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ART AS EVIDENCE

WHEN ART MEETS WHISTLEBLOWING

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ART AS EVIDENCE encourages the creation of art through critical models of thinking and understanding, as well as stresses the role of artistic creation to investigate issues and translate information. The contributions of this section, in the format of theoretical reflections, newspaper articles and interviews, engage with the artistic potential of revealing facts, exposing misconduct and wrongdoings, and promoting awareness about social, political and technological matters.

The 2013 debate on the PRISM, XKeyscore and TEMPORA internet surveillance programmes, based on the NSA documents Edward Snowden disclosed to journalists, symbolised an increasing geopolitical control. New identities emerged: whistleblowers, cyberpunks, hacktivists and individuals that brought attention to abuses of government and large corporations, making the act of leaking a central part of their strategy.

This section deals with the effects of this debate on art and culture, presenting the concept of Art as Evidence, a notion suggested by Laura Poitras in 2013.

The first chapter traces the background of the concept of Art as Evidence, and the effects of whistleblowing on art and culture, covering the time frame from the early WikiLeaks projects to the impact of the Snowden disclosures. Afterwards, Academy Award-winning filmmaker and journalist Laura Poitras, artist and geographer Trevor Paglen and research coordinator at Forensic Architecture Robert Trafford reflect critically on the role of art and evidence in the context of post-9/11 politics and society. They use multiple disciplines and methodologies to understand ground truths and to present them in a variety of contexts, addressing the production of evidence as a collaborative act by civil society.

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INTRODUCING ART AS EVIDENCE

THE ARTISTIC RESPONSE TO WHISTLEBLOWING

A New Form of Cultural Resistance

THE TIME FRAME from 2009 to 2016 was a crucial period of collective experiences towards the formulation of artistic practices in relation to whistleblowing. In this period of time, close networks of trust were established around this topic, rooted in WikiLeaks' activities which pushed the boundaries of what is correct to publish, and what could count as art.

In November 2009, WikiLeaks published 570,000 confidential 9/11 pager messages, documenting over 24-hours in real time of the period surrounding the September 11, 2001 attacks in New York and Washington. The archive showed US national text pager intercepts of official exchanges at the Pentagon, FBI, FEMA and New York Police Department, and from computers reporting faults at investment banks inside the World Trade Centre.[1]

In 2010, the publication of *Collateral Murder* and the Afghan War Diary, anonymously disclosed by Chelsea Manning to WikiLeaks, as well as the WikiLeaks release of top-secret State Department cables from US embassies around the world, signed the start of a specific period of time in which artists, hackers, activists, researchers, and critical thinkers engaged extensively with the formulation of new forms of technological resistances and artistic critique.[2]

Three years later, Edward Snowden's disclosures of National Security Agency documents have changed our perception of surveillance and control in the information society. The debate over abuses of government and large corporations has reached a broad audience, encouraging reflection on new tactics and strategies of resistance. Whistleblowing, leaking, and disclosing have opened up new terrains of struggle.

What is the artistic and activist response to this process? How is it possible to transfer the surveillance and whistleblowing debate into a cultural and artistic framework, to reach and empower both experts and non-experts?

The objective of this chapter is to introduce the concept of Art as Evidence as a framework to describe artistic and hacktivist practices able to reveal hidden facts, to expose misconducts and wrongdoings of institutions and corporations, to produce awareness about social, political and technological matters that need public exposure, and in general, to inform the reality we live in. Art becomes a means to sensibilise about sensitive issues, generating an in-depth analysis within the framework of social and political action, as well as hacktivism, post-digital culture, and network practices.

The framework of Art as Evidence is presented in this essay as a context of artistic exploration, in which the issues under scrutiny are investigated in their imaginative artistic potential by questioning the concept of evidence itself. The main tactics are not only the disclosure of information and provoking of awareness through artistic interventions, but also encouraging the imagining of alternative models of thinking and understanding which lead to the creation of new imaginaries by playing with the "unexpected", a methodology that has been at the core of artistic experimentation since the Avant-garde, which introduced the use of shock and estrangement as artistic practice.

This chapter follows a situated perspective, based on the networks of trust I established in the course of the last ten years in this field, and the personal sharing with some of the key people that contributed to the development of the debate around art and whistleblowing. The concept of Art as Evidence was inspired by an exchange between Academy Award-winning filmmaker and journalist Laura Poitras, artist, academic researcher, and investigative journalist Jacob Appelbaum, artist and geographer Trevor Paglen, and myself. As described in the following interview with Laura Poitras, in the fall of 2013 she suggested the framework of Art as Evidence for our keynote event at the transmediale festival in Berlin, to describe this common artistic perspective, and a conceptual zone to investigate artistic practices that speak and inform about reality, as well as provoke a reaction about it.[3]

According to Laura Poitras, connecting art with evidence means to reflect on "the tools and mediums we can use to translate evidence or information beyond simply revealing the facts, [and] how people experience that information differently—not just intellectually, but emotionally or conceptually."[4] Following this perspective, art becomes not only a way to translate information, but also an entry point to investigate sensitive issues, and to explore and experience them by sharing them with an audience.

In Laura Poitras' words: "The work that I've been trying to do is to find ways to communicate about what is a really horrible chapter in American history. We

can do a reminder that Guantanamo opened in 2002 and there are people there who have never been charged with anything, but where's the international pressure? […] It isn't enough to change the reality, but it's also not enough to say what it means. It's actually incomprehensible to imagine being in prison and never be charged with anything. I feel like art is a way to express something about the real world. As artists we're not separate from political realities, we're responding to them and communicating about them."[5]

In this context, the act of leaking and provoking awareness through whistleblowing and truth-telling becomes a central part of the strategy of media criticism, by bringing attention to abuses of governments, institutions, and corporations. The objective is to reflect on interventions that work within the systems under scrutiny, and increase awareness on sensitive subjects by exposing misconduct, misinformation and wrongdoing in the framework of politics and society. This means interlinking the act of disclosing with that of creating art, shifting the debate from the initial intentions of whistleblowers to inform the public, to another level where whistleblowing becomes a source of creative experimentation and social change.

The concept of whistleblowing in this essay is presented as something concrete and accessible to a broader public—something that everyone can experience and expand into the framework of artistic and activist interventions. Furthermore, the meaning of "evidence" itself is expressed in different ways, and expanded into a context of imaginary experimentation, which the artistic form allows.

Resisting the Normalisation of Surveillance

As Glenn Greenwald points out in his book *No Place to Hide*, reflecting on the harm of surveillance in society, "Only when we believe that nobody else is watching us do we feel free—safe—to truly experiment, to test boundaries, to explore new ways of thinking and being, to explore what it means to be ourselves. What made the internet so appealing was precisely that it afforded the ability to speak and act anonymously, which is so vital to individual exploration. For that reason, it is in the realm of privacy where creativity, dissent, and challenges to orthodoxy germinate."[6]

This point is crucial to sensibilising people on the use of codes and software for protecting privacy, improving tools of counter-surveillance and anonymity. However, if we assume that today there is "No Place to Hide", as proven by the global surveillance disclosures of Edward Snowden and other acts of whistleblowing described in this book, how can we imagine tactics of criticism and artistic experimentation that happen within a context of freedom of expression?

On one side, the perception of constant surveillance might be a limitation to imagination. On the other side, if the idea of being surveilled became normalised, we could start imagining how to produce artistic explorations that come from *within* systems of monitoring and oppression.

There is an obvious risk in living with the perception of being monitored through pervasive surveillance. As Greenwald himself suggests, reconnecting his reflections with the ones of Michael Foucault in *Discipline and Punish*, "those who believe they are watched will instinctively choose to do that which is wanted of them without even realizing that they are being controlled."[7] In the context of debate over disclosures about state surveillance networks that function globally, the challenge becomes to find terrains of struggles and interventions, assuming we are all potentially watched.

As the hacktivist and researcher Jaromil writes in his abstract for the talk *Demilitarize technology: An insider's critique of contemporary hacker politics*, "On a subjective level, while we constantly risk becoming obsessed by revelations about the global surveillance *panopticon* and the military-industrial complex, we are also exposed to mass-deceiving propaganda and media manipulations, while even interpersonal communication becomes a field for the expanding narrative of total war."[8]

What he advocates is to circumvent the shared "grim aura" of fear and individualism through our capacity to imagine a better society, enhancing "the possibility for a hacker subject to maintain integrity and seek a positive constituency for her relations" by growing socially oriented networks of trust. This implies a reflection on collective empowerment, opening up the discourse of whistleblowing to a broader community of people.

In a panel at the Disruption Network Lab's 2015 conference event *SAMIZDATA: Evidence of Conspiracy*, Jacob Appelbaum observed that surveillance forces you to do things that you are asked to do. By normalising surveillance, we legitimise systemic power structures and asymmetries in society. As is widely known, Appelbaum has been in self-exile in Germany for the past eight years, unwilling to submit himself to harassment from the US authorities for his previous involvement with WikiLeaks and his refusal to testify against Julian Assange in the context of the Grand Jury investigation against him. He points out that surveillance is only an aspect of a broader political structure, whilst the challenge is to work on liberating each other, provoking systemic changes: "Whistleblowing is a tactic but it is not a whole strategy, it is not enough on its own. We should find terrains of struggles in the information society."[9]

On the same panel, speaking about information asymmetry, researcher on civil disobedience Theresa Züger pointed out that state and corporations gather information about us, but we don't have information about how much we are surveilled: "Whistleblowing is breaking this, by directly intervening within politics,

and changing what we know. It is not only a symbolic gesture of disobedience, but people have taken enormous risks."[10]

This debate relates to the necessity of collective empowerment and simultaneously lowering risks, distributing the potential punishment and sharing information that only relatively few people have access to, as was pointed out in the early days of the debate on the Snowden Files.

The models of disclosing information we have witnessed over the past decade are diverse, from leaking the information to specific organisations, as whistleblower Chelsea Manning did in 2010, passing her material to WikiLeaks; to appointing specific people to filter information, as Edward Snowden chose to do in 2013, by trusting Glenn Greenwald and Laura Poitras to receive and have access to the NSA documents; to leaking large information via BitTorrent and Mega, as happened in the 2015 case of the hack of the Hacker Team data by Phineas Fisher, and the reporting of evidence by Citizen Lab on the targeting of human rights activists via the surveillance software provided by the Hacking Team company; to the collaborative model adopted in the 2015-2016 Panama Papers investigation by *Süddeutsche Zeitung* journalists Bastian Obermayer and Frederik Obermaier, connecting with the International Consortium of Investigative Journalists to analyse the law firm documents, involving a multitude of journalists from more than one hundred media organisations in around eighty countries.

In the case of the Snowden Files, the Berlin-based journalist and curator Krystian Woznicki started a public debate in July 2014 with his article, "Open the Snowden Files! Raising New Issues of Public Interest", attracting a significant amount of comments on the *Berliner Gazette* website.[11] Woznicki argued that "the access to the documents of the NSA-Gate remains closed" and "this blocks the democratic potential of the Snowden disclosures."[12] Laura Poitras, referring to her activity of reporting the Snowden disclosures and her contact with the source, pointed out that "it is a very justified criticism just in terms of how to scale the reporting, and it certainty has been a challenge, but it is also about how you build this kind of relationship and networks of trust, and they have been hard to balance"—an issue that we have discussed further in the context of our recent interview for this book.[13]

In the chapter on the role of political media, "The Fourth Estate", in his book *No Place to Hide*, Glenn Greenwald describes the power dynamics at stake when media subservient to government try to discredit him for reporting on sensitive issues and working with a source that disclosed classified information. Many parallel issues play a role: the trust of the source seeking to coordinate the reporting via specific journalists, the clear risk of punishment from the powers of government, and the sensitive choice of deciding what is appropriate to report and what is not. At the end of his book, he writes:

> The prevailing institutions seem too powerful to challenge; orthodoxies feel too entrenched to uproot; there are always many parties with a vested interest in maintaining the status quo. But it is human beings collectively, not a small number of elites working in secret who can decide what kind of world we want to live in. Promoting the human capacity to reason and make decisions: that is the purpose of whistleblowing, of activism, of political journalism. And that's what is happening now, thanks to the revelations brought about by Edward Snowden.[14]

Between the end of the 1990s and beginning of the 2000s, in the so-called media art scene, the debate about the collectivisation of media tactics was central. Today, the challenge is to imagine a distributed range of practices able to bring back a shared perception of power, which should not only rely on the traditional mass media system, but also reflect on strategies of collective actions and interventions—providing solutions, which are political and not merely technological.

Artistic Practice as Evidence of Reality

In April 2012, Laura Poitras held a surveillance teach-in at the Whitney Museum of American Art in New York. It was an artistic and practical commentary on living in the contemporary Panopticon. For this programme, NSA whistleblower William Binney and Jacob Appelbaum joined her to discuss state surveillance, civil right to privacy, and how technological innovations are legitimating pervasive access to private information.[15] The event took place in the context of Laura Poitras' work, which had previously chronicled post-9/11 America with her films *My Country, My Country* (2006), *The Oath* (2010), and before the release of *Citizenfour*, her 2014 Academy Award winning documentary on the surveillance state and Edward Snowden's disclosures.

As stated in our 2013 interview (included in this publication), describing her artistic practice, Laura Poitras stated: "I don't want the audience to think that it's some other reality that they have no connection with. I want to emotionally implicate the audience—especially US audiences—in the events they are seeing."[16] Her solo show at the Whitney Museum of American Art, *Astro Noise* (February 5 to May 1, 2016), expanded this perspective; she created installations of immersive environments combining various material, from footage to information around NSA surveillance and post-9/11 America.

Connecting to this line of imagining art as a means to speak about reality, in February 2014 I curated a panel at the transmediale festival in Berlin involving Laura Poitras, Jacob Appelbaum and Trevor Paglen. On this specific occasion, the filmmaking work of Poitras was combined with the secret geographies of Trevor Paglen and the colour infrared photography of Jacob Appelbaum. The concept of

surveillance was translated and explored through concrete artistic examples, interlinking various areas of expertise. We discussed how art could become functional in creating evidence and informing about our society; a scope that is clear in the work of Laura Poitras, and her films and exhibitions that show how art can be used to transfer information, and to expose misconduct and wrongdoing. This approach is also relevant in the work of Trevor Paglen, bringing misconduct and systems of powers into the light. He does this through his photography, and through other artistic projects investigating hidden mechanisms of artificial intelligence, facial recognition, and machine learning, as we can read in the interview that follows in this publication.

