with directions, pins are dropped as testimonies. The maps offer coordinates, place names, real-time tracking, guidance on weather, winds, and tides, and warnings about police and other authorities. One sequence of six maps offering a route across the border from Serbia to Hungary exemplifies the granularity of detail, the confident self-assertion, the instructional rhetoric, the hybrid visual language of map and text and annotation, and the embedded experience that characterize these images. An annotation announces, "It is obvious from the map."

If activist images are generally designed to document, to "raise awareness" (a phrase to be suspicious of), to testify, to narrate or represent an event or a harm or an experience, these images seem different—not simply in their visual language but in their structure and mode of functioning. They are, in two words, both operational and aspirational.

The German filmmaker Harun Farocki used the term 'operational images' to denote images created in order to make something happen. Farocki's examples were the digital images that drive robotic assembly machines in factories, or that allow cruise missiles in flight to direct their routes by matching stored maps with nose-cone video. He referred to these images as "not really intended for human eyes," not about representing something but about accomplishing it.[3]

The migration maps are made very much for human eyes, but they nonetheless function something like the way Farocki proposed. They are not created simply to represent or narrate but to guide. To move without maps is nearly impossible—they are constitutive of the journey itself. In the hands of the traveler, the phone and its map function like a remote control for the person who holds it. These maps are instructional, tutorial, something like recipes or algorithms. Today they are sometimes generated automatically by plotting newly collected data against stored information.

These images are also aspirational. Arjun Appadurai has written eloquently about what he calls "aspirational maps." For him these "maps" are a metaphor, a vision of a pathway out of the traps of the nation state and its inevitable production of refugees, but the word tells us something important about how these DIY maps function. He writes,

> *There is no doubt that migrants today, as migrants throughout human history, move either to escape horrible lives, to seek better ones, or both. The only new fact in the world of electronic mediation is that the archive of possible lives is now richer and more available to ordinary people than ever before. Thus, there is a greater stock of material from which ordinary people can craft the scripts of possible worlds and imagined selves. This does not mean that the social projects that emerge from these scripts are always liberating or even pleasant. But it is an exercise in…"the capacity to aspire."*[4]

These possible worlds start with the route of the journey itself. The aspiration, like the claim to freedom and rights, is instantiated, articulated, and enacted in the journey and its image. The maps are the aspiration, the declaration of independence, the claim to the right to refuse an intolerable situation. They enact, demonstrate, and put into action the claim for rights and recognition.

3

Some years ago, Jacques Rancière wrote that the subject of human rights came into being when people enacted what had previously been a mere claim, when "they acted as subjects that did not have the rights that they had and had the rights that they had not."[5] The force of these rights, he said, comes in the "back-and-forth movement" between apparently inert enunciation of the right and the claims people make to take them seriously. "Even," he said, "the clandestine immigrants in the zones of transit of our countries or the populations in refugee camps can invoke them. These rights are theirs when they can do something with them to construct a dissensus against the denial of rights they suffer. And there are always people among them who do it."[6]

This link between aspiration and operation, between the claim to freedom and rights and the practical reappropriation of mobility, may not always succeed. The crisis—not the "refugee crisis" but the crisis of the

European and U.S. border and migration regimes—is clearly just getting started, and the challenges faced by people seeking recognition and rights are enormous. These maps, traces made and left by those "people among them," remind us that the least we can do is to pay attention to the things they say and the images they create.

NOTES

1. A longer version of this essay is published in *When Home Won't Let You Stay*, edited by Ruth Erickson and Eva Respini, ICA Boston and Yale University Press, 2019. It reflects ongoing research I am conducting with Sohrab Mohebbi. We are grateful for the essential assistance of Beatrice Abbott and Basel al-Yazouri and the invaluable collaboration of Maribel Casas-Cortes, Sebastian Cobarrubias, Charles Heller, and Lorenzo Pezzani, pioneers of much of the research discussed here. Sohrab Mohebbi and I showed much of this material in a series of exhibitions entitled *It is obvious from the map*, at the Istanbul Design Biennial and at REDCAT in Los Angeles, and most recently at Galerija Nova, Zagreb, November 2017 – March 2018.
2. Matthew Brunwasser, "A 21st-Century Migrant's Essentials: Food, Shelter, Smartphone," *The New York Times*, August 25, 2015. Available online at www.nytimes.com/2015/08/26/world/europe/a-21st-century-migrants-checklist-water-shelter-smartphone.html (accessed February 10, 2019).
3. Harun Farocki, "Eye/Machine III," 2003.
4. Arjun Appadurai, "Aspirational maps," *Eurozine*, February 19, 2016. Available online at www.eurozine.com/aspirational-maps/ (accessed May 6, 2019).
5. Jacques Rancière, "Who Is the Subject of the Rights of Man?," *South Atlantic Quarterly* 103, nos. 2–3 (Spring–Summer 2004): 304, 305.
6. *Ibid*. 305–306.

IMAGES

1. Djordje Balmazovic (Škart collective) in collaboration with asylum seekers in Banja Koviljača camp in Serbia, NN, Damascus, Syria, 2015. Courtesy of the artist and Grupa 484.
2. "This person posted that he got to Greece by swimming, and explains how." Screenshot from a mobile phone displaying a hand-annotated Google map of the land-and-sea route from Güzelçamlı, Turkey, to Posidonio on the island of Samos, Greece. Posted on Facebook, September 22, 2015 (accessed March 8, 2019).
3. "Though Twitter and Facebook were helping refugees (note above the graphic of how refugees are supposed to go, which has been shared on Facebook), nothing seemed up-to-the-minute in terms of where people should gather, what they should do." Ginanne Brownell, "First Person: Europe's Refugee Crisis, 'I Will Follow the Light," September 6, 2015. Available online at ginannebrownell.com/first-person-europes-refugee-crisis/ (accessed December 5, 2019).

A World of Appearances

Sharon Sliwinski

> *Compared with the reality that comes from being seen and heard, even the greatest forces of intimate life—the passions of the heart, the thoughts of the mind, the delights of the senses—lead an uncertain, shadowy kind of existence unless and until they are transformed, deprivatized, and deindividualized, as it were, into a shape to fit them for public appearance.*
> —Hannah Arendt, *The Human Condition*, 1958

For a while now I've been thinking about the relationship between pictures and images, which is to say, the relationship between the visual representations that circulate in the world—photographs, drawings, and pixels that illuminate our screens—and the images that populate the mind: the imaginary world of dreams, fantasies, and delusions. How do these two domains influence one another? How does the climate of our inner environments drive the production and circulation of pictures in the external world—and vice versa? Or to use Hannah Arendt's terms, what is the relationship between our public appearance and the great forces of intimate life?

