PREFACE

Artificial vision, white space and racial surveillance capitalism

Nicholas Mirzoeff[1]

Abstract

This first half of the paper outlines the formation of racial surveillance capitalism across the longue durée of settler colonialism, with special attention to the formation of artificial vision. This artificial vision is deployed in the erased territory, creating a white space in which to see from platforms, ranging from the ship, to the train and today's drones. The second section examines the Eurodac digital fingerprint database created by the European Union to monitor and control asylum seekers and refugees as an "artificial life system," to use a phrase coined by its administrators. In this automated form, artificial vision is distributed rather than centralized.

Keywords Artificial vision · Surveillance · Database · Eurodac · Leviathan · The state · Race · Racialization · Whiteness

"This is how to place you in the space in which to see."

Layli Long Soldier, *Whereas*

In discussing "relations between the conqueror and the colonized" in his *Ways of Seeing*, John Berger made a line drawing depicting in barest outline two figures. The one on the right was captioned "omnipotent" and the one to the left "less than human." Berger noted: "the way each sees the other confirms his own view of himself" (1972: 96). Two pairs of diagonals go from eyes to feet and eyes to the top of the facing figure's head, perhaps evoking Hegel or Lacan. There's much left unsaid here. Did the conquered actually think of themselves as less than human? Or were they confirmed in seeing that the conqueror saw them that way? "Seeing comes before words," as Berger had famously begun his book. Before seeing comes "the space in which to see," to borrow a phrase from Oglala Lakota poet Layli Long Soldier (2017: 8). The way of "seeing" that arises in the space in which to see erases so as to produce white space, which can then be claimed for absolute ownership. This seeing-in-space is the sensing of how to place people in relations of hierarchy to extract value. The formation of white space in which to see, by people and machines, is my subject here. This white space is the product of coloniality, a space formed by the erasure of existing human and other-than-human relations. Coloniality is the time–space since 1492 when "America [the hemisphere] was constituted as the first space/time of a new model of power" (Quijano 2000: 533). In the space of erasure, artificial vision and artificial surveillance are enabled. Deployed first from infrastructure platforms like ships or trains, these processes are now being distributed into a network of machines that form artificial life systems. Together, the combination of erasure, extraction and surveillance has enabled racial surveillance capitalism to survive in that white space from the overseer on the plantation to neocolonial domination by unmanned aerial vehicle (UAV). What's different today is that this artificial vision is now being automated and distributed, creating spaces of disappearance.

The operations of white space precede what is conventionally thought of as "seeing," a look directed by a person at an object or other person that necessarily takes place in space. Whiteness is the apex, the place of organizing, and the vanishing point to and from which "seeing" is directed under racial surveillance capitalism. White space is rendered by the systemic erasure of colonized terrain and existing social relations in that space. The erased ground made space perceptible to the "conquering" gaze identified by Berger. This process involved a multiplicity of senses from touch to vision and sound because (colonial) ground is layered and folded, as Stuart Hall has defined it: "it is the site irretrievably marked in relation to the question of 'origin' by an unpassable distance" (2017: 168). The resulting white space is at once static, responsive to input, and cultivates transformation. This static is the presence of the state, meant to be

✉ Nicholas Mirzoeff
nm45@nyu.edu

1 Department of Media, Culture and Communication, New York University, New York, USA

permanent and unchanging; the statue as a symbolic figure for the state; and the electric noise generated by surveillance apparatus. White space is always a surveillance arena and so it responds, if and when it detects something or someone within what Jacqueline Rose has called the "field of vision" (1986). Elsewhere, I have called this regime "oversight," meaning the work done by the overseer on the plantation to ensure maximum production and minimum resistance and projected forward into the still-continuing "plantation futures" of the Atlantic world (Mirzoeff 2011: 48–76; McKittrick 2013: 1–12). If there is always a "weave of differences" (Derrida 1984: 13) in human identification, the frame on which that weave is produced is, under the existing regime of coloniality, whiteness-as-white-supremacy, whether that frame is a picture frame, a mainframe, or a container for network packets. These frames are not identical or self-identical but contain and produce whiteness as "a changing same," to borrow Paul Gilroy's formula (1993: 72–110). In whiteness's own imaginary, to be seen in white space is to be subject to violence without redress.

White space sustains whiteness as the "changing same" of what Caribbean philosopher Sylvia Wynter has called "monohumanism." For Wynter, monohumanism acts "as if it were the being of being human" (2015: 199 n.22). It is a system of violent domination, enacted by means of visualized distinction leading to separation, whether or "races" or of the free and enslaved, and the consequent production of vulnerability to harm. As a way of seeing, monohumanism uses a monocular vision of the world as a grid, shaping, in turn, the square of plantation agriculture, the layout of imperial cities, and now the patterns of electronic surveillance. The combination of monocular vision with the enforcement of monohumanism forms what I call "racial surveillance capitalism." As a concept, it connects Cedric Robinson's racial capitalism, with the recent upsurge in awareness of surveillance as constitutive of capitalism, by way of Simone Browne's concept of "the racialized disciplinary society" (Robinson 2000: 200–30; Browne 2015: 9; Zuboff 2019). Far from being a "rogue mutation of capitalism" (Zuboff 2019: ix), racial surveillance capitalism has been active since the surveillance-dominated grid cities of sixteenth-century Spanish Mexico organized on the principle of "concentration" (Nemser 2009: esp. 25–64); to the slavery-era plantation with its overseer; the factory with its foreman; the "new Jim Crow" of mass incarceration; the "carceral reservation world" (Estes 2019: 115) invented by settler colonialism for the indigenous; and today's CCTV-controlled megacities on quarantine lockdown. Assertions that "surveillance capitalism is young" (Zuboff 2020) fail to account for its long role in generating and sustaining racial surveillance capitalism on stolen land in the plantation and the factory. Sustaining racialized hierarchy is and was codependent with the extraction of value by means of persistent

surveillance of those excluded from monohumanism. State-gathered racialized "intelligence" is now being formulated into facial recognition, unmanned aerial vehicles (UAV) or drones, and border identification technologies, all still seeking an automated version of the perfect surveillance desired by the plantation overseer.