In the 2010 photographic monograph *Invisible: Covert Operations and Classified Landscapes*, Trevor Paglen explored the secret activities of the US military and intelligence agencies, creating photos of top-secret sites that are not accessible, but that can be mapped and brought to evidence. As we discuss in the interview, photography becomes a means of truth-telling, revealing to the public the existence of secret operations, depicting both what can and cannot be seen. High-end optical systems are used to document government locations, and classified spacecrafts in Earth's orbit are photographed by tracking the data of amateur satellite watchers. In Paglen's series of drone photography, we see an apparently normal landscape, but only when the photo is exposed to its maximum resolution are we are able to disclose drones in the sky, and therefore have an idea of the clandestine military activities that are happening on the American landscape.

During our panel at the transmediale festival, the notion of Art as Evidence was also related with the colour infrared photographic work by Jacob Appelbaum, based on a Kodak EIR colour infrared film, medium format. The following 2015 solo show *SAMIZDATA: Evidence of Conspiracy* that I curated at the NOME Gallery in Berlin presented six cibachrome prints (a fully analogue positive slide printing technique), portraying Bill Binney, Laura Poitras, Glenn Greenwald, David Miranda, Julian Assange, Sarah Harrison and Ai Weiwei, as well as two installations: *P2P* (*Panda-to-Panda)*, and the necklace piece *Schuld, Scham & Angst (Guilt, Shame & Fear)*.

Appelbaum shot the photos using colour infrared films, previously adopted to expose hidden details during aerial surveillance, to portray people under surveillance who have themselves worked to report on governmental misconducts and exposed crimes against civil society. According to him, "it is beautiful irony and conceptually strong to use surveillance film to critique surveillance culture. In a world of digital surveillance, re-purposing analogue aerial agricultural surveillance film for the portraiture of peoples who are exposed to and who work to expose surveillance seemed the appropriate medium."[17]

The photos, given as a gift by Appelbaum to the people that are portrayed, were also the evidence of a personal network of trust, where grassroots collaboration

between trusted people who share passions, ideals and political views were documented. In the context of the interconnected network of artistic evidence, the installation *P2P (Panda-to-Panda)*, created in collaboration with Ai Weiwei, was a stuffed panda with Snowden materials and other classified documents saved in an SD card, exemplifying a peer-to-peer network of trusted individuals that got the panda as gift for their struggle for social justice. The project *Schuld, Scham & Angst (Guilt, Shame & Fear)* was a piece of one hundred necklaces, each containing shredded unreleased documents, journalistic notes, and other classified documents from the previous two years of reporting on the Snowden files, thought to be pieces of evidence carried around by people, symbolising the shame and guilt of shredding sensitive documents, as society often demands.[18]

Another project resulting from the collaboration between Jacob Appelbaum and Trevor Paglen is the *Autonomy Cube* sculpture (exhibited at the Edith-Russ-Haus for Media Art, Oldenburg, from October 22, 2015 to January 3, 2016). The cube, which worked as a node in the Tor network, gave visitors access to the Tor network along with a copy of the Tor programme, turning the museum into a space for free speech and autonomy. By making the cube enter into a cultural context, the exhibition allowed "art institutions to actually be part of a worldwide network of things such as opening up lines of communication, securing people's fundamental right to anonymity, to free speech, and thus to human rights."[19] Paglen and Appelbaum have built around a dozen cubes in total, that have often been activated at the same time, building and improving the Tor network.

Blowing the Whistle, Questioning Evidence

In 2016, I was asked by Akademie Schloss Solitude and ZKM Center for Art and Media to curate a call that I named "Blowing the Whistle, Questioning Evidence", which was announced in February 2017.[20] I was trying to bring together multiple perspectives: from one side, to imagine art as an source of exposing misconduct, reflecting on the impact and consequences of whistleblowing; from the other side, I wanted to question the discourse of providing evidence. What does it mean to produce art as evidence of our society? Is there only one single truth, or are there many? This question opens up a crucial debate in the artistic field, because it can result in the deconstruction of a linear form of understanding, proposing the idea that truth (and evidence) is always multiple. Whistleblowers often work on exposing hidden evidence of crimes, but what if the truth could be varied, and how do we then work with the consequent discourse of providing social justice? This double-sided perspective becomes an occasion to speak about power mechanisms and different forces of powers that are usually at stake.

In relation to the concept of art as evidence, I proposed to open up a field of artistic research and practice where the fight against surveillance and for the protection of civil rights and social justice becomes a terrain of intervention by understanding the inner logic of systems of power and questioning them: questioning government agencies, private enterprises and corporations that base their profit on the collection of meta-data, as well as intelligence services that base their business on tracking and surveilling people.

What normally motivates whistleblowers is informing the public, and many whistleblowers would not compare themselves with artists. However, following a speculative perspective, I would argue that whistleblowers are able to provoke the unexpected, operate a disruption of closed systems from within, and investigate hidden sides of reality. They experience in their personal life a radical change of perspective, a sort of *détournement of belief* that contributes to generating societal transformations. Although their risks and mindsets are not equal, artists are able to encourage different modes of thinking by investigating hidden sides of power and society, and, at the same time, provoke a reflection on the meaning and limits of evidence itself.

Conceptually interlinking the act of whistleblowing to artistic practices, focusing on the function of generating awareness by producing as well as questioning evidence, would allow for the opening up of the meaning of whistleblowing more widely. If we see the act of whistleblowing as a cultural perspective able to provoke change, with the strength to radically construct a different point of view, it is possible to find such a mindset in the activities of many artists, activists, journalists, researchers and people in general. Obviously, the consequences of an act of whistleblowing and the creation of an artistic project are not the same, at least in countries where artistic expression is not persecuted as a crime. But I consider it very important to engage in this speculative comparison, to better understand the aim of whistleblowing, to decriminalise it, to open up a wider debate on what this practice is in the first place, as well as to stretch the boundaries of what art might be. The following experiences which lie at the crossing between generating social awareness, providing public knowledge, and sharing the tools for producing evidence, are a good example of how whistleblowing could inform activist practices and inspire artistic projects.

More than thirty years ago, Norwegian researcher and journalist Jørgen Johansen exposed the sites of secret NATO military bases in Norway, combining and analysing public records, freely accessible to everyone. The government considered his publications to be the disclosure of classified information and prosecuted him with espionage charges, although he had collected and analysed information that anyone could have found. In an interview in September 2015, he points out: "If you are a person who thinks the world should be better, you must act in a way that gives the opposition movements around the world the possibility

to do their jobs. If you're just an obedient consumer or an obedient citizen, you're letting surveillance continue on those who really have something to hide because they are the state's opposition."[21]

Following the opening up of the practice of whistleblowing among wider society, German artist collective Peng! launched their campaign *Intelexit* in September 2015, inviting people inside the secret services, as well as intelligence agencies, to blow the whistle and make a stand (www.intelexit.org). This initiative promoted whistleblowing as a common practice, by building up a support structure and safety network to enable whistleblowing, taking into account the risks. The campaign used disruptive methods to intervene with intelligence systems, for example placing unexpected billboards in front of the offices of intelligence services and distributing flyers via drones flying over NSA bases. As usual for the interventions by the Peng! collective, the project served also as a provocation to open up a debate about the issues of surveillance and truth-telling, as well as the importance of sources' protection.[22]

The act of speaking out as a tactic of resistance and societal change is nothing new, but it deserves an in-depth analysis, especially today, with the debate about surveillance and big data involving an increasing audience. In recent years, more artists and groups have been dealing with the topics of art and evidence, and many have stressed the importance of investigative aesthetics as an artistic practice.

To mention a few: James Bridle, who focused his practice on the concept of the New Aesthetics (2012), researching drones, military technologies and asylum seeker deportation, among other topics; the !Mediengruppe Bitnik, that work critically on online and offline systems of control, and in early 2013 developed the project "Delivery for Mr. Assange", tracking the journey of a parcel sent to the Ecuadorian Embassy; Paolo Cirio, who explored the concept of Evidentiary Realism (2017) and related artistic works, scrutinising and revealing the hidden systems of social reality, intersecting documentary, forensic, and investigative practices; Joana Moll, tracing the connection between hidden interfaces, data exploitation, corporate business models, free labour, media surveillance, CO2 exploitation and domesticated electricity as also highlighted in this publication; Adam Harvey, researching privacy, surveillance, and computer vision, developing camouflage techniques for subverting face detection, thermal imaging, and location tracking; Ingrid Burrington and her work focusing on mapping, documenting, and identifying elements of network infrastructure, exposing the hidden landscapes of the internet; the artistic duo UBERMORGEN, net.art pioneers and media hackers that research data and create polarising social experiments, who have been creatively working with the concept of truth-telling since the 1990s; and of course the long lasting investigative work of Forensic Architecture, based on the collaborative concept of Horizontal Verification and the Socialised Production of Evidence, applying an open-source counter-forensic practice for the production of

evidence—a strategy well described in the following contribution in this book by Robert Trafford.[23]

This essay is an invitation to discuss, reflect and develop new artistic practices that take inspiration from, but also go beyond, whistleblowing, to open up the fight against surveillance to a broader community. Art as Evidence therefore means, in this context, to explore the current transformation of political and technological criticism in times of increased geopolitical surveillance, analysing methods and artistic practices to question and produce evidence.

Artistic works of evidence and about evidence become therefore not only a challenge to expose facts and wrongdoings that are hidden and not accessible to the general public, but also an opportunity to collectively question the concept of evidence itself, and to reflect on which speculative forms of artistic research and practice might arise from its analysis.

Notes

1. WikiLeaks' "9/11 tragedy pager intercepts" is visible at https://911.wikileaks.org. The project is rebroadcast in real time on subsequent 9/11s. Read more in the article: Declan McCullagh, "Egads! Confidential 9/11 Pager Messages Disclosed", *CBS News*, November 25, 2009, https://www.cbsnews.com/news/egads-confidential-9-11-pager-messages-disclosed.
2. In May 2013, in the context of the yearly programme "reSource" that I was curating at the transmediale festival, I organised with Diani Barreto and with the support of the (later named) Chelsea Manning Initiative Berlin, the panel "The Medium of Treason. The Bradley Manning Case: Agency or Misconduct in a Digital Society?" at the Urban Spree Gallery in Berlin. This event revisited the making of the Collateral Murder video and discussed the "United States v. Bradley Manning" trial on June 3, 2013. The video of the panel with Andy Müller Maguhn, John Goetz and Birgitta Jónsdóttir is available at: https://archive.transmediale.de/content/resource-005-the-medium-of-treason.
3. This happened during the process of our sharing for the organisation of the keynote "Art as Evidence", about art and the NSA surveillance at the transmediale festival at the Haus der Kulturen der Welt in Berlin on January 30, 2014, https://archive.transmediale.de/content/keynote-art-as-evidence, which is described in depth in the following interview with Laura Poitras in this book. After this transmediale festival edition, I again connected the topic of art and whistleblowing curating the exhibition "Networked Disruption: Rethinking Oppositions in Art, Hacktivism and Business", which opened in March 2015 at the ŠKUC Gallery, in Ljubljana, Slovenia, expanding the subject of my previous book (*Networked Disruption*, 2013) into the practices of whistleblowing and truth-telling: https://aksioma.org/networked.disruption.
4. Bazzichelli, Tatiana, "The Art of Disclosure: Interview with Laura Poitras", initially published in *The Afterglow* transmediale magazine, 2, Berlin, (2014): 16-18, and expanded for this anthology. The quote is taken from the actualised version of the interview, following this chapter.
5. See the video documentation of the panel: "SAMIZDATA: Evidence of Conspiracy", with Jacob Appelbaum, Laura Poitras and Theresa Züger, moderated by Tatiana Bazzichelli, Disruption Network Lab, Kunstquartier Bethanien, Berlin, September 11, 2015, https://www.youtube.com/watch?v=XyZAYanzMKw, retrieved July 27, 2021.