To me, these are signal questions for our times. The present era is marked by an unprecedented proliferation of pictures. Billions of photographs are generated and circulated every single day, sometimes in service of political life and sometimes as a bid to gain intimacy in the private realm. But this proliferation does not seem to have corresponded to an equal evolution in our understanding of the imaginary realm. Around the globe we have seen the rise of far-right political movements that espouse ultranationalist and xenophobic politics as well as a similarly disquieting increase in mental health distress. A number of studies show that the global population is, on the whole, getting more depressed, anxious, lonely, and addicted.[1]

And as pictures move around the globe at an unprecedented scale, so do people. The world is currently witnessing the highest levels of displacement on record. According to the UNHCR, the United Nations refugee agency, some 71 million people around the world have been forcibly displaced from their homes. Among them are nearly 25.9 million refugees, over half of whom are under the age of 18.[2]

These crises call for a more nuanced understanding of how the pictures that are disseminated in the public realm affect the images that circulate in our minds. These realms are not governed by the same laws, of course. It would be a category mistake to collapse the reality of forced displacement with the zeitgeist of alienation and dislocation that so many artists characterized as central to modernity. And yet as a handful of influential theorists have proposed, the refugee has become the "paradigm of a new historical

consciousness."[3] The cloth of our imaginary worlds is woven, in part, from the particulars of material life.

My question about the relationship between these two dimensions emerges from a rich tradition of thinking about visual politics. In his seminal essay "Photographs of Agony," written in the midst of the Vietnam War, John Berger sounded a warning about the spectacle created by the mass media. The wretched photographs of war that circulate in the newspapers "bring us up short," he wrote. "We are seized by them," which is to say, such photographs momentarily draw us out of our own time and bring us into the other's orbit.[4] But this is only a temporary effect. Eventually we are compelled to return to our own life, now feeling all the more helpless. For Berger, this feeling of impotence is political—or more precisely, it is *depoliticizing* because it impedes a more meaningful intervention.

Berger's intervention drew attention to the ways the proliferation of these kinds of pictures creates a particular climate of feeling amongst spectators. In his mind, such spectacles erode our capacity for genuine engagement in political life: "What we are shown horrifies us. The next step should be for us to confront our own lack of political freedom. In the political systems as they exist, we have no legal opportunity of effectively influencing the conduct of wars waged in our name." Sadly, this warning is as germane now as it was in 1972, when Berger published his essay. Today we gaze helplessly at photographs depicting the misery of migrants risking their lives to cross borders.

It has become more important than ever to understand these dynamics of visual politics. In this era, the mass media plays a singularly decisive role in constituting our so-called imagined communities, guiding our identifications and attachments to others. Much of the global population turns to their screens for signs of their individual and collective identities.

In this climate, it may be worth recalling that the oldest sense of the word image, in its Latin form *imago*, pertained to the matter of legal rights, to a notion of dignity as *res publica*, a "public good."[5] And this might lead us to ask about our "right to an image," or, indeed, to questions about who holds sovereignty over the social imaginary.[6] How we hold the other in mind matters for how they are treated in the world. And pictures seem to have a decisive role in shaping these internal images. In our era, where the camera is so ubiquitous, how do our picture-making practices link to our human rights practices, which is to say, how can our ways of seeing the other effectively sustain or, indeed, diminish their dignity?

In her last major work, one of the great political theorists of the twentieth century, Hannah Arendt, turned to the life of the mind in order to rethink some of the problems of the political sphere. Arendt had famously defined the public sphere as a "space of appearance," a place where human actions are witnessed by a plurality of spectators. In Arendt's view, we exist insofar as we are seen to exist, or, as she put it, "being and appearing

coincide."[7] There is much to be said about Arendt's definition of the human condition, but it is worth noting that in her late work, she focused more and more of her attention on the activities that occur in our internal theatre, and in particular on the triumvirate of thinking, willing, and judging. In other words, Arendt came to understand that what happens in the inner world has grave and decisive consequences for our shared political spheres.

As the grand human pageant continues to unfold—and especially as we witness the largest mass movement of people in the history of this planet—let us not lose sight of the ways that our political theatres are governed, in some profound sense, by the more intimate theatre of the imaginary. Indeed, perhaps this vast territory will provide the richest site for future cartographies of the image.

NOTES

1. For instance, Vanessa Candeias and Rhiana Diabo, *World Economic Forum*, https://www.weforum.org/agenda/2018/11/five-ways-mental-health-care-better-depression/
2. United Nations High Commissioner for Refugees, "Figures at a glance," https://www.unhcr.org/figures-at-a-glance.html
3. Giorgio Agamben, "Beyond Human Rights" (1993), in *Means Without Ends: Notes on Politics*, Minneapolis: University of Minnesota Press, 2000, 16. Agamben is drawing these ideas directly from Hannah Arendt's essay, "We Refugees," *Menorah Journal*, no.1 (1943), 77.
4. John Berger, "Photographs of Agony" (1972), in *About Looking*, New York: Vintage, 1992.
5. George Didi-Huberman, *Confronting Images: Questioning the Ends of a Certain History of Art*, translated by John Goodman, University Park, PA: Pennsylvania State University Press, 2005.
6. Sharon Sliwinski, "The Right to an Image" in *Visualizing Human Rights*, edited by Jane Lydon, Perth: UWAP, 2018.
7. Hannah Arendt, *The Life of the Mind*, Boston: Mariner Books, 2001.

"Images have begun to intervene in everyday life, their functions changing from representation and mediation, to activations, operations, and enforcement. Invisible images are actively watching us, poking and prodding, guiding our movements, inflicting pain and inducing pleasure. But all of this is hard to see…

In the long run, there's no technical 'fix' for the exacerbation of the political and economic inequalities that invisible visual culture is primed to encourage. To mediate against the optimizations and predations of a machinic landscape, one must create deliberate inefficiencies and spheres of life removed from market and political predations—'safe houses' in the invisible digital sphere. It is in inefficiency, experimentation, self-expression, and often law-breaking that freedom and political self-representation can be found.

We no longer look at images—images look at us. They no longer simply represent things, but actively intervene in everyday life. We must begin to understand these changes if we are to challenge the exceptional forms of power flowing through the invisible visual culture that we find ourselves enmeshed within."

—Trevor Paglen, "Invisible Images (Your Pictures Are Looking at You)" (2016)

Symposium Abstracts

Future of the Future Image

Jean-Luc Nancy

In a series of writings on the image, the world-renowned French philosopher Jean-Luc Nancy has described the unsettling forces unleashed by the images that confront us, the limits that bind us to them, the death that stares back at us from their frozen traits and distant intimacies, and the violence and ambivalence so often at their heart. In a world increasingly saturated with images, can we any longer say that we know what an image is? Can we imagine the future of images, and even the future of future images?