1 Erasure

In the Americas, racial surveillance capitalism began with the "clearing" of ground, mentally and physically, and by displacing or disposing of the Indigenous. This clearance continues with the assertion that Indigenous peoples are "extinct," or that their claims to land are void. When the Indigenous within the borders claimed by the United States combined to protest the extension of the Dakota Access Pipeline into land designated as Lakota by the 1851 and 1868 Fort Laramie Treaties, they were met with violence, from state police with sticks, to tear gas, and presidential Executive Order. LaDonna Bravebull Allard was quite clear as to what was happening: "Erasing our footprint from the world erases us as a people. These sites must be protected, or our world will end; it is that simple" (TallBear 2019, in Estes and Dhillon 2019: 17). By replacing the Lakota world with a pipeline, that world was erased, at least in part. That erasure continues: for example, Tohono O'onham burial grounds were demolished in 2020 to make way for the US border wall with Mexico (Ruiz 2020). The 2020 Land Defenders on Wet'suwet'en land within the borders claimed by Canada met a similar response. As Freda Hudson, spokesperson for the Unist'ot'en (one of the clans of the Wet'suwet'en nation) put it, the issue revolved around competing definitions: "for us, our critical infrastructure is the clean drinking water and the very water that the salmon spawn in … to them, they massively clear cut land, which the animals depend on" (Spice 2019: 215). When settler colonialism directly confronts its others, the issue is stark: erasure or survival.

Layli Long Soldier's poem "Three" (within the section *He Sapa*, known to settlers as the Black Hills, treaty-protected land sacred to the Lakota Sioux) visualizes this space of encounter and confrontation: "This how you see me the space in which to place me/The space in me you see is this space/To see this space see how you place me in you/This is how to place you in the space in which to see." Seeing is spaced and placed, you and me, unevenly. Here, I, the nonindigenous white settler, am the "you" of her poem. If one begins at the top, it begins with the settler placing the Indigenous in any space whatever. The sentence is evenly and standardly spaced. The next two lines have spaces between phrases. Later in the collection, she terms this unreadable space a "white hole," which results in letterpress when two or more spaces are used, whether by accident or design

(Long Soldier 2017: 71). Those "holes make the space open," allowing you, me and them to enter, as and when. Across these spaces, a form of relation occurs. By the last sentence, evenly spaced, the settler may, with due process, become able to access the space in which to see. The poem as a whole produces a square blank space in the middle of the page, formed by these unequal ways of seeing. Across her section "Whereas," Long Soldier has many names for "it," that unreadable but perceivable and knowable space that rhymes without sound. It is "Indian emptiness" that she notes the Oxford English Dictionary now says must be rendered as "American Indian emptiness" (Long Soldier 2017: 62). The colonizer still controls the sentence.

Indeed, *Whereas,* the title of her book, follows from the 2009 Congressional Resolution of Apology to Native Americans, which was placed entirely in the "whereas" clauses of the 2010 Defense Appropriations Act, providing over $500 billion for the military (Public Law 2009). That is to say, the Act articulates, in the sense offered by Stuart Hall, the foundational erasure of Indigenous peoples in the Americas with present-day neo-colonial ventures in Afghanistan, Iraq and elsewhere. This articulation of what settler colonialism does amplifies Long Soldier's statement that the Apology "falls short of legal grounds" (2017: 70). Yet, like Fanon in *Wretched of the Earth*, Long Soldier dreams of running, a dream of embodied and decolonized freedom. In her poem, on waking she "teeter[s]" to the mirror, saying *"You're old enough now to look at yourself full-on."* (2017: 70; her emphasis). Long Soldier comes into her own view, deferring and making different the experience of colonized ground. For Long Soldier, the result is "defiance," not the deconstructive *différance* (2017: 75).[1] It is not a "gaze," because that is what the settler does and automates in the surveillance system. It is a full-on look, one that expresses majority, in the sense of legal subjectivity and of maturity. Being able to look at yourself full-on counts. Thinking about the colonizing state, Kahnawà:ke Mohawk scholar Audra Simpson has identified in the sovereign a "death drive to eliminate, contain, hide and in other ways 'disappear' what fundamentally challenges i[t]s legitimacy" (Simpson 2016: n.p.). This visualized structure of domination by concealment and disappearance is a powerful formation of racialized surveillance. It is both deployed against individuals and has a collective set of outcomes. For Simpson, "the state is a man," and a "heteropatriarchal" man at that, for, as Susan Deer has argued, rape "can be employed as a metaphor for the entire concept of colonialism" (2015: xvii; in Estes 2019: 81). The death drive of disappearance renders what

Simpson calls "Indigenous political orders" unappearable within white space.

The sovereign monocular stare of erasure, disappearance and death is an active, artificial and engaged form that seeks to conceal itself from those it observes. The state and its surrogates project[2] themselves onto the erased white space of plantation futures, to use the term coined by Kathleen McKittrick, meaning "a conceptualization of time–space that tracks the plantation toward the prison and the impoverished and destroyed city sectors." To these sectors should be added the so-called "reservation" for the Indigenous as and the detention center for migrants and refugees. In the plantation imaginary, the overseer was capable of envisaging everything that took place in and around the plantation, keeping humans, animals, biomass and even landscape under transformative surveillance. McKittrick shifts the register of the plantation as past time to one in which "the plantation uncovers a logic that emerges in the present and folds over to repeat itself anew" (2013: 2, 4). In this case, that logic is the means by which plantation oversight continues to structure the automated systems of racial surveillance capitalism.

White space subsequently metamorphoses a person into a commodity. It transubstantiates life into value or renders life into data. White space is always moving image space, where there is not simply motion, but alteration. This logic rendered life into the property, the process of enslavement by which a body becomes an object according to colonial law, but so too does whiteness become property. From that violence results a chain of metamorphoses, as Walter Johnson has put it, from "lashes into labor into bales into dollars into pounds sterling" (2013: 244). In formal economic language, the later stages of this process are usually considered as an exchange, but while dollars can be exchanged for cotton and other things, lashes and their resulting pain cannot (or should not) be exchanged at all. But Johnson notes that "violence is the metric of production," to which I would add in this context, "of white space." Under digital systems of surveillance and detection, life is rendered into data, creating a "hostile environment" to appropriate former British prime minister David Cameron's nasty tag. A person within the hostile environment is subject to physical violence, ranging from arrest and detention to deportation, but is pressured constantly by the awareness of being considered a suspect. The digital form of the "wages of whiteness" identified by W. E. B. Du Bois in 1935 is not access to the water fountain but to the nation-state as a whole, a hostile white space designed to exclude.

---

[1] The term *différance* is a neologism coined by Jacques Derrida to express the contradiction that the French verb *différer* means both to defer and to differ.

[2] For the concept of projection in colonial contexts, see Casid, *Scenes of Projection* (2015: 89–124).