6. Greenwald, Glenn, "No Place to Hide: Edward Snowden, the NSA, and the Surveillance State", (London: Penguin Books, 2015), 174.
7. Ibid, p. 176.
8. Abstract sent by Jaromil to me by personal email for the preparation of the conference event "SAMIZDATA: Tactics and Strategies for Resistance", Disruption Network Lab at Kunstquartier Bethanien, September 11–12, 2015, https://www.disruptionlab.org/samizdata.
9. In September 2015, our theoretical and practical exchange over the concept of Art as Evidence was taken up further in the context of the exhibition "SAMIZDATA: Evidence of Conspiracy", a solo show in Germany of Jacob Appelbaum, that I curated at the NOME Gallery in Berlin (https://nomegallery.com/exhibitions/samizdata-evidence-of-conspiracy), and in the conference event "SAMIZDATA: Tactics and Strategies for Resistance" (see link in the note above).
10. Ibid: video documentation of the panel: SAMIZDATA.
11. See the "Open the Snowden Files" dossier in the *Berliner Gazette*: http://berlinergazette.de/open-the-snowden-files.
12. Woznicki, Krystian, "Open the Snowden Files! Raising New Issues of Public Interest", *Berliner Gazette*, July 2014, http://berlinergazette.de/wp-content/uploads/Open-the-Snowden-Files_KW_E.pdf, retrieved October 8, 2015.
13. Ibid: video documentation of the panel: "SAMIZDATA: Evidence of Conspiracy", with Jacob Appelbaum, Laura Poitras and Theresa Züger.
14. Ibid, p. 259.
15. Video documentation of the surveillance teach-in panel with Laura Poitras, Jacob Appelbaum and Bill Binney on April 20, 2012 at the Whitney Biennial: https://www.praxisfilms.org/exhibitions/whitney-biennial. This event also featured a clandestine portrait intervention in the Whitney Museum, where two photos portraying Julian Assange were installed. Furthermore, NSA interception point addresses were handed out in the audience.
16. Bazzichelli, Tatiana, "The Art of Disclosure: Interview with Laura Poitras", first published in *The Afterglow* transmediale magazine, 2, Berlin, 2014, 16-18.
17. Bazzichelli, Tatiana, "Interview with Jacob Appelbaum", August 18, 2015, published in the catalogue of the exhibition: *SAMIZDATA: Evidence of Conspiracy*, Jacob Appelbaum, September 11–October 31, 2015, curated by Tatiana Bazzichelli, NOME, Berlin, p. 7. Online catalogue at: https://nomegallery.com/wp-content/uploads/2017/02/SAMIZDATA-by-Jacob-Appelbaum.pdf.
18. Visit the artworks on "SAMIZDATA: Evidence of Conspiracy", solo show in Germany of Jacob Appelbaum, NOME Gallery, Berlin, September 11–October 31, 2015 (https://nomegallery.com/exhibitions/samizdata-evidence-of-conspiracy).
19. Ibid, 13.
20. See the website dedicated to the call and project "Blowing the Whistle, Questioning Evidence", which resulted in four web residences awarded to Adam Harvey (SkyLift: Low-Cost Geo-Location Spoofing Device), Hang Do Thi Duc (Me And My Facebook Data), Joana Moll (Algorithms Allowed), and Marloes de Valk (How to Escape Reality in 10 Simple Steps), and ten shortlisted projects available at: https://www.akademie-solitude.de/en/project/web-residencies-en/calls-2017-en/blowing-the-whistle-questioning-evidence-en/ (Akademie Schloss Solitude and ZKM Center for Art and Media, retrieved July 30, 2021).
21. Interview in *ExBerliner* magazine: "A Norwegian whistleblower in Berlin" by Dyllan Furness, September 8, 2015, http://www.exberliner.com/features/people/open-secrets/, retrieved July 27, 2021. To know more about the story of Jørgen Johansen, watch also the panel "SAMIZDATA: Strategies for Resistance", with Jørgen Johansen, Jaromil and Sophie Toupin, moderated by Valie Djordjevic, September 12, 2015, Disruption Network Lab, Kunstquartier Bethanien, Berlin, https://www.youtube.com/watch?v=nf7u8b2FKTY.
22. The highlights of the *Intelexit* campaign from 2015 and the plans for 2016 were presented by Gloria Spindle of the Peng! collective at the 32C3 Chaos Communication Congress on December 29, 2015. The video is available at: https://www.youtube.com/watch?v=NomUeEBfYNo.

23. To know more about the above mentioned artists and projects visit: James Bridle, https://jamesbridle.com and https://new-aesthetic.tumblr.com; !Mediengruppe Bitnik: https://bitnik.org; Paolo Cirio, https://paolocirio.net and https://www.evidentiaryrealism.net; Joana Moll, http://www.janavirgin.com; Adam Harvey, https://ahprojects.com; Ingrid Burrington, http://lifewinning.com; UBERMORGEN: https://www.ubermorgen.com; Forensic Architecture, https://forensic-architecture.org. To provide more references, in the context of the exhibition "Whistleblower & Vigilanten. Figuren des digitalen Widerstands/Whistleblowers & Vigilantes. Figures of Digital Resistance" artists, experts on whistleblowing, and whistleblowers were connected to reflect critically on forms of surveillance and control (curated by Inke Arns at the Dortmunder U, Dortmund, in 2016: https://www.dortmunder-u.de/veranstaltung/whistleblower-vigilanten-figuren-des-digitalen-widerstands). Furthermore, our Disruption Network Lab conference "Truth-Tellers: The Impact of Speaking Out" in November 2016 questioned the issues of truth and evidence in a conceptual way, by analysing concretely the effects of disclosures, the work of the sources, and the conscious understanding of the consequences of speaking out (https://www.disruptionlab.org/truth-tellers).

LAURA POITRAS

Photo by Jan Stürmann

Laura Poitras is a filmmaker, journalist, and artist. *Citizenfour*, the third instalment of her post-9/11 trilogy, won an Academy Award for Best Documentary, along with awards from the British Film Academy, Independent Spirit Awards, Director's Guild of America, and the German Filmpreis. Part one of the trilogy, Academy Award-nominated *My Country, My Country*, about the US occupation of Iraq, premiered at the Berlinale. Part two, *The Oath*, on Guantanamo Bay Prison and the war on terror, also screened at the Berlinale and was nominated for two Emmy awards. Poitras' reporting on NSA mass surveillance received a Pulitzer Prize for Public Service, along with many other journalism awards. Poitras was placed on a US government secret watchlist in 2006. In 2015, she filed a successful lawsuit to obtain her classified FBI files.

LAURA POITRAS

THE ART OF DISCLOSURE

TWO INTERVIEWS BY TATIANA BAZZICHELLI, 2013–2021

THE FIRST interview with Laura Poitras was conducted in person in Berlin on November 28, 2013, and by email, in the context of our preparation for Laura Poitras' keynote, "Art as Evidence", at the transmediale festival edition "Afterglow", which took place at the Haus der Kulturen der Welt in Berlin from January 29 to February 2, 2014.

The keynote opened the conference stream "Hashes to Ashes" on January 30. The aim of the conference stream was to highlight the pervasive process of silencing—and metaphorically reducing to ashes—activities that exposed misconducts in political, technological and economic systems, as well as to reflect on what burned underneath such processes, and to advocate for a different scenario. A shorter version of this interview was published in the transmediale magazine in January 2014.

The second interview was conducted in person in Berlin on June 16, 2021.

Tatiana Bazzichelli: By working on your documentaries about America post-9/11 and as a journalist exposing the NSA's surveillance programs you have taken many risks, especially reporting on the lives of other people at risk. How do you deal with being both a subject and an observer in your work?

Laura Poitras: How I navigate being both an observer and a participant is different with each film. In the first film I made in Iraq, *My Country, My Country*, when I started working on post-9/11 issues, I am not in the film. That was a conscious decision because I didn't want it to be a film about a reporter in a dangerous place. I wanted the sympathy to be for the Iraqis. It was a very deliberate rejection of mainstream coverage of the war. If people come away from the film and say: "Wow, this is what Iraqis are going through, and this family is really similar to my family", then I succeeded. But how I handle my position has changed over time. In 2006, after I released my film about the occupation of Iraq, I became a target of

the US government, placed on a terrorist watchlist, and started being detained at the US border, so I have been pushed into the story more and more.

With *The Oath*, the question was different. In that case I was editing with Jonathan Oppenheim, and we put together a rough cut of the film where I was not in it. We were doing test screenings and we realized that there was something that the viewers were really disturbed by—they were questioning the access. Rather than drawing them into the film, it was distracting them. Jonathan realized that we had to introduce me in the narrative and acknowledge the camera. There is a wonderful scene in the taxicab with Abu Jandal driving, and at one point his passenger asks: "What's the camera for?" Abu Jandal gives this fantastic lie. This scene acknowledges the presence of the camera, the filmmaker, and we also learn that he is a really good liar.

Now I am working on a documentary about NSA surveillance and the Edward Snowden disclosures, and I will acknowledge my presence in the story because I have many different roles: I am the filmmaker; I am the person who Snowden contacted to share his disclosures, along with Glenn Greenwald; I am documenting the process of the reporting; and I am reporting on the disclosures. There is no way I can pretend I am not part of the story.

In terms of risk, the people I have filmed put their lives on the line. That was the case in Iraq, Yemen, and certainly now with Snowden's disclosures. Snowden, William Binney, Thomas Drake, Jacob Appelbaum, Julian Assange, Sarah Harrison, and Glenn. Each of them is taking huge risks to expose the scope of NSA's global surveillance. There are definitely risks I take in making these films, but they are lesser risks than the people that I have documented take.

TB: The previous films you directed tell us that history is a puzzle of events, and it is impossible to combine them without accessing pieces hidden by powerful forces. Do you think your films reached the objectives you wanted to communicate?

LP: Doing this work on America post-9/11, I'm interested in documenting how America exerts power in the world. I'm against the documentary tradition of just going to the "third world" and filming people suffering outside of context. I don't want the audience to think that it's some other reality that they have no connection with. I want to emotionally implicate the audience—especially US audiences—in the events they are seeing. In terms of if my films reach their "objectives", I think people assume because I make films with political content that I'm interested in political messages. That they are a means to an end, or a form of activism. But the success or failure of the films has to do with whether they succeed as films. Are they truthful? Do they take the audience on a journey, do they inform, do they challenge, and connect emotionally? Etc. I make films to discover things and challenge myself, and the audience.

Of course I want my work to have impact and reach wide audiences. To do that, I think they must work as art and as cinema. I made a film about the occupation of Iraq, but it didn't end the Iraq war. Does that make it a failure? The NSA surveillance film will have more impact than my previous films, because of the magnitude of Snowden's disclosures, but those disclosures are somewhat outside the documentary. Documentaries don't exist to break news; they need to provide more lasting qualities to stand up over time. The issues in the film are about government surveillance and abuses of power, the loss of privacy and threat to the free Internet in the twenty-first century, etc., but the core of the film is about what happens when a few people take enormous risks to expose power and wrongdoing.

TB: Your films cannot be compared with news because news is always somehow distant, instead you get to know the people you are speaking about well, and you really see their point of view. It's about their life, that they decide to share with you, so your role is different, and so are the roles of the people you're filming.

LP: It's different, for better or for worse. Documentaries take longer to complete, and some things need to be public immediately. You don't want to hold back reporting on something like the Abu Ghraib photos. At the moment I am in a push/pull situation of reporting on the NSA documents and also editing the documentary. Whatever outcome there will be from these disclosures, the documentary will record that people took risks to disclose and report what the NSA is doing.

TB: What can we do as people working in the arts to help such a process of information disclosure, contributing to rewriting pieces of collective culture?

LP: I think of someone like Trevor Paglen, because he works on so many different levels. He works on an aesthetic level, and his secret geographies are also pieces of evidence that he's trying to uncover. He combines them in this really beautiful way where you get both documentary evidence of places that we're not supposed to see, and really spectacular images. I love that dialectical tension.

No artist, writer, or reporter works in a political vacuum; you're always working in a political context, even if the subject of your work is not political issues. I guess I would say what I find the least interesting is art that references political realities, but there's no real risk taking on the part of the art making, either on the structural form, or in the content of the work. It's more like appropriation, where politics becomes appropriated by the art world's trends. Any piece of work needs to work on its own terms, that's the most important relevance it has, rather than any political relevance, and I think that that can be as profound or meaningful, like something that's incredibly minimalist, that makes the viewer think in a different kind of way, and ignites your imagination. This is also a very political thing to do, although it's not about war or politics.

TB: I am thinking about *O' Say Can You See*, your short movie about the Twin Towers and Ground Zero. There have been a lot of films about that, but I found it

so interesting that you were not filming Ground Zero, but the people looking at it. For me that's a clear artistic perspective.

LP: My education is in art and I have a social theory background—both inform my work. Every time you take on an issue or topic that you want to represent, it presents certain challenges and possibilities. At Ground Zero, people were looking at something that was gone and difficult to comprehend, but the emotions were so profound that we could represent what had happened in the absence of showing. There are limits to representation. Imagining what people were seeing was more powerful than showing it.

TB: Why did you start working on your trilogy about America post-9/11? How did such topics change your way of seeing society and politics?

LP: I was in New York on 9/11, and the days after you really felt that the world could go in so many different directions. In the aftermath of 9/11, and particularly in the build-up to the Iraq war, I felt that I had skills that can be used to understand and document what was happening. The US press totally failed the public after 9/11, becoming cheerleaders for the Iraq war. So I decided to go to Iraq and document the occupation on the ground. What are the human consequences of what the US is doing, and not just for Iraqis but also for the military that were asked to undertake this really flawed and horrific policy?

When I started that film, I didn't think I was making a series of films about America post-9/11. I was naive and thought the US would at least pretend to respect the rule of law. Of course, America is built on a history of violence pre-9/11, but legalizing torture was something I never thought would happen in my lifetime. Justifying torture in legal memos, or creating the Guantanamo Bay Prison where people are held indefinitely without charge, that is a new chapter.

As a US citizen, these policies are done in my name. I have a certain platform and protection as a US citizen that allows me to address and expose these issues with less risk than others. Glenn and I have talked about this—about the obligation we have to investigate these policies because we are US citizens.

TB: Were you imagining this kind of parable would be touching people in their daily lives, like what's happening with ethical resisters and whistleblowers?

LP: I never imagined there would be this kind of attacks on whistleblowers and journalists. Look at the resources the US has used in the post-9/11 era—and for what? More people now hate us. I have seen that first-hand. It's baffling how the priorities have been calculated. I was placed on a government terrorist watchlist for making a documentary about the occupation of Iraq. That is an attack on the press.

I think we are in a new era where in the name of national security everything can be transgressed. The United States is doing things that I think if you had imagined it thirteen years ago you would be shocked. Like drone assassinations. How did we become a country that assassinates people based on SIM cards and

phone numbers? Is that what you think of when you think of a democracy? Is that the world we want to live in?

TB: What is the last part of the trilogy teaching you, and how is this new experience adding meaning to the others described in the previous movies? What is coming next?

LP: The world that Snowden's disclosures have opened is terrifying. I have worked in war zones, but doing this reporting is so much scarier. How this power operates and how it can strip citizens of the fundamental right to communicate and associate freely. The scope of the surveillance is so vast. It gets inside your head. It is violence.

About what's next, I imagine that I will work on the issue of surveillance beyond the film. The scope of it goes beyond any one film.

TB: The fact that you are a woman dealing with sensitive subjects, traveling alone filming across off-limit countries, and developing technical skills to protect your data makes you very unique. How do you see such experiences from a woman/gender perspective?

LP: Speaking about technology, I do not think it is gender specific. I think that if you perceive the state as dangerous or a threat, which I do as a journalist who needs to protect sources, you have an obligation to learn how to use these tools to protect source material. Once you understand that a phone has a GPS device in it, you understand that it is geo-locating you and that potentially is dangerous, so you turn it off, or you stop carrying a phone. I do not think this is gender specific.