Hale County This Morning, This Evening

Directed by RaMell Ross
Conversation with Ross and
Liana Theodoratou

RaMell Ross's stunning directorial debut, *Hale County This Morning, This Evening*, has garnered critical acclaim and a host of accolades, including an Academy Award nomination for Best Documentary Feature. An impressionistic and avant-garde film set in Hale County, Alabama, it examines the quotidian and intimate moments of its African American protagonists and the community in which they live. A lyrical documentary in which dramas are embedded, elicited, extrapolated, and in which tone and mood—and the visual and sonic moments and associations that they conjure—are inseparable from the observation and evocation of character and personal experience, the film presents an emotive impression of the historic South. Interweaving images that replace narrative arc with visual movements, Ross crafts an inspired tapestry made up of time, history, environmental wonder, sociology, and cosmic phenomena, producing a new aesthetic framework that offers a new way of seeing and experiencing the lives of people in the Black Belt region of the U.S. as well far beyond. The film asks whether we can live a life sustained by the benefits of technology without sacrificing the knowledge, experience, and heritage of a life lived in relation to particular histories.

Forensic Architecture and the 'Pavlos Fyssas Case'

Eyal Weizman and Christina Varvia

Conflicts around the globe have increasingly become complex data and media environments and it is therefore necessary to develop analytic techniques and strategies that can match this complexity. Director of the Forensic Architecture Agency, Eyal Weizman, discusses the ways in which image fields—produced by digital recording equipment, satellite communications, remote sensing technologies, and social media platforms—can be used to analyze violations of human rights and international humanitarian law. He explains how the creation of animations and interactive cartographies not only helps us model events as they unfold in space and time but also helps us invent new techniques of media research and new ways of presenting investigations of violence in urban and architectural environments. Deputy Director of Forensic Architecture, Christina Varvia, discusses the agency's efforts to reconstruct the events leading to the murder of Pavlos Fyssas from audio and video material. The resulting video investigation and the accompanying report, presented in court September 2018, joins CCTV footage, recordings of communications between police and emergency services, and witness testimony, and points to the role images can play within forensic and criminal investigations.

The Climates of Images

Tom Cohen and Yates McKee

This panel explores the relations among the technical media (especially cinema, photography, painting, and artificial intelligence) and questions about climate change and what has been called the "Anthropocene." Focusing on materials ranging from films by Spielberg, Kubrick, and Hitchcock, to photographs by Robert Capa and Sebastio Salgado, to paintings by Andy Warhol, it traces the figures of disaster, death, and extinction that circulate in relation to both the world of images and the crises of our biosphere. If we are witnessing

the twin accelerations passed so-called "tipping points" in the public imaginary, beyond reversibility—climate chaos and A.I.—we can also register the identifications between cinema and extinction, between images and the "Anthropocene," between security measures and the displacement of populations. Can we think about the relation between what Hal Foster has called the "distressed image" and a world whose climates and atmospheres are increasingly distressed and even devastated?

The Sound of Images

Raviv Ganchrow and Fred Moten

Can we speak about the sonic frequencies of images, about their phonographic content? Is looking always accompanied by listening, and does seeing always redouble itself as sound? Within the complex music of the image, improvisation is activated in a sound that holds information in the implicit graphics of its rhythm, in a spatial representation that is sound, a space whose aurality exceeds but does not oppose visual-spatial determination. Indeed, attempts to materialize sound vibrations, whether by conferring on them object–like qualities or transposing them into visual manifestations, have played an important role in the historic epistemology of sound. From Chladni's figures to the "phonoautograph," the visibility of acoustics has continually underlined the dimensional characteristics of sound. Raviv Ganchrow and Fred Moten explore the aural energies of images, their "vibrant terrain" and their sonic topographies, by considering their circulation within the history of vibration-sensing technologies and in texts such as M. NourbeSe Philip's *Zong!*, in which the history of the middle passage is sounded, and space is (phono)graphed.

The Fury of Images

Joan Fontcuberta

Catalonian visual artist Joan Fontcuberta has recently explored what he calls "the fury of images," the wild proliferation and circulation of images in all sorts of media and in nearly every dimension of our daily life. At the same time, his writings and his practice as a photographer suggest that this saturation of images obliges us to think about images that remain missing, images that have never existed, that have existed but have remained unavailable, that have been lost to our collective memory or been prohibited or censored. This is why, often taking his departure from already existing archives, he so often invents new ones with different kinds of computer software and algorithms. In this way, he encourages us to think about the new status of the photographic image in an age in which its mad itinerancy prevails over its content.

The Rights of Images

Thomas Keenan and Sharon Sliwinski

It is difficult to imagine making claims for human rights without using images. For better or worse, images of protest, evidence and assertion are the lingua franca of struggles for justice today. And they seem to come in a flood, more and more, day and night. But through what channels does the torrent pass? This panel examines the pathways through which these images and ideas circulate routes that do not merely enable, but actually shape human rights claims and their conceptual background. What are the technologies and languages that structure the global distribution of humanism and universalism, and how do they leave their mark on these ideas themselves? How have technologies of the image and the channels of communication transformed the very terms of human rights? If human rights discourse and activism increasingly rely on mediatic presentations of evidence, can we also think of the rights that images not only seek to produce but that they also have themselves? What gives images the right to exist, and how might this right be linked to human and nonhuman rights?

The Geography of Images

Zahid Chaudhary and Rosalind Morris

As elements of ever-expanding archives, images resist being fixed in a single location. While they travel around the globe and across different

geographies, they are constantly transformed and further displaced whenever they are re-contextualized and reread. This is why we must learn how to trace the movement of images across all sorts of borders and how to regard them as simultaneously material artifacts, mediums of communication, and disembodied and itinerant networks of relations. Indeed, as cameras document, enable, or control human movement across geographical, cultural, and political divides, images themselves migrate with their makers, subjects, and viewers. Exploring image-making practices in India, Israel, Thailand, South Africa, and other countries around the world, Zahid Chaudhary and Rosalind Morris explore diasporic photographic practices that raise questions about the extent to which images bear the traces of specific geographical and historical contexts or the degree to which they are instead associated with a network of different locations. Can we talk about the geography of images or must we speak of an image's several geographies? Do images remain linked to a specific location or is a certain decontextualization and abstraction always at work within them?

The Migration of Images

Bouchra Khalili and Susan Meiselas

Much of the work of Bouchra Khalili and Susan Meiselas has been devoted to issues of conflict, migration, displacement, and the movement of both people and images. Because photographs and cinematic images speak and move across historical periods, national borders, and different media, it is perhaps not an accident that photography and film are among the privileged modes for representing the crises of migration and refugees, and this because every image is itself a kind of refugee. Every image turns what it presents into a kind of refugee—tearing it from its context and displacing it to another place and moment—and every image circulates in the world away from its "original" context. What makes an image an image is perhaps its capacity to wander, often far from the moment and place in which it was produced. This is why the mass circulation of images that characterizes our present moment requires that we develop a visual and linguistic lexicon for understanding their migratory character and the agency they might or might not have in relation to their movement and displacement. Taking its point of departure from Khalili and Meiselas' work, this session thinks about the ways in which the itinerancy of images helps us think about the migration and displacement of peoples, even as it can also hinder such thinking.