2 Artificial surveillance: Leviathan

While white space is co-eval with coloniality, by the time of the great acceleration of sugar production in the seventeenth century that fueled the rise of modern racial capitalism, it became subject to artificial surveillance. This surveillance was the combination of an artificial way of seeing and the compound formation of the state as an artificial machine. The first figure of this "artificial intelligence" that formed the plantation futures in which racial capitalism continues to operate was the Leviathan, the imaginary means of visualizing the state. For Thomas Hobbes, the Leviathan was an "artificial man": "the sovereignty is an artificial soul, as giving life and motion to the whole body" (1651: 7).[3] For Hobbes, the sovereign is also sovereignty, a far from the neutral term, as Hardt and Negri have shown: "the concept of sovereignty emerges from the colonial mentality and is conceived explicitly in relation to the natives of 'America,' who are considered populations that remain in the state of nature" (Hardt and Negri 2017: 26). Hobbes' sovereign representation expressed the racialized hierarchical imaginary of monohumanism derived from the plantation colony. In *Leviathan*, all (white) persons were imagined to voluntarily give up their freedom in exchange for the protection of the state. Hobbes declared "[a] Multitude of men, are made One Person, when they are by one man, or one Person, Represented" (in Skinner 2018: 284). The Leviathan "represents" the "multitude" as being contained in one artificial man.

This artificial state deployed an artificial vision, visualized in the period by Abraham Bosse, first professor of perspective at the nascent Academy of Painting in Paris, the artist who would later draw *Leviathan*. Bosse was quite literally a bourgeois revolutionary—a Huguenot, he lived in Paris and participated in the Fronde (1648–53), the uprising against the young Louis XIV—who understood perspective to be the dominant form of representation. Bosse depicted vision as a pyramid formed by four pieces of string ending in the eye (singular) of white soldiers carrying swords. The object being looked at wills its own surveillance, according to Bosse, because it emitted rays that entered the eye to be seen. In a similar fashion, Hobbes began *Leviathan* with a discussion of seeing, in which he distinguished between the object and the way it was seen that resulted from "pressure," which is to say, "the motion of external things upon our eyes." In Bosse's drawing, the soldiers don't have visible eyes. The observed cannot look back at the sovereign stare because it is eyeless, such as Samson. This visualizing of vision is, to borrow philosopher of vision Susanna Berger's term, itself entirely "artificial" (2017: 184). It has nothing

to do, then or now, with seeing as a physical process and everything to do with controlling appearance in the field of vision. The square formed within the highly abstracted space depicted by Bosse is visibly white space. Whatever was there before—people, cultures, other-than-human life—has been erased.

Bosse's diagram renders in miniature the triangulation of land as colonizing and visualizing technology. Land titles known as "plats" in the period depicted terrain as a line drawing as seen from above. In practice, measurements were made by enslaved labor using a unit called a "chain," invented by the English priest Edmund Gunter in 1620. The chain varied in length (in British imperial measures it was 66 feet) and was measured with a metal chain, the material embodiment of white space. The chain remains the length of a cricket pitch and it was the basis of the famous Ordnance Survey maps of Great Britain. This detail of measurement epitomizes the formation of white space: an entirely artificial measure nonetheless amply expresses the realities of coloniality from conquest to enslavement. Bosse's diagram appeared in *Ways of Seeing* as an illustration of perspective, a system Berger described as enabling "appearances [to] travel in [to the body]. The conventions called those appearances *reality*" (1972: 17). The colonial reality being formed by the artificial white machine at the intersection of the artificial state apparatus and artificial seeing was white space. Erased rather than empty, it erased life to extract value.

The artificial state and artificial vision came together in the famous engraving made by Bosse to depict Leviathan as a sea monster from the Book of Job, emerging from its element as a single figure containing all its subjects. As Horst Bredekamp reminds us, Hobbes imagined the Leviathan as a "mortal god," a figure equivalent to Hercules and other creatures of legend (Bredekamp 2007: 33). Hobbes saw the formation of such "compound creatures" as he called them, as a special instance of the power of colonial imagination, or what he called "Fancy." Fancy was not simply an artistic or creative attribute: "whatsoever distinguisheth the civility of *Europe*, from the Barbarity of the *American* savages, is the workmanship of *Fancy*." Fancy created images, meaning "any representation of one thing by another" (in Tralau 2007: 65–9). Leviathan is, then, the image of sovereign colonial authority in and as the power to represent. With that in mind, it becomes clear that Leviathan is, in fact, emerging out of the sea, with his legs as yet underwater. Bosse drew the sea, complete with a ship, at the extreme right—often cut out of reproductions—together with a typical colonial fort. The fort is the prototype of Fortress Europe, the anti-migrant regime of the present-day European Union. Leviathan is in and out of the water, partly immersed: it was and is both a sea creature and a technology—a ship. The ship must always be above and below water. Below the waterline were those to be enslaved, invisible and insensible to those

---

[3] Prepared for the McMaster University Archive of the History of Economic Thought, by Rod Hay; see Berger 2017: 188).

above, but nonetheless an active and indispensable part of the Leviathan.

3 Platforms: ships, trains, and drones

3.1 The slavers' Pigeon-hole

Leviathan as the colonial state may be represented, to use Hobbes' term, as a slave ship: divided, compartmentalized, Manichean. The Manichean formation of whiteness departs, in the sense of sets sail, from this division. There are those in the hold, the means by which Africans were transformed into "slaves" via the monstrous agency of the Middle Passage (Sharpe 2017: 27; Moten and Harney 2013: 93). Where did the white person in authority come to "see" slavery? If the Africans were consigned to the "hold" (a deck below the main deck), then it would be the "deck," from which slaver officers and crew ordinarily sustained the operations of slave trading. Managing a ship was always a question of interactive sensory labor. Visual observation from the crow's nests in the masts was relayed to the deck. The visual perception of sea conditions and nearby land had to be supplemented with logged observation of wind and currents. When close to land, a ship would be "sounding," meaning the measurement of depth by throwing a weighted rope overboard from the bow. Using a variety of visual markers to indicate different measurements, the crew would then call out the depth in fathoms (five and a half feet for merchant ships, six feet for warships). The deck offered a multidimensional and multisensory field of vision. It was nonetheless highly vulnerable. Africans managed to wreck ships during the Middle Passage and the vagaries of weather, wind and currents did for many more.