In terms of being a woman doing work in the field, overall it has made the work easier. In the Iraqi context, to be a woman allowed me more access because it is a very gender segregated society. If I was a man, I would have not been able to live in the same house as Dr. Riyadh and his family. I was able to film with the women and also film with men. Being a woman allowed me to have a certain kind of access that I would not have otherwise.

I also get access because often I work without a crew. When I was filming in Iraq, I remember I was inside the Green Zone and Richard Armitage gave the speech to the State Department. There wasn't supposed to be any press there, but I just had a small camera and I started filming. He gave a speech where he said, "we are going change the face of the Middle East". He was speaking to a group of people from the US State Department inside the Green Zone and he would have never said that if he thought that there was anyone from the press there.

TB: In my own writing I claim that networking is an artwork. The point is not to produce artistic objects, but to generate contexts of connectivity among people that are often unpredictable. Do you think that entering in connection with Snowden contributed to the production of an artwork in the form of ethical resistance?

LP: I feel that this film, or the experience of working on this film, has spilled outside of the filmmaking. In addition to making the film, many other things have emerged. Connections and relationships have been built. But all those kinds of things, and this network, happened because I was branching out of a more linear storytelling, because while I was working on the film, I was also doing a surveillance teach-in at Whitney with Jacob Appelbaum and William Binney, then a short film about Binney's disclosures, and then when Snowden contacted me, that changed everything.

TB: Why do you think Snowden trusted you?

LP: I think he felt that if these disclosures are going to make an impact, that he wanted to reach out to people who were going to do it in a way that wasn't going to be shut down by the US government. Ed had read that I was on a government watchlist and so he knew I understood the threat of surveillance. Glenn and I have both been outspoken on the topic of surveillance, US imperialism, and we had a track record of not being easily intimidated.

TB: I found it a really mature gesture that he decided to come out because he was afraid that other people could have been incriminated.

LP: When I received the email in which Ed told me I want you to put a target on my back, I was in shock for days. I thought my role as a journalist in this context was to protect his identity, and then he said, "What I'm asking you is not to protect my identity, but the opposite, to expose it". And then he explained his reasons about how he didn't want to cause harm to others, and that in the end it would lead back to him. He was incredibly brave. It still makes my heart skip a beat.

TB: I suppose you were also really shocked that Snowden is a really young guy.

LP: I was completely shocked when I met Snowden, and I saw how young he was. Glenn was too. We literally could not believe it—it took us a moment to adjust our expectations. I assumed he would be somebody much older, someone in the latter part of his career and life. I never imagined someone so young would risk so much. In retrospect, I understand it.

One of the most moving things that Snowden said when we were interviewing him in Hong Kong was that he remembers the internet before it was surveilled. He said that mankind has never created anything like it—a tool where people of all ages and cultures can communicate and engage in dialogue. It took someone with such love for the potential of the internet, to risk so much.

TB: You are part of transmediale 2014 with Jacob Appelbaum and Trevor Paglen in the keynote event 'Art as Evidence'. How can art be evidence, and how do you put such a concept into practice via your work?

LP: What we're doing in the talk is thinking about what tools and mediums we can use to translate evidence or information beyond simply revealing the facts, how people can experience that information differently, not just intellectually but emotionally or conceptually. Art allows so many ways to enter into a dialogue

with an audience, and that's a practice titalichat I have done in my work, and that Trevor does with mapping secret geographies, and that Jake does with his photography focusing often on dissidents. We engage with the world in some kind of factual way, but we're also translating information that we're confronted with and sharing it with an audience. What we're going to try to do at Art as Evidence is to explore those concepts and give examples of that.

We will combine each of our areas of interest and expertise. I think one of the topics we might discuss is space and surveillance. Trevor has been filming spy satellites. We have some other ideas. I don't want to say too much.

ON JUNE 16, 2021, I met Laura Poitras again at Neuer Berliner Kunstverein (n.b.k.) gallery in Berlin, two days before the opening of her first European solo-show *Circles*. We decided to expand on the previous interview, to reflect on the facts and experiences that have been taking place since the release of the documentary film *Citizenfour* in November 2014 to the present.

Tatiana Bazzichelli: After almost eight years from the time of our first interview many things changed. You and Glenn Greenwald left First Look Media, the organization that you co-founded in 2013. First Look's publication, *The Intercept*, decided to shut down access to the Snowden Archive and dismissed the research team overseeing its security. Snowden is still in asylum in Moscow because of his act of whistleblowing. What does the closure of the Snowden Archive mean for the possibilities of further investigations of the material, and for holding the NSA accountable?

Laura Poitras: I was fired from First Look Media. I didn't just leave; I was terminated after speaking to the New York Times about *The Intercept's* failure to protect whistleblower Reality Winner, and the lack of internal accountability and the cover-up that followed. This malpractice was a betrayal of the organization, which was founded by journalists to protect sources and whistleblowers and hold the powerful accountable. It is a scandal that an organization with such vast financial resources and digital security expertise made so many egregious mistakes, and then didn't apply its own founding principles to itself.

The most shocking thing was that the Editor-in-Chief, Betsy Reed, took an active role in the investigation, which was investigating herself. This, and the many source-protection failures, were so scandalous that I felt a need to speak out about them.

If you allow a culture of impunity to persist, it endangers future sources and whistleblowers, so I spoke out, and I was fired a few weeks later. Glenn (Greenwald) resigned over many reasons, including the Reality Winner scandal.

What transpired in terms of the Snowden Archive was another devastating betrayal of the organization's founding principles. People put their lives on the line to reveal this information; Ed (Edward Snowden) put his life on the line, I put my life on the line, Glenn put his life on the line.

I am still shocked that *The Intercept* and Betsy Reed terminated the staff who oversaw the Snowden Archive's security and destroyed the infrastructure built to provide secure access to the Archive for journalists at *The Intercept* and third-party journalists and international news organizations. This was not a budget decision. The Archive staff made up a miniscule 1.5% of *The Intercept*'s budget. It was a purging—the staff who were terminated were outspoken critics of leadership at *The Intercept*, especially their source protection failures. The challenge with the Archive is how to scale the reporting, while also protecting the Archive from an unauthorized disclosure, leak, or theft. This requires systems of trust, technical expertise, and compartmentalization.

This is a very well-known security phrase: "privacy by design, not by trust". That is what I mean by "compartmentalization" —essentially making it impossible for any one person to steal the archive, while also enabling many people to research it. *The Intercept* flushed it all down the toilet. I wrote to the Board of Directors to try and stop this from happening, but Betsy Reed and CEO Michael Bloom said the Snowden Archive was no longer of journalistic value to *The Intercept*. I should stress that the Snowden Archive still exists, and there is still more to report. What *The Intercept* did was shut down its access and the secure infrastructure that enabled journalists at *The Intercept* and other newsrooms to access it.

This was a real betrayal of Ed and the many people who put so much effort into creating a secure infrastructure. If I were to reflect on my biggest regret in the NSA reporting knowing what I know now, it is joining *The Intercept* and First Look *Media* in 2014 instead of continuing to work with other news organizations.

TB: Is it possible to maintain secure regulated access to these kinds of leaks, years after the interest from news organizations has dissipated? What does the closure of the Snowden Archive tell us about how to deal with leaks in the future?

LP: I think we all learn from each other. There were certain things that we really did do right, and there were certain mistakes we made in these large leaks. I believe there will be future whistleblowers who will come forward, so I think we have to learn from the things that people did right and the things that people did wrong. One of the brilliant things that Julian Assange and WikiLeaks did was to work with multiple international news organizations. It allows for the scaling of information and limits the possibility for the US government to put pressure on *The Times* or *The Washington Post*, for example, as it's harder if *The Guardian* and *Der Spiegel* and *Le Monde* are going ahead and publishing anyway. When you have a massive archive, this is a brilliant partnership model for working with multiple people, and is something we should absolutely carry forward. We also learned of

the importance of using encryption from WikiLeaks, and that journalists cannot do their jobs if they don't understand how to protect their sources; they have a responsibility and duty of care.

If you look at the case of the unredacted leak of all the State Department cables, this wasn't the fault of WikiLeaks, it was the fault of their partners at *The Guardian* who didn't protect passwords. The unauthorized disclosure happened because a journalist published a password for an encrypted file.

In retrospect, if I were to get to redo 2014, I would have continued reporting with *Der Spiegel* and other news organizations. My former colleagues at *The Intercept* and First Look have said that all the important things in the Archive have been reported. That is not accurate. There is a vast amount of information that hasn't been reported of enormous contemporary and historical significance. The Snowden Archive contains a history of the Iraq war, the rise of the surveillance state, the global infrastructure of the US empire, etc.

TB: If you wanted to, could you access the archives and keep reporting?

LP: Yes. But no single person could ever fully report or grasp the scale of the information; it requires so many different skill sets, especially highly technical knowledge like crypto, etc.

TB: Your termination at *The Intercept* came two months after you spoke to the press about *The Intercept*'s failure to protect Reality Winner, and the lack of accountability that followed. You wrote that Winner was arrested before the story was even published, denying the crucial window of time for the focus to be on the information she revealed to the public. She is still detained at the moment, your contract at First Look was terminated, and very few people are following up on what she risked herself for. How can we guarantee an adequate protection for whistleblowers if they reach the press? How can we make possible that what she revealed still has an impact on society?

LP: That's part of the tragedy with Reality Winner: the FBI arrested her before the story was even published. She had no opportunity to seek legal advice, and she had no opportunity to see the impact of the story or communicate why she made the choices she did. She was also denied the ability to mount a defense because of all the evidence *The Intercept* provided the US government. This is because of the failures of *The Intercept*. They handed the document she leaked back to the government, they published metadata showing when and where the document was printed, and the reporter disclosed the city from which it was postmarked to a government contractor.

Imagine how different the outcome would have been in the case of Edward Snowden, had I gone to the US government and shared documents with them. Imagine how different the NSA story and Ed's life would have been if he had been arrested and imprisoned before the stories were published? The public would nev-

er have heard his motivation, and it would have allowed the government to write its own narrative.

If the government had its way, I'd be in prison, and so would Ed. If I had made similar errors to those made at *The Intercept*, Ed would be in prison, and the public would not know his motivations. This crucial window of time changes outcomes.

The tragic thing about this is that *The Intercept* had so much money and digital security expertise, and they completely failed to protect Reality Winner. Furthermore, there was zero accountability for these failures: nobody was re-assigned or even lost a single day's pay. We are talking about people's lives.

The Intercept was so lazy and reckless, and then they covered it up. To date, two people have been terminated after raising objections about *The Intercept*'s failure to protect Reality Winner: myself and the former head of research, Lynn Dombek.

TB: Would the model that was used for the Panama Papers work?

LP: I wasn't in the room or part of the reporting, though I did work on a film about the Panama Papers. From an outside perspective, it is the kind of model you need: one that brings a sense of scale to the information and also protects sources.

TB: The Espionage Act has been abused by the US government with many whistleblowers, including Reality Winner and Julian Assange. You worked on the film *Risk* (2017) that reported on the Assange Case. Julian Assange is risking extradition, although he is not a whistleblower but a publisher. The silence of the media about Assange is also a worrying signal in the framework of freedom of the press. Did you imagine these consequences of his work while making *Risk*?

LP: First of all, the indictment of Julian Assange under the Espionage Act is one of the gravest threats to press freedom that we've ever had, and a threat to First Amendment in the US. He's a publisher. He's not even a US citizen. And the fact that he's been indicted is absolutely terrifying. I wrote an op-ed in *The New York Times* in defense of Julian, saying that if he is guilty of violating the Espionage Act then so am I, arguing that it is used selectively against people who the government wants to silence and criminalize.

In terms of Julian's situation, the US should absolutely drop the case. The judge in the UK denied the US government's extradition request. The Department of Justice should drop the appeal. The charges go back a decade to 2010 and 2011. To put that into perspective, this case sets a precedent where the US government can go after any international journalist or publisher for things they published more than a decade ago.

When I was making *Risk*, I never had any doubt about the seriousness of the US government's efforts to go after WikiLeaks. I'd also never imagined that Ecuador would withdraw his political asylum—it was clearly justified and based on documented facts. The right of asylum is something that's recognized internationally. If the subtext of the question is about the more critical aspects of Julian in

the film, then I can address those too. There were scenes in the film Julian was unhappy with, where he's talking about the women who made the accusations. What is in the film are his own words. I didn't make the film because I was interested in those accusations, but I needed to address them in the film.

I have complete solidarity with Julian as a publisher. Julian has changed the landscape of journalism; the world is better for it and I defend it. But that doesn't mean that there's no room for criticism. He transformed journalism, exposed US war crimes and is absolutely being punished for it. This is a threat to every journalist in the world, and the lack of coverage is shocking.

TB: What happened to Julian Assange is a serious attempt in silencing the press, and setting a precedent that can be used against other journalists. It could apply to many others, including you. What are the risks for you, Glenn Greenwald and other journalists and news organizations who received and reported on the Snowden files and other leaks?

LP: This is all about the selective use of Espionage Act. If you read the Espionage Act literally, the US government could choose to indict any national security journalist with exactly the same type of language that they're using to indict Julian. What's really staggering about Julian, however, is that he's not even a US citizen. The Espionage Act has been abused consistently by Obama, Trump, and now Biden, to go after whistleblowers, journalists, and publishers. It should absolutely be abolished. This is why citizens and the press need to take a stand in defense of Julian Assange and press freedom.

TB: Coming back to the concept of Art as Evidence, the title of our keynote event at transmediale 2014, in the following year you worked on your first solo museum exhibition, *Astro Noise*, exhibited at the Whitney Museum of American Art in 2016. The exhibition was a conceptual road map to understanding and navigating the landscape of total surveillance and the "war on terror". How did the exhibition contribute to producing evidence?

LP: Today we're sitting at n.b.k. in Berlin showing new work which falls into that category. The collaboration that I'm doing with Sean Vegezzi is called *Edgelands* (2021—ongoing), and we've been documenting landscapes in New York using our skills as filmmakers and journalists to bring forth information to the public.