“The sun itself is finite, as we know, and its light might one day come to an end, but us? Let’s leave finititude to the sun and return in another way to Athens. Which would mean: there is mourning and there is death—notice I am not saying memory, innocent memory—only for what regards the sun. Every photograph is of the sun... Every time you look at these photographs, you will have to begin again to translate, and to recall that one day, around noon, for some, having come from Athens and on their way back to it, the verdict had come down but the sun was not yet dead.”

—Jacques Derrida, *Athens, Still Remains* [1996] (2010)

Bios
Exhibited Artists

Tackling politics, religion, war, and history, **Adam Broomberg & Oliver Chanarin** prize open the fault lines associated with such imagery, creating new responses and pathways towards an understanding of the human condition. Trained as photographers, they now work across diverse media. Language and literature play an increasing role as material for their multifaceted work, from the philosophical underpinnings in Bertolt Brecht's *War Primer* to the sacred texts of the Holy Bible itself, both books having been refashioned and recreated by the artists in their own ambiguous, combatant image. Together they have had numerous solo exhibitions at institutions including Centre Pompidou (2018), Hasselblad Foundation (2017), C/O Berlin (2016), Museum Folkwang (2015), Museum of Modern Art (2014), Tate Britain (2014), and the Stedelijk Museum (2006). Their work is held in a wide range of public and private collections worldwide. Major awards include the Photo-Text Book Award (2018), ICP Infinity Award (2014), and the Deutsche Börse Photography Prize (2013). They are professors of photography at the Hochschule für bildende Künste (HFBK) in Hamburg and the Royal Academy of Art (KABK) in the Hague.

Natalie Bookchin is an artist whose work exposes social realities that lie beneath the surface of life lived under the glare and in the shadow of the Internet. Her critically acclaimed films and installations have been exhibited around the world including at the Museum of Modern Art, LACMA, MoMA PS1, MassMoCA, the Walker Art Center, the Centre Pompidou, MOCA LA, the Whitney Museum, the Tate, and Creative Time. She has received numerous grants and awards, from *inter alia* Creative Capital, California Arts Council, the Guggenheim Foundation, the Durfee Foundation, the Rockefeller Foundation, California Community Foundation, the Daniel Langlois Foundation, a COLA Artist Fellowship, the Center for Cultural Innovation, the MacArthur Foundation, a NYSCA Individual Artist Fellowship, a NYFA Opportunity Grant and most recently a NYSCA/MAAF award. Bookchin is a professor of Media and Graduate Director in the Department of Art & Design at Mason Gross School of the Arts at Rutgers University. She lives in Brooklyn.

James Bridle is a writer and artist working across technologies and disciplines. Their artworks have been commissioned by galleries and institutions and exhibited worldwide and on the internet. Their writing on literature, culture and networks has appeared in magazines and newspapers including *The Atlantic*, *The Guardian*, *The Observer*, *Wired*, and *New Statesman*. *New Dark Age*, their book about technology, knowledge, and the end of the future was published by Verso (UK & US) in 2018, and they wrote and presented "New Ways of Seeing" for BBC Radio 4 in 2019.

Harun Farocki (1944-2014) was born in German-annexed Czechoslovakia. From 1966 to 1968 he attended the Deutsche Film und Fernsehakademie Berlin (DFFB). In addition to teaching posts in Berlin, Düsseldorf, Hamburg, Manila, Munich and Stuttgart, he was a visiting professor at the University of California, Berkeley. Farocki made close to 120 films, including feature films, essay films and documentaries. He worked in collaboration with other filmmakers as a scriptwriter, actor and producer. In 1976 he staged Heiner Müller's plays *The Battle* and *Tractor* together with Hanns Zischler in Basel, Switzerland. He wrote for numerous publications, and from 1974 to 1984 was editor and author of the magazine *Filmkritik* (Munich). His work has been shown in many national and international exhibitions and installations in galleries and museums.

Over more than four decades of prolific dedication to photography, **Joan Fontcuberta** has developed both artistic and theoretical activity focused on the conflicts between nature, technology, photography, and truth. His work explores the documentary and narrative dimension of photography and related media. He has held numerous solo shows: Museo de Arte del Banco

de la República (2016), Museum Angewandte Kunst (2015), Maison Européenne de la Photographie (2014), IVAM (1992), the Art Institute (1990), and the Museum of Modern Art (1988), among others. His artwork has been collected by the Metropolitan Museum of Art, San Francisco MoMA, Houston Museum of Fine Arts, George Eastman House (Rochester), National Gallery of Canada (Ottawa), Folkwang Museum (Essen), Centre Pompidou, Stedelijk Museum, MACBA (Barcelona), MNCARS (Madrid) and more. He has authored a dozen books about aspects of history, aesthetics and the epistemology of photography, most recently *The Fury of Images: Notes on Postphotography*, 2016. In 1994, he was appointed a Chevalier of the Order of Arts and Letters by the French Ministry of Culture. In 1998, he was awarded the National Prize in Photography bestowed by the Spanish Ministry of Culture.

Forensic Architecture (FA) is a research agency based at Goldsmiths, University of London, consisting of architects, artists, filmmakers, journalists, software developers, scientists, lawyers, and an extended network of collaborators from a wide variety of fields and disciplines. Founded in 2010 by **Eyal Weizman**, FA is committed to the development and dissemination of new evidentiary techniques and undertakes advanced architectural and media investigations on behalf of international prosecutors, human rights and civil society groups, as well as political and environmental justice organizations, including Amnesty International, Human Rights Watch, B'tselem, and the UN, among others. In recent years, FA has undertaken, together with and on behalf of the victims, a series of investigations internationally into state crimes and human rights violations, spanning events from war crimes to instances of politically and racially motivated violence to the lethal effects of the EU's policies of non-assistance for migrants in the Mediterranean. These investigations have led to the contestation of accounts of events given by state authorities, affecting legal and human rights processes.

Stefanos Levidis completed his architectural studies at the Bartlett School of Architecture, UCL, and holds a Masters degree from the Institute for Advanced Architecture of Catalunya, where he also taught design and digital/robotic fabrication. He is currently a PhD candidate at the Centre for Research Architecture, Goldsmiths University. His work operates between theory, spatial practice, film and activism and has been applied in the field and exhibited internationally. Stefanos has been a researcher at Forensic Architecture since October 2016.