No case of such disorientation has received more attention than that of the *Zong* (Walvin 2011). This infamous history concerns the slave ship of that name, which, getting lost on the Middle Passage in 1781 overshot its destination in Jamaica, and contrived to jettison no less than 132 Africans. Whether this casting overboard was done to "save" water for the remaining crew and captives, or simply to make a claim for insurance, was the subject of repeated court cases in the period and continues to resonate across historical and creative accounts. Such jettison—a term meaning precisely the throwing overboard of goods to preserve the vessel—was not uncommon, even of so-called human property. The *Zong* is remembered because the formerly-enslaved writer and abolitionist Olaudah Equiano took up the case and pushed it to white abolitionist Granville Sharp. Many believe that it also inspired J.M.W. Turner's painting *Slavers Throwing Overboard the Dead and Dying, Typhon Coming On* (1840). This devastating painting was made just after Britain had finally abolished slavery, whether as a final indictment, or

as a provocation to consider that abolition had not yet fully taken place. As Christina Sharpe has pointed out, "[t]hat Turner's slave ship lacks a proper name allows it to stand in for every slave ship" (2017: 36). It might have been the *Zong*. Or it could have been the *Leão*, a Portuguese ship that took onboard 855 Africans in 1836 and was known to have thrown some 30 people infected with smallpox overboard, while a further 253 died of measles. The *Leão* indicates that Middle Passage conditions were arguably at their worst toward the end of the slave trade, as captains packed their ships with their now illegal human property (Graden 2014: 62–63; Voyage ID 1586 on slavevoyages.org).

Turner does not make the guilty jettisoners visible, unlike a widely-reproduced abolitionist print from 1833 showing the crew throwing Africans off the deck. Placed "high" in the picture, its single jib shredded by the wind, the slavers have only the quarter-deck (a raised platform behind the main mast from where the captain directed the ship), invisible as it rides the waves, as their place from which to see. The slavers are framed against the purples and oranges of the setting sun, the Manichean condition of slaving. Turner's suggestion is clear: the slaver is a component of the slave ship (often known as a slaver), in the same way that for Hobbes sovereignty could not be distinguished from the sovereign. The slaver was a platform to sustain a specific artificial way of seeing in racial surveillance capitalism, the view from the deck. It created powers over life in ways that could not previously have been imagined. If the main deck was the overall place from which to see, its specific vantage point was the quarterdeck. I think here of M. NourbeSe Philip's astonishing poetry collection *Zong!* (Philip 2008). Like Long Soldier, Philip makes extensive use of the white space of the page and creates white holes by use of extra spaces to visualize not just the action of jettison but its affects. These white holes were also known as pigeonholes, a term that could equally refer to a small hole for looking through, a hole in a ship through which rigging would pass, or the holes in which a person's hands were restrained during the flogging. The entire Atlantic world is there in this expression. It could equally be appropriated and reversed, as when Harriet Jacobs created what she called a "loophole of retreat" to see out of the attic where she evaded enslavement.

3.2 The platform of skulls

The deck was a multisensory platform for the visualization of white space in the era of colonization and Atlantic slavery. The internal colonization of the United States was enabled from the platform provided by the train, involving the mass slaughter of human and other-than-human life. Today's platforms contain traces of the decks and platforms that preceded them, like layers in a Photoshop image, always produced, of course, against a background of white space.

Kul Wicasa from the Lower Brule Sioux Tribe scholar Nick Estes estimates that even as "buffalo-hunting [Indian] nations on the Northern Plains from 1780 to 1877 experienced a 40% population decline," between 10 and 15 million buffalo were exterminated in the last two decades of that time (Estes 2019: 86, 110). To supplement the work of the US Army in both these genocides, the newly completed Transcontinental Railroad was used as a platform from which to kill. An article from *Harpers Weekly* of the period describes how: "The train is 'slowed' to a rate of speed about equal to that of the herd; the passengers get out fire-arms which are provided for the defense of the train against the Indians, and open from the windows and platforms of the cars, a fire that resembles a brisk skirmish" (King 2017). The train has long been understood as a paradigm for industrial modernity, with the corollary that the first "moving image" was the view as seen from the train (Schivelbusch1987; Mirzoeff 2016: 125–41). These trains put themselves in synch with buffalo life in order to kill them, using weapons first supplied to kill Indigenous peoples. Far from being an amusement or attraction, as early cinema studies have often had it, the moving image was first a scene of genocide of human and other-than-human life.

A vivid example of the intersection of the attraction with the elimination of the buffalo can be seen in a now-widely circulated photograph of a massive arrangement of buffalo skulls. The photograph was taken at a glueworks in Rougeville, Michigan, by an unknown photographer, probably in the mid-1870s (Anon n.d.).[4] The skulls were collected to be rendered into fertilizer so that the death of Indigenous animal life could enable settler agriculture. Two men stand at the top and bottom of the structure, allowing us to estimate that the pile is some twenty-five feet high. The photograph is a depiction of the settler-colonial conquest and racial hierarchy in material form. It's also a stunt, making the viewer ask how the man on top can stand on such a pile. Looking closely, the grotesque *memento mori* appears to be below ground level, filling in a trench, possibly a railroad cutting by which the skulls had been delivered. The feet of the man at the top cannot be seen, concealed by a skull he is carrying. Perhaps he is standing on the top of the cutting. Or he is standing on a stack of metal cages, like the one in the foreground in which the skulls must have been transported. The factory went to extravagant lengths to create the illusion of a freestanding mountain of skulls, making Indigenous death into an attraction and a spectacle. Estes showed this photograph in a lecture to illustrate his thesis, following

Simpson, that there is a "settler culture of death." In filmmaker Arthur Jafa's installation of the photograph in his 2019 Prague exhibit entitled "A Series of Utterly Improbable Yet Extraordinary Renditions," there was no explicit commentary. The title clearly referenced the term used by the Bush administration to take suspects to remote "black sites," where they were subject to illegal torture. Enlarged to life size, the photograph wrapped around a corner of the Galerie Ruldofinum, built during the Austro-Hungarian empire, and was placed next to Jafa's artwork *Black Flag*. In staging this literally intersectional oppression, Jafa wanted us to know both that "Love is the message" and that "the message is death." For Jafa, his film of that title addresses what it means "to be alive and not to be alive at the same time." Such is the message from these skulls, the materialization of white space from the platform of the train.