As a non-fiction filmmaker, I work with primary documents and documentary footage which in some cases can be evidence, such as the Snowden Archive. These primary materials then translate into ways in which you can communicate both what they reveal as information or evidence, and in terms of expressing larger issues, such as the dangers of surveillance. For instance, one of the pieces here is called ANARCHIST, which consists of images from the Snowden Archive and intercepts of signals communication that visualize the UK Government Communications Headquarters (GCHQ) and the US National Security Agency

(NSA) hacking into Israeli drones that flew over the occupied territory of Gaza and the West Bank.

In one image, a drone is shown to be armed. So this is evidence hanging as a picture in a gallery space revealing armed drones which Israel has been consistently refusing to admit the existence of.

This is an example of art as evidence. The goal in my art is to make work that is truthful to the facts, but that also has emotional meaning. If you don't feel something, then I have failed. The primary material feeds into how to work with it, and how it can be expressed.

TB: Are you still of the same opinion today as in 2014 about art being functional in revealing truths and misconducts? You are currently collaborating with Forensic Architecture for the exhibition *Investigative Commons* at the Haus der Kulturen der Welt in Berlin, and you are opening your new solo-show this Friday…

LP: I've worked with Forensic Architecture on two projects. I'm really excited about the work that they do. They use multiple disciplines and methodologies to understand ground truths and to present that in multiple contexts or forums. Their information is used in courtroom settings, because of the forensic nature of their work, and it's also exhibited in museum spaces, providing counter-narratives to government narratives. We share an interest in ground truths, and making work using primary documents and deep dive analysis.

The *Investigative Commons* is a kind of laboratory. The idea is to bring together people who have similarities in methodologies, but also do different things, and to see how that might allow for generative conversations and new types of work. The collaboration I've done with them most recently is about the NSO Group, an Israeli cyber-weapons manufacturer, and their malware Pegasus, which has been used to target human rights defenders and journalists and is linked to the assassination of Jamal Khashoggi, because his close collaborator was targeted with Pegasus.

This is an investigation that Forensic Architecture undertook, and invited me to participate in. I participated in the interviewing of people who've been targeted by Pegasus. I made a film about Forensic Architecture's process, and their investigation of the NSO as they map incidences of Pegasus infections to understand the connections between digital violence and physical violence. Forensic Architecture recently opened an office in Berlin and is partnering with the European Center for Constitutional and Human Rights (ECCHR), whose Founder, Wolfgang Kaleck, I've known for many years, and who was essential to my reporting around the Snowden work and who also represents Edward Snowden.

Regarding the n.b.k. exhibition, there are three main works: *Edgelands*, a collaboration with Sean Vegezzi, which is on three screens documenting locations in New York City that are linked by themes, including surveillance, state power, and incarceration, interconnected by the waterways of New York City. The collaboration with Forensic Architecture, also on three screens, includes my documentary

about the investigation, on another screen is FA's investigation into the corporate structure of NSO group, and finally a collaboration between Forensic Architecture and Brian Eno. In this project, Brian was asked to work with Forensic Architecture's database of Pegasus infections and make a sonic representation of it.

The show is titled *Circles*; named after one of the subsidiaries of the NSO Group also called *Circles*, but it has other meanings about networks of collaborators and returning to Berlin.

TREVOR PAGLEN

Photo by Christine Ann Jones, courtesy Pace Gallery

Trevor Paglen is an artist whose work spans image-making, sculpture, investigative journalism, writing and engineering. Paglen's work has had one-person exhibitions at the Smithsonian Museum of American Art, Washington D.C.; Carnegie Museum of Art, Pittsburgh; Fondazione Prada, Milan; the Barbican Centre, London; Vienna Secession, Vienna; and Protocinema, Istanbul. His work has featured in group exhibitions at the Metropolitan Museum of Art, the San Francisco Museum of Modern Art, the Tate Modern, and numerous other venues. Paglen has launched an artwork into distant orbit around Earth in collaboration with Creative Time and MIT, has contributed research and cinematography to the Academy Award-winning film *Citizenfour*, and created a radioactive public sculpture for the exclusion zone in Fukushima, Japan. Paglen is the author of several books and numerous articles on subjects including experimental geography, artificial intelligence, state secrecy, military symbology, photography, and visuality. Paglen's work has been profiled in *The New York Times*, *The New Yorker*, *The Wall Street Journal*, *Wired*, *The Financial Times*, *Art Forum*, and *Aperture*. In 2014, he received the Electronic Frontier Foundation's Pioneer Award and, in 2016, he won the Deutsche Börse Photography Prize. Paglen was named a MacArthur Fellow in 2017. Paglen holds a B.A. and a Ph.D. in Geography from U.C. Berkeley and an MFA from the Art Institute of Chicago.

TREVOR PAGLEN

TURNKEY TYRANNY, SURVEILLANCE AND THE TERROR STATE

This article by Trevor Paglen was originally published in *Guernica Mag* on June 25, 2013. By arrangement with Creative Time Reports, we include it here to contextualise the debate which followed Edward Snowden's disclosures of the NSA surveillance programme.

Trevor Paglen, *They Watch the Moon*, 2010. Image courtesy of Metro Pictures, Altman Siegel and Galerie Thomas Zander.

BY EXPOSING NSA programs like PRISM and Boundless Informant, Edward Snowden has revealed that we are not moving toward a surveillance state: we live in the heart of one. The 30-year-old whistleblower told *The Guardian*'s Glenn Greenwald that the NSA's data collection created the possibility of a "turnkey tyranny", whereby a malevolent future government could create an authoritarian state with the flick of a switch. The truth is actually worse. Within the context of current economic, political and environmental trends, the existence of a surveillance state doesn't just create a theoretical possibility of tyranny with the turn of a key—it virtually guarantees it.

For more than a decade, we've seen the rise of what we might call a "Terror State", of which the NSA's surveillance capabilities represent just one part. Its rise occurs at a historical moment when state agencies and programs designed to enable social mobility, provide economic security and enhance civic life have been targeted for significant cuts. The last three decades, in fact, have seen serious and consistent attacks on social security, food assistance programs, unemployment benefits and education and health programs. As the social safety net has shrunk, the prison system has grown. The United States now imprisons its own citizens at a higher rate than any other country in the world.

While civic parts of the state have been in retreat, institutions of the Terror State have grown dramatically. In the name of an amorphous and never-ending "war on terror", the Department of Homeland Security was created, while institutions such as the CIA, FBI and NSA, and darker parts of the military like the Joint Special Operations Command (JSOC) have expanded considerably in size and political influence. The world has become a battlefield—a stage for extra-legal renditions, indefinite detentions without trial, drone assassination programs and cyberwarfare. We have entered an era of secret laws, classified interpretations of laws and the retroactive "legalization" of classified programs that were clearly illegal when they began. Funding for the secret parts of the state comes from a "black budget" hidden from Congress—not to mention the people—that now tops $100 billion annually. Finally, to ensure that only government-approved "leaks" appear in the media, the Terror State has waged an unprecedented war on whistleblowers, leakers and journalists. All of these state programs and capacities would have been considered aberrant only a short time ago. Now, they are the norm.

Politicians claim that the Terror State is necessary to defend democratic institutions from the threat of terrorism. But there is a deep irony to this rhetoric. Terrorism does not pose, has never posed and never will pose an existential threat to the United States. Terrorists will never have the capacity to "take away our freedom". Terrorist outfits have no armies with which to invade, and no means to impose martial law. They do not have their hands on supra-national power levers like the World Bank and the International Monetary Fund. They cannot force nations into brutal austerity programs and other forms of economic subjugation. But while terrorism cannot pose an existential threat to the United States, the institutions of a Terror State absolutely can. Indeed, their continued expansion poses a serious threat to principles of democracy and equality.

At its most spectacular, terrorism works by instilling so much fear in a society that the society begins to collapse on itself. The effects of persistent mass surveillance provide one example of such disintegration. Most obviously, surveillance represents a searing breach of personal privacy, as became clear when NSA analysts passed around phone-sex recordings of overseas troops and their stateside spouses. And while surveillance inhibits the exercise of civil liberties for all, it in-

evitably targets racial, religious and political minorities. Witness the Department of Homeland Security's surveillance of Occupy activists, the NYPD's monitoring of Muslim Americans, the FBI's ruthless entrapment of young Muslim men and the use of anti-terror statutes against environmental activists. Moreover, mass surveillance also has a deep effect on culture, encouraging conformity to a narrow range of "acceptable" ideas by frightening people away from non-mainstream thought. If the government keeps a record of every library book you read, you might be disinclined to check out *The Anarchist Cookbook* today; tomorrow you might think twice before borrowing Lenin's *Imperialism*.

Looking past whatever threats may or may not exist from overseas terrorists, the next few decades will be decades of crisis. Left unchecked, systemic instability caused by growing economic inequality and impending environmental disaster will produce widespread insecurity. On the economic side, we are facing an increasingly acute crisis of capitalism and a growing disparity between the "haves" and "have-nots", both nationally and globally. For several decades, the vast majority of economic gains have gone to the wealthiest segments of society, while the middle and working classes have seen incomes stagnate and decline. Paul Krugman has dubbed this phenomenon the "Great Divergence".

A few statistics are telling: between 1992 and 2007, the income of the 400 wealthiest people in the United States rose by 392 percent. Their tax rate fell by 37 percent. Since 1979, productivity has risen by more than 80 percent, but the median worker's wage has only gone up by 10 percent. This is not an accident. The evisceration of the American middle and working class has everything to do with an all-out assault on unions; the rewriting of the laws governing bankruptcy, student loans, credit card debt, predatory lending and financial trading; and the transfer of public wealth to private hands through deregulation, privatization and reduced taxes on the wealthy. The Great Divergence is, to put it bluntly, the effect of a class war waged by the rich against the rest of society, and there are no signs of it letting up.

All the while, we are on a collision course with nature. Mega-storms, tornadoes, wildfires, floods and erratic weather patterns are gradually becoming the rule rather than the exception. There are no signs of any serious efforts to reduce greenhouse emissions at levels anywhere near those required to avert the worst climate-change scenarios. According to the most robust climate models, global carbon emissions between now and mid-century must be kept below 565 gigatons to meet the Copenhagen Accord's target of limiting global warming to a two-degree Celsius increase. Meanwhile, as Bill McKibben has noted, the world's energy companies currently hold in reserve 2,795 gigatons of carbon, which they plan to release in the coming decades. Clearly, they have bet that world governments will fail to significantly regulate greenhouse emissions. The plan is to keep burning fossil fuels, no matter the environmental consequences.

While right-wing politicians write off climate change as a global conspiracy among scientists, the Pentagon has identified it as a significant threat to national security. After a decade of studies and war games involving climate-change scenarios, the Department of Defense's 2010 Quadrennial Review (the main public document outlining American military doctrine) explains that "climate-related changes are already being observed in every region of the world", and that they "could have significant geopolitical impacts around the world, contributing to poverty, environmental degradation, and the further weakening of fragile governments. Climate change will contribute to food and water scarcity, will increase the spread of disease, and may spur or exacerbate mass migration". Nationally and internationally, the effects of climate change will be felt unevenly. Whether it's rising water levels or skyrocketing prices for foods due to irregular weather, the effects of a tumultuous climate will disproportionately impact society's most precarious populations.

Thus, the effects of climate change will exacerbate already existing trends toward greater economic inequality, leading to widespread humanitarian crises and social unrest. The coming decades will bring Occupy-like protests on ever-larger scales as high unemployment and economic strife, particularly among youth, becomes a "new normal". Moreover, the effects of climate change will produce new populations of displaced people and refugees. Economic and environmental insecurity represent the future for vast swaths of the world's population. One way or another, governments will be forced to respond.

As future governments face these intensifying crises, the decline of the state's civic capacities virtually guarantees that they will meet any unrest with the authoritarian levers of the Terror State. It won't matter whether a "liberal" or "conservative" government is in place; faced with an immediate crisis, the state will use whatever means are available to end said crisis. When the most robust levers available are tools of mass surveillance and coercion, then those tools will be used. What's more, laws like the National Defense Authorization Act, which provides for the indefinite detention of American citizens, indicate that military and intelligence programs originally crafted for combating overseas terrorists will be applied domestically.

The larger, longer-term scandal of Snowden's revelations is that, together with other political trends, the NSA's programs do not merely provide the capacity for "turnkey tyranny"—they render any other future all but impossible.

TREVOR PAGLEN
CHARTING THE INVISIBLE
INTERVIEW BY TATIANA BAZZICHELLI

This interview was conducted on April 15, 2021.

Tatiana Bazzichelli: This anthology aims to reflect upon the impact of whistleblowing on culture, politics, and society. What impact has whistleblowing had on your work, and how were you able to contribute to the debate around it with your photography?

Trevor Paglen: For a very long time, I have dealt with materials that are often hidden in one way or another, whether that is because they're secret—quite literally in terms of military or intelligence—or because they are internal corporate tools or documents. Much of the work I have done in my career has been made of this. Having said that, I have not worked with whistleblowers that much. Obviously, I was involved in some of the work around Edward Snowden, a very central whistleblower. More often, however, the work that I've done has been taking information from different places where one person might have a tiny bit of information that might not look by itself to be particularly important. When you combine it with a piece of information over here and a piece of information over here, however, you start to develop an image and tell a story. In my own work, that figure of the whistleblower can come from many different places; it can be from a person, like Edward Snowden, or it can come from court documents, in the case of a lawsuit. I would find the paperwork and look at it, or business filings, and try to understand how a company was put together, or who the people were that were putting it together and trying to use that as a piece of information. Sometimes this has come in the form of records of airplane flights or maintenance records; sometimes that's come in the form of documents, such as a credit report about somebody. In terms of how I use these documents, some organizations like Bellingcat or Forensic Architecture really try to put together disparate kinds of information in order to make a true statement about the world or to create evidence that could be used in a legal framework. What I try to do is a little bit different, in the sense that I don't aspire to create evidence that can be used in a court of law, so much as trying to create images and cultural reflections that help us see the world around

us. That brings into visibility aspects of the things going on and helps us to articulate them. Once we can articulate them, we can think about what to do about them. Photography is a big part of that, absolutely.