Nicholas Zembashi is an architectural researcher and animator. He joined Forensic Architecture in 2018 after completing his Part II at the Architectural Association. His past research lies between architecture, media and politics, and uses speculation and allegory to form essays in space. His most recent work investigated how identity is bound by a landscape of media, and how classification in machine learning reveals discriminatory biases that thwart the promise of a world without defined edges. Nicholas has previously worked in architectural practices in Cyprus and the UK.

Maria Mavropoulou was born in 1989 and lives and works in Athens, Greece. She completed her MFA studies in 2018 at the Athens School of Fine Arts, from where she got her BA in 2014. She has studied painting and sculpture, although her main medium is photography. It is characteristic of her work that the resulting images are at the borderline between plausibility and implausibility, potentiality and non-potentiality, the random and the constructed. By playing with the perception of her viewers, she questions the role and power of photography in an era that is dominated by it. Since 2014, she has been a member of the artists' collective Depression Era, who explore the urban and social landscapes of the crisis in Greece. Her work has been exhibited both in Greece and abroad, and published in numerous magazines.

Panos Mazarakis was born in Athens in 1989. He studied Sociology at the University of the Aegean in Mytilene and later, Photography and Video at the Focus School of Photography and New Media in Athens. In 2017, he was selected to present his work at the Athens Photo Festival in the category of Young Greek Photographers. His works have been presented in group exhibitions of photography and video art in Europe, Asia, and America.

Rabih Mroué, born in Beirut and currently living in Berlin, is a theatre director, actor, visual artist, and playwright. He is co-founder of the Beirut Art Center (BAC) and contributing editor for the *TDR: The Drama Review*. From 2012-2015, he was a fellow at the International Research Center "Interweaving Performance Cultures" at the Free University of Berlin. His works include: *Sand in the eyes* (2017), *Rima Kamel* (2017), *Ode to Joy* (2015), *Riding on a cloud* (2013), *33 RPM and a Few Seconds* (2012), *The Pixelated Revolution* (2012), *The inhabitants of images* (2008), *Who's Afraid of Representation* (2005), and others.

Jon Rafman was born in Montreal, Canada, where he studied Philosophy and Literature at McGill University. He later received an MFA from the School of the Art Institute of Chicago. His work explores the impact of technology on contemporary consciousness, incorporating the rich vocabulary of virtual worlds to create poetic narratives that critically engage with the present. Some of Rafman's recent solo exhibitions were held at the Fondazione Modena Arti Visive (2018), Stedelijk Museum (2016), Westfälischer Kunstverein (2016), Musée d'art Contemporain de Montréal (2015), and the Zabludowicz Collection (2015). His works have featured in prominent international group exhibitions, including the Sharjah Biennial (2017), Berlin Biennial 9 (2016), Manifesta Biennial for European Art 11 (2016), and the Biennale de Lyon (2015). He recently created video for a production of Albert Ginastera's opera *Bomarzo* at the Teatro Real in Madrid (2017).

Taryn Simon directs our attention to familiar systems of organization—bloodlines, criminal investigations, flower arrangements—making visible the contours of power and authority hidden within. Incorporating mediums ranging from photography and sculpture to text, sound, and performance, each of her projects is shaped by years of research and planning, including obtaining access from institutions as varied as the U.S. Department of Homeland Security and Playboy Enterprises, Inc. Simon's work has been exhibited at MassMoCA (2018-2019), Louisiana Museum of Modern Art (2016-2017), Park Avenue Armory (2016), The Albertinum (2016), Galerie Rudolfinum (2016), Garage Museum of Contemporary Art (2016), Jeu de Paume (2015), Ullens Center for Contemporary Art (2013), Museum of Modern Art (2012), Tate Modern (2011), Neue Nationalgalerie (2011), and the Whitney Museum of American Art (2007). Her work is in the collections of the Metropolitan Museum of Art, the Museum of Modern Art, Tate Modern, Solomon R. Guggenheim Museum, Centre Pompidou, Kunstmuseum Lucerne, and LACMA, and was included in the 56th Venice Biennale (2015). Simon's honors include the Guggenheim Memorial Foundation Fellowship in Photography.

Mónika Sziládi uses lens-based photography and digital photomontage as a tool to observe and digest the effects of technology on human behavior. Her work explores how wireless technology affects us as social beings by altering our physical and virtual interactions, and how the ease of picture taking and sharing has redefined our relationship to images, including those of ourselves. Sziládi was born and raised in Budapest, Hungary and lives in New York. She holds an MFA in Photography from Yale and a Maitrise in Art History and Archaeology from the Sorbonne, Paris. She is the recipient of the Center Awards Curator's Choice (2015), the Humble Arts' Fall New Photography Grant (2012), the Alice Kimball English Travelling Fellowship (2010), and winner of the Philadelphia Museum of Art's Photography Competition (2010). Her solo exhibitions

were held at Smack Mellon (2014) and Godot Galeria (2010 and 2013). Selected group exhibitions were shown at the Queens Museum (2016), Hagedorn Foundation Gallery (2013), Carriage Trade Gallery and Galerie Erna Hecey (2009), and Staatliche Kunsthalle (2007).

The installations, video, and digital media works of **Penelope Umbrico** utilize photo-sharing and consumer-to-consumer websites as an expansive archive to explore the production and consumption of images. Her work navigates between producer and consumer, local and global, the individual and the collective, paying attention to the technologies that are produced by (and produce) these forces. Umbrico's work has been exhibited at the Museum of Modern Art, MoMA PS1, MassMoCA, San Francisco Museum of Modern Art, Milwaukee Art Museum, Art Museum Gosta, Foto Colectania, The Photographers' Gallery, Daegu Photography Biennale, Pingyao International Photography Festival, Kunstverein Ludwigshafen, Rencontres d'Arles, and Gallery of Modern Art, Brisbane, among many others. She has received numerous awards, including a Guggenheim Fellowship, a Sharpe-Walentas Studio Grant, a Smithsonian Artist Research Fellowship, a New York Foundation of the Arts Fellowship; and an Anonymous Was a Woman Award. Her monographs have been published by Aperture and RVB Books.

Cameron-James Wilson is a British fashion photographer and visual artist with over a decade of experience in the industry. Seeking inspiration in a new medium, Cameron began experimenting in 3D modeling and CGI and created Shudu—the world's first digital supermodel. He has since founded The Diigitals, an all-digital modeling agency created to demonstrate the potential of 3D fashion modeling and showcase its application for innovative brands. Through his work, Cameron hopes to champion diversity in both the fashion and digital worlds and collaborate with creators from emerging economies and under-represented communities.