3.3 Kill box

In the past fifty years, the moving-image platform for the surveillance of white space has become automated. The unmanned aerial vehicle (UAV), or drone, has made such surveillance persistent and pervasive, from the US-Mexico border to post-9/11 low-intensity counterinsurgency warfare. It operates as "lawfare" blending law and warfare into a single word, now a term of art in the military (Hajjar 2017: 59–88). Its continuity with earlier forms of racialized surveillance produces what Keith Feldman has called "racialization from above" (Feldman 2011: 325–41). Over this period, UAV "lawfare" has created an abstract space of death, formally known as a "kill box." It was first developed by the Israeli Defense Force as a means of monitoring the Palestinians under occupation in the 1970 and 80s,[5] which has every more clearly become a means of erasure and disappearance. The visualization of the kill box made by the IDF is strikingly reminiscent of Bosse's white space in which to see. Both diagrams show a viewing point—whether the eye or the drone—and a pyramid of lines forming an abstract white square. The "kill box" is what it sounds like: an arbitrary square area drawn from the drone as if it were a single point, in which the drone operator is given permission to kill those who become visible. It is a plantation future of the overseer's visual footprint over his "plat," a line drawing of an estate as if from an aerial viewpoint produced by (inaccurate) surveying to distinguish one colonized piece of land from another. Everything in that plat was to be seen by the overseer. The triangulation of land as visualizing technology folds into the present in automated form. The "kill box" is now part of US military doctrine since

---

[4] The National Museum of the American Indian dates the photograph to the mid-1870s, although the text on reverse reads: "C.D. 1892 Glueworks, office foot of 1st St., works at Rougeville, Mich." Burton Historical Collection, Detroit Public Library.

[5] For this history, see Chamayou (2015: 27–28). For the first kill box theory, see Lee (2019).

the post-9/11 ventures into neo-colonialism. Accordingly, it has its own Field Manual and, like the plantation, has evolved its own bureaucracy, requiring a form to be filled out for each requested kill box. The Field Manual defines a kill box as "a three-dimensional area used to facilitate the integration of joint fires…. When established, the primary purpose of a kill box is to allow lethal attack against surface targets without further coordination with the establishing commander" ([US] Army, Marine Corps, Navy, Air Force 2009: 1). It has a ceiling to prevent friendly fire accidents and is sufficiently high-resolution to have "no fire areas" within it. These boxes are not imaginary: people die as a result of them and in them. These systems are boundlessly expensive. The eighty-six weapons systems examined by the Government Accountability Office in 2012 were estimated to cost $1.6 trillion over their lifetime. The three major UAV systems were projected to cost over $30 billion (Defense Acquisitions 2013: 101). They are funded for good reason because, as media scholar Lisa Parks puts it, the formation of the drone view of the world has "the potential to materially alter or affect the phenomena of the air, spectrum, and/or ground" (Parks 2017: 135). Or, in the terms I'm using here, white machines transform the land into white spaces in which to see is to kill.

4 Artificial life systems

Racial surveillance capitalism's artificial forms are manifest throughout biometric and algorithmically-automated systems. The intersection of long-standing technologies of monohumanism with digitized forms of artificial intelligence is producing new forms of artificial life. Simone Browne calls for a "critical biometric consciousness" to respond to the blanket application of biometry by states (2015: 116). Browne sets facial recognition and biometry in the long context of the "technology of tracking blackness that sought to make certain bodies legible as property" (2015: 128). Indeed, as Joseph Pugliese has put it, "biometric technologies are *infrastructurally calibrated to whiteness*" (2007: 107). IT equipment, like servers in the data centers that produce cloud computing, is actually known to designers as "white space." Technicians design these centers in pure white supposedly to make any dirt more visible but also in accord with what A.R.E. Taylor calls the "technoaesthetics" of cleanliness and purity (2017: 49). These aesthetics are also, consciously or not, those of eugenic white supremacy. The result is what has been described as the "diversity disaster that now reaches across the entire AI sector" (West et al. 2019). As Ruha Benjamin has put it, "discriminatory design" has produced nothing less than the "New Jim Code" (2019: 3). It is an intended outcome, not an accident, and it is not proving simple to eradicate (See Joh 2016: 15–42;

Marx 2016; Hao 2019). Based as it is on "epidermalization" (the assertion of absolute difference based on relative differences in skin color), AI's racial surveillance deploys an all-too-familiar racialized way of seeing operating at planetary scale. It is the plantation future we are now living in. All such operations take place in and via the new imagined white space of technology known as the cloud. In reality, a very material arrangement of servers and cables, the cloud is both an engine of high-return low-employment capitalism and one of the prime drivers of carbon emissions. On the one hand, Amazon Web Services—one of the largest cloud operations—have become the greatest source of profit for the company (Condon 2018). On the other, if taken together, data centers formed the fifth highest source of carbon emissions as early as 2012, according to Greenpeace (Hu 2015: 79). It takes a million times the amount of energy to store a document in the cloud than it would on a hard-drive (Adamson 2017).

Amidst the fake cleanliness of the cloud, the refugee has (re)appeared as the key figure of a database-driven reconfiguration of the carceral nation state to prevent migration and asylum. While the US is obsessed with its archaic wall, key to this process in Europe is the Eurodac fingerprint database, created by the European Union to enforce its Dublin Regulation, which stipulates that all must seek asylum in the country in which their fingerprints were first taken. Eurodac is the distributed form of racial surveillance capitalism. It "sees" the migrant and registers them not as people but as a biometric data set. Eurodac's administrative body—*European Agency for the operational management of large-scale IT systems in the area of freedom, security and justice*—considers it to be "a living system" (2013: 4). This suggests Eurodac is not just an AI, it is an artificial life form. In 2017, its four year budget was set at €29.8 billion, equivalent in cost to the UAV programs of the US military.[6] Its software was designed by Cogent, later acquired by Gemalto, who were acquired in turn by Thales for €4.8 billion to become part of a €19 billion global security company.

Digitized fingerprints are now the prime mover of the refugee system in Fortress Europe, the direct descendant of Leviathan. The fingerprinting machine has become the border, since asylum seekers are required to apply for asylum wherever they have been fingerprinted. Since 2003, Eurodac has recorded the fingerprints of asylum seekers to enable "fingerprint comparison evidence" as an automatic identification system for administering claims.[7] Since 2015,

---

[6] See https://www.europarl.europa.eu/legislative-train/theme-towards-a-new-policy-on-migration/file-jd-recast-eurodac-regulation.