TB: Your footage of National Security Agency bases was included in Poitras' film *Citizenfour*, but you have been photographing hidden military bases, secret air sites, undersea network cables, and offshore prisons for years before the Snowden disclosures. Tracing a line connecting these projects, could you reflect on what brings them together?

TP: My earliest projects were actually looking at prisons in California, in the 1990s. As this so called 'war on terror' began in the early 2000s, I was looking at it through the framework of thinking about prisons and thinking about incarceration and the relationship between those in the US, and colonialism and frontiers. I did not think it was a coincidence that the central institution of the 'war on terror' was a prison at Guantanamo Bay. At that time, I thought a lot about the relationship between secrecy, imperialism, violence, and politics. I tried to identify where secret prisons were around the world—we knew at that time that the CIA was running a network of secret prisons—and I was trying to find them and go to places like Afghanistan to photograph them and talk to people who had been in these prisons. I tried to dissect the legal structures that were created to enable these secret projects. For example, if you were going to build a secret prison, how would that operate logistically? How would the transportation work? What were the operations you needed to do to make that prison exist? I tried to understand the logistics of secrecy in that sense. It was very much a project of going out into the world and looking at things; whether that was business records, or whether that was aerial maps or testimonies of prisoners, and then putting those things together. In parallel to that, I had started looking at the National Security Agency, as a secret institution wielding enormous political power. Having this background of working with secrecy and with issues related to the military and intelligence community is the reason that Laura Poitras reached out to me, after Edward Snowden had reached out to her, and asked me to support the Snowden project. Looking at the National Security Agency was a very natural thread from the work that I'd been doing, looking at secret prisons, the 'war on terror', and secret military bases. That work extended to more contemporary aspects, such as looking at artificial intelligence and what kinds of machine learning models were being built and deployed in the infrastructures around us. What kinds of politics are built into such infrastructures? Curiously enough, there are many similarities between how Google works and how the NSA works. Working with the Snowden documents was very educational in terms of learning how to look at AI and machine learning. I worked on part of the work on undersea network cables; at the infrastructures of surveillance on one hand, and the internet on the other. We were trying to understand the materiality of the cables, thinking about where the

servers were. Where was the cloud? We looked at the literal stuff that these communications are made of.

TB: Speaking about your project on the offshore prisons, could you describe in more detail how you provided evidence of their existence?

TP: In terms of finding secret prions, there were a handful of journalists and people in the human rights community who were trying to understand where the secret prisons were, how they worked and what was going on. People like John Sifton at Human Rights Watch, Jane Mayer at *The New Yorker* and Danna Priest at *The Washington Post*. At that time, there were a handful of people who were worried and were talking to each other in various ways, trying to piece together these different fragments of information. In terms of the secret prisons, I had hypothesized where one of these prisons was in Afghanistan. This hypothesis came from looking at a combination of records of airplanes. I would look at airplanes that I thought were carrying prisoners who had been abducted from different places around the world, and I would look at where they flew as being a proxy for where these prisons might be. I also looked at the testimonies of prisoners. One of the important testimonies in locating the prison in Afghanistan was by a guy named Khaled El-Masri; the CIA had kidnapped him in Macedonia and taken him to a prison in Afghanistan, before deciding that he had nothing to do with terrorism. They kidnapped him again and dumped him by the side of a road in Albania. I was able to look at the records of the airplanes that had flown him around and saw that the airplane had landed in Kabul, Afghanistan, which at the time was interesting, because the normal place you would land if you were an American was Bagram; the US military base. El-Masri had described being driven, blindfolded, for about 20 minutes to wherever the prison was, so the prison was about 20 minutes away by car. By putting together different pieces of information, I had an idea of where I thought it was. I went out there in 2006 with my friend, the investigative journalist, A.C. Thompson (we wrote a book about this together called *Torture Taxi*). We hired a driver to take us out to the place where we thought this prison was and, as is very often the case, when you go to the physical place it becomes very obvious what's going on. While we were in Afghanistan, we spoke to people who were doing human rights work and we talked to people who had been in American prisons set up in Afghanistan. When you go to a place and start talking to people, everybody knows what's going on, even though it doesn't necessarily rise to the level of being in the news. This was also true of an airplane company in North Carolina, in a little rural town called Smithfield. Everybody in the town knew that the airplane company headquartered there was actually CIA. It was obvious if you went there, but if you didn't, you wouldn't necessarily get that understanding. That's always a big part of my process; trying to physically go to different places.

TB: Do you know if these kinds of secret prisons still exist?

TP: Obviously, Guantanamo Bay still exists. It's become the place where a lot of the people who were in these secret prisons are held; usually the ones that were not let out. When A.C. Thompson and I were doing this work, we had a lot of conversations about why there was a secret prison program from a logistical point of view. Why weren't they just murdering these people? Why bother having a prison; you have to feed them, and perhaps provide rights and go to court, and so on. I think that's exactly what they did; the program morphed into the drone assassination program. At some point, the CIA just said they were going to start killing people based on metadata signatures. As in, if you are somebody in this region, and you have been in the vicinity of this cell phone, and you're of this age, then that qualifies you to be assassinated with a drone. I consider the drone program to be what the secret prison program morphed into. Do secret prisons still exist? I don't think in that same way. I don't think that the CIA is running secret prisons in other places around the world right now. In the cases where they want people incarcerated, I think they are using local proxies.

TB: In 2014 at the "Afterglow" edition of the transmediale festival in Berlin we were both part of the panel "Art as Evidence". Revealing the invisible seems to be part of your artistic practice. Could you describe this concept more in depth?

TP: I don't think about it so much as revealing the invisible; I consider making artwork as being similar to making words. When we make a word, or we invent a word, we bring something into existence. We create the possibility of being able to talk about a concept or talk about a feature of our everyday lives. I think about making artwork in a similar way, which is building vocabularies that we use to see the world around us and to articulate the things that constitute our societies and our environments. It's not that there's something hidden and we're doing this work to reveal it, it's that we're trying to bring forth the possibility of seeing the world in a different way, or a more precise way. I'm not concerned with making artworks that could be used in a court of law, in the way that Forensic Architecture is, for example. We have different approaches, but methodologically we are similar.

TB: In the framework of your current work on "Machine Visions" you have been mapping and studying the implications of AI tracking and surveillance both in artistic and technological terms. What were your findings on the social and political effects of machine learning through your artistic work?

TP: Recently, I made an artwork called Image Net Roulette, which is a simple web application that classifies people according to the classifications that are built into the most widely used data sets in AI. AI systems are made of algorithms, but also built out of training data. You create a huge amount of data that is classified and indexed, you put that into a model, and then the model "learns" how to see the world in ways that the data set articulates. These data sets can include all kinds of different things; there are data sets for emotions, for example, made of thousands

of pictures of people making different facial expressions. There are data sets of plants, with pictures of different kinds of flowers that are labelled and classified. There's a massive range, depending on what somebody wants to classify. The most widely used of these data sets is called Image Net, which was created at Stanford University. This is a data set made of images, and it has something like 14 million images, organized into about 20,000 different categories. It's used for object recognition and for building computer vision systems to identify different objects. It has images of strawberries, apples, trees; just anything that you can imagine. There are about 2,500 categories: man, woman, boy scout, cheerleader etc. Concerningly, many of the categories in the data set are misogynistic or racist, or are just cruel and awful. There are things like kleptomaniac, slattern, or slut—some of them are quite horrible. The categories also include pictures of people that the researchers scraped from the Internet and classified. I built that application, allowing you to upload a picture of yourself to the Internet, showing you how this dataset would classify you, in order to illustrate how prevalent and how horrible some of the classifications built into machine learning systems are, and how little thought there is put to those kinds of questions within the technical communities that often build datasets. Another project was with the Kronos Quartet, called Sight Machine; over the course of their performance, we looked at them with different computer vision algorithms. Projected behind them was a representation of what these computer vision algorithms were "seeing". You could watch the performance through your own eyes, and also through the eyes of different computer vision systems. The list goes on and on, but I'm obsessed with these underlying classificatory structures in the form of training sets that build machine learning models, as well as the technical forms of "vision" that are built into different computer vision systems; trying to understand what forms of politics are built into those ways of seeing. One of the reasons I'm so interested in the implications for surveillance and privacy is that our domestic environments, as well as our civic environments, are increasingly populated by machine learning systems and AI systems. They are recording and classifying us all the time, in order to either try to sell us something or to try to extract value from us in one way or another, whether that's through trying to modulate our insurance premiums or our healthcare or our credit ratings, for example. State surveillance is one part of that, but there are many ways in which machine learning systems affect our everyday lives and the societies in which we live.

TB: As part of your ongoing study of how computer vision and AI systems "see" the world, you are developing a series of works that look through the "eyes" of various computer vision algorithms. Which kind of social structures are machines enforcing, and how could we intervene in exposing their biases?

TP: Machine learning systems and computer vision systems enforce certain kinds of politics at many different levels. On one level, you have this kind of clas-

sificatory level; you always have to build categories into machine learning systems, and those categories are rigid. It's very often the case that categories around gender are created. You build a computer vision system which says, "this is a man" and "this is a woman". What are the politics of that? Why do computer scientists get to decide what somebody's gender is? There's a kind of enforcement that is created and that's a very clear example of the politics that are built into these classificatory systems. There's an inbuilt bias that gender is binary. I think it's a deeper question than one of just bias, however, as bias suggests that there is a kind of standard of fairness, and that the system is unfair in one way. The deeper question is that the system can only be unfair, and can only be biased, and that sexism and racism are features of this kind of classificatory system and not a bug. That's a fundamental disagreement that I have with a lot of people who talk about trying to de-bias machines. In terms of translating this into artwork, I've made installations out of different training sets. For example, one of the earliest training sets for facial recognition was made out of images of prisoners in the 1990s. Where do you get a lot of pictures of people's faces in order to create facial recognition systems? You get them from prisoners. A lot of the work that I've done has been working with training sets in order to think about the historical origins of computer vision and machine learning systems, as well as the political origins of them. I've done it in other ways, in terms of building models and trying to create projects like an Image Net Roulette or a Site Machine, or any number of other installations. There was a video installation called Image Operations, and another one called Behold These Glorious Times. These installations try to show what the logic of machine vision is, by using them and by building machine learning systems based on widely available tools, trying to highlight the kinds of politics that are built into them at every level.

TB: Your text "Turnkey Tyranny, Surveillance and the Terror State", written immediately after the Snowden revelations, is a critique of the economic, political and environmental effects of a surveillance state. As an artist, you have been able to see how these systems are interconnected. What are they revealing about geopolitical powers?

TP: That essay was written in the context of the Snowden disclosures, trying to think about the crises that we are facing as a world. There are many different crises, but obviously we're in a climate emergency. This is a massive crisis, playing out year by year, and I was trying to think about what tools societies build to manage emergencies; the philosophy being that you're going to use the tools that you have to manage emergencies or crises. I was considering this in the US context, where you have a massive military system, a huge mass surveillance system and a huge policing system. Those are the things that you invest in in terms of managing emergencies. When you add it all up, you end up with a society that has all of the elements of a totalitarian approach to poli-

tics; very centralized forms of power that are predominantly wielded through instruments like surveillance and police. That is a very brutal way to manage crises. The COVID-19 crisis has accelerated much of this, but I think we're seeing it at many different levels. In the US context, again, we're seeing the more widespread use of facial recognition, especially in the context of policing. One of the things that I didn't talk about in the essay, because it was very much about state power, was the blurry relationship between policing and data collection by companies like Google, Amazon and Zoom, and how those boundaries between the police and global data companies are non-existent. That has certainly been accelerated by COVID-19, in terms of the ubiquity of digital platforms and the degree to which they've become part of the fabric of our everyday lives.

TB: Has your artistic work put you at risk as an artist and how do you deal with the problem of surveillance yourself?

TP: I'm extremely privileged in the sense that I'm a white guy, and I can be in a lot of places that would be very dangerous for somebody who didn't look like me. I have a huge amount of privilege, and I've been able to use that privilege to go to places and do things that might otherwise be dangerous. Having said that, there have definitely been times I've been afraid or felt like I was in a dangerous position. Very early on in my career, however, I decided to not be disabled by fear. My philosophy was that a lot of the most reactionary and fascistic parts of society gain power by fear, so I made a very conscious decision not to be motivated by that.

TB: Whistleblowing is heavily persecuted in many countries and it is often treated an act of treason. How could we culturally contribute to making the work of whistleblowers more accepted in society?

TP: I certainly think that we can all contribute to sculpting society, and to politics in one way or another; through what we do and what we participate in and validate. To me, that is a crucial part of what it means to be living collectively with other people and trying to imagine a world that is more just. Articulating what kind of world we want to live in is one way of culturally contributing to making the work of whistleblowers more acceptable.

ROBERT TRAFFORD

Photo by Antoine Tardy

Robert Trafford is a research coordinator with Forensic Architecture, a pioneering investigative agency based at Goldsmiths, University of London. His role at Forensic Architecture covers open-source research and visual investigation, editing and writing for scripts and exhibitions, as well as coordinating investigations. His investigative work with Forensic Architecture has spanned from police violence against US protesters to the extrajudicial killing of civilians by Cameroon's special forces. He also jointly coordinated investigations into the 2011 killing of Mark Duggan by UK police, and the agency's acclaimed TRIPLE-CHASER investigation, which premiered at the 2019 Whitney Biennial in New York. Robert is trained as an investigative journalist, a graduate of the University of Oxford and City, University of London. Prior to joining Forensic Architecture, he was a freelance journalist, covering the 2015 refugee crisis from Greece and France.

ROBERT TRAFFORD

SOCIALISED EVIDENCE PRODUCTION IN A POST-OPEN SOURCE WORLD

IN THE 21ST CENTURY, 'big data' whistleblowing and open source investigation have proposed two different but complementary means of challenging state hegemonies of information. One begins with an overwhelming mass of data; the other with fragmentary image or video evidence. But both attempt to drive change, and pursue accountability for states or militaries, by making data more accessible and comprehensible, and by (re-)connecting that data with real lives, and lived experience. And in that attempt, both practices must navigate the shifting dynamics of the contemporary 'public square', an information-sharing space that could seem hopelessly corrupted by 'post-truth'. The work of Forensic Architecture and our partners proposes a path through that space.