Liam Young is a speculative architect who operates in the spaces between design, fiction and futures. He is co-founder of Tomorrow's Thoughts Today, an urban futures think tank, which explores the local and global implications of new technologies, and Unknown Fields, a nomadic research studio that travels on expeditions to chronicle these emerging conditions as they occur on the ground. He has been acclaimed in both mainstream and architectural media, including the BBC, NBC, *Wired*, *Guardian*, *Time*, and *Dazed and Confused*, is a BAFTA-nominated producer and his work has been collected by institutions such as the Metropolitan Museum of Art, the Victoria and Albert Museum, and MAAS in Sydney. He has taught internationally at the Architectural Association, Princeton University and now runs the ground-breaking MA in Fiction and Entertainment at Sci Arc in Los Angeles. Liam's narrative approach sits between documentary and fiction as he focuses on projects that aim to reveal the invisible connections and systems that make the modern world work. Liam now manages his time between exploring distant landscapes and prototyping the future worlds he extrapolates from them.

Symposium Participants

Zahid Chaudhary is Associate Professor of English at Princeton University. He specializes in postcolonial studies, visual culture, and critical theory. His first book, *Afterimage of Empire: Photography in Nineteenth-century*, provides a historical and philosophical account of early photography in India, analyzing how aesthetic experiments in colonial photographic practice shed light on the changing nature of perception and notions of truth, memory, and embodiment. His current book project, *Impunity: Notes on a Global Tendency*, analyzes juridical, economic, political, and aesthetic aspects of the practices of impunity from the Cold War to the present, from postcolonial states to the United States. The book considers documentary film, contemporary art, development projects, and architecture. He has written on Alfonso Cuarón's *Children of Men* and on Fazal Sheikh's aerial photographs in the photographer's *Desert Bloom*.

Tom Cohen is Professor of English at SUNY, Albany, and the Director of the Institute for Critical Climate Change. He is the author of *Anti-Mimesis—from Plato to Hitchcock, Ideology and Inscription—"Cultural Studies" after Benjamin, de Man, and Bakhtin*, and a two-volume work entitled *Hitchcock's Cryptonymies*. He is also the editor of *Telemorphosis: Theory in the Era of Climate Change*, and co-author, with Claire Colebrook and J. Hillis Miller, of *Theory in the Disappearing Future—de Man on Benjamin*. Cohen has lectured and taught widely internationally, including assignments in China and Fulbright sponsored work in Thailand. He has essays in forthcoming volumes or special journal issues on Nietzsche and Media, War, Digital Theory, the Materialist Spirit, The Technologies of 'The Book' Deconstruction and 'Life', among others. Book projects that are 'in progress' include a monograph on the Brazilian director Jorge Padilha's *Bus 174* and cinema 'after' biopolitics; and a monograph on *Oil and the Image*.

Joan Fontcuberta is a Spanish photographer who teaches at Pompeu Fabra University in Barcelona. His many photographic publications include *Herbarium*, *Fauna*, *Artificial History*, *Sputnik*, *Twilight Zones*, *Contranatura*, *Landscapes Without Memory*, *The Photography of Nature and the Nature of Photography*, and *Joan Fontcuberta: Paralipomena*. He also has published four books of essays on photography: *The Kiss of Judas: Photography and Truth; Science and Friction: Photography, Nature, Artifice; Pandora's Camera: Photogr@phy After Photography*; and, most recently, *La Furia de las imagenes*.

Raviv Ganchrow is currently a faculty member at the Institute of Sonology, University of the Arts, The Hague. His work researches the interdependencies between sound, place, and listening, aspects of which are explored through installations, writing, and the development of pressure-forming and vibration-sensing technologies. Recent installations examine context-dependent sites of contemporary listening relating to environmental infrasound (*Long-Wave Synthesis*), mineral piezoelectricity (*Quarzbrecciakammer*), materiality of radio transmission (*Radio Plays Itself, Forecast for Shipping & Spark-Gap*), and anechoic chambers (*Padded Sounds*). The latest work (*Agora Circuit*) rewires in-situ human-mineral binds by way of an expansive circuit at the ancient agora of Messene. His ongoing *Listening Subjects* project tests an ambient circuitry whereby audibility, surroundings, and subjectivity are mutually conductive.

Thomas Keenan is Associate Professor of Comparative Literature and Director of the Human Rights Program at Bard College. His research interests revolve around media and conflict, literary and political theory, humanitarianism and human rights, and violence and politics. In the field of human rights, has worked closely with the Soros Documentary Fund, *WITNESS*, and *The Journal of Human Rights*. He is the author of *Fables of Responsibility: Aberrations and Predicaments in Ethics and Politics*, and of several essays on matters of surveillance, digital warfare, and

global information networks. Together with Wendy Hui Kyong Chun, he edited a collection of essays that explore the relationship between old and new in the age of digital culture, *New Media, Old Media: A History and Theory Reader*. He is also the co-editor of *The End(s) of Museum* (with John G. Hanhard), *The Human Snapshot* (with Tirdad Zolghadr), and *The Flood of Rights* (with Suhail Malik and Tirdad Zolghadr). Keenan is also an editorial and advisory board member of *Journal of Human Rights*, *Grey Room*, and *Humanity*.

Bouchra Khalili is a Moroccan-French artist. Working with film, video, installation, photography, and prints, Khalili's practice articulates language, subjectivity, orality, and geographical explorations to investigate strategies and discourses of resistance as elaborated, developed, and narrated by individuals—often members of political minorities. Born in Casablanca, Khalili studied film at Université Sorbonne Nouvelle and visual arts at the École nationale supérieure d'arts de Paris-Cergy. She lives and works in Berlin and Oslo. She is a professor of contemporary art at the Oslo National Academy of the Arts and a founding member of La Cinémathèque de Tanger, an artist-run nonprofit organization based in Tangiers, Morocco. Khalili's work has been internationally exhibited, most recently at documenta 14. She has had solo exhibitions at the Museum of Modern Art (2016), Palais de Tokyo (2015), and MACBA (2015). Her work has also been shown at the New Museum and at the 55th Venice Biennale. She has been the recipient of an Abraaj Group Art Prize, a grant from the DAAD Berliner Künstlerprogramm, the Sam Prize for Contemporary Art, and a Vera List Center Fellowship at the New School, among other awards.

Yates McKee teaches art history in the CUNY system and is a member of Decolonize This Place. He is the author of *Strike Art: Contemporary Art and the Post-Occupy Condition*, and an activist with post-Occupy groups such as Strike Debt and Global Ultra Luxury Faction. He is co-editor of the magazine *Tidal* and of the collection *Sensible Politics: The Visual Cultures of Nongovernmental Activism*. He is also one of the founders of the Climate Action Lab in the CUNY Center for the Humanities. His writing has appeared in *October*, *The Nation*, and *Artforum*, and he has written on the environmentalist and landscape photographer Subhankar Banerjee and the Puerto Rican artists Allora & Calzadilla.