[7] "By comparing fingerprints, Member States can determine whether an asylum applicant or a foreign national, who is suspected to be illegally present within a Member State, has previously claimed asylum in another Member State or whether an asylum applicant entered the Union territory unlawfully." *Framework Contract for Maintenance in*
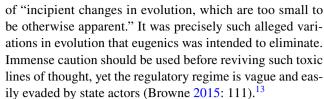
it also allows law enforcement to do cross-checking against criminal and "terrorist" databases, a consistent pattern in the EU. Every major immigration and asylum database that was set up with a firewall to law enforcement routinely grants them access within a short period of time (Hayes 2017: 185 n. 21). With a capacity to hold 7 million records,[8] Eurodac already stored 4 million records by 2016, which it keeps for a decade.[9] In that year, 1.6 million fingerprints were taken but the system only generated "hits" in 16% of cases, which suggests its function is more to deter than detect.[10] While some studies of the supposed "gold standard" of European data protection and asylum regulation criticize the "thought-lessness" (Bugge 2019: 91–100, 94) or ambiguity of these practices, these are intentional failures, designed to produce exclusion rather than consistent and equal treatment. As Benjamin Muller has put it, the results have been "pre-emptory logics, a negligent attitude towards 'false positives,' and an overall proliferation of borders" (2010: 9). More precisely still, it is a racialized border.

In the nineteenth century, Francis Galton, the founder of eugenics, adopted the fingerprinting system of identification from colonial India, where it was used because officials could not tell people apart. Gemalto, the software company that administers the EU fingerprint system, acknowledges this genealogy on its website and even quotes Galton on the alleged accuracy of the fingerprint.[11] For despite the CSI imaginary in which forensics are always already completely accurate, fingerprinting is no more than "probabilistic," as Browne puts it, noting cases of false identification by fingerprints. Galton also coined the term "biometry" in 1901, as a militarized state apparatus, capable of "converting a mob [of statistics] into an orderly array, which like a regiment thenceforth becomes a tactical unit" (Galton 1901): 7–10).[12] This conversion would allow for the perception

of "incipient changes in evolution, which are too small to be otherwise apparent." It was precisely such alleged variations in evolution that eugenics was intended to eliminate. Immense caution should be used before reviving such toxic lines of thought, yet the regulatory regime is vague and easily evaded by state actors (Browne 2015: 111).[13]

If Eurodac is alive, it is a privatized zombie designed by Kafka. An asylum seeker incarcerated in Denmark described it accordingly: "you are in a room trying to get out, and it's like a labyrinth to get out of there, with lots of different corridors to take and you don't know which one" (Freedom of Movements Research Collective 2018: 17). Following what turned out to be the high point of migration to Europe in 2015, Eurodac was enhanced so as "to take fingerprints and an additional biometric identifier, namely a facial image. Far from making the system more reliable, researchers have shown that existing AI consistently interprets Black faces as "angry" or "contemptuous" from a study using the publicity photographs of US basketball players (Rhue 2018). The new Eurodac regulations also lowered the age of taking fingerprints from 14 to 6 years old.[14] Are 6-year-olds terrorists? Perhaps, says Eurodac, because they may have acted "irregularly" in crossing internal EU frontiers or overstaying visas. As a result, legal experts are now debating whether school photographs are private information or "public" for state use (Kindt 2018: 523–538, 534). A German stock photo available to illustrate media reporting on the system clearly shows the Eurodac imaginary. A hand clad in a medical glove to protect against infection presses another, visibly brown hand onto the scanner. The connotations are that brown people are a viral source of contamination and cannot be distinguished except by machines. Artificial vision is no longer analogous to human vision: its purported digital capacity to distinguish people exceeds (white) human capabilities.

The E.U., in fact, bans the use of biometric data for identification via its 2016 General Data Protection Regulation (GDPR).[15] The European Court of Human Rights has ruled that the retention of biometric data is an intrusion on the right to privacy, with exemptions, such as when "explicit consent" has been given. Does setting foot in a public space monitored by CCTV constitute such consent? Perhaps a court might agree. Very few individuals would, I suspect. If the court does not agree with the blanket provision, authorities can claim "substantial public interest" to

---

Footnote 7 (continued)

Working Order (MWO) for the EURODAC system LISA/2016/RP02 (Restricted Procedure—Article 104 (1) (b) Financial Regulation, Article 127 (2) paragraph 2 Rules of Application). Available at https://www.eulisa.europa.eu/Procurement/Tenders/LISA2016RP02%20EURODAC%20MWO/Annex%20I%20Eurodac%20MWO-Executive%20Summary.pdf.

[8] Using Dell machines, https://www.europarl.europa.eu/doceo/document/E-8-2018-001595-ASW_EN.html?redirect.

[9] *Annual report on the 2016 activities of the Eurodac central system, including its technical functioning and security pursuant to Article 40(1) of Regulation (EU) No 603/2013* (European Agency for the operational management of large-scale IT systems in the area of freedom, security and justice (eu-LISA), 2017), 4. Available at https://eulisa.europa.eu.

[10] https://www.gemalto.com/govt/customer-cases/eurodac.

[11] https://www.gemalto.com/govt/customer-cases/eurodac.

[12] For a case study of Galtonism and racialized state power, see Breckenridge (2014).

[13] See section "Branding Biometrics" (Browne 2015: 109–18) for full exploration of this issue.

[14] https://ec.europa.eu/home-affairs/what-we-do/policies/asylum/identification-of-applicants_en.

[15] *Regulation of the European Parliament on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of such Data, and Repealing Directive* 95/46/EC, 2016/679/EU, 27 April 2016.

justify using biometric data. The merest whiff of "security" is almost always taken as such justification that is not formally defined. Many of these protocols can be bypassed because the EU has decided that fingerprints and facial images (or any such indicator) are not biometric data until they undergo "specific technical processing" (Kindt 2018: 530). Digital photography and the taking of fingerprints by digital scanning are somehow exempt from being defined as technical processing, despite being processes that require specific technology and must be carried out in a "highly controlled and cooperative manner" (Labati et al 2015: 1). As anyone who has applied for a visa knows, facial photography for ID purposes has a set of requirements—full face, no glasses, use of plain white background—that produce an image which most people say does not look like them. The photograph renders the person as the state wishes to see them. In short, the European Union creates the appearance of biometric data protection, while allowing for its wholesale use under the pretense that it is "unprocessed." The most recent forms of facial recognition, like Clearview AI, use immense pools of "scraped" social media photographs and other generic snapshots to identify people, giving security services an additional means to bypass the question of "processing" (Hill 2020).