It is the privilege of the state to erect cordons, to establish boundaries that carry legal and political weight. A state may delineate a hard border with its neighbours, or it may legislate for corporate privacy, and against public declarations of beneficial ownership. Agents of a state hang lengths of plastic tape around a crime scene, excluding the citizenry from the space in which the facts of a crime are determined. The cordon is the expression of sovereign privilege, and the act of whistleblowing is among the few means available to civil society to puncture that cordon.

The information that escapes that privileged space acts as a window, a portal through which the internal architecture of power—and invariably corruption of power, and violence—becomes visible. But what exactly is seen is determined by who is looking, and through what lens; how the products of whistleblowing are taken up and processed by civil society, and in public and political discourse, is determined by the landscape of information and discourse into which they land. That landscape has of course shifted dramatically since the late 2000s and the all-encompassing rise of the 'social web', the online social media ecosystem. Today, revelations from inside the cordon emerge into an environment of practically unprecedented polarisation, in which faith in existing institutions is failing, and in which established methods of truth-production and dissemination are being

left behind as foundational pillars of civic discourse—concepts such as 'truth', 'evidence', and 'fact'—have been erased or weaponised.

New models of truth-production are urgently necessary; models which not only assemble and argue for certain facts and their evidential foundations, but build an audience and a community of action around those facts. This model is at the heart of the 'counter-forensic' practice of Forensic Architecture (FA), the University of London-based research agency with whom I have worked since 2017.[1] FA conducts investigations into human rights violations and environmental violence by state or corporate actors, with and on behalf of the communities and individuals affected by that violence, in pursuit of accountability through political and legal forums. From police violence and border regimes to extractive industry and cyber-surveillance, our investigations look to combine technical expertise with situated experience, creating evidence, arguments, and knowledge from within political struggles, rather than reporting on them. In this essay, I offer some reflections on FA's practice, through which the seeds of some alternative processes for the articulation of shared truth might be glimpsed.

The Open Source Revolution

The seeds of FA's growth are partly to be found in what can be called the 'open source revolution', that far-reaching and cross-disciplinary intellectual and cultural shift,[2] itself a product of the 'social web' and the accompanying rise of instant mass communication and documentation, which has ushered in what Ronald Niezen calls 'Human Rights 3.0'.[3] Our cases, then, proceed less often from the revelations of whistleblowers as through the use of new analytic techniques and technologies for locating and analysing publicly available information, compositing that information into evidentiary arguments: the toolkit of open source investigation, or OSI.[4] Since the early 2010s, OSI has offered ever more innovative and impactful new opportunities for sight across the cordon, particularly in military, national security, and border contexts. Whether photographs uploaded to social media by US military contractors,[5] or freely available satellite images of airbases in Ethiopia,[6] OSI offers new opportunities for researchers to exploit the 'contradictions between materiality and secrecy' that Trevor Paglen identifies.[7]

OSI begins with a diverse set of image-fragments, which require careful reassembly into evidence. By contrast, the act of whistleblowing commonly conveys large quantities of detailed and internally coherent information—documents, communiqués, account statements—into the public domain by the singular and decisive action of an individual (invariably, of course, at great personal risk). Indeed, the kinds of information brought to light by such actions are often fundamentally inaccessible to the methods of the open source research community,

US Special Forces operations at the Salak military base in northern Cameroon (left) were revealed by Forensic Architecture's investigation of photos found on a US military contractor's social media profile (right). Image courtesy of Forensic Architecture.

which is in many respects structurally tethered to images. One cannot, after all, see a bank account from the edge of space.

But while there are functional differences, whistleblowing and OSI are undoubtedly allied practices, tools which sit side-by-side in civil society's (limited) toolkit for exposing and challenging the operation of power, and the misconduct of the powerful. Whistleblowing is a political practice and the exercise of a (possible future) right, the right to be informed. It is oriented towards tangible change in society: greater transparency in global finance; increased civilian oversight of military and intelligence practices. OSI, while it can be critiqued for its remoteness, is inextricable from essentially political demands: for information accessibility, and for human rights accountability.

They are also complementary practices: OSI develops new methods for solving the research problems presented by 'big data', which is increasingly the currency of whistleblowers, and which can present substantial demands on labour, and resources. Amnesty International's Decoders project draws on OSI's collaborative roots to challenge the problem of big data by crowdsourcing investigative tasks. Meanwhile, FA has deployed machine learning in the service of open source research, developing workflows to scrape open data sources such as Youtube and Twitter, run 'object detection' algorithms over images found there, to search for objects of interest to investigators, such as specific models of military vehicles.[8]

The theory of change behind an act of whistleblowing presupposes, or hopes for, a line of causal consequence between disclosure and political action—a line which necessarily runs through the public square, through our shared information spaces. And here, whistleblowing is subject to the same contemporary forces

as open source investigators, and civil society as a whole, the forces which have brought us to our present 'post-truth' moment. In the second decade of the twenty-first century, these forces exploded the models of knowledge production that have dominated post-war transatlantic politics and society, and with them the frameworks for human rights that they underwrote. Perversely, these forces can in part be traced back to the same technological and social developments that drove the open source revolution.

A Crisis of Trust

The slow-motion crisis of meaning that is presently strangling many of the world's largest political and social systems is at least in part a crisis of trust: throughout the world, across a broad range of political, social, and economic contexts, the long-standing idea that others can reach out into the world and return to us with information that we can trust is being roundly rejected.

Until the rise of the social web, the task of producing and disseminating truths for societies was performed by governments, and by a small number of legacy media institutions.[9] As citizens, we have long existed in a vertical relationship with this created truth; receiving it, handed down to us, with limited opportunity to see beyond or around the claims presented therein. It was a flawed system, one in which a measure of social consensus around certain categories of 'fact' (such as politics and international relations) relied upon restricted access to information about the world beyond one's immediate experience: in 1950, one's only conceivable (which is not to say reliable) source of information about Syria were the newspaper correspondents writing from there, and the perceived authenticity of their reports was a function of the extent to which that correspondent's newspaper was trusted by the general public—which, on the whole, they were.[10]

In such a context, the path for rights advocates, whistleblowers among them, to leverage public sympathy, or anger, and to convert it into pressure on governments and international bodies in support of their objectives, ran almost exclusively through the print media. In a *vertical* system of information sharing, the truth claims made by civil society bodies were required to first move *upward*, into spheres of media and politics, where they could fight for further, wider dissemination.

This vertical model held those campaigners at the mercy of colonial, patriarchal structures that invariably drove the cases that those advocates sought to challenge. The early years of the internet, and its promise of radical interconnectivity, led to attempts to circumnavigate and critique that media environment, among them the Indymedia network, an early model for socialized truth-telling. But it was the exponential growth and availability of information afforded by Web 2.0

that would ultimately explode the erstwhile systems of knowledge-production. The primacy of those vertical systems of truth-production and dissemination has collapsed, those systems drowned out, if not altogether replaced, by horizontal, peer-to-peer information sharing.

These new models may offer additional avenues for advocacy: NGOs can not only reach million-strong audiences through social media, but indeed conduct their own advanced OSI.[11] But these systems are not primarily systems of truth-production at all; rather, the dissemination of truth claims in the post-internet age is a byproduct of interrelated commercial technologies including global instant communication, 'big data' analysis, and AI. Social media platforms are driven by algorithms which prize similarity over truth, accelerating the growth of 'counter-factual communities',[12] proudly isolated from mainstream interpretations of shared reality. Those same algorithms, which thrive on attention and emotional response,[13] feed community members a diet of emotional extremes, outrage among them.

These 'filter bubbles' have two critical effects upon the efforts of rights campaigners, whistleblowers, and investigators to assemble diverse public coalitions in support of their objectives: first, the population of the information space in which they must operate is broken apart into groups who are 'incapable of engaging with each other upon a shared body of accepted truth';[14] second, those groups become inured to perceiving events in the world crudely, and reactively, without the sensitivity or openness with which an audience might be amenable to the appeals of human rights advocates or the revelations of whistleblowers. In this way, social media has exacerbated deep-rooted problems in the relationship between citizens and information, not least the widely-observed tendency of individuals to entrench themselves more deeply in their existing misperceptions when presented with corrective data.[15]

At the same time, political actors on the populist right have learned more quickly than the rest of us the rules of this new media environment, and have gained a surer footing within it. Eyal Weizman, FA's founder and director, has called these forces an 'insurgency against truth'.[16] Across the world, this insurgent tendency merges an affected populist 'outsider' status with an unabashed proto-fascism,[17] while the public is encouraged to believe that we have become unmoored from truth, that we are floating adrift in a sea of information and misinformation; that anybody's guess is as good as another. It is behind this fog of uncertainty that the human rights violations of the 21st century are carried out and concealed at every scale.

Post-OSI

Against such opposition, civil society, in its pursuit of accountability for state violence, must respond to something of a paradox. The technological innovations and social forces which exploded the stability of the information systems upon which previous supranational models of rights advocacy and enforcement depended are, in many respects, the very same forces that enabled the open source revolution, and which have empowered the OSI ecosystem of which FA is a part to pioneer new models for human rights work.

The artist and curator Marisa Olson coined the term 'post-internet' in the late 2000s,[18] to describe an unavoidable precondition for cultural production in the early 21st century: 'an internet state of mind'.[19] After this fashion, the scale and breadth of the changes wrought by the open source revolution force us to consider that much of contemporary human rights now operates according to a 'post-OSI' logic.

'Post-OSI' does not refer only to the increasing ubiquity of 'visual forensics' or 'visual investigations' teams at the world's major media outlets and NGOs, or the presence of courses on open source investigation at universities around the world (most of them connected to Amnesty's excellent Digital Verification Corps programme). Hints of it can be recognised in the recent and overdue expansion of critical intersectional reflection on open source practices, orienting OSI away from its surveillant mode, toward a centring of situatedness and empathy,[20] evidencing a process of coherence, of becoming an object of study.

Indeed, the attendance of law enforcement personnel at Bellingcat's training workshops,[21] and the requests for training or advice received from governments (and rebuffed) by FA, attest to a dawning awareness by states of the transformative power of a new field. Elsewhere, the denialism that surrounds dozens of well-documented chemical weapons attacks by the Syrian regime[22] also points, much to those denialists' evident fury, to the way in which OSI has become synonymous with contemporary conflict reporting. Regardless of the political and geographic context in which it surfaces, this mode of denialism follows a predictable and ultimately embarrassing pattern, substituting analysis of evidence for *ad hominem* attacks. That there is indeed a pattern, a *script* for this kind of response to civil society's use of publicly available material in pursuit of human rights accountability, is itself evidence of the ubiquity of the target of the pattern, and of our present 'post-OSI' context.

'Post-OSI' recognises that our interlaced systems of information sharing, discourse, politics and media are suffused with a new balance of agency between states, civilians, and civil society, and that ground is cleared for new (or revisited) modes of knowledge production, in light of that rebalancing. Diverse political struggles are increasingly connected, learning from one

another, and sharing tools (including FA's open source mapping software, Timemap, which is being deployed by activists from Colombia to Germany). The diversification of media voices is mirrored in human rights, from the monolithic NGOs of Amnesty and Human Rights Watch to a constellation of radical, situated activist groups, that are willing and able to speak more boldly, move aggressively, and act innovatively. The emergence of an activist-technologist-investigator skill set has empowered radical groups and monoliths alike, driving innovation in the field.

'Socialised' Evidence Production

In a presentation to the Disruption Network Lab's *Citizens of Evidence* event in 2019, I outlined, through reference to a number of our past cases, something of FA's response to the ongoing breakdown in established modes of truth-production, and the resurgence of two-fold violence, against bodies and facts, that it has facilitated, which demands a new model for the articulation of human rights claims, and the pursuit of accountability. It is an approach that our director has defined as 'open verification',[23] and it relies, Weizman writes, "upon the creation of a community of practice in which the production of an investigation is socialized; a relation between people who experience violence, activists who take their side, a diffused network of open-source investigators, scientists and other experts who explore what happened".[24]

Open verification seeks to move beyond the model of participatory fact-finding that might be understood as the 'first wave' of open-source investigation: a model which, like much of the traditional news media before it, had a tendency to skew White, male, and European,[25] and ran the risk, as such, of practising a kind of 'helicopter' or 'parachute' investigation. Rather, open verification seeks to take as the starting point of any investigation the marriage of remote technical expertise with the situated knowledge of those who have fallen victim to, and are resisting, state violence. In this mode of operation, the skills of open source investigators, architects, analysts, and scientists are brought into partnership with the truth claims born out of the lived experience of communities and individuals suffering repression, environmental violence, or racist police brutality, enhancing and amplifying those claims. In turn, that experience grounds those technical capacities in the histories and depths of the struggles in whose present they strive to intervene. Commonly, it is FA's digital models that are the venue for the meeting of these perspectives.

Sometimes, the contributions of lived experience are embedded within the investigative process itself, producing new insights and contributing to networked and mutually-supporting findings. From Greece, to Pakistan, to Burundi, FA has

combined spatial analysis and visual investigation with an interviewing technique we call 'situated testimony', in which digital models become venues for collaborative reconstruction of incidents of violence, and trauma. The process, developed in partnership with academic psychologists, encourages a mode of interaction between spatial memory and traumatic memory which can access a witness's recollections of traumatic incidents in new and valuable ways.[26]

Elsewhere, the situated experience which informs our work is woven throughout and around an investigation, casting new light on its findings. Our investigation of the 2011 killing of Mark Duggan by London's police began as a relatively narrow, technical assignment commissioned by the lawyers for the victim's family, intended to illustrate through digital modelling certain 'consensus facts'—agreed upon by both disputing parties—for the benefit of a civil courtroom. Following the out-of-court settlement of that case, our findings grew into a diverse afterlife, energising anti-police violence activism in the city, strongly challenging the narrative of the incident previously established by the UK's police watchdog, and recently exhibited for the first time within a show at London's Institute of Contemporary Arts, curated by the activist group Tottenham Rights[27] which addresses racist police violence in the UK through the lens of five killings of Black Britons by police.[28] A more recent investigation, into the extrajudicial execution of Ahmad Erekat, a Palestinian man, by Israeli border police, goes further, embedding an explicit articulation of the connectedness of the struggles for Palestinian and Black American liberation within and throughout the investigation itself, the findings of which were narrated by the political intellectual and anti-racist scholar Angela Davis.[29]

Still other cases, such as our work with Bellingcat to develop the most comprehensive archive of US police violence against 'Black Lives Matter' protesters in the wake of the murder of George Floyd,[30] function as *calls for* the engagement of that situated perspective, an acknowledgement that OSI must be grounded in local experience to open up new fronts in the pursuit of accountability. In that case, a 'mission statement' document shared in on-the-ground networks began a process of building alliances which now bears fruit in a forthcoming investigation into police brutality during the same period in the city of Portland. In this way, an investigation not only develops evidence—in the 'Black Lives Matter' protests case, findings which are now informing OHCHR's ongoing inquiry into systemic racism in US law enforcement, and a report by the UN's Human Rights Council—but also develops communities of action in support of local struggles.