Susan Meiselas is a documentary photographer and has been a member of Magnum Photos since 1976. She is the author of *Carnival Strippers, Nicaragua: June 1978-July 1979, Kurdistan: In the Shadow of History, Pandora's Box and Encounters with the Dani*. Meiselas has also co-directed three films: *Living at Risk, Pictures from a Revolution*, and *Reframing History*. Her pioneering website akaKURDISTAN, created in 1998, is considered a seminal model for diaspora participation in collective memory and cultural exchange. In 2007, she became the founding President of the Magnum Foundation. The Magnum Foundation supports, trains, and mentors the next generation of in-depth independent documentary photographers and seeks to increase the impact of both historical and contemporary photography in the digital age. Meiselas has had one-woman exhibitions in Paris, Madrid, Amsterdam, London, Los Angeles, Chicago, and New York. Her awards include: the Robert Capa Gold Medal for "outstanding courage and reporting" for her work in Nicaragua (1979), the Leica Award for Excellence (1982), the Hasselblad Award (1994), the Cornell Capa Infinity Award (2005), and most recently, a Guggenheim Fellowship (2015). In 1992, Meiselas was named a MacArthur Fellow.

Rosalind Morris is Professor of Anthropology at Columbia University. She is the author of *The Returns of Fetishism: Charles de Brosses's The Worship of Fetish Gods and its Legacies*, with Daniel Leonard; *Accounts and Drawings from Underground: East Rand Proprietary Mines, 1906*, with William Kentridge; *That Which is Not Drawn: William Kentridge in Conversation*

with Rosalind Morris; and she has edited *Can the Subaltern Speak? Reflections on the History of an Idea*, and *Photographies East: The Camera and its Histories in East and Southeast Asia*. In 2011, Morris created "RoCaM Productions LLC," to make her first narrative feature film. Starring Bill Griffin and Eric T. Miller, *Gertrude Stein's Brewsie and Willie* is based on her own adaptation of Stein's last novella, published in 1946, and was released in 2014. With co-librettist Yvette Christiansë and composer Zaid Jabri, she is also the co-creator of a major new opera entitled *Cities of Salt*, based on the novel by Abdelrahman Munif.

Fred Moten is Professor of Performance Studies at New York University's Tisch School of the Arts. He works in the areas of black studies, performance studies, poetics and critical theory, and sound studies. He is author of *In the Break: The Aesthetics of the Black Radical Tradition, Hughson's Tavern, B. Jenkins, The Feel Trio, The Little Edges*, and a three-volume collection of essays whose general title is *consent not to be a single being*. Moten is also co-author, with Stefano Harney, of *The Undercommons: Fugitive Planning and Black Study, A Poetics of the Undercommons*, and, with Wu Tsang, of *Who Touched Me? (If I Can't Dance, I Don't Want to be Part of Your Revolution)*. He recently participated in a panel discussion at the Tisch School of Arts entitled "What Difference Does the Digital Make: Critical Encounters at the Edges of Psychoanalysis and Technology."

Jean-Luc Nancy is the Georg Wilhelm Friedrich Hegel Chair and Professor of Philosophy at the European Graduate School. He has taught at the Université des Sciences Humaines in Strasbourg, and has been a guest professor at numerous universities, including the Freie Universität Berlin, the University of California, Irvine, and the University of California, Berkeley. His work is very diverse and he has written on Descartes, Kant, Hegel, Heidegger, Lacan, Bataille, Blanchot, and Derrida. He has explored the question of community, the nature of the political, German Romanticism, psychoanalysis, literature, technology, and hermeneutics, and he also has written several books on the arts and on filmic and photographic images, including *Multiple Arts*, *The Ground of the Image*, *Portrait*, *The Muses*, *Being Nude: The Skin of Images*, and *The Evidence of Film*.

RaMell Ross is a Providence, Rhode Island-based writer, photographer, filmmaker, and Mellon Gateway Fellow and Assistant Professor in Brown University's Visual Art Department. His work has been exhibited nationally and internationally, and he has received grants from the Sundance Institute and Tribeca Film Institute for his experimental documentary, *Hale County This Morning*, *This Evening*, which premiered at the Sundance Festival in 2018. *Hale County* has won several awards, including the U.S. Documentary Special Jury Award for Creative Vision at the 2018 Sundance Film Festival 2018, the Reva & David Logan Grand Jury Award at the 2018 Full Frame Documentary Film Festival, and the Best Documentary Award at the 2018 Gotham Awards.

Sharon Sliwinski is an interdisciplinary scholar whose work forges a bridge between the fields of visual culture, political theory, and the life of the mind. Her first book, *Human Rights In Camera*, explored the visual politics of human rights. She has contributed broadly to the field of photography studies, most recently co-editing *Photography and the Optical Unconscious*. Sliwinski's most recent work investigates the social, political, and cultural significance of dream-life, which is represented in her book *Dreaming Dark Times* and in her project, *The Museum of Dreams*. In 2017, she was elected to the Royal Society of Canada's College of New Scholars, Artists, and Scientists, and she currently holds the 2017-19 Rogers Chair in Journalism & New Information Technology. She also has been a long-time member of the research collective known as the Toronto Photography Seminar.

Liana Theodoratou is Clinical Professor and Director of the A. S. Onassis Program in Hellenic Studies at New York University. She is also the Director of the NYU Global Research Institute in Athens. Trained as a classicist, she now specializes in Modern Greek literature and culture, with particular interests in poetry, film, music, and theater. She has worked for the Greek Ministry of Culture, and has served on the Executive Board of the Modern Greek Studies Association. She has published widely on Modern Greek poetry and presently finishing a book entitled *Mourning Becomes Greece: Poetry of the Greek Civil War*. She also has translated several works by Walter Benjamin, Louis Althusser, Michel Foucault, and Jacques Derrida into Greek.

Christina Varvia is an architectural researcher and Deputy Director of Forensic Architecture. She is a graduate of the AA School of Architecture and Westminster University. Her previous research includes studies on digital media and memory as well as the perception of the physical environment through scanning and imaging technologies, research that she deploys through time-based media. She joined the Forensic Architecture team in 2014, where she has developed methodologies for the *Rafah: Black Friday Report*, which reconstructed one day in the 2014 war in Gaza, *Saydnaya: Inside a Syrian Torture Prison*, *77 sqm*, *9:26 minutes*, *The Murder of Pavlos Fyssas*, and many other projects and exhibitions.