Eurodac's policing of white space is producing a blank white non-space, the space of disappearance. In Denmark, to take a key zone of Nordic whiteness, the strategy is to disappear the refugee from society. Asylum seekers cannot work, cannot claim benefits and cannot accept cash donations. They are currently detained in camps run by the prison service, even though under the 1951 Geneva Convention, claiming asylum is a human right. In 2019, I was able to visit Sjaelsmark thanks to the invitation of an Eritrean refugee I'll call "Lily"—the camps are not open to outside visitors. Like many others, Lily was denied leave to remain in Denmark because her fingerprints were first taken in Greece. The Sjaelsmark departure or expulsion centre for refugees denied asylum (technically "non-deportable rejected asylum seekers," according to EU law) where Lily was detained is accessed through a formidable gate, which is locked every night at 10 pm, even to residents. Individuals and families live in former military barracks (in April 2020 families will be moved out of the centre) (The Local 2019). The residents call it a "camp," and it is newly surrounded by 10-foot-high security fences. Although residents can leave whenever they want, the effect is one of imprisonment. The camp is 25 km from Copenhagen, a journey that takes two hours by public transport.

If the Danish settler colony once wanted to extract labor from its colonial subjects in the Caribbean, Africa, and Asia, all it wants now from their descendants is that they go away. To that end, Sjælsmark residents cannot cook, have furniture (other than a bed, one table, and hard chair), or decorate their rooms. No carpets or rugs are allowed. There is no television, radio or Internet service. Residents live in cold, spare, whitewashed rooms with very high ceilings: erased white space. The Social Democratic victory in the 2019 elections has led to a reduction in these cruelties. Families will no longer be housed at Sjaelsmark as of April 2020 and detainees will be allowed to cook and eat in their rooms. There is still no broader solution for the political limbo where these asylum seekers mostly find themselves. They have lost what Hannah Arendt called the "right to have rights," and are still being disappeared. It is clear that many others, formally citizens, are entering the space of disappearance, permanently or temporarily, and losing the right to have rights, whether a person subject to London police using facial recognition on anyone in certain areas; a person present in areas where the Coronavirus has infected others; people kettled or otherwise restrained by police when protesting and so on.

In this review of the production of white space across the hitherto-existing span of Atlantic world coloniality, several trends can be detected. There is a consistent production of artificial vision to create and sustain erased space that can be colonized. The introduction of automated machine vision and machine learning has absorbed the long history of coloniality as its "intelligence" and continues to reproduce it. However, in this automated form, visuality is distributed, rather than centralized. Artificial vision was constructed around a single point from which to see, whether that of the overseer or the colonial state. It then developed platforms from which this vision might be deployed, from the deck of the ship to the platform of the train. Artificial vision relied on infrastructures tied to specific places, whether the Atlantic sea routes driven by oceanic currents or the material form of the railway track. With the UAV and distributed machine-learning, the state can now deploy its artificial vision wherever it wants, whenever it wants. CCTV is the domestic application of this apparatus that has already become ubiquitous in places like China and the UK. The function of this machine vision has circulated over time. To adapt the aphorisms of Lorenzo Veracini, the colonial state first told the Indigenous "you, go away." It alternated that command with "you, work for me," a directive also used for forced migrants (Veracini 2011: 1–12). The latter was extended to once-colonized subjects invited back to the metropole in the labor shortages following the Second World War. With the creation of globally distributed labor forces, racial surveillance capitalism now says "go away" to all those surplus to its requirements. Accordingly, it now seeks to disappear them, rather than keep them under close watch. Whether they live or die is a matter of indifference to the state and grounds for visual activism for the rest of us.

References

Adamson J (2017) Carbon and the cloud: hard facts about data storage. In: Stanford magazine. https://medium.com/stanford-magazine/carbon-and-the-cloud-d6f481b79dfe

[US] Army, Marine Corps, Navy, Air Force (2009) Kill box multi-service tactics, techniques, and procedures for kill box employment FM 3-09.34. Department of Defense

Benjamin R (2019) Discriminatory design, liberating imagination. In: Captivating technology: race, carceral technoscience, and liberatory imagination in everyday life. Duke University Press, Durham

Berger J (1972) Ways of seeing. Pelican, Harmondsworth

Berger S (2017) The art of philosophy: visual thinking in Europe from the late renaissance to the early enlightenment. Princeton University Press, Princeton

Bredekamp H (2007) Thomas hobbes's visual strategies. In: Patricia S (ed) The Cambridge companion to hobbes's *Leviathan*. Cambridge University Press, Cambridge

Browne S (2015) Dark matters: on the surveillance of blackness. Duke University Press, Durham

Bugge M (2019) Obedience and dehumanization: placing the Dublin regulation within a historical context. J Hum Rights Soc Work 4:91–100

Casid J (2015) Scenes of projection: recasting the enlightenment subject. University of Minnesota Press, Minneapolis

Chamayou G (2015) Drone theory. Penguin, London

Condon S (2018) In 2018, AWS Delivered Most of Amazon's Operating Income. ZDNet. https://www.zdnet.com/article/in-2018-aws-delivered-most-of-amazons-operating-income/

Deer S (2015) The beginning and end of rape: confronting sexual violence in Native America. University of Minnesota Press, Minneapolis

Defense Acquisitions (2013) Assessments of selected weapon programs, GAO-13-294SP

Derrida J (1984) Différance. In: Margins of philosophy, trans. Alan Bass. University of Chicago Press, Chicago

Estes N (2019) Our history is the future: standing rock versus the Dakota access pipeline and the long tradition of indigenous resistance. Verso, New York

Feldman K (2011) Empire's verticality: the Af/Pak frontier, visual culture and racialization from above. Comp Am Stud 9(4):325–341

Freedom of Movements Research Collective (2018) Stop killing us slowly. A research report on the motivation enhancement measures and the criminalisation of rejected asylum seekers in Denmark. Denmark

Galton F (1901) Biometry. Biometrika 1(1)

Breckenridge K (2014) Biometric State : The Global Politics of Identification and Surveillance in South Africa, 1850 to the Present. Cambridge University Press, Cambridge

Gilroy P (1993) The Black Atlantic: modernity and double consciousness. Harvard University Press, Cambridge

Graden DT (2014) Disease, resistance, and lies: the demise of the transatlantic slave Trade to Brazil and Cuba. Louisiana University Press, Baton Rouge

Hajjar L (2017) Lawfare and armed conflicts: a comparative analysis of Israeli and U.S. targetted killing policies and legal challenges

against them. In: Lisa P, Caren K (eds) Life in the age of drone warfare. Duke University Press, Durham