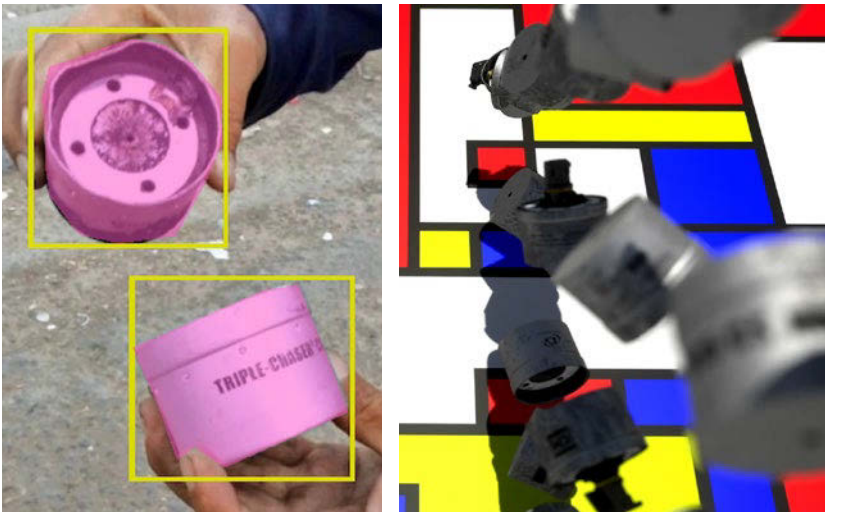
The entanglement of disciplines and perspectives is not intended only to improve the quality of the findings produced by a collaborative investigation. Open verification acknowledges the urgent need for new spaces of public discourse, and new forms of commons. The post-war media environment supported a notion of common ground for rights discourse, defined by a shared deference to the edicts

of supranational rights forums. As that environment has unravelled, so too has the common ground which relied upon the successful operation of a 'politics of shame' on rights-abusing countries.[31] Open verification is also, then, the project of building new common grounds in the face of conditions of post-truth relativity, through common action and the shared production of truth claims: 'Every case produced with open verification is thus not only evidence of what has happened, but also evidence of the social relations which made it possible'.[32]

Virtually every project that FA engages in results in a long and expansive list of credits upon publication; it is rare for our projects to have less than two, or three, or four partners. Whether formal institutional collaborators, protests movements, community activist groups, or specialist technical experts (such as our regular collaborators at Imperial College London, world-leaders in fluid dynamics simulations), our projects are diverse ecosystems of skill-sets, capacities, political intentions, and histories, asymmetric networks of distributed agency and resources.

When the agency was invited to exhibit at the 2019 Whitney Biennial, we were already looking for possibilities to drive forward our research into the applications of machine learning to OSI.[33] As we mulled our options, a storm began to brew around the exhibition—starting with an article in the art news outlet *Hyperallergic*.[34] That article evidenced a connection between the then-vice chair of the Whitney's board of trustees, Warren B. Kanders, and a shocking incident of tear gas use against civilians at the San Diego-Tijuana border: Kanders owned the very company that manufactured the tear gas grenades that had been used there, including against children. Images circulated, contributions to a genre of documentation-photography in which dusty hands hold discharged tear gas grenades face-forward to the camera, revealing the manufacturer's name. In this case, Kanders' company: SAFARILAND.

The controversy that followed was only the latest in which the relation of the arts to human rights was recalled to public attention, a particularly egregious and jarring demonstration of the deep interconnections between colonial capitalism, border regimes, police violence, and the long-standing pillars of cultural heritage. Museum staff protested, and an urgent and uncompromising movement grew into life.[35] The project that developed in response to this attention, and in support of that movement, began with internet research by students at Goldsmiths' Centre for Research Architecture.[36] Their research informed the development of an automated process for creating a set of computer-generated images of tear gas grenades, in realistic and unrealistic environments, wholly created inside the Unreal game engine. We used this 'synthetic data' to train a machine learning classifier to predict the presence of tear gas grenades in real images found online. (In a satisfying inversion of the deepfake crisis, 'fake' images were used to improve the search for real evidence of potential rights violations.)



Left: During the process of training a 'computer vision' classifier, bounding boxes and 'masks' tell the classifier where in the image the Triple-Chaser grenade exists. Right: A computer-generated 'synthetic image' of Triple-Chaser tear gas grenades. Outlandish backgrounds help the algorithm to identify the object of interest. Image courtesy of Forensic Architecture/Praxis Films.

These striking images caught the eye of the filmmaker Laura Poitras when she visited our office weeks later; with her and her team, FA's researchers began to push further into what was known about Kanders, including his barely-reported relationship to a US bullet manufacturer, Sierra Bullets, wholly owned by a holding corporation of which Kanders is board chairman.[37] That research suggested the possibility that bullets manufactured by the company were being used by the Israeli army, not least during the shocking violence seen at the Gaza border fence in 2018, when, in response to peaceful protests, Israeli soldiers killed 150 civilians, including 35 children.

This research led to activists on both sides of the Gaza border fence searching for a matching bullet, while at a border fence on the other side of the world, Tijuana residents searched for examples of the TRIPLE-CHASER tear gas grenade after which our project, in partnership with Praxis Films, would later be named.[38] Activists and citizens from four continents, software developers, academics, animators, open source investigators, and filmmakers, as well as NGOs and solidarity movements, each contributed to the development of this investigation, which premiered at the 2019 Biennial.

This distributed, 'ecosystemic' effort ultimately contributed to Kanders' resignation from the Whitney Museum's board. TRIPLE-CHASER was later named by *The New York Times* among the leading examples of post-war protest art.[39] At the same time, our research led the European Center for Constitutional and Human Rights, a pioneering legal NGO with whom recently opened a shared office

in their home city of Berlin, to investigate the possibility of legal action against Sierra Bullets. Perhaps most enduringly, these combined efforts established and disseminated clear and mutually-supporting truth claims, building agency across fields and disciplines to confront the entanglement of extractive capital and colonial violence with culture.

In the TRIPLE-CHASER investigation, throughout FA's seventy published investigations, and across the collaborative networks that have enabled and sustained them, new possibilities for collectivised knowledge-production are evident. Those possibilities respond to, and have been incubated within, a new and evolving political, technological, and media environment which is shifting the ground beneath whistleblowers and investigators alike, offering new paths to accountability, and at the same time new and significant risks. These new environments are characterised by fragmentation, the dissolution of unitary truths into multitudes; FA's model of socialised truth production offers a path toward reassembly of that multitude, simultaneously producing knowledge, and communities of action around that shared knowledge.

Notes

1. Ideas of counter-forensics expounded in Threshold.
2. E.g. amongst others, Muhammad Idrees Ahmad, "Bellingcat and How Open Source Reinvented Investigative Journalism", *New York Review of Books*, June 10, 2019, https://www.nybooks.com/daily/2019/06/10/bellingcat-and-how-open-source-reinvented-investigative-journalism.
3. Niezen, Ronald. *#Human Rights: The Technologies and Politics of Justice Claims in Practice*, (Palo Alto: Stanford University Press, 2020).
4. Early on in history of open source investigation, the most widely-used term for the practice was "OSINT". An acronym for "open source intelligence", the term's connections to the history of state spycraft is obvious. At FA and elsewhere, the term has slipped out of favour; I will use our preferred acronym, "OSI".
5. "Torture and Detention in Cameroon", *Forensic Architecture*, June 2017, https://www.forensic-architecture.org/investigation/torture-and-detention-in-cameroon.
6. Wim Zwijnenburg, "Are Emirati Armed Drones Supporting Ethiopia from an Eritrean Air Base?", *Bellingcat*, November 2020, https://www.bellingcat.com/news/rest-of-world/2020/11/19/are-emirati-armed-drones-supporting-ethiopia-from-an-eritrean-air-base.
7. Paglen, Trevor, "Art as Evidence." Keynote, transmediale 2014, Haus der Kulturen der Welt, Berlin, January 30, 2014.
8. Our investigation into Russia's 2014 invasion of eastern Ukraine deployed such methods to turn up new evidence. Those findings were submitted to the European Court of Human Rights in 2019; the first example of machine learning-based evidence in such a context. The investigation is here: https://ilovaisk.forensic-architecture.org.
9. It is difficult to define the scope of the problem at hand here without being open to justifiable charges of generalisation. My own understanding of this problem is situated in the media and social contexts of western Europe and north America, but the language of 'post-truth' has undoubtedly taken root more widely.
10. See for example: Ladd, Jonathan M., *Why Americans Hate the Media and How It Matters*, (Princeton: Princeton University Press, 2011).

11. Such as the excellent work done by Amnesty's Citizen Evidence Lab, found at https://citizenevidence.amnestyusa.org.

12. A term increasingly favoured by Eliot Higgins, as in his recent *We Are Bellingcat: An Intelligence Agency for the People,* (London: Bloomsbury, 2021).

13. For example, Robert Booth, "Facebook reveals news feed experiment to control emotions", *The Guardian*, June 30, 2014, https://www.theguardian.com/technology/2014/jun/29/facebook-users-emotions-news-feeds.

14. Vaidhyanathan, Siva, *Antisocial Media: How Facebook Disconnects Us and Undermines Democracy,* (Oxford: Oxford University Press, 2018).

15. https://cpb-us-e1.wpmucdn.com/sites.dartmouth.edu/dist/5/2293/files/2021/03/nyhan-reifler.pdf.

16. Eyal Weizman, "Data Against Devilry." Keynote, Re:publica 2018, Deutsches Technikmuseum, Berlin, May 4, 2018.

17. Witness the discussion in the aftermath of the January 6, 2021 Capitol invasion of the 'big lie', a concept born in Nazi Germany. For example, Eli Zaretzky, "The Big Lie", *London Review of Books*, February 15, 2021, https://www.lrb.co.uk/blog/2021/february/the-big-lie.

18. https://www.academia.edu/26348232/POSTINTERNET_Art_After_the_Internet.

19. https://ucca.org.cn/en/exhibition/art-post-internet.

20. An excellent article on this front is Dyer Sophie and Gabriela Ivens, "What would a feminist open source investigation look like?", *Digital War* 1, (2020): 5–17, https://doi.org/10.1057/s42984-020-00008-9. The pages of the Open Source Researchers of Color collective are similarly valuable for their reorientation of OSI principles: https://www.osroc.org.

21. https://twitter.com/AricToler/status/1321127564275056640.

22. A thorough and hard-nosed exploration of one such incident, its aftermath, and the ways in which open source evidence may be swallowed by propaganda is by James Harkin, a colleague at Goldsmiths, University of London: https://theintercept.com/2019/02/09/douma-chemical-attack-evidence-syria.

23. Eyal Weizman, "Open Verification", *e-flux*, accessed March 23, 2021, https://www.e-flux.com/architecture/becoming-digital/248062/open-verification.

24. Ibid.

25. Rayna Stamboliyska, "Women in OSINT: Diversifying the Field, part 1", *Bellingcat*, December 8, 2015, https://www.bellingcat.com/resources/articles/2015/12/08/women-in-osint-diversifying-the-field.

26. Beginning with Mir Ali, then Saydnaya.. (e-flux).

27. *War Inna Babylon*, at the Institute for Contemporary Arts, was described by London's Evening Standard as "a necessary, urgent, at times devastating show". Read more about the exhibition and its public programme at https://www.ica.art/exhibitions/war-inna-babylon.

28. Ibid.

29. Forensic Architecture, "The Extrajudicial Execution of Ahmad Erekat", February 2021, https://forensic-architecture.org/investigation/the-extrajudicial-execution-of-ahmad-erekat.

30. https://blmprotests.forensic-architecture.org.

31. https://blogs.commons.georgetown.edu/erikvoeten/files/2011/10/LeboISQ.pdf.

32. Eyal Weizman, "Open Verification", *e-flux*, June 19, 2019, https://www.e-flux.com/architecture/becoming-digital/248062/open-verification.

33. See for example https://forensic-architecture.org/investigation/experiments-in-synthetic-data.

34. Jasmine Weber, "A Whitney Museum Vice Chairman Owns a Manufacturer Supplying Tear Gas at the Border", *Hyperallergic*, November 27, 2018, https://hyperallergic.com/472964/a-whitney-museum-vice-chairman-owns-a-manufacturer-supplying-tear-gas-at-the-border.

35. At the heart of that movement were the groups Decolonize This Place and Working Artists and the Greater Economy. Both groups remain sources of inspiration for FA's practice.

36. The Centre for Research Architecture, based at Goldsmiths, University of London, is a pioneering research experiment and community, founded by Dr. Susan Schuppli and our director Eyal Weizman. FA grew out of the CRA, and continues to hire researchers from its MA and PhD programmes.

37. That research is available here: https://forensic-architecture.org/investigation.matchking-warren-b-kanders-and-the-israel-defense-forces.

38. View the investigation at: https://forensic-architecture.org/investigation/triple-chaser.

39. Thessaly La Force, Zoë Lescaze, Nancy Hass, and M.H. Miller, "The 25 Most Influential Works of American Protest Art Since World War II", October 15, 2020, https://www.nytimes.com/2020/10/15/t-magazine/most-influential-protest-art.html.