Eyal Weizman is Professor of Spatial and Visual Cultures and founding director of the Centre for Research Architecture at Goldsmiths, University of London. In 2010 he founded the research agency Forensic Architecture. The work of the agency is documented in the exhibition and book *FORENSIS*, as well as in *Forensic Architecture: Violence at the Threshold of Detectability*, and in numerous exhibitions worldwide. In 2007, he established, with Sandi Hilal and Alessandro Petti, the architectural collective DAAR in Beit Sabour, Palestine. This work is documented in the book *Architecture After Revolution*. His other books include *The Conflict Shoreline, Mengele's Skull* (with Thomas Keenan), *The Least of All Possible Evils*, *Hollow Land*, and *A Civilian Occupation*. He is on the editorial board of *Third Text*, *Humanity*, *Cabinet*, and *Political Concepts* and is on the board of directors of the Center for Investigative Journalism and on the Technology Advisory Board of the International Criminal Court in The Hague.

Exhibition Curators

Yorgos Karailias is a lens-based artist. His work has been presented at various international festivals and venues: Athens Conservatoire (2019), Athens Photo Festival, Museum Benaki (2018), Whitelight Showcase (2017), MedPhoto Festival, Museum of Contemporary Art of Rethymno (2016), Paris Photo (2015), Fotografia Festival Internazionale di Roma, Museum of Contemporary Art of Rome (2015), as well as in various publications, including his photobook *EstrangeR* (Kehrer Verlag Heidelberg, 2015). He also holds an MA in Modern History and has been involved in various cultural and educational projects as organizer, instructor and curator as well as collaborating with various cultural entities and institutions, such as Onassis Stegi and Cáceres Schools of Fine Arts, MedPhoto Festival and Cáceres 2016 Committee for the city's candidature as European Capital of Culture.

Yorgos Prinos is a visual artist. His work explores issues of power and violence at the intersection of human psychology and politics. His photos often feature the human figure in urban space, while devising suggestive and elliptical narratives using found footage from media or the Internet. His work has been presented in venues and publications across Europe, the United States and Asia. Notable presentations have taken place at Athens Conservatoire, Slought, Bozar, the Benaki Museum, the 2nd and 5th editions of the Thessaloniki Biennale of Contemporary Art, Paris Mois de la Photo, the Beijing Art Centre, the Antikenmuseum Basel, Nicole Klagsbrun Gallery, and the Thessaloniki Museum of Photography. He holds an MFA from the Yale University School of Art and has served as instructor, visiting critic, or lecturer at Yale University, School of Visual Arts, the International Center of Photography, Wesleyan University, County College of Morris, the Thessaloniki Museum of Photography and others. He has co-edited several books and catalogs and has curated exhibitions and projects in Greece and abroad.

Pasqua Vorgia studied Cultural Management (MA) at Panteion University of Social and Political Sciences in Athens, Organizational Psychology (MA) at Columbia University and Psychology at the Kapodistrian University of Athens. She has worked as an independent film documentary producer, and a freelance writer for the Greek press. In 2011, she joined the art collective Depression Era, which brought together artists, photographers, writers, and researchers for the visual exploration of the Greek and European financial crisis. In this context, she co-curated and organized various exhibitions, workshops and other public events and interventions in Greece and abroad. Since autumn 2015, she has been working at Onassis Stegi, coordinating and co-curating the Talks & Thoughts series, which consists inter alia of symposiums, exhibitions, workshops and festivals, connecting artistic and academic communities with each other and the broader public. As an artist and curator, she is drawn to exploring contemporary visual culture, the power of the media, and new forms of discourse and relations arising in the networked and digital worlds. Pasqua is an Onassis and Fulbright scholar.

Symposium Curator

Eduardo Cadava is Professor of English at Princeton University, where he is also an Associate Member of the Departments of Comparative Literature and Spanish and Portuguese, the School of Architecture, the Seeger Center for Hellenic Studies, and the Princeton Institute for International and Regional Studies. He is a faculty member in the summer program at the European Graduate School in Saas-Fee and he has been the Benjamin Menschel Distinguished Visiting Professor in Architecture at Cooper Union. He is the author of *Words of Light: Theses on the Photography of History*, *Emerson and the Climates of History*, and, with Fazal Sheikh, of *Fazal Sheikh: Portraits*. He also has co-edited *Who Comes After the Subject?*, *Cities Without Citizens*, a special issue of the *South Atlantic Quarterly* entitled "And Justice for All?: The Claims of Human Rights," and *The Itinerant Languages of Photography*. He has co-curated installations and exhibitions at the MAXXI Museum in Rome, the Slought Foundation in Philadelphia, Storefront for Art and Architecture in New York, the Al-Ma'mal Center for Contemporary Art in East Jerusalem, and the Princeton University Art Museum. He has translated several works by Jacques Derrida, Philippe Lacoue-Labarthe, and Maurice Blanchot, and recently has introduced and co-translated Nadar's memoirs, *Quand j'étais photographe*. A collection of his essays on photography has appeared in Spanish under the title *La imagen en ruinas*, and his book *Paper Graveyards: Essays on Art and Photography* is forthcoming from Princeton University Press.

Catalog Editor

Alexander Strecker is pursuing a PhD in Art, Art History and Visual Studies at Duke University. He specializes in contemporary photography, focusing on the impact of technological changes to the medium in the past, present and future. At Duke, he is part of the S-1 Speculative Sensation Lab. In parallel, he has an interest in how artistic practices register the contradictions inherent in ideas of crisis, periphery, and technology. Drawing on his Greek heritage, he focuses on how these tensions are felt acutely in contemporary Greece, while also resonating worldwide. In Athens, he collaborates with various arts organizations, including the Onassis Stegi, ARTWORKS, and Athens Photo Festival. His writing has appeared at the Barbican, Art Basel, Paris Photo, and Les Rencontres d'Arles as well as in *The Architectural Review*, *The Sunday Times*, *LensCulture*, Creative Insights, and Aldebaran. He received a BA, *magna cum laude*, in English Literature from Amherst College. Before studying at Duke, he lived in Paris and Athens for several years while working as a magazine editor and photography critic.

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In the present moment, we use machines to capture almost everything we see; at the same time, we are constantly being photographed by machines without our consent or awareness. Our faces, emotions, habits, beliefs, and data are being collected, stored, and valued in massive and invisible ways, serving warfare, surveillance, global capital, and risk management systems whose aim is to predict the future and produce profit. Our world sometimes feels like a crystal ball, absorbing its surroundings and projecting its predetermined plan back at us. Meanwhile, digital images have become both omnipresent and invisible, rendering inward reflection difficult and threatening to mute the transformative power of the human imagination.

In response, *For Ever More Images?* gathers an interdisciplinary group of artists, thinkers, and activists to interrogate the all-seeing eyes and ever-multiplying black boxes that increasingly govern our lives. In the face of such dire conditions, this catalog gestures towards new possibilities that these same technologies open up. Radical uses of the image remain possible—from collective historical witnessing, to contested testimony, and evolving counter-surveillance practices—which hold out the promise of critical understanding, social engagement, and action.

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