Hall S (2017) The fateful triangle: race, ethnicity, nation. Harvard University Press, Cambridge

Hao K (2019) This is how AI bias really happens—and why it's so hard to fix. MIT Technol Rev. https://www.technologyreview.com/s/612876/this-is-how-ai-bias-really-happensand-why-its-so-hard-to-fix/

Hardt M, Negri A (2017) Assembly. Oxford University Press, New York

Hayes B (2017) Migration and data protection: doing no harm in an age of mass displacement, mass surveillance and big data. Int Rev Red Cross 179

Hill K (2020) The secretive company that might end privacy as we know it. https://www.nytimes.com/2020/01/18/technology/clearview-privacy-facial-recognition.html?searchResultPosition=1

Hobbes T (1651) Leviathan or the matter, forme, & power of a common-wealth ecclesiasticall and civill. London

Hu T-H (2015) A pre-history of the cloud. MIT Press, Cambridge

Jafa A (2019) A series of utterly improbable yet extraordinary renditions. Galerie Rudolfinum, Prague

Joh EE (2016) The new surveillance discretion: automated suspicion, big data, and policing. Harvard Law Policy Rev 10(1):15

Johnson W (2013) River of dark dreams: slavery and empire in the Cotton Kingdom. Belknap Press of Harvard University Press, Cambridge

Kindt EJ (2018) Having yes, using no? About the new legal regime for biometric data. Comput Law Secur Rev 34:532–538

King G (2017) Where the buffalo no longer roamed. Smithsonian Magazine. https://www.smithsonianmag.com/history/where-the-buffalo-no-longer-roamed-3067904/

Labati RB, Donida R et al (2015) Touchless fingerprint biometrics. CRC Press LLC, Boca Raton

Lee S (2019) Commodified (In)security: cultural mediations of violence in Israel, Palestine, and beyond. chapter three, PhD dissertation, NYU

The Local (2019) https://www.thelocal.dk/20191121/denmark-to-allow-families-to-move-out-of-controversial-refugee-facility

Long Soldier L (2017) Three. In: Whereas. Graywolf Press, Minneapolis

Marx GT (2016) Windows into the soul: surveillance and society in an age of high technology. University of Chicago Press, Chicago

McKittrick K (2013) Plantation futures. Small Axe 17(3):1–15

Mirzoeff N (2016) How to see the world: an introduction to images from self-portraits to selfies, maps to movies and more. Basic Books, New York

Mirzoeff N (2011) The right to look: a counterhistory of visuality. Duke University Press, Durham

Moten F, Harney S (2013) The undercommons: fugitive planning and black study. Minor Compositions, New York

Muller BJ (2010) Security, Risk and the Biometric State: Governing Borders and Bodies. Routledge, New York

Nemser D (2009) Infrastructures of race: concentration and biopolitics in Colonial Mexico. University of Texas Press, Austin

Quijano A (2000) Coloniality of power, eurocentrism and Latin America. Nepantla 1(3):215–232

Parks L (2017) Vertical mediation. In: Parks L, Kaplan C (eds) Life in the age of drone warfare. Duke University Press, Durham

Philip MN (2008) Zong! Wesleyan University Press, Middletown

Public Law (2009) No: 111–118. https://www.congress.gov/bill/111th-congress/house-bill/3326/text

Pugliese J (2007) Biometrics, infrastructural whiteness, and the racialized degree zero of nonrepresentation. Boundary 2 34(2):105–133

Regulation of the European Parliament on the Protection of Natural Persons with Regard to the Processing of Personal Data and

on the Free Movement of such Data, and Repealing Directive (2016) 95/46/EC, 2016/679/EU, 27 April 27

Rhue L (2018) Racial influence on automated perceptions of emotions. https://ssrn.com/abstract=3281765. https://doi.org/10.2139/ssrn.3281765

Robinson C (2000) Black marxism: the making of the black radical tradition [1983]. University of North Carolina Press, Berkeley and Los Angeles

Rose J (1986) Sexuality in the field of vision. Verso, London

Ruiz C (2020) The art newspaper. https://www.theartnewspaper.com/news/president-trump-blows-up-native-american-grave-site-for-his-border-wall?fbclid=IwAR0JWfLCjEeyx6Oa-7PlFs-jOYTULQNyxCy6R6H7D1lK7jQF71_mSt8Q0KU

Sharpe C (2017) In the wake: on the blackness of being. Duke University Press, Durham

Schivelbusch W (1987) The railway journey: the industrialization and perception of time and space in the nineteenth century. University of California Press, Berkeley and Los Angeles

Simpson A (2016) The state is a man: Theresa Spence, Loretta Saunders and the Gender of Settler Sovereignty. Theory Event 19(4)

Skinner Q (2018) Hobbes and the humanist frontispiece. From humanism to hobbes: studies in rhetoric and politics. Cambridge University Press, Cambridge

Spice A (2019) Heal the people, heal the land: an interview with Freda Hudson. In: Estes N, Dhillon J (eds) Standing with standing rock: voices from the #NODAPL Movement. University of Minnesota Press, Minneapolis

TallBear K (2019) Badass indigenous women caretake relations: #Standingrocck, #IdleNoMore, #BlackLivesMatter. In: Estes N, Dhillon J (eds) Standing with standing rock: voices from the #NODAPL Movement. University of Minnesota Press, Minneapolis

Taylor ARE (2017) The technoaesthetics of data centre 'white space.' Imaginations 8(2):42–55

Tralau J (2007) Leviathan, the beast of myth: Medusa, Dionysos, and the Riddle of Hobbes's Sovereign Monster. In: Springborg, Cambridge Companion, pp 65–69

Veracini L (2011) Introducing. Settler Colonial Stud 1(1):1–12

Walvin J (2011) The Zong: a massacre, the law and the end of slavery. Yale University Press, New Haven

West SM, Whittaker M, Crawford K (2019) Discriminating systems: gender, race and power in AI. AI Now Institute, 5. https://ainowinstitute.org/discriminatingsystems.html

Wynter S (2015) The ceremony found: towards the autopoetic turn/overturn, its autonomy of Human Agency and Extraterritoriality of (Self-)Cognition. In: Broeck S, Ambroise JR (eds) Black knowledges/black struggles: essays in critical epistemolog. Liverpool University Press, Liverpool

Zuboff S (2019) The age of surveillance capitalism: the fight for a human future at the new frontier of power. Profile Books, London

Zuboff S (2020) The known unknown. New York